

**ASSESSING THE FUNCTIONALITY AND EFFECTIVENESS OF THE  
DEPARTMENTS OF AGRICULTURE IN THE NORTHERN REGION UNDER THE  
LOCAL GOVERNMENT SERVICE**

**BY**

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**THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA LEGON, IN PARTIAL  
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**DECLARATION**

I, Jawula Abdulai Tahiru, the author of this Thesis Titled “ASSESSING THE FUNCTIONALITY AND EFFECTIVENESS OF THE DEPARTMENTS OF AGRICULTURE IN THE NORTHERN REGION UNDER THE LOCAL GOVERNMENT SERVICE” do hereby declare that with the exception of various forms of literature which has been duly acknowledged, this study was undertaken by me from August 2016 to July 2018 in the Department of Agricultural Economics and Agribusiness. This work has never been submitted either in part or whole for the award of a degree or diploma, in this university or elsewhere.

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**DEDICATION**

This work is dedicated to almighty God, my supervisors and family.

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## **Abstract**

The local Government Service Act 203 of L.I 1961, was passed in 2011 and as part of its implementation, extension services at the local level was ceded to the local government service and Departments of Agriculture became units under the Metropolitan, Municipal and District Assemblies. Given the importance of extension in agricultural development at the local level, this research aimed to assess the functionality and effectiveness of Departments of Agriculture under the Local Government Service, using the Northern Region as a case study. The research objectives were to, assess the human and physical resource gaps of the DOAs; assess the incentives to motivate staff of DOAs; assess the priorities given to DOA activities in the LGS planning; and elicit perceptions of staff of DOAs about the functionality and effectiveness of the feedback mechanisms between DOAs and the District Assemblies. This is a qualitative study; the analytical instruments are ranking of responses with a Likert scale and t-tests of differences between mean scores. A probit regression is also estimated to explain staff perceptions about prioritisation of DOA activities by the District assemblies. The data includes primary and secondary data. Secondary data was collected from published and unpublished works as well as from formal interactions with core officers of the departments. Primary data was collected from a sample of 140 staff of the DOAs, the planning and budget units of the District Assemblies, and the regional Director of Agriculture. To identify resource gaps, the actual capacities of DOAs were compared with the expected capacities in relation to the available resources. The study identifies gaps in staff numbers, technical qualification, office space and equipment. Incentive levels for staff are low in comparison to the centralised governance system under the Ministry of Food and Agriculture. Though opportunities for trainings and promotions are better under the LGS, majority of respondents held the perception that level of staff development under the LGS is lower, compared to the centralized system. Staff perceive very low priority being given to DOAs in the planning activities of District assemblies. Monitoring and accountability are assessed by staff perception about the effectiveness of feedback mechanisms in terms of reporting. Relationship with the regional directorate is weaker because the regional office does not provide the needed technical backstopping. The monitoring and evaluation under LGS is also weaker than under the centralised governance. Majority of district assemblies do not have the agriculture sub-committee, which has been valuable to DOAs. Districts with this committee have benefitted from advocacy, resource mobilisation among others. Conclusions are that, there is wide resource gaps in the DOAs; DOAs are not well integrated into the District Assembly, as exemplified by the absence of the agriculture sub-committee in most districts studied; the weak relationship between the DOAs and the regional Department of Agriculture has the tendency of further weakening the former's technical abilities; poor accountability and feedback checks can result in poor monitoring and evaluation of the performance of the DOAs. It is recommended that the Ministry of Local Government and Rural Development, in collaboration with MoFA should monitor the extent to which the DOAs are integrated into the decentralization system and recognized as integral part of the local Assembly. Areas to monitor should include, resource allocation, staff promotion and training, planning and implementation of programmes and activities, and a working monitoring and accountability system for efficient resource use. It is also recommended that the district assemblies should be given orientation to sensitise them to the technical nature of the DOAs. The two ministries should develop a document that lays down appropriate steps for the DOAs and Regional Departments of the agriculture to follow to improve the functional inter-relationship between the two. The LGS should prioritise the establishment of the agriculture sub-committee in all the District Assemblies. Finally, staff development programmes should be developed by the DOAs and LGS for capacity building.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

AAO – Assistant Agricultural Officer

AEA – Agricultural Extension Agent

ATMA – Agricultural Technology Management Agency

CS – Centralized System

CSOs – Civil Society Organisations

DA – District Assembly

DAO – District Agricultural Officer

DBO – District Budget Officer

DDA – District Director of Agriculture

DDOA – District Department of Agriculture

DOA – Department of Agriculture

DP&BU – District Planning and Budget Units

DPO – District Planning Officer

FAO – Food and Agriculture Organization

HOD – Head of Department

ICT – Information and Communication Technology

IFAD - International Fund for Agricultural Development

IMCCD - Inter-Ministerial Coordination Committee for Decentralization

LGS – Local Government System/Service

L.I – Legislative Instrument

Max - Maximum

MDOA – Municipal Department of Agriculture

Min - Minimum

MISO – Management and Information Officer

MLG&RD – Ministry of Local Government and Rural Development

MMDAs - Metropolitan, Municipal Directors of Agriculture

MMDOA – Metropolitan, Municipal Departments of Agriculture

MOFA – Ministry of Food and Agriculture

NR – Northern Region

NGOs – Non-Governmental Organisations

NRCD – National Redemption Council Decree

NRGP – Northern Rural Growth Programme

PNDC – People National Democratic Congress

PPRSD – Plant Protection and Regulatory Service Division

RDMMDDOA – Regional, Metropolitan, Municipal and District Departments of Agriculture

RDOA – Regional Departments of Agriculture

RMMDDA – Regional, Metropolitan, Municipal and District Directors of Agriculture

SRID – Statistical Research and Information Directorate

T&T – Travel and Transport

UNDP – United Nations Development Project

USAID - United States Agency for International Development

WIAD – Women in Agricultural Development

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background

In the quest for national growth and prosperity, central governments in the developed and developing world strategically increased their political and economic authority to achieve planned objectives. Good governance, a very crucial step for rapid national growth and development has the tendency to restructure the development agenda for the under-developed world and until we find sustainable solution to institutional challenges within the governance system, policy initiatives aim to improving good governance may fail to succeed. Administratively, public sector reforms should work at raising the quality of public service delivery to its citizenry and augment the achievement of core government functions.

In Ghana, decentralisation has a strong tendency of achieving good governance, improving service delivery and leading to political democratization. It was envisaged that, decentralizing the public sector should improve information, communication, and incentives to promote responsiveness and accountability. Administrative reforms in the public sector according to Westcott (1998), should seek to sustain the effectiveness in performance of the public sector services and make those services affordable for all. At the local levels, Mgonja and Tundui (2012), indicated that the drive for good governance is the increasing effort to build ownership and provide a more effective and efficient governance process with the ability of addressing local needs.

This development according to Faquet (2000), in his paper 'Decentralization in Bolivia' reveals a more responsive needs-oriented governance with an improved cost effectiveness in public sector investment patterns that is seen in its allocative efficiency; this is expected to size down the waste and weaknesses of the centralized system of governance.

Thus, a calculated devolution of power and authority at different levels of central government's management and finance territories will result to sustainable rural development (Cheema and Rondinelli, 1983). Empirically, extensive experiences of decentralization in Indonesia, Morocco, Thailand and Pakistan are improvements in absolute local participation, service delivery and improved resource distribution to the local area as well as project identification, implementation and employment generation (Rondinelli, et al., 1984). In this light, decentralization that seeks to redistribute functions, powers, people or things away from a central authority should auger well for sustainable development. Responsiveness and accountability, diversity and political participation and government association with the people all ensure greater participation that brings about democracy and subsequently address real needs of the people.

Decentralization brings governance closer to the people and has the potential to remove obstacles to government's decision making, public acceptability of those decisions thereby facilitating collective cooperation and actions, this can increase the capacity for collective action, legitimacy for decision making and more trust among groups (Meagher, 1999). This indeed should aid the formulation of sustainable development goals generated or emerging from the people themselves making it most practical to support them in addressing their problems. Often motivated by the idea of bringing government closer to the people, de Oliveira (2002), explains that, decentralization can create new room for increased interaction between state agencies, traditional leaders and communities. This assertion is supported by Uphoff, *et al.* (1979), stating that, active involvement of the rural population leads to sustainable rural development. Thus, UNDP evaluation report (UNDP, 1999), asserts that decentralization is a way of life and state of mind that goes beyond just a process. Relative to agriculture development and management, growth of production can be seen as a major priority of government to achieving growth potential.

Therefore, an integrated package of services including, development and extension of new technologies, distribution of inputs, equipment and credit and the construction of production and transport infrastructure must be provided. Historically, agricultural extension systems in some African countries including Ghana and some Asian countries such as, India and Indonesia inherited highly centralized regimes established to control and exploit rural people rather than allowing effective participation of the rural people for sustainable rural development (Shah, 1998). According to IFAD (2016), sustainable rural growth requires inclusive rural transformation, higher agricultural productivity, off-farm employment opportunities, marketable surpluses, access to services and infrastructure and ability to influence policy that will lead to improved rural livelihoods and inclusive growth. This literally brings the decision making process closer to the people and increases their chances of improving their social welfare. Therefore politically, decentralization brings authority and public resources to the local areas by reducing governance to the local jurisdiction and making accountability and responsiveness more visible.

On the contrary, decentralization has the tendency of creating disparities between local area levels with different organizational capacity, and may bring about excessive roles in planning and management responsibilities in some areas. Cheema and Rondinelli (1983), report that, limited expertise to complement managerial capacities have resulted in weak linkage and interactive skills in Africa and Asia accounting for disappointing results from decentralization. In many cases results have been measured from the political angle and not based on efficiency and administrative effectiveness. Therefore, achievements of decentralization is placed between moderate success and failure. Fasquet (2000), has also counter argued that, evidence of decentralization both in theory and practice of increasing or decreasing the social welfare and efficiency of the people abounds with lots of generality and unclear assumptions.

Efficiency in the allocation of goods and services in line with the needs and wants of the people have fallen short of preferences of aggregate demand. Hence there is the need for a collective effort to devise appropriate steps to promote sustainable growth and development of local jurisdiction and the nation at large. Azfar *et al.* (1999), acknowledge the promotion of public services delivery, financing and allocation of resources for local public goods, cost recovery and accountability thus, reducing corruption as the benchmarks in measuring the impact of decentralization on organizational performance. Dominant in local areas of the developing world are farmers and persons who engage in related enterprises; therefore addressing the needs of these people means responding to needs of the agriculture sector. The prime result of decentralization is getting the local area involved in identifying their needs and proposing suitable ways to addressing their challenges. This is possible when authority and power is devolved to them and gives them the democratic will to fully participate in their developmental activities and programmes. Their inclusion brings about transparency, promotes efficiency and ensures accountability.

Primarily, the decentralisation of Departments of Agriculture is to help improve the extension services under the Ministry of Food and Agriculture by encouraging effective participation of the rural people for sustainable rural development that ensures transparency of service providers and giving accountability to service users. Therefore, strengthening the local assemblies to operate independently without interferences from the central government gives rise to a successful decentralization process.

The following key themes motivated the decentralization reforms in Ghana:

1. Devolution of administrative (political and economic) decisions to the hands of the citizenry at the district level.
2. Promote and enhancing community development in rural areas.
3. Encouraging local economic development through a demand-driven approach.
4. Eliminating the control of center-tele guiding and divest authority and responsibilities to the local level for development.
5. Enhancing local level development by providing opportunities for local public/private partnerships.
6. Softening the bureaucratic system by making it less cumbersome and also eliminate or size-down corruption and promote transparency and accountability. These were brilliant ideas behind the decentralization process; nonetheless, achieving these requires simultaneous commitments from all stakeholders.

Themes 2 to 5 directly correlate to the operations and mandate of the agriculture sector since most rural area dwellers in Ghana and Northern region are farmers. This research aims to assess the current status of the departments of agriculture and their functions in respect of their mandates, and draws out the likely implications of the various stages in the decentralization process for agriculture service delivery and implementation of national strategies. It will also explain the current state of decentralization of agricultural services and its human resource (technical, and administrative) as well as material resource management and try to compare the current conditions to those that prevailed before the recent reforms were implemented.

Initiated in 1949 through to 1969, the legislative instrument passed in 1971 by Decree 1974, NRCD 258 under the Local Administration Act 359 guided the decentralization process in Ghana.

Other legal provisions, including Chapter 6 and 20 of the 1992 Constitution of Ghana have been instrumental in the decentralization process. With the powers of L.I. 1961, PNDC law 207 in 1988 which initiated the process of transferring political and economic power to the districts in an attempt to devolve governance to the grassroots, the Inter-Ministerial Coordination Committee for Decentralization (IMCCD) under section 36 of the LGS Act 203, Act 656 in 2011 ordered the ceding of affected staff of the Ministry of Food and Agriculture (MOFA) from the Civil Service to the Local Government Service. Relative to L.I. 1961, the DOAs are empowered with some freedom and control to plan, implement and monitor the district level extension activities in collaboration with the local area development groups to help improve the management capacities of the agriculture sector. This would also help reduce overload and decongest service delivery channels. Finally, the reform can bring about fiscal discipline in the service delivery system as a result of the improvement in its financial management (Mogues and Baah, 2014).

However, employment and posting of staff to Departments of Agriculture in the districts under this reform is solely done by the local government service secretariat; this may lead to failure to satisfy technical needs and competences of the DOAs. Therefore, in order to achieve good governance at the local level in Ghana and the Northern region in particular, institutional shortfalls within the system of governance should be addressed ahead of the introduction of any new policy or reform. The Ministry of Food and Agriculture through the Departments of Agriculture in Ghana is mandated by legislation to have oversight responsibilities for growth and development of the agriculture sector at the district level.

For the purpose of this study, three (3) forms of decentralization namely, administrative, financial and political are considered.

## **1.2 Key Mandates of the Departments of Food and Agriculture Under LI.1961 of Local Government Instrument 2009**

The following are few but key mandates of the departments of Agriculture stipulated under L.I 1961 of the local government instrument, 2009 of the new decentralization system

- 1.** Participate in the provision of extension services to ensure food security and income generation towards poverty alleviation. Here, the department of agriculture is responsible for transfer of improved technologies to farmers through their trained extension agents who are supervised by zonal and sector District Agriculture Officers (DAOs) and the necessary backstopping given for effective extension service delivery.
- 2.** Assist in the formulation and implementation of agricultural policy for the District Assembly within the framework of national policies. The DOAs are tasked to formulate needs based policies and programmes guided by the national Programme, develop appropriate activities to help implement the designed programmes for the growth and development of the farmer towards achieving District's goals and objectives
- 3.** Advise the District Assembly on matters related to agricultural development in the district. Departments of Agriculture at this level serve as advisory and consultancy units for effective and efficient implementation of agricultural projects and programmes in the district. The key responsibility here is to ensure value for money and sustainability of projects and programmes in the district.
- 4.** Plan, monitor and evaluate programmes. At this level, Departments of agriculture are delegated to come out with life impacting sector plans and develop effective monitoring

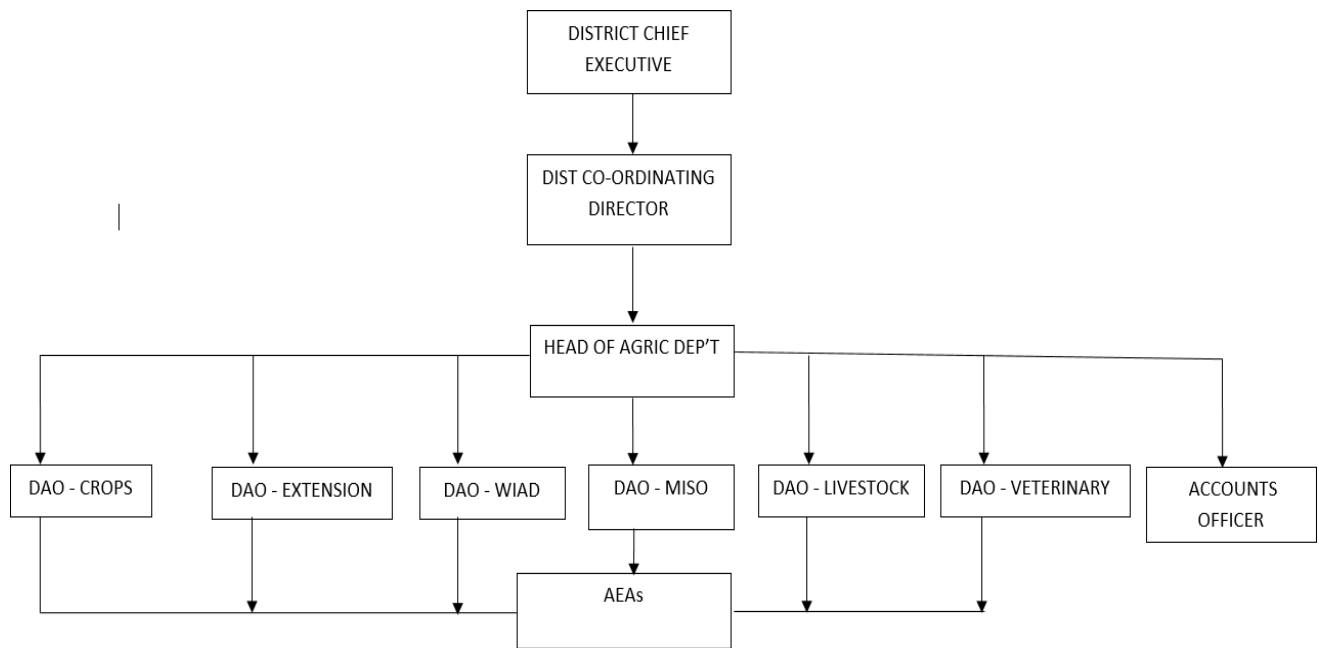
and evaluation strategies for the implementation and sustainability of projects and programmes.

The institutional arrangement in Figure 1 is the organogram adopted for the Departments of Agriculture under the Local Government Service to lead the implementation of their mandates. Unfortunately, this order of administration does not prevail in most of the DOAs in the Northern region due to either; (1) Low numbers of DOA staff in the districts; (2) Non-replacement of many staff as a result of death, retirement, vacation of post and resignations; (3) Limited resources and logistics.

All these negatively affect the implementation of planned programmes and activities. This study investigates the functionality and effectiveness of the DOAs under this hierarchical arrangements; its effect on planning and implementation and its bearing on administrative (technical and human resource), and financial requirements. While the District Chief Executive is the political head of the District Assembly representing the President of the Republic and supervising all activities of the Assembly, the District coordinating Director is the administrative head of the Assembly coordinating activities of all heads of department including the Department of Agriculture.

The Head of Agriculture department supervises and coordinates activities of his subordinates – the District Agriculture Officers (DAOs) who further supervise activities of the Agriculture Extension Agents (AEAs). The AEAs are the frontline technical staff responsible for the immediate dissemination of technologies to farmers, processors and marketers, and also serve as the link between farmers and the Department of Agriculture.

**Figure 1.0: Organogram of the District Departments of Agriculture under the Local Government service**



Source: Local Government Service, (2009)

Note: DAO – District Agriculture Officer

AEA – Agriculture Extension Agent

WIAD – Women in Agriculture Development

MISO – Management & Information Services Officer

### **1.3 Problem Statement**

Achieving a comprehensive and sustainable growth of the agriculture sector, and implementing agriculture-related programmes require collaboration among all stakeholders seeking to channel growth and development to the local people as defined by Ghana's decentralization reform. The agriculture sector is a key sector for national development and the DOAs under the decentralized governance system are the key institutions with oversight responsibility of developing and implementing all agriculture related programmes and activities with support from the District Assemblies. Critical to executing its mandates, the DOAs require unwavering attention. While efficiency value justifies public's choice to maximize social welfare, government value includes diversity and political participation.

Key expectations from the decentralization reform include; improvement in access to central governments' resource and participation of local administration to benefit from national resources, enhanced administrative and technical capacities, and local areas' inclusion in national development strategy. Nonetheless, several studies including Agyapong (1999), identified stronger vertical than horizontal allegiance within the line ministries at the district levels and weak inter-sectoral collaboration bringing about partial freeze on employment. Similarly, Tetteh (2015), also observes weak administrative capacities, poor information and communication flow and public sector corruption as ills to the decentralization system. World Bank (2008), affirms weak governments' responsiveness and effectiveness in public service delivery as drawbacks of the reform. Mogues and Baah (2014), also point to weak administrative and technical capacities of the DOAs under the local governance system as affecting allocative efficiency of the departments thus, hindering service delivery.

Furthermore, discrepancies in resource allocation (human and physical capital and incentives), governments' poor responsiveness to needs of the decentralized departments and DOAs in particular, hinder the achievement of their mandates and hence impedes growth and development of the agriculture sector. In addition, poor accountability regime of the local governance systems does not make public office holders accept responsibility in a transparent manner and this impedes efforts at service delivery for sustainable agriculture growth. All this evidence attests to weaknesses of the reform therefore making the expectations from the system not to be met.

Unfortunately, the local government service is vigorously implementing the decentralization policy of the management of the agriculture sector with limited understanding of the rectification by most stakeholders and Departments of Agriculture in the Northern region. Ghana Statistical Service, (2000), reveals that, the Northern Region, whose land mass represents 30% of national land area, has about 73% of its population in rural communities and are largely engaged in agriculture and its related activities. Shah (1998), states that inappropriate public extension policies, limited public funds, growing rural poverty and weak monitoring and accountability system are some major setbacks to the development of agriculture in rural areas in developing countries, and the Northern region is no exception.

Decentralization has a consequence of inciting anxiety between systems of authority with an unclear division of responsibilities (Toulmin, 2000), therefore attention must be paid during implementation of the reform to ensure that the decentralization serves the interest of the people rather than antagonise systems of authority. While the decentralization of responsibilities for agriculture and natural resources appears to provide great opportunities for increasing the relevance of local authorities to local people, power sharing remains a threat to central authorities,

traditional leaders and elites, who may in fact fear a loss of power, income or patronage resources (Toulmin, 2000).

Also, while decentralization has the tendency to reduce responsibility, it is weak in uniformity of standards on its policies, thus ineffective coordination among DOAs and other sister departments is a potential threat to decentralization, Self-centred attitude of some departments is another drawback to decentralization. It is therefore believed that, decentralization may not be the panacea to the problems of the agriculture sector in the region.

Appreciating rural development according to Swanson and Samy (2002), should seek to address challenges associated with the problems of complexity, financing and cost-effectiveness, responsiveness and growing demands for local services at the institutional level. Sarpong *et al.* (1997), report that, decentralization of MOFA was triggered by a ministerial command to strengthen the districts in planning and implementation of their own agricultural extension activities within their available limited resources in tandem with the national policy framework. Unfortunately, that objective is far from being achieved due to the above stated challenges.

For the DOAs to be effective in delivering their mandates, they should have control over the prioritisation of their activities, the staff should be motivated and the capacities of the DOAs strengthened with the necessary human resources especially for the technical departments. Finally, the DOAs should be able to monitor their activities and be accountable within.

#### **1.4 Research question**

The main research question is whether the Departments of Agriculture under the Local Government Service have the capacity and incentive to function and deliver their mandate effectively?

Capacities include human and physical (equipment and logistics). Incentives include promotions and prioritization of the departments' activities in the district plans.

The specific research questions are:

1. What is the resource gap of the DOA in areas of funding and Human Resource for the technical Departments in developing and implementing district planned programmes and activities?
2. What are the forms and levels of incentives for the DOAs under the decentralized and the centralized systems of governance?
3. How has decentralization changed the prioritization of agriculture activities from the centralized system?
4. What are the perceptions of staff about the functioning and effectiveness of the DOAs under the new decentralization reform?

### **1.5 Objective of the study**

The main objective is to assess the capacities of and incentives to the DOAs to function effectively and achieve their mandate under the Local Government Service.

The specific objectives are to:

1. Assess the resource (human and physical) gaps of the DOAs under the LGS, compared to the centralized system and the efficiency of the DOA with respect to resource allocation for effective extension delivery services through improved governance under the new decentralized system.

2. Compare the levels and forms of incentives for the DOAs under the decentralized and the centralized systems of governance.
3. Assess the prioritization of DOA activities in the LGS planning.
4. Collate and analyse perceptions of staff of DOAs on the functionality and effectiveness of the feedback mechanisms between DOAs and the District Assemblies to improve accountability under the local governance service.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews relevant literature on the assessment of functionality and effectiveness of the Department of Agriculture to help give a better understanding of public policy on decentralization and its implications on agricultural development in the Northern region. It specifically looks at the rationale for decentralizing the Departments of Agriculture (DOA) and rural development; forms of decentralization; role of legislative provision for sustainable decentralization programme; role of private firms and NGOs in service delivery for agriculture development; harnessing management capacity and funding of DOAs, fund management and accountability.

#### **2.2 Decentralization of Departments of Agriculture and Rural Development**

Decentralizing Departments of agricultural in their service delivery can achieve three major goals as follows:

##### **2.2.1 Serving the Interests of the Rural People**

Decentralisation empowers the rural people with the freedom and control over local extension activities in terms of planning, implementing, and monitoring for the purposes of improving agriculture services by seeking contributions from various groups at the local level. For instance, Savioff & Lindarte (2002), report that extension systems in Venezuela allow rural

communities and poor farmers to participate in planning and implementation of programmes to meet their needs.

Similarly, Nahdy (2002), reports that farmer groups in Uganda benefiting from the principle of theory of inclusiveness contributed significantly to the planning and decision-making of extension programs and had authority of awarding extension contracts that formerly were solely the prerogative of government agencies. These ideas are supported by Silverman (1992), who says that enhancing the representation of a wide variety of stakeholders in planning and programme implementation will ensure equity in resource allocation and service delivery.

### **2.2.2 Extension services management development**

Decentralizing the management of the agriculture sector will ensure an improvement in management capacities of DOAs by reducing administrative overload and decongesting service delivery channels. This will also aid technical capacity to deliver services and respond to emergent problems. Related examples of decentralization as driving force to improving management capacity of extension systems in China, Ghana, and Nepal are cited in Amezah & Hesse (2002), Thapa & Ojha (2002), and Nie *et al.* (2002), respectively. Nahdy (2002), has cited improved performance as the result of improved information about local resources and conditions, and participation of the users in planning, implementation and monitoring in Uganda.

### **2.2.3 Financial performance upscale**

Decentralisation is a significant means for financial management because it contributes to the improvement of financial performance by maintaining the fiscal discipline of agricultural service systems at the local levels (Mogues and Baah, 2014). Adapting productive mechanisms for

managing and recruiting staff, provision of incentives and motivation are some of the right mechanisms required that will help increase revenue for public extension.

#### **2.2.4 Decentralisation and the political economy**

Relative to governments' policy-making, decentralization distinguishes from administration or law and is most often a top-down process, which by delegating power helps to reduce the centre's control over the social, economic and cultural life of its citizens. It is seen as a public administrative system which empowers citizens with greater insights and participation in the appointment of local level official and in planning and implementation of local development. This according to the World Bank (2001), aims at transferring more power to its citizens and their elected representatives in public-decision process to encourage democratization through formulation and implementation of such policies associated and with pluralistic politics and representative government. The study explores the political reforms that has strong bearing on institutional performance of the departments of Agriculture to improving food security, promote economic development and reduce poverty.

According to Ahwoi (2010), Decentralization in Ghana was initiated way before independence where the chiefs and traditional authorities held military, political and social power to administer local affairs. World bank (2010), suggest reasons to give insight on how political and institutional dynamics may affect the understanding that, decentralization seeks the objectives to improve service delivery, governance, economic development, and reduce poverty other than playing a general advocacy for the reform therefore; the reason to give power and resources to subnational institutions.

The politics of decentralization in Ghana advocates for greater democratic local area participation and ownership for good governance (Offei, 2004) thus; the District Assemblies were instrumental in its development which brought leadership closer to the people to provide the basis for social and economic accountability and responsiveness to its local area members. The local government Act 1993(462), Local government service Act 656 and National Development Planning Commission Act 1994 (Act 480) among others of the 1992 constitution contributed significantly to the decentralization process.

Under the Local Government Act 1993(Act 462), the MMDAs are entrusted with the political, administrative and legislative powers to initiate and facilitate the implementation of development programmes. Despite the popular participation in the decentralization reform, local areas involvement in the process is abysmal (Ayee, 1997; 2000).

Inman and Rubinfeld (1997), explains political decentralization as one level to the extent to which political institutions map the multiplicity of citizen interests onto policy decisions. A three-tier structure of governance was created. By the 1992 Constitution, three sub-national government structures were created at regional, district and sub-district levels with comprising the Regional Co-ordinating Councils, District Assemblies and unit committees, area, town, zonal and urban councils (Nkrumah, 2000).

The District Assembly according to the 1992 Constitution Article 241(31) is the highest political authority in the district with deliberative, legislative and executive powers. The District Assembly is composed of 70% elected membership and 30% appointees by the ruling government (Crawford G., 2004). Chaired by the Presiding member, the District Assembly is headed by the District Chief Executive appointed by the president whose administrative secretary is the District

Coordinating Director (DCD) who administratively is the head of all the decentralized departments of the Assembly. Each of the ten regions has a Regional Co-ordinating Council (RCC), chaired by a Regional Minister, appointed by the President (Crawford G., 2004). All these people/officers directly or indirectly represent the local area people interest from various farming communities that matter in the decentralisation process as elucidated in the study.

Additionally, the Regional Heads of decentralised ministries in the Region sit as non-voting members. The Ministry of Local Government and Rural Development (MLGRD) is headed by the presidents' appointee with the oversight responsibility to exercise commitment to decentralisation (USAID 2003). Nahdy (2002), advised that, financial performance at the local level can be enhanced if the central government supports farmers with well-defined financial guidelines to promote transparency and accountability. Importantly, improving farmer groups' participation allows farmers to watch over the implementation of extension programs and utilization of funds.

World Bank also explained that lack of political and legal will, as well as unclear guidelines hinder decentralization efforts as realized in Ghana with a two years delayed decentralization process in 1990s resulting in partial implementation and poor results. Similarly, central and regional extension levels in Trinidad experienced confusion and frustration characterized by ambiguities in design, implementation, and coordination (Seepersad & Douglas, 2002).

Decentralization contrasts globalization; while decentralization brings decision making back to the rural or local levels to support the social, economic and cultural life of its citizens, globalization often removes decisions from the local and national stage to the global sphere of multi-national or non-national interests, hence decentralization builds upon the growing trend

towards quality control of public service production through citizen and customer participation (UNDP report, 1999).

It is believed that decentralization has come to stay and its democratic settings provides power to the people to determine their own form of needs and services. Through provision of good opportunity for ownership and control leads to dispersion of political, fiscal, and administrative responsibilities across different tiers of government. Decentralization devolves authority to the local settings allowing community participation in local decision making that empowers the local authority with absolute freedom and control over their extension activities in planning and implementation as well as monitoring to help improve agriculture services through various local level groups' contributions.

This is also supported by Bratton (1986), stating; decentralization provides direct accountability to most developing countries with weak representative decision making process at the local levels thus, participation and accountability is enhanced through explicit promotion of transparent budgeting processes. Participatory budgeting as asserted by experiences from Mexico and Brazil can serve as a critical link between communities and government (UNDP, 1999).

Indeed, the direct participation of the DOAs for that matter the local authority in planning, implementation and monitoring of agricultural programmes and activities tends to improve the quality of extension delivery for the growth and development of the agriculture sector.

Bacho (2005), provided evidence showing how decentralization of governance structures along with land reforms have led to improved agricultural growth in states like West Bengal. World Bank (2007), also reports that decentralizing administrative responsibilities for the supply of agricultural inputs and technical services (extension) will provide easy access to farmers for

improving agricultural production. However, the link between delivery of agricultural- services and democratic decentralization is not seen. Therefore, this study has attempted to fill this gap, which may motivate further research in this field to gather evidences from other DOAs in other parts of the country.

Baah (2014), confirmed the relative scarcity of empirical research that connects decentralization of power and resources with delivery of agricultural-related public goods. Decentralisation helps improve the financial management and maintenance of the fiscal discipline of agricultural service systems at the local levels thereby ensuring transparency of allocation, predictability of the amounts available to local institutions (DOAs) and autonomy of decision making on resource utilization and accountability.

It also provides alternative service delivery mechanism used by the governments to transfer programs and services to the local and private sector for the continued delivery of benefits. Relatively this helps reduce or lower management cost and maintain or improve quality of the services being delivered hence promotes growth and development of agriculture.

Technically, decentralization should complement and facilitate development of space for community based institutional arrangements by facilitating the sustainable growth of the responsible organizations like the DOAs.

### **2.3 Forms of Decentralisation**

According to Bird, (1994), decentralization ensures greater stakeholder participation, resulting in a better understanding of government's role which, in turn, helps improve delivery of extension services through increased resource mobilization, proper accountability and reduced

strain on central finance and a more responsive administration. Decentralization therefore ensures efficient and equitable service delivery by actively engaging rural people in development and making better use of local resources and knowledge. Hence, achieving sustainable rural development with equity requires some forms of decentralization.

### **2.3.1 Deconcentration**

Deconcentration is at the level of institutional arrangement and requires assigning managerial functions like planning and implementation to Metropolitan, Municipal and District levels within the national agricultural extension system. Swanson and Samy (2002), Amezah & Hesse (2002), report that in 1997, field visits and training programmes were key in this kind of arrangement in Ghana and this resulted in the deconcentration of the agricultural extension system to the regional and district levels which according to Mogue and Baah (2014), sought to transfer management and technical functional powers from the central extension directorate to the district extension offices. There were however serious concerns on how this could respond effectively to the needs and desires of farmers because of obvious lack of rural participation in programme planning and implementation.

### **2.3.2 Delegation**

According to Swanson and Samy (2002), delegation takes place “when a parastatal or semi-autonomous government or private agency is rightfully assigned responsibility for implementing rural development programs and providing extension services”.

Under this form of institutional arrangement, some managerial, priority setting and fund allocation functions may be transferred to regional extension units. Such delegation in turn, deconcentrates

responsibilities for internal managerial and administrative systems to their own sub-regional units (Districts, Municipal, Metropolis and Regional).

One form of delegation was seen in the extension components of the Northern Rural Growth Programme (2007 – 2015). The NRGP, engaged services of the AEAs and DAOs of the DOAs in their operative districts with resources and logistics to work with poor rural people in the region.

The programme focused on strengthening the linkages among the various actors in agricultural value chains and also extended support to private-public partnership arrangements with technical assistance in productive technologies, institutional and infrastructural support. Such an arrangement was useful in focusing directly on the needs of rural people. IFAD operations report (IFAD, 2016), indicated administrative freedom of autonomous administrative units in decision-making, priority setting, and in tailoring programmes to local conditions resulted in the successful implementation of the project. In 1999, an agriculture project was launched in Benin targeting 250 villages. In this project, the local village development communities were tasked to draw up their development and management plans and submit funding requests to contract extension workers (Chabeuf, *et al.* 2002). In India during the 1990s, Sharma, *et al.* (2001), reported on the formation of Agriculture technology management agencies as recognized civil societies in pilot districts to coordinate agriculture extension programmes.

### **2.2.2 Devolution**

This institutional arrangement may include some elements of deconcentration and delegation; it also recognizes the important role of public participation to satisfying demands of the local people. Under devolution, responsibilities are transferred to lower levels hierarchically

(Swanson and Samy, 2002). This can involve transfer of responsibilities from the national to regional, metropolitan, municipal and district levels.

At the lower/local government levels, the administrators have discretionary authority to exercise their responsibilities and are only bound by national policy guidelines. Two aspects of devolution are critical for this study.

- (1) Extension administrators are primarily responsible to the local government rather than to central government
- (2) Local government co-finances extension services for rural development

World Bank report (2000), has revealed that the Philippine government in 1999 devolved the delivery of basic services, including agricultural extension to the provincial and local governments in order to promote participatory bottom-up planning. Similarly, Savioff & Lindarte (2002), report that in 1995, the Venezuelan agricultural extension system devolved powers for implementing extension programs and decision-making at the municipal level.

The reform also adopted the cost sharing matrix of extension programme between the national, state, and municipal governments and with the farmers. Nie *et al.* (2002), report that in 1993, China transferred to each level of its government the responsibility for funding and managing its own respective extension programme and this resulted in judicious use of limited resources and enhanced effective participation. It also ensured value for money by greatly reducing resource misappropriation thereby promoting accountability and instilling sense of ownership to beneficiaries. This nonetheless also revealed proper management skills of the decentralized departments.

#### 2.3.4 Privatization

Privatization as a form of decentralization transfers the ownership and/or control of the public services or assets to the private sector at the will of the central government to give up a direct hand in policy formulation and control to achieve the objectives of both production and allocative efficiency. Typically, privatization also implies that the services that were previously controlled by the central government are transferred to private or parallel organizations and even to some extent shift responsibilities of supply and production to private organizations (UNDP, 1999). Adam *et al.* (1992), states that privatization is achieved by either, an outright, or partial, sale of service or assets, transfer of assets to the private sector under leasing arrangements and the introduction of management contracting arrangements.

However, privatizing extension programmes could be challenged in, development of adequate private sector management capability for a successful private sector extension, establishing and managing effective processes and procedures, and establishing and managing the appropriate economic environment for extension privatization (William and Alex, 2004). Estonia and Brandenburg in Germany are adopting private markets for extension services alongside continuing with some public subsidy. Also the United Kingdom, five years after privatization of extension services, identified the need for an increase in farmer communication.

While privatization of extension services in Pakistan postulates a limitation of a wholly private extension system, the cases of South Africa and Uganda reveal the feasibility of targeted commercial approach. Chile for that matter the first country to initiate extension service privatization since 1978 has discontinued with its support to sectors for extension services.

It can therefore be inferred that, private sector plays a significant role in effective extension services but some level of public sector facilitation is required (William and Alex, 2004).

### **2.3.5 Partnership**

This form of decentralization, aims at a higher degree of decentralization and is aimed at transferring the responsibility for planning and delivery of services to Civil Society Organizations. Also under partnership, the influence of wealthy and more powerful individuals are stronger and not providing more services to village communities (UNDP, 1999). Therefore, common problems like supply of production inputs, primary education, health care, water supplies and market centres which serve several villages and many communities are naturally addressed on priority basis and this often tends to concentrate service delivery in the urban centres and in larger rural settlements, hence limited capacity of local governments is often overburdened in the discharge of these responsibilities. The needs of people at lower level tend to be neglected. Partnership arrangements could include a leading NGO, or an intermediary agent of a more complex nature in which local common interest groups and associations operating in the area and representatives of local governments join together as members with equal rights (Institute for Democratic Governance, 2015).

For instance, it was expected to improve collaboration of Community-Based Organization and citizens with district assemblies on revenue mobilization to enable them to build consensus on strategies for improving decentralization in Ghana and collaborate also with project partners with different stakeholders to deepen the entire process. Furthermore, services like local group training, funding self-help projects, community organization and support to income generating activities

are often better planned and delivered by organizations other than local governments. The role that CSOs may play in decentralization can be considerable, given the size of their contribution to economic, social and human development and this role can be particularly important in rural areas (World Bank, 1999).

#### **2.4 Role of Legislative Provision for Sustainable Decentralization Programme**

Unclear or undefined guidelines and lack of political will as well as weak legal backing are possible setbacks to efforts of decentralization in Ghana thereby causing undue delays in its implementation in the 1990s resulting in poor outcomes (World Bank, 2000). To achieve an effective decentralized extension of DOAs within the local governance system in Ghana, a strong legislative authority or provision is required (Silverman, 1992). Cohen & Peterson, (1999) and also Shah (1998), suggest a strong legislative authority to define roles and responsibilities, limitations to these authorities and specific coordination mechanisms is a necessary condition for decision making in extension.

In China as explained by Nie *et al.* (2002), the establishment of clear guidelines by the central government in 1993 to delegate authority to the provincial, prefecture and county levels contributed significantly to the success of public extension reform. In Venezuela, a key element for successfully decentralizing extension system was improving inter-institutional coordination among national, regional, and local levels of government (Savioff & Lindarte, 2002). In Trinidad on the other hand, ambiguities in design, implementation, and coordination between central and regional extension levels led to confusion and frustration (Seepersad & Douglas, 2002).

## **2.5 Role of Private Firms and NGOs in Service Delivery for Agriculture Development**

Central government can shift responsibilities to private firms, farmers' associations and NGOs at different levels. In Ghana, this approach is fast gaining attention of key actors of the reform process including the technical and human resource of government establishment. Affected staff are lured by the better remunerations and clearly defined terms of engagement from these private organizations engaged in extension delivery, hence private sector firms are believed to have become more responsible for providing extension services and are also seen as strategic partners in the transfer of agricultural technology in Ghana.

Amanor & Farrington (1991), report that in Latin America, small scale farmers received seeds from NGOs in Ecuador, and provided technical assistance for major crops in the case of Bolivia and Honduras. Rivera (2000) and FAO (2000), also reveal that farmers' associations in some European countries, such as Denmark and Sweden carry out extension services with partial support of the government. This is not the case of Ghana's extension services. NGOs have become more effective in providing educational and other services to small and marginal farm households in the Northern region. For example, funding from NRGP programme to small scale farmers in the areas of production, marketing, and value addition. (IFAD, 2014).

## **2.6 Strategic Roles of Different Levels of Government**

Appropriate roles at different levels of governance are the pre-requisites for proper decentralization of DAOs in northern region. The need for all stakeholders and shareholders to understand and play their expected roles and to be involved in the whole process will ensure a successful implementation of the decentralized reform. Silverman (1995), has stated that Central government is responsible for the provision of public goods and services.

So, differentiating between the provision and production of public goods and services is essential for clarification purposes; this distinction will help identify the managerial and financial tasks to be maintained at the central level and those to be delegated to and produced at district, municipal and metropolitan levels. Shah (1998), has also remarked that, encouraging public participation and providing an enabling environment for private firms and non-governmental organizations by the central government is essential.

Moreover, this distinction helps to assess the impact of central-local arrangements on the achievement of rural development goals. For example, just as the central level of extension has a comparative advantage in national priority-setting, strategy formation and financial planning issues at the local government levels of extension systems on the other hand has the comparative advantage on location-specific and service delivery issues (Swanson and Samy, 2003).

Limiting central extension systems to the “provision” function resolves many issues related to the inability of the central administration to tailor programs and delivery methods to meet the diverse needs of farmers and rural people in different areas of the region. At the same time, the extension system at the local government level has a comparative advantage in designing programmes to suit local conditions and in addressing local needs (Swanson & Samy, 2002).

However, the issue that requires attention has to do with whether the local government service is better placed in terms of the provision of technical support, producing extension materials and conducting mass media activities as well as providing required funds to address the needs of the rural people.

World Bank (2000), recommended to know the level of government responsible for a particular function, for instance, delegation of authority to the lowest level of government which does not compromise economies of scale and scope, and the internalization of costs and benefits.

For example, according to Garfield *et al.* (1998), in Colombia and Venezuela, authority and power were transferred to the municipal extension offices for managing and funding extension programmes and projects at the municipal level. Also, In India according to Sharma, *et al.* (2001), the authority for managing, financing and delivering extension services has been transferred to states and districts from the central government.

## **2.7 Harnessing Management capacity of DOAs**

According to Cohen & Peterson (1999), improved managerial capacity is achieved through personnel development, information technology, and proper organizational structure that suit local level conditions. In Venezuela, according to Lindarte & Savioff (2002), the implementation of a well-defined system of human resource management resulted in the success of their decentralization reform. Therefore, devolving responsibilities at the local levels requires sufficient and appropriate managerial capacities for an enhanced decentralized extension systems (Parker, 1995). Furthermore, proper use of new information technology tools promotes data gathering and management of the decentralized extension systems under local conditions which also reduces the services of some middle-level administration. This is evidenced in Nepal where computers are used to enhance management capacity and programme support (Thapa & Ojha, 2002). Similarly, Sharma *et al.* (2001), reported the electronic linkage of the India administrative office to the state and national levels. All these resulted in transformative processes of their technology transfer systems for rapid growth and development. This cannot do otherwise in Ghana.

## **2.8 Funding, Fund management and Accountability**

The need for a reliable system of accountability at each decentralized level for shareholders and stakeholders is very necessary. Hence, maintaining transparency and accountability is a key

element to improving the performance of decentralized agricultural extension systems in a developing country like Ghana. Cohen & Peterson, (1999) stated that, the key means for promoting accountability in decentralization could include: political and legal oversight, institutional competition, and administrative mechanisms. Therefore, the most important means of decentralized accountability are; capable and committed leaders, as well as well-defined legislative and regulatory framework.

Linking spending and taxing responsibilities is the surest means for political leaders to enhance accountability. In India according to Sharma *et al.* (2001), the combination of district level ATMA Governing Boards and block level farmer advisory committees were established in all project districts to increase accountability. Allowing private firms and NGOs to compete and contract for providing extension services eliminates governments' monopoly over extension services. Therefore, Cohen & Peterson (1999), indicated the creation of institutional competitive environment will promote efficiency and accountability. Administrative mechanisms therefore can be the establishment of reliable monitoring systems, effective scheme of incentives, as well as encouraging professionalism among extension staff.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This research is a qualitative study of the involvement of the Departments of Agriculture (DOA) in the implementation of the Local Government Service law. This chapter presents an overview of methods of addressing each objective of the research; it also describes the study area, data, sampling and procedure of data collection.

#### **3.1 Assessment of resource (human and physical) gaps of the DOAs under the LGS**

The objective of assessing the resource gaps of the DOAs is achieved by comparing the actual, current performance with the desired performance in relation to the available resources. Performance of the DOAs is measured based on processes, outputs and outcomes. Each of these is analysed in both quantitative and qualitative terms. The data is analysed by distribution of respondents in relation to selected indicators and presented graphically as charts. Capacity of human resource of the DOAs is measured by staff strength and staff development (required and existing) including, staff training viz-a-viz required staff skills/knowledge for each zone or operational area. Training is assessed by the number of staff trainings required per quarter. The gap in physical resources is measured by availability of the resources in relation to what is needed. The resources assessed are, office accommodation, office equipment (desktop computers and laptops, printers, photocopiers, office telephone), and logistics (motorbikes, vehicles fuel and travel and transport allowances of staff, office stationary). This gap is assessed for only the period of the LGS. Also the study looked at availability and frequency of provision of fuel and travel and transport (T&T) for staff of DOA in support of delivery of their mandates.

The study assessed job situation and the perception of staff with respect to availability and accessibility of their needed resources.

### **3.2 Examining Incentives for the DOAs under the Decentralized and the Centralized Systems of Governance**

Inducement or supplementary reward for the purpose of motivating an employee for a desired action or behaviour of improving his performance is necessary for growth and development of DOAs. Motivation in whatever form, material, solidarity and purposive incentives (Clark and Wilson, 1961) can increase performance of staff of the DOAs. The study measured both the forms and levels of incentives for the DOAs that support them in executing their mandates. Areas of assessment are, opportunities and modalities for academic progression and promotion for staff under the LGS and the centralized systems, Travel and Transport (T&T) and fuel allowances for officers (AEAs, DAOs, RMMDDA). A five point Likert scale is used to score responses on availability of incentives under the two systems. The scores are presented in charts as distribution of respondents by their assessment.

### **3.3 Prioritization of Activities in the Local Government System's Planning**

Prioritization is the arrangement of items or activities (programme) in order of importance, or urgency relative to each other. Prioritization with inference from John Rawl's theory affirms the principle of doing things that ought to be done first on the basis of importance (Arneson, 2008). Therefore, the objective of assessing the effects of decentralization on prioritization of agriculture activities is an issue of importance that should concern all. The study looked at the level and avenues for prioritizing agricultural programmes and activities under the LGS planning and

implementation. To explore the bearing of the decentralization reform on the planning, prioritization and implementation of activities of the DOA, the assessment of outputs from the reform in helping the DOAs prioritize activities that best address problems of the rural people is crucial in the study. This is because the provision of required resources to DOAs to aid extension delivery activities satisfies DOAs responsibility to the rural people. Areas to measure include: inclusion and placement programmes and activities of DOAs in District Assembly (DA) planning during composite budgeting; existence and functionality of agriculture sub-committees in all study districts, receipt of feedback from the DAs on information shared with the LGS; involvement in and representation of the District Assembly at programmes and activities of DOAs, and any other areas identified that promote the prioritization of DOAs' programmes and in LGS planning.

### **3.4 Perceptions of staff on the functionality and effectiveness of the feedback mechanisms between DOAs and the District Assemblies.**

A Likert scale rating system was used to assess the perceptions of staff about the functionality and effectiveness of the feedback mechanism under the LGS in all study assemblies. The aim was to unearth the accountability strategy put in place for the DOAs in delivery of their mandate. Specifically, impressions of staff of DOAs on the effect of the reform on functionality and effectiveness of DOAs in carrying out their planned activities, compared to the previous centralized form of activity planning and implementation are assessed. Respondents' perceptions are measured on a 5 point Likert scale, (1= strongly agree; 2= Agree; 3 = Neutral; 4 = Disagree; 5 = strongly disagree) in relation to the following areas: forms and frequency of reporting on agriculture programmes and activities under the centralized and decentralized systems; cost centre managers' meeting; feedback on reports emanating from the DOAs to the District Assemblies

(questions are in section D of Appendix 2). By the use of a five point Likert scale, statements or items were categorised into “Positive” and “Negative” such that items or statements that had mean or scale score greater than 3 indicate positive perception while items or statements that had mean or scale score lesser than 3 (the threshold) indicate Negative perception of staff about the functionality and effectiveness of the feedback mechanism under the LGS. The T-test was however used to test whether, there is gender difference in perception of the selected staff.

Finally, the Probit regression model was employed to assess the factors that influence perception of staff about the functionality and effectiveness of the feedback mechanism under the LGS in all study assemblies. The Probit model is expressed in equation (3.1).

### 3.5.1 Probit Model Specification

The method of estimation of the Probit model was done by maximum likelihood and interpretation of Probit results was based on marginal effects treated as probabilities, which explains the slope of the probability curve relating one explanatory variable to  $\text{Prob}(y=1|x)$ , holding all other variables constant. According to Greene (2012), an observable dependent variable can be defined by:

$$y = \begin{cases} 1 & \text{Positive perception if } \bar{x}^* > 3 \\ 0 & \text{Negative perception if } \bar{x}^* \leq 3 \end{cases} \quad (3.1)$$

The probit model  $Y$  follows the Bernoulli distribution with probability

$$\pi_i = \text{prob}(y = 1) = \Phi(X\beta) \quad (3.2)$$

Where,  $\pi_i$  is the probability that an extension staff has positive or negative perception,

$X'_i$  is the vector of explanatory variables,  $\beta$  is the regression parameters to be estimated.

In the Probit model the functional distribution of the error is very important to constrain the values of the latent variable into desirable property of probability values of between 0 and 1. The Probit model assumes a cumulative distribution function of standard normal distribution represented by  $\Phi$ .

$$\begin{aligned} \text{prob}(y = 1) &= \text{prob}(y_i^* > 0) = \text{prob}(\beta x + e > 0) \\ &= \text{prob}(e > -\beta x) \\ &= \text{prob}(e < \beta x) \\ &= \Phi(\beta x) \end{aligned}$$

In the case of normal distribution function, the model to estimate the probability of observing a staff's positive/negative perception can be stated as:

$$\text{Prob}(y_i = 1/X) = \Phi(\beta x) = \int_{-\infty}^{\beta x} \frac{1}{\sqrt{2\pi}} \exp\left[-\frac{z^2}{2}\right] dz \quad (3.4)$$

Where,  $Y_i$  is a probability (dependent variable) that observing a staff's likelihood of having a positive/negative,  $X$  is a vector of the explanatory variables,  $Z$  is the standard normal variable ( $Z \sim N(0, \delta^2)$ ) and  $\beta$  is a  $k$  by 1 vector of the coefficients estimated.

Therefore, the empirical probit model is specified in the following form:

$$Y = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \beta_6 X_{6i} + \beta_7 X_{7i} + U_i \quad (3.5)$$

**Table 3.1: Description of Independent variables, Measurement and a priori expectation**

Explanatory Variables	Variable description	Measure	a priori expectation
X1	Gender	1 = Male, 0 = female	+/-
X2	Age	Years	+
X3	Years of Schooling	Years	+/-
X4	Religion	1= Christian, 0 = Muslim	+/-
X5	Marital status	1 = Married, 0 = Unmarried	+/-
X6	Working Experience	Number of years	+/-
X7	<b>Staff role</b>	<b>1=Management</b> <b>0= Otherwise</b>	+/-

### 3.5.2 Research Hypothesis

**H<sub>0</sub>:** There exists no relationship between perception of staff about the functionality and effectiveness of the feedback mechanism under the LGS in all study assemblies and his/her Gender status.

**H<sub>1</sub>:** There exist a positive relationship between perception of staff about the functionality and effectiveness of the feedback mechanism under the LGS in all study assemblies and his/her Gender status

**H<sub>0</sub>:** There exist no relationship between perception of staff about the functionality and effectiveness of the feedback mechanism under the LGS in all study assemblies and Age.

**H<sub>1</sub>:** There exist a positive relationship between perception of staff about the functionality and effectiveness of the feedback mechanism under the LGS in all study assemblies and Age.

**H<sub>0</sub>:** There exist no relationship between perception of staff about the functionality and effectiveness of the feedback mechanism under the LGS in all study assemblies and education level.

**H<sub>1</sub>:** There exist a positive relationship between perception of staff about the functionality and effectiveness of the feedback mechanism under the LGS in all study assemblies and education level.

**H<sub>0</sub>:** There exist no relationship between perception of staff about the functionality and effectiveness of the feedback mechanism under the LGS in all study assemblies and years of working experience.

**H<sub>1</sub>:** There exist a positive relationship between perception of staff about the functionality and effectiveness of the feedback mechanism under the LGS in all study assemblies and years of working experience.

Variables to be used to test the positive or negative perception of the hypothesis on the functionality and effectiveness of the feedback mechanism under the LGS in all study assemblies includes; marital status, religion, LGS Staffer's role (dummied as 1= a managing role or Otherwise among others

### 3.6 Study area

The study was conducted in twenty-four Metropolitan, Municipal and District Directorates of Agriculture in the Northern region of Ghana, and the regional Department of Agriculture situated in the regional capital. The selection of the study districts was largely based on (1) The administrative jurisdiction of the various Departments of Agriculture in the country and on (2) Period of existence of these districts, to ensure that these districts have operated under the two regimes of assessment of centralised and decentralised local government systems. This approach was necessary because some districts were created after the change to the decentralised regime and would therefore not have information to cover the pre- decentralisation period. One metropolitan area, one municipal area, one regional department and 22 districts were selected for the study.

These MMDAs are, Tamale Metropolitan Area, Yendi Municipal Area, Northern Regional Department of agriculture, Sagnarigu District, Savelugu-Nanton District, Tolon District, Kumbungu District, East and West Mamprusi Districts, Central Gonja, East and West Gonja Districts, Bole District, Sawla-Tuna-Kalba District, Gusheigu- Karaga District, Muagduri, Bunkpurugu-Yunyoo Districts, Zabzugu District, Tatale- Sanguli District, Chereponi District, Nanumba North, Nanumba South Districts, North Gonja District, Muagduri and Kpandai Districts

Figure 3.1: Map of the study Area



### 3.7 Sources of Data

Both secondary and primary data were collected for the analysis. Secondary data was collected from Regional, Metropolitan, Municipal, District Departments of Agriculture (RMMDDOAs) and District Assemblies (DAs) as well as policy documents and relevant literature.

Staff strength, logistics and equipment, capacity building and training programmes,

monitoring and many more were accessed from these reports. Primary data was obtained from staff of the DOAs using structured questionnaire (Appendix 2). In all, 140 respondents, comprising 6 each from 22 districts, metropolitan and municipal departments of agriculture, 7 from Districts Planning and Budget Units (DPB&U) of selected assemblies and 1 from the Regional Department of Agriculture (RDOA). These respondents included, Heads of the DOAs, District Agriculture Officers, Agricultural Extension Agents and District Planning and Budget officers who facilitate the harmonization of the planning and budget preparations from the decentralized departments including DOAs.

## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### 4.1 Introduction

The results include the socio-economic and demographic characteristics of respondents. It presents the assessment of resource gaps and the efficiency of resource allocation for effective extension delivery with respect to the availability and functionality of human and physical resources under the LGS and MoFA, juxtaposed with the resources required for improved governance. The examination of the levels and forms of incentives for the DOAs under the decentralized and the centralized systems of governance is also discussed. This includes the assessment of prioritized activities and programmes of the DOA in the LGS planning. Collation and analysis of perceptions of staff of DOAs on the functionality and effectiveness of the feedback mechanisms between DOAs and the District Assemblies as way to improve accountability under the local governance service is equally discussed.

Measures for effective monitoring and accountability within the DOAs as well as preparation and submission of reports are discussed. Finally, the chapter presents perception indices and factors that influence DOA staff's perception on their functionality and effectiveness under the LGS.

#### 4.2 Socio- Economic Characteristics of the Respondents

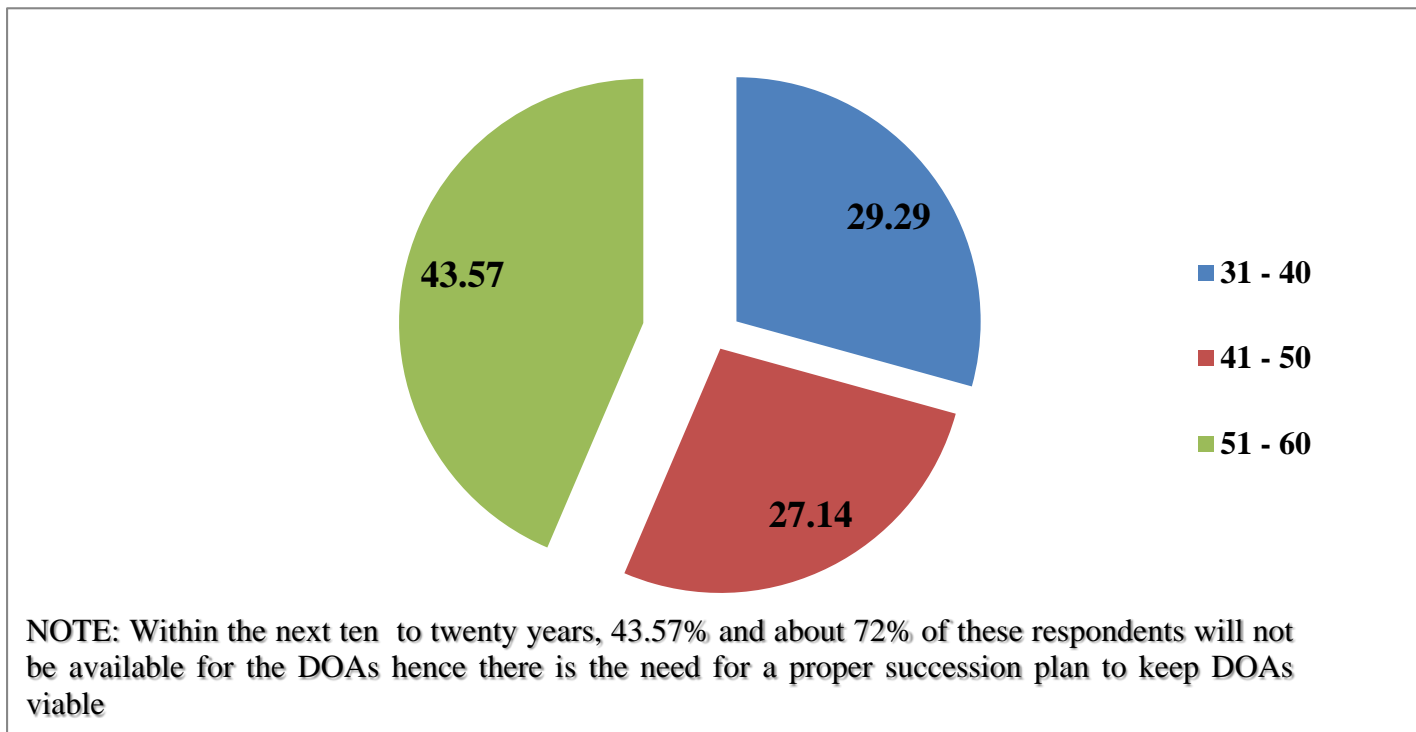
Staff category, gender and age distributions are discussed in this section. Others include years spent with MoFA and level of education of respondents. Descriptive statistics on the gender distribution showed that, 97 out of 140 respondents representing about 69.3% were males. This reveals a huge disparity among the employees indicating only about one-third of the DOA staff

being females compared to their male counterparts.

#### 4.2.1 Age Distribution of Respondents

The minimum and maximum ages of respondents were 32 and 59 years respectively with a mean age of about 44 years. As shown in Figure 4.1 below, 44% of the respondents will be due for retirement within the next ten years and about 72% within the next twenty years. thereby reducing the technical staff strength of the DOAs. This means, there is going to be a possible increase in levels of very low extension coverage by technical staff, mediocre delivery of technologies due to absence of incentives, astronomic rise in unsafe food/meat consumption and/or over expenditure on food imports. There is therefore the need for a proper succession plan to keep DOAs viable and productive.

**Fig 4.1: Pie-chart showing age distribution of respondents**



#### 4.2.2 Years of service with MoFA

Majority of MoFA staff (78.57%) have been in the service for more than 10 years. This indicates that some level of expertise would have been gained from their engagement with the Ministry. However, it also means that those with the longer years of experience would soon be retiring. Adequate measure should be put in place to replace such staff deficit to enable the DOAs continue to effectively serve farmers in the region.

The AEA: Farmer ratio of 1:2500 (SRID, 2015) is already low and is decreasing at an alarming ratio rate to about 1:5000 (USAID, 2018).

**Table 4.1: Years of service with MoFA**

Interval	Years	Percentage of respondents
1 – 10	30	21.43
11 – 20	45	32.14
21 – 30	33	23.57
31 – 40	32	22.86

**Source: Field survey (2017/2018)**

The educational qualification of staff of the Department of Agriculture in the study districts is presented in Table 4.2. About 33% of the 133 respondents hold a BSc. Degree certificate and less than 1% possess a middle school certificate. The Northern Regional Departments of Agriculture in 2017 collectively had a technical staff strength of **397** with **198** being professionals, **77** sub-professionals and **122** in the technical class (DOA Staff strength – NR, 2017) compared to **138** professionals, **63** sub- professionals and **116** in the technical class totaling **327** staff strength

in April, 2018 (DOA Staff strength – NR, April, 2018). This clearly shows a drastic fall in staff numbers in the region. A formal interaction with the regional human resource officer revealed that the differences in 2017 and 2018 staff situation is largely the results of loss of staff to retirement in all staff categories.

It was gathered from the DDAs that, as and when available under MoFA, technical staff who receive further education during their period of service tend to appreciate what they are taught in the colleges and universities and deliver satisfactorily when they return to their respective districts and contribute strategically to improve food security situation in the region.

Figure 4.2 presents staff strength of the DOAs showing decreasing trend of staff numbers in the region. Interaction with the regional human resource (personnel) officer further revealed that both the District Departments of Agriculture (DDOA) and the Regional Department of Agriculture (RDOA) under the Local Government Service have no administrative mandate and abilities to either replace or employ new staff for their departments, even though some have left and more are anticipated to leave the system soon. According to the Human Resource officer, requests for staff from various districts to support delivery of extension services have not been successful. This suggests insensitivity to the staff needs of the DOAs.

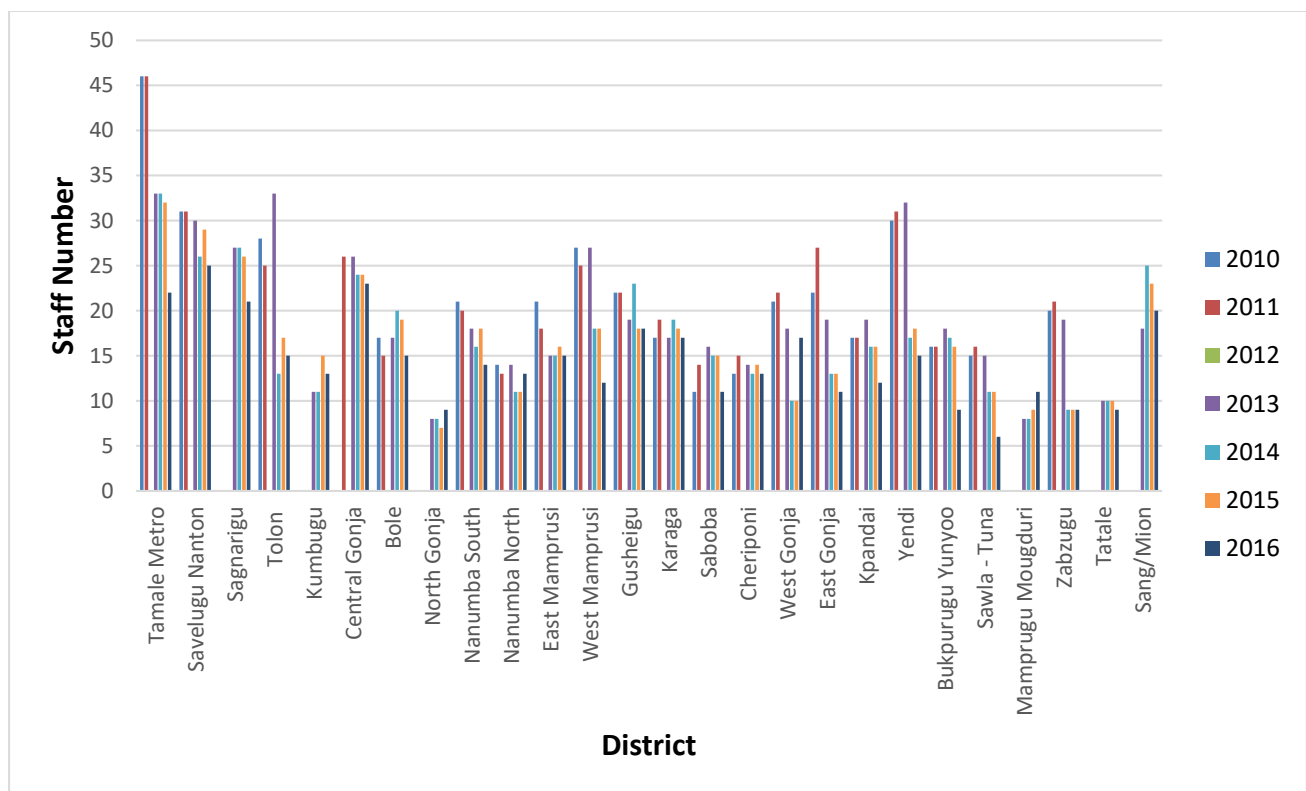
**Table 4.2: Educational Attainment**

Staff Category	Middle School	Cert in Agriculture	Diploma in Agriculture	Higher National Diploma	BSc. Agriculture	MSc/ Mphil	Total
RDA/MMDOA/ DDOA/	0	0	0	0	13	11	24

DAOs	0	1	9	10	26	19	65
AEAs	1	25	9	4	5	0	44
DPO/DBO	0	0	0	0	6	1	7
Percentage	0.71	18.57	12.86	10.00	35.71	22.14	140

Source: Field survey (2017/2018)

Figure 4.2: Trends in Staff Strength of DOAs



Source: Secondary Data from RDOA, Tamale

#### **4.3 Assessment of resource gaps (human and physical) of the DOAs through improved governance under the new decentralized system**

Table 4.3 presents data on resource gaps within various DOAs technical departments. It clearly shows that, under the Centralized system (MoFA), areas focused for effective administration of the departments included; human and physical(material) resources covering functional units, staff numbers with respect to operational areas at various DOAs, development programmes, types and frequency of staff training and technical relationship with RDOA, availability of office accommodation, and office equipment as well as presence of motorbikes for staff and official vehicles to aid them achieve their mandates.

Key in achieving DOAs mandates under LI 1961 is the existence and functionality of cardinal offices called units (Extension, Crops, Livestock, WIAD, Veterinary, Engineering, PPRSD, MISO).

These units are the conduits for implementing activities and measuring performance of every DOA. Even though, both the LGS and MoFA regimes exhibit unsatisfactory levels of the functional units needed to implement their mandates, the situation was better under MoFA.

The DOAs under MoFA were about 96% ready in implementing their mandates per the effects of 51% – 100% strength of existence of the functional units compared to about 83% strength under LGS.

In assessing the level and mode of sectoral support for Food Security which is key to fulfilling the achievement of objective one of a national policy indicated in Medium Term Agriculture Sector Investment Plan (METASIP) document that guides planning and implementation of programmes and activities of the DOAs, responses gathered indicates the existence and functionality of these units under MoFA contributed significantly to sustainable food

security situation in the region and also promoted agribusiness. This involved regular trainings and sensitization of farmers and farmer groups on improved technologies that resulted to increased productivity of staples like maize, rice, cassava, yam and some legumes like cowpea and soya which are mostly consumed in many homes.

Also, the operations of some partner organizations like FARMER project, LDP, WAAPP, RTIMP, NORPREP, GSOP, Action-Aid, World vision and other development partners under MoFA gave lots of skilled trainings to technical staff of the DOAs and supported farmers and farmer groups with job creation to help alleviate abject poverty, improved nutrition coping strategies and various livelihood empowerment programmes which are either seldom seen or absent under the LGS.

Strategically, these organisations contributed tremendously in the areas of crops and livestock demonstration programmes that unearthed various technological packages that were important to transforming farming to business.

**Table 4.3: Resource Gaps within DOAs Technical Departments: Fundamental Units**

<b>Status of functional units N=24</b>	<b>Functional units Required</b>	<b>Functional units (MoFA)</b>	<b>Functional units (LGS)</b>
% of District with 100% (full) units	<ul style="list-style-type: none"> <li>▪ <b>Extension</b></li> <li>▪ <b>Crops</b></li> <li>▪ <b>Livestock</b></li> <li>▪ <b>WIAD</b></li> <li>▪ <b>Veterinary</b></li> <li>▪ <b>Engineering</b></li> <li>▪ <b>PPRSD</b></li> <li>▪ <b>MISO</b></li> </ul>	29.16	20.83
% of District with $\geq 51\%$ but $\leq 99\%$ units		66.67	62.5
% of District with 50% units		04.17	12.5
% of District with less than $< 50$ units		0	04.17

**Source:** Field Survey, (2017/2018)

Also of concern in Table 4.4 is the levels and forms of training programmes for staff; 80 – 100% of respondents (AEAs, DAOs, MMDDAs & RDA) indicated that, unlike with LGS, DOAs staff under MoFA received regular internal and external training on quarterly and adhoc basis which prepared them adequately for various tasks ahead. The story is different under the LGS system which seldom provides room for staff training programmes within and externally.

These training programmes under MoFA enhanced skills and knowledge levels as well general performance of technical staff for effective and efficient extension delivery and also sets a good standard for appraising them by their supervisors and thus; ensured quality delivery and eschewed redundancy. This also led to extensive adaption of improved seed and planting material use by farmers for increased production and productivity levels.

However, the output associated with the LGS system with respect to low human resource strength and trainings/technical review sessions is abysmal and requires urgent attention for efficient sustainable delivery of the DOAs mandates.

**Table 4.4: Resource Gap within DOA Technical Department: Trainings and Meetings**

Staff Category	Type of training/Review meetings received under				Frequency		Number	
	LGS		MoFA		LGS	MoFA	LGS	MoFA
	Internal	External	Internal	External				
AEA	91.67	4.1 7	3.83	89. 47	Adhoc	Quarterly Adhoc	When required	8 or more/year
DAO	87.50	70.83	00.00	100.0	Adhoc	Quarterly Adhoc	When required	4 or more/year
DDA/MMDA /RDA	100.0	91.67	3.33	89.47	Adhoc	Quarterly Adhoc	When required	4 or more/year

Source: Field Survey, (2017/2018)

A common lamentation from all DOAs over the huge staff deficit they are experiencing under the LGS system is evident in Table 4.5 which shows that 87.5% of the twenty- four DOAs of the twenty-six districts in the Northern Region have less than 50% of their staff requirement. This clearly makes these districts deficient in human resource capacity to implement their programmes as planned.

Critical to this situation is that of districts like East Mamprusi, Saboba, Bukprugu, Zabzugu, Sawla-Tuna, Tatale, North Gonja, East Gonja, Kpandai and Nanumba North who have an extremely low estimated AEA: Farmer ratio at about 1:24000 (Districts' Farmer census, 2015). There is also a paradigm shift where hitherto under the Centralized system (MoFA) the DOAs on request for staff puts in a request from RADU for replacements or fresh engagements who further puts the request to the Human Resource Development Directorate of MOFA.

Unfortunately, due to the tight central government budget, there has been a long-persisting staffing policy that constrained MOFA from recruiting new staff before the coming into force L.I 1961 to augment the existing few technical human resource to overturn the low extension coverage by the few technical officers.

It was revealed that, despite being integrated into the Assembly structure, the DOAs continue to rely on the RADU and to MOFA-national for technical guidance and resources for some activity implementations.

Under the LGS system also, per L.I 1961, staff request is directed through the local Assembly who further through the Northern Regional Co-coordinating Council makes the request from Local Government Service in Accra for consideration. This situation weakens effectiveness of the M&E system under the LGS even though it was equally identified with the Centralized system where, all respondents believe little is done under the LGS to ensure effective monitoring and

accountability regime but collectively exonerated the centralized system (MoFA) regime to have kept in place an effective M&E system that ensured accountability and improved extension delivery. The story is not different about the level of transfer of technology to farmers as all respondents vehemently disagreed to an improvement in extension delivery system under the LGS thereby rendering the LGS less effective in transfer of technology, this is believed to be the result of the huge staff deficit and logistics constraints to all DOAs under the LGS.

Additionally, it is also an ongoing practice under the LGS where most of the DOAs in the region take responsibility for their utilities without any form of support coming from their respective Assemblies; This situation was different when DOAs were being managed under the centralized system (MoFA); all utility tariffs were paid for by the central government under the centralized system (MoFA).

The DOA in Saboba for instance has no responsible officers (accounts officers, store keeper, MIS officer) to help co-coordinate its financial, human and material resources for the department, making it extremely difficult to run affairs of the office.

Unlike with MoFA, many farmers now have to visit the DOAs daily to seek technical advice on how to reduce recurring loss of field crops and animals to vagaries of the weather and diseases outbreaks. This situation was rarely noticed under the centralized system when sufficient technical (AEAs and DAOs) were readily accessible for routine farm and home visits to curb any unforeseen attack and outbreaks of scheduled diseases and seen working to task. Thus, some DOAs are perceived not living up to their responsibilities of regular and timely extension services under the LGS.

**4.5: Resource Gap within DOAs Technical Department: Technical Staff Gap**

Number of staff required	Average number of Staff available	Variation
Mean = 30 Min: = 15 Max: = 41	(Mean) = 11 Min: = 4 Max: = 24	Mean = 19 Min = 11 Max = 17
% of District with 100% (full) staff strength	0	
% of District with $\geq 51\%$ but $\leq 99\%$ staff strength	12.5	
% of District with 50% strength	0	
% of District with less than $< 50\%$ staff strength	87.5	

**Source:** Field Survey, (2017/2018)

Table 4. 6 also shows staff qualification in the various districts which indicate about 80% of the District Agricultural Officers (DAOs) and 25% of District Directors of Agriculture (DDAs) from the study districts having first and second degrees respectively. These educational qualifications are in tandem with the requirement of staff positions under the LGS, meaning that productivity of human capital is assured when replacement and fresh recruitments of staff are made.

**Table 4.6: Resource Gap: Educational qualification of staff by District and minimum requirement**

Staff Category	Middle School	Certificate in Agriculture	Diploma in Agriculture	Bachelor in Agriculture	Masters & Above
AEA	0	13	14	4	0
DAO	0	0	5	24	6
DDA	0	0	0	18	6

**Source:** Field Survey, (2017/2018)

Also noticed from the study is the state and postings of extension officers to manage existing operational areas in these districts. It reveals a very poor extension coverage with technological packages from the frontline officers (AEAs). The districts combined have 108 operational areas that have extension officers against 527 available operational areas in the districts, revealing a whopping 419 deficit of operational areas without officers. Only 20% of operational areas in the study districts have extension officers. This is a worrying situation that requires urgent attention as the present state is a recipe for low productivity of farmers leading to food insecurity and reduction in income levels of farmers. It is also a dangerous situation that can bring about disease and pest attacks on crops and livestock, leading to food losses and threat to the health of citizens.

Physical resource gap in areas of office accommodation is crucial in the effective and efficient management of the Departments of Agriculture. Existence of these offices plays a leading role in the implementation of the local governance mandates of the departments. From Table 4.7, all the departments have offices to operate but they do not have enough space to accommodate all the required functional units for effective administrative operations.

The Table 4.7 reveals a third of the study districts operate in temporary office accommodation, a situation that impede administrative progress of decentralizing the DOAs. The Table 4.7 reveals that 38% of the offices are in rented premises. This is not desirable for a productive management because of issues of cost security and uncertainty of continued availability of the offices.

**Table 4.7: Resource Gaps within DOA Technical Departments:**

**Office Accommodation (N = 24)**

Districts with:	Percent of districts (N = 24)
office accommodation	100
office space for all units	37.5
permanent status	66.67
temporary status	33.33
own office accommodation	62.5
rented office accommodation	37.5

**Source:** Field Survey, (2017/2018)

Key area presented in Table 4.8 is the existence and availability of office equipment for various DOAs who need these to process, transmit and keep important records of their operations and data on the sector.

Of the twenty-four (24) studied districts, the availability and functionality of Internet service, photocopier and office telephone, is very poor revealing a 87% of the DOAs lacking these facilities, thereby limiting their smooth operations in information transfer and communication, a few districts that made efforts to have these facilities and services in place could not sustain it due to the high cost of operating and maintenance costs.

However, all the studied districts own a minimum of one desktop computer and a printer to support their office operations. Only 28% of the DOAs have an average of 2 laptops to augment their official responsibilities even though most of them were acquired from projects like Resilience in Northern Ghana and Northern Rural Growth. This means that 72% of the DOAs are without

laptops which are required to facilitate timely and frequent reporting to respective administrative bodies as part of their monitoring and supervisory roles. Unlike under the LGS, the DOAs under MoFA received lots of ICT equipment and accessories from JiCA, FARMER Project, RTiMP, and other development partners that operated in the area, thereby making the DOAs under MoFA adequately equipped to write and submit timely comprehensive reports and were able to submit to RADU and MoFA- National as and when required.

Also under the centralized system, DOAs in the Northern Region received consultants from Engineers Without Borders whose focus was to equip the DOAs with ICT use for results-based reporting including weather forecasting and yield analysis using simple equipment. There were several other avenues under the centralized system that upgraded knowledge and skills of the DOA staff in ICT and also distributed free computers and accessories to aid administrative responsibilities which is now absent under the LGS.

**Table 4.8: Physical Resource Gap within the Technical Department: Office Equipment**

Number of districts	Numbers of equipment in all study districts					
	Desktop (98)	Laptop (50)	Printer (62)	Office telephone (3)	Internet service (4)	Photocopier (3)
	% of districts (N = 24)					
<b>None</b>	<b>0</b>	<b>20.83</b>	<b>0</b>	<b>87.5</b>	<b>83.33</b>	<b>87.5</b>
1 – 2	20.83	41.66	66.67	12.5	16.67	12.5
3 – 5	66.67	33.33	29.16	0	0	0
6 & above	8.33	4.16	4.16	0	0	0

**Source:** Field Survey, (2017/2018)

Facilitation in the transfer of improved technologies and other information is greatly aided by the availability of motorbikes for field officers (AEAs and DAOs) who need these to support their extension delivery activities.

Unfortunately, it is quite strange to register a huge deficit of up to about 67% of the studied Districts that are without motorbikes under government support programmes now being implemented. Fortunately, out of individual self-support initiatives you have a greater percentage of the field staff own motorbikes, even so a substantial number of field staff are without means of transport (motorbikes) as shown in Table 4.9. This has an obvious implication of low extension coverage culminating from weak government support resulting in limited/fewer numbers of farmers receiving various forms of interventions.

Table 4.9 also exposes weaknesses of District Heads of the Department and other monitoring team (DPCU) to carry out their mandates effectively. Even though unconfirmed report indicates that all DOAs would soon be allocated official vehicles to improve mobility, districts without office vehicles seldom receive attention of the District Assemblies.

The table reveals official vehicle deficit of about 46% at the time of data gathering. DOAs that own official vehicles also face challenge of getting fuel for the use of the cars. This suggests a weaker monitoring and supervision the district, municipal and metropolitan heads of the agriculture departments and their respective management staff under the LGS.

**Table 4.9: Physical Resource Gap for the Technical Department: Motorbike/Vehicle Situation**

N = 24	Government	Projects & Self acquired
% of Districts without motorbikes ( 0 )	66.67	12.5
% of Districts with motorbikes ( 1 – 10)	33.33	70.83
% of Districts with motorbikes ( 11 – 20 )	0	16.67
<b>Office Vehicle</b>		
% Districts with office vehicle	54.17	20.83
Maximum	5	18
Minimum	0	0
Mean	1	6

**Source:** Field Survey, (2017/2018)

Even though, Modernization of Agriculture (MAG), a Canadian supported programme for the agriculture sector gives a quarterly fuel and training allowances to augment activity implementation, it is however insufficient. the disbursement of the funds to the DOAs is also characterized with lots of bureaucratic processes resulting in late implementation of planned activities.

Another area of inconsistency relating to funds access is the payment of off-station allowances which the study revealed about 80% of the study area do not receive anything of that sort and only District Heads of Departments of Agriculture occasionally receive out of station remunerations. This is indeed a disincentive to the management of the DOAs.

Staff development is key for efficient and effective extension delivery therefore, any effort to improve staff performance is a step towards improving service delivery. This is encouraged when the skills and knowledge of staff are improved through in-service trainings and opportunities for further studies by staff. As presented in Table 4.10, there is huge drop in staff training opportunities (both in-service and external). However, there is an improvement in the area of general staff academic progression revealing about 59% respondents indicating this.

Improved forms of opportunities for staff promotions is discussed from Table 4.10, revealing clearly the following; promotions of qualified staff is frequent and letters obtained faster under the LGS, formalities for promotions is reliable and on merit, interview of qualified staff are regular and promotion letters served to qualified staff without delay. Despite these positives with the LGS, it has some few odds relative to opportunities for promotions of senior officers (Assistant Directors) which is a disincentive to that category of officers. Also there is no consistency in the promotion of older staff of DOAs who attain degree certificates from accredited universities. Even though about 41% of respondents gave opposing opinions stating that the period of eligibility for academic progression after initial study is quite lengthy, most productive technical staff are redundant.

It is obvious from the table also that, aside the area of co-coordinating financial, human and material resources, DOAs clearly have very little success story to tell under the LGS with respect to addressing resource gap problems. Responding to level and frequency of funding to DOAs, staff reported undue delays in release of funds (GoG and donor fund) as a common practice under the LGS regime even though these were equally experienced prior to the decentralization reform.

Additionally, all DOAs were supported with funding for expanded programmes (maize, rice, cowpea) that provided farmers with credits to finance their farming activities of some selected crops. This funding became a revolving fund for the DOAs to support pro-poor and trustworthy farmers to increase production and productivity.

Similarly, the veterinary units under MoFA received quarterly funding to procure vaccines and other logistics for routine vaccinations and prophylactic treatments of animals.

This ensured the veterinary staff were at all times prepared for emergency response to ensure healthy and wholesome meat supply and consumption to supplement protein needs and also generate funds internally. This intervention is missing under the LGS, thus retarding progress of service.

Level of condition of service, relationship with regional agriculture directorate and development of training manuals and leaflets were regular and sufficiently managed under MoFA than it has been with the LGS regime where DOAs depend on support from non-governmental institutions in some selected districts to run and manage affairs of the office. This situation usually renders most productive technical staff inactive.

Areas assessed generally revealed positive performance under the centralized system (MoFA) than under the LGS system. The respondents agreed to terms that they were better developed under MoFA which increased technical staff in skills and knowledge for improved adoption levels of technologies like use of improved/hybrid seeds and breeds of animals by farmers to increase productivity and income levels than it is experienced under the LGS.

**Table 4.10: Resource Gap within DOA Technical Department: Staff Development Program**

Areas of Assessment	Percentage for	Percentage against	General Impression
1) Opportunity for academic progression	58.3	41.7	<ol style="list-style-type: none"> <li>1. Equal free will for all staff to apply for further studies when qualified</li> <li>2. No limitation for study leave with or without pay</li> <li>3. Short courses and degree programmes accessible for all who are interested</li> <li>4. Staff in school gets the opportunity to be Promoted when due</li> <li>5. Diverse scholarship accessible for selected staff</li> <li>6. Period of eligibility for academic progression after initial study quite lengthy</li> </ol>
2) Improved forms of opportunities for staff promotion	45.83	54.17	<ol style="list-style-type: none"> <li>1. Promotions of qualified staff is frequent and letters obtained faster</li> <li>2. Formalities for promotions is reliable and on merit</li> <li>3. Interview of qualified staff are regular and promotion letters served to qualified staff without delay</li> <li>4. Promotion of qualified staff is regular but a disincentive to senior ranks (Assistant Directors rank)</li> <li>5. Lack of promotion consistency on older staff who attain degree</li> </ol>
3) Receipt of better remunerations	0	100	<ol style="list-style-type: none"> <li>1. Irregular release of fuel and travel allowances</li> <li>2. Inadequate and lack of logistics for administrative and field use</li> <li>3. Limited understanding of the agricultural programmes and activities</li> <li>4. Fewer sponsorships for agriculture programmes and activities by the district assemblies</li> <li>5. Excessive beurocracies with the regime.</li> </ol>

Source: Field Survey, (2017/2018)

#### **4.4 Examining the Level and Forms of Incentives for the DOAs under the Decentralized and the Centralized Systems of Governance.**

Incentivising institutions plays an important role in productivity improvement especially so in the public sector where remunerations to workers are not regular and mostly inadequate.

Table 4.11 gives a summary of opportunities for academic progression for DOA staff under the LGS which reveals about 42% of respondents being dissatisfied with available opportunities for staff academic upgrade under the present LGS system. The situation restricts some qualified staff from upgrading their knowledge and skills and from being promoted to higher grades. These constitutes huge disincentive to staff.

The respondents indicated that under the local government system (LGS) a staff of the DOA becomes eligible for further study only after serving a five-year minimum period from his/her present grade against a three-year term under the centralized system(MoFA). Majority of the respondents (about 58%) believe that the LGS system offers better opportunities for academic progression in that there is no need to travel to Accra to seek study leave, short certificate and diploma courses as well as degree programmes.

The opportunities are available for all staff categories to apply; all staff in schools are eligible for promotion when due, all staff can apply for further studies when qualified, and they have greater opportunity to be granted leave with pay when admitted. Gushiegu district for instance indicated having four of their staff currently in school on study leave with pay even though they lamented a shortage of technical staff to carryout effective extension delivery.

Similarly, West Mamprusi DOA revealed available sponsorship package from the district assembly for selected qualified staff is readily accessible by all. Respondents' opinions were divided on whether opportunities for staff promotion were better under the LGS.

**Table 4.11 Forms of Incentives for DOAs under LGS and MoFA**

<b>Opportunities for academic progression for DOA staff under LGS</b>							
	Good effect		Intermediate effect		Bad effect		Total number
	Number	Percentage	Number	Percentage	Number	Percentage	
District	4	58.33	0	0	10	41.67	24
<b>Opportunities for staff promotion procedure under LGS</b>							
	Improved		Not changed		Retrogressed		Total number
	Number	Percentage	Number	Percentage	Number	Percentage	
District	1	45.83	0	0	13	54.17	24
<b>General effect of incentives on DOAs under the LGS</b>							
	Good effect		Intermediate effect		Negative effect		Total number
	Number	Percentage	Number	Percentage	Number	Percentage	
District	7	29.17	2	8.33	15	62.5	24

Source: **Field Survey, (2017/2018)**

#### **4.5 Prioritization of DOA Activities and Perception of Staff about Functionality and Effectiveness of Feedback Mechanisms.**

Table 4.12 presents' two way responses from formal interactions with selected staff of the DOAs and the development planning and budget units of the district assemblies on general perception of effects of decentralization on prioritization of agriculture activities in District planning. The need for DOAs programmes and activities under the LGS to compete for sponsorship with other decentralized departments for funding from the Assembly and other donor partners to execute their mandates is very crucial. This is a sure avenue for the development of most district assemblies which are largely agrarian by nature. Agriculture programmes are time bound, therefore any delay in executing them has untold consequence.

Unfortunately, 75% of the assemblies are not responsive to the needs of DOAs to execute their mandates. This was anchored on the premise that the administrative and technical departments of the DAs seldom have representation at DOAs' meetings and functions when invited. However, exceptions were indicated with some DOAs admitting to receiving funding and logistics support to organise national farmers' day ceremony, even though districts like Tatale Sanguli, Muagduri, Tamale Metro, Tolon, East and West Gonja, as well as East and West Mamprusi clearly stated they do not receive any support in relation to the organisation of farmers' day awards.

Additionally, varied impressions gathered from responses revealed that in comparing programme/activity planning and implementation under the Local Government Service and the Centralized (MoFA) systems, there was a better effort under the Centralized System to support the DOAs in planning and implementation of their programmes.

Under the LGS, but for the operations of the Resiliency in Northern Ghana, a project being implemented in fifteen (15) districts in the Northern region, agricultural activities in the entire region would have been lacking support.

The existence of functional and capable Agriculture sub-committee at various district assemblies to support the DOA achieve its mandate is also featured in Table 4.12. Districts with this sub-committee during the study shared some vital activities undertaken by the agriculture sub-committee including; channeling general farmers concerns to the DOA and facilitating the communication of core initiatives of the DOA to the Executive Committee & the General Assembly, soliciting funding for some agriculture activities from the District Assembly, facilitation of loan recoveries from farmers, facilitating the organisation and selection of award

winner for farmers day ceremony acquisition of abandoned warehouse for the DOA management, organizing radio broadcast to sensitize farmers on government flagship programmes, facilitating the renovation of bungalows and staff quarters in Kabriya & Nakpayili, and furnishing of veterinary clinic in the Nanumba South district, hiring guards to watch over districts water bodies, funding the recruitment and engagement of AEAs to improve extension coverage, and monitoring activities of Fulani Herdsmen in the district. Sadly, this sub-committee is either non-existing in many of the district assemblies or their existence in some districts is not possible! Sagnarigu, Tatale Sanguli, Muagduri, Karaga, Yendi, Tamale Metro, Bukpurugu, Yunyoo, West Gonja, East Mamprusi, Saboba, Tolon, East Gonja, Kpandai and West Mamprusi are districts that do not have agriculture sub-committee in place to augment works of these departments of agriculture. It is therefore not strange to hear these districts have more difficulties in realizing their objectives.

Another area of concern indicated in Table 4.12 is the receipt of support by DOAs for most of its administrative needs with respect to office accommodation and stationary which were readily more accessible under MoFA, than under the LGS. The existence of office accommodation and stationary without doubt significantly enhances administrative and management functions of the DOAs. Unfortunately, about 67% percent of the DOAs in the Northern region are victims of this weak administrative empowerment under the LGS, compared to the situation under MoFA where almost all district directorates of agriculture had sufficient office space and other logistics to function.

The need for the DAs to seek technical advice from the DOAs would make them appreciate the activities of the DOAs and be able to monitor and evaluate their performance for accountability purposes. It is also important to give feedback to the DOAs as a means of measuring their output and impact levels for improvement in service delivery; this also serves as a guide or basis for

regular checks on general livelihood performance in relation to food security and other output.

A little over 50% of respondents agreed that various District Assemblies do not seek technical advice from the DOAs. The channel and frequency of feedback is relevant for mutual relationship between the DOAs and the DAs for rapid growth and development. All respondents (i.e., Metropolitan, Municipal and District Directors of Agriculture as well as the Regional Director of Agriculture) denied receiving feedback under the LGS compared to the centralized system; the RDOA also does not send feedback to DOAs. This situation is not healthy and does not promote institutional coordination and cooperation, and does not serve as conduit for technical backstopping and evaluation. The table also gives respondents impression about the capacity to produce comprehensive quality report as well as feedback checks.

Of all responses gathered, a deficit of 54.17% and 77.5% of both technical and material resource capacities respectively of MMDOAs/DDAs and MMAOs/DAOs/MMDMISO under the LGS is registered. Also, a total lack of feedback from the District Assemblies to DOAs as shown in Table 4.12 is a recipe for poor accountability of resource use and this is a worrying situation that needs a swift intervention to avoid the quality of reporting being compromised. Majority of respondents believe there is no improvement with respect to Knowledge of DOA staff in ICT and other training programmes like the results-based and programme-based methods of reporting which is key to quality reporting under the LGS system compared to the Centralized system. This is attributed to lack of coordination for human and technical resource development under the LGS system with respect to feedback checks.

**Table 4.12 Formal Interactions with selected Staff of the DOAs and the Development Planning and Budget units of the District Assemblies**

<b>State of feedback mechanism between the DA and the DOAs under the LGS</b>					
	<i>Weak</i>		<i>Effective and effective</i>		<i>Areas to Improve</i>
	Number	Percentage	Number	Percentage	Frequent Technical review meetings with stakeholders, Efficient Monitoring
District	20	83.33	4	16.67	
<b>Accountability and feedback mechanisms for the functionality and effectiveness of the DOA under the LGS</b>					
	<i>Submit M&amp;E, MDA, Market, Quarterly, Mid-year, Annual &amp; Situational reports under LGS</i>		<i>Receive feedback from DA/RCC</i>		<i>Areas of Intervention</i>
	Number	Percentage	Number	Percentage	Regular monitoring Capacity building, Rank Performance
District	24	100	0	0	
<b>Capacity to produce report &amp; Feedback check trend</b>					
	<i>Technical resource available</i>		<i>Material resource</i>		<i>Support Needed</i>
	Number	Percentage	Number	Percentage	ICT equipment & accessories, funds & stationary, Regular in- service training, Adequate office space,
District	11	45.83	3	12.5	
<b>Follow-up of DA feedback as accountability check of DOAs programmes and activities</b>					
	<i>Ineffectiveness &amp; irregularity</i>		<i>Effectiveness</i>		<i>Intervention Areas</i>
	Number	Percentage	Number	Percentage	Working DPCU Situational orientations
District	24	100	0	0	

Source: Field survey (2017/2018)

#### 4.6 Perceptions of staff on the functionality and effectiveness of the feedback mechanisms between DOAs and the District Assemblies

A five point Likert scale and mean estimate were used to identify the significant variables. The decision yardstick used for the analysis was formulated based on mean ranges such that, items with mean values between 1 – 2.90 were deemed as “Negative” while items with mean values between 3.10 – 5.0 were deemed as “Positive” based on the authors construct. With regards to a staff’s perception on the functionality and effectiveness of the feedback mechanisms between DOAs and the District Assemblies, findings revealed that 25% of staff of DOAs positively perceive the functionality and effectiveness of the feedback mechanisms between DOAs and the District Assemblies.

Notwithstanding the positive and negative responses to some statement regarding staff’s perception on the functionality and effectiveness of the feedback mechanisms between DOAs and the District Assemblies, an analysis of difference of means (T- test) indicated no significant ( $t\text{-cal} < t\text{-ratio}$ ,  $df = 140$ ;  $p = 0.536 > 0.05$ ) difference between gender of a respondent and perception score; as presented in Table 4.13.

**Table 4.13: Gender difference and Perception score of Staff on the functionality and effectiveness of DOAs**

Variable	Gender	N	Mean	Std	Df	t-cal	Sig. level
Perception Score	Male	97	42.213	6.571	138	-0.921	0.536
	Female	43	41.132	4.724			

Source: Field survey (2017/2018)

Even though the T-test may reveal a no significance of respondents overall perceptions to the feedback mechanisms between the District Assemblies and the DOAs, there were revealing concerns pertaining gender extension delivery in some localities like Gbungbaliga, Jimam, Kpansu and communities in the southern zone called overseas in the Nanumba South District, and some areas in the Nanumba North and Sabobo Ceriponi districts, where male farmers seldom allow free interactions of male extension officers with their female farmers and farmer groups during meetings and trainings without either obstructing or ending abruptly important engagement periods to transfer technologies to these female farmers, thereby denying them huge opportunities to upgrade their skills and knowledge levels for improved livelihood. As a result, under the centralized system (MoFA), some district directors including the Nanumba South district director of agriculture initiated the recruitment of female extension volunteers who were financially and technically supported by the district directorates of agriculture called DADUs to attend to women farmers extension needs in the districts.

Table 4.14 presents results of the Probit regression model on the factors that influence staff's perception score (dummied as positive or negative) on the functionality and effectiveness of DOA departments. The pseudo  $R^2$  of 0.7577 with P-value of 0.000 indicates that the variation in the respondents' probability of having positive perception is significantly explained by the independent variables. The variables that statistically influence staff's perception were years of schooling and working experience. A year increase in the years of schooling of a respondent increases the perception on the functionality and effectiveness of DOA departments positively by 0.083%. The finding shows that respondents who have higher levels of education are invariably knowledgeable and understand the functionality and effectiveness of DOA departments better than respondents with low levels of educational qualifications.

Also, respondents who have longer years of working experience tend to have positive perception on the functionality and effectiveness of the DOAs under both regimes.

Per the results obtained from the Probit regression, it was indicated that a one year increase in the working experience of a staffer at DOA increases the probability of the respondent to have positive perception by 0.00151% on the functionality and effectiveness of DOA departments than respondents with lower years of working experience at the DOA. The results suggest that staff who have long years of working experience perhaps know more about the nature and progress of DOA over time; therefore, the results have corresponding reflection on the respondents active long years of working at the DOA.

**Table 4.14: Results of Probit Regression on factors that influence staffers’ perception score on the functionality and effectiveness of DOA departments**

<b>Variables</b>	<b>Coefficients</b>	<b>Standard errors</b>	<b>P – Value</b>	<b>Marginal effects</b>
Gender	-0.3144	0.5001	0.529	-0.00098
Age	0.0062	0.0227	0.785	0.00002
Years of Schooling	0.2691**	0.1079	0.013	0.00083
Religion	-0.3684	0.5331	0.489	-0.0011
Marital Status	-0.2182	0.3400	0.521	-0.0006
Working	0.4931***	0.1048	0.000	0.00151
Experience				
Staff role	-0.1688	0.5288	0.749	-0.00048
Constant	-0.7885	1.1279	0.484	

**Model Diagnostics**

Number of observations	= 140
LR Chi2(4)	=117.60
Prob. > Chi2	= 0.0000
Pseudo R <sup>2</sup>	= 0.7577

Variables with \*, \*\* and \*\*\* are statistically significant at 10%, 5% and 1% respectively  
 Dependent variable was dummied as “1 = positive and 0 = negative” perception scores

**Source:** Field data (2017/2018)

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATION

#### 5.1 Summary

This research study is about assessing the functionality and effectiveness of departments of agriculture in the Northern Region under the Local Government Service. Four main issues have been central in this work;

1. Assessment of the resource (human and physical) gaps of the DOAs under the LGS to ensure efficiency of the DOA with respect to resource allocation for effective extension delivery services through improved governance under the new decentralized system.
2. Examining the level and forms of incentives for the DOAs under the decentralized and the centralized systems of governance.
3. Assessment of the priorities given to DOA activities in the LGS planning, in an attempt to
4. Analyse perceptions of staff of DOAs on the functionality and effectiveness of the feedback mechanisms between DOAs and the District Assemblies to improve accountability.

A five point Likert scale, T-test and Probit regression model were employed for the study.

Primary data for the study was obtained by administering semi-structured open-ended questions to 140 staff strategically and purposefully selected from the Departments of Agriculture and district planning and budget units in the Northern Region. Supplementary primary information was obtained from scheduled interviews with the regional head of department of agriculture and district heads of agriculture departments.

Secondary data was collected from published and unpublished works as well as from formal interactions with core appropriate officers of the departments.

The functionality and effectiveness of the departments of agriculture in the northern region under the local government service is a qualitative study of the involvement of the departments of agriculture in the implementation of the local government service law and has been treated in the light of various schools of thought on decentralization and institutional development versus policy development and implementation with respect to the agricultural sector. Among these, comparing actual capacities with the expected capacities in relation to the available resources is assessed based on human and physical resources. This cluster of approaches was also useful for exploring the research questions and discussing some of the shortcomings in policy formulation and implementation for sustainable institutional development.

Additionally, as pertains within Departments of Agriculture in the Northern Region, MMDOA & DOAs aside the huge staff deficit in the region, do not receive the needed resources and logistics to implement planned programmes and activities. Also, the DOAs are being deprived the attention as enshrined in L.I 1961 of the local government instrument, 2009 and are not receiving the recognition from the assemblies who most often treat DOAs as adjunct or subsidiary departments. Staff of DOAs have the perception that administrators and enforcement jurisdictions are deficient in understanding the technicalities and urgencies the DOAs deserve. Staff also perceive weak relationship of DOAs with the regional office which under the centralized system served as conduit for information and technical backstopping as well as capacity building and evaluation. Monitoring and evaluation systems under the LGS is weak and tends to encourage redundancy of staff of DOAs in the region. Additionally, the agricultural sub-committee of the DA is not functioning in majority of the districts.

Most of the district heads of agriculture departments cited decentralization as an opportunity for them to rise to the position of coordinating directors when the vacancy occurs. A cross section of staff also believe, staff promotion under the local government service is a difficult and bureaucratic process.

Finally, with regards to staff development, majority of respondents perceived a poor level of staff development under the LGS compared to the centralized system. Thus, many technical staff are deficient of some contemporary extension technologies and is a consequence for weak extension teachings and a possible reduction in production and productivity levels of farmers.

Respondents who have higher levels of education are invariably knowledgeable with rich expertise of improved technologies and understand the functionality and effectiveness of DOA departments better than respondents with low levels of educational qualifications.

Also, respondents who have longer years of working experience tend to have positive perception on the functionality and effectiveness of the DOAs. Thus, respondents (DDAs and DAOs) who have attained higher educational qualifications indicated weaknesses of the younger staff especially those with lower level of education in extension service delivery. This presupposes that, sooner than later the DOAs in the Northern Region would become deficient of experienced staff through retirement, and this further weakens the DOAs in few years to come. It's therefore suggestive that, staff with long years of working experience tend to know more about the nature and progress of DOA over time.

## 5.2 Conclusions

Beyond the general commentary on the effect of decentralization reform on the Departments of Agriculture in the Northern Region in discharging their mandates it obvious that, for decentralization reform to realize its fullest objective, its implementation process should commensurate the design.

Overall, Departments of Agriculture are not better off yet at this early stage of the LGS system compared to centralized system MoFA. However, there are brighter hopes for the DOAs under the local government service system if their mandates as enshrined in L.I 1961 are followed in the strictest sense.

The following are conclusions of findings from the study;

- 1) Huge staff deficit in the region slowing the execution of DOAs intended mandate under LGS. This is a threat to wider extension coverage to reach more farmers in the region.
- 2) Fewer female extension officers under the LGS system compared to their male counterparts is a disincentive to the involvement of more women into agriculture development and thus; affecting the overall decentralization progress.
- 3) Allocation of resources and logistics to DOAs under the LGS system to implement planned programmes and activities is inadequate and do not justify proper accountability as expected in the L.I 1961.
- 4) DOAs do not receive recognition from the assemblies who most often treat them as adjunct or subsidiary departments and therefore do not foster efficient institutional coordination.

- 5) Decentralization reform makes most staff of DOAs redundant due to limited knowledge of administrators and enforcement jurisdictions on the technicalities and urgencies the DOAs requires. This is as result of weak orientation and bad perceptions for agricultural programmes by these managers, thus; not prioritizing DOAs programmes like they do to other decentralized departments (Health and education) in areas like, provision of office space, ICT equipment and other logistics in the districts who are largely agrarian by nature during their composite budgeting and planning.
- 6) DOAs weak relationship with RDOA has the tendency of further weakening the former's technical abilities and leads to poor self-confidence and increases cost of backstopping from other service providers who often commercialize the services and sometimes fail to deliver to task.
- 7) Poor and weak level of staff development programme deprives technical staff lots of capacity building opportunities and weakens their confidence in the service. The resultant output is mediocre extension delivery and off-course affects the departments' strategic plans development.
- 8) Excessive Bureaucracies with the LGS system towards DOAs from all district assemblies in the region causing undue delay or unexecuted DOAs plans/activities and the consequence is inefficient implementation of DOA programmes and poor agricultural development in the region.
- 9) Weak and poor accountability and feedback checks resulting from poor monitoring and evaluation system is a threat to effective extension delivery and under the LGS.

- 10) No Agriculture sub-committees in seventeen (15) districts to crusade for agricultural development and improve supervision and accountability.
- 11) Cumbersome, bureaucratic and unfair staff promotion process.
- 12) With regards to staff's perception on the functionality and effectiveness of the feedback mechanisms between DOAs and the District Assemblies, findings revealed that staff of DOAs perceive about 25% positively on the functionality and effectiveness of the feedback mechanisms between DOAs and the District Assemblies.
- 13) There is no gender difference in perceptions of staff about functionality and effectiveness of feedback mechanism.

### **5.3 Policy Recommendations**

Based on the findings of the research, the following recommendations are made to improve results of decentralization.

- 1) MLG&RD in collaboration with MoFA need to monitor the extent to which the DOAs are integrated into the decentralization system and recognize DOAs as integral part of the local Assembly: Areas to monitor should include;
  - a) Resource allocation
  - b) Staff promotion and training
  - c) Planning and implementation of programmes and activities
  - d) A working monitoring and accountability system for efficient resource use

These jointly have productive effect on agriculture activities and programmes in the study area and its absence or weakness has a potential consequence to the socio-economic stability of the Northern Region. Therefore, allocating sufficient and timely release of required resources for the DOAs to execute their mandates of offering sustainable food security, give sustainable jobs to the growing population especially the youth, thus; alleviate abject poverty and reduce overwhelmingly the incidence of rural – urban migration and help in the management of structural change in rural communities thereby suppresses social vices.

Also, routine capacity building for all DOAs technical staff and regular promotion to incentivise hardworking staff to plan effectively to improve welfare of farmers and farmer groups. Finally, planned and implemented activities of the DOAs should efficiently be monitored by a proactive DPM&CU unit who though often pay lip service to their responsibilities.

- 2) Proper and strict orientation of ‘district assembly’ staff to convey and sensitize them on the importance of activities.

In getting clear direction of responsibilities of the DOAs requires a non-negotiable recognition from the assemblies towards agriculture programmes and activities and provide them with the needed forms of support to function well.

Agricultural activities and programmes are time bound and refusal or delay to provide their technical and administrative needs can be a threat to food security and sustainable health care.

- 3) Appropriate laid down documented steps to strengthen and make functional the inter-relationship between the DOAs and RDOA and between the DOAs and the District

Assembly is a necessary condition for a strong technical backstopping and accountability.

The existence of the RDOA is to provide the ultimate technical supervision and backstopping to the DOAs in discharge of their mandates in achieving the districts overall objectives.

Therefore, regular interactions between the DOAs and the RDOA and provision of training manuals and brochures is necessary to help to evaluate performance and provide the necessary technical directions for the technical staff of the DOAs for effective extension delivery.

Likewise the DAs, they have supervisory and advisory role to give appropriate directions to the DOAs that will ensure responsibility and accountability for resource use.

- 4) The LGS should ensure the formation of functional Agriculture sub- committees in all districts in their working documents.

The operations of working Agriculture sub-committee in all district assemblies to crusade for support for DOAs and also augment the implementation of their activities and government flagship programmes would provide a tremendous platform for effective supervision and accountability.

- 5) Staff development programmes should be developed by the DOAs and LGS for capacity building programmes.

Working jointly for the development of the technical capacities of the DOAs can provide a comprehensive direction in resource use by ensuring value for money and accountability, and the larger reform will be successful.

The usual divide between political and technical positions of decentralised governance is a

potential threat to the success of implementation process.

#### **5.4 Suggestions for Future Research**

For the purposes of independence, future research on assessing the effectiveness and functionality of the Departments of Agriculture under the Local Government Service should examine whether the implementation of the decentralization reform follows the design. For the purposes of institutional performance and co-ordination, further research should examine the effects of the DOAs on other decentralized departments like health and educations in achieving their objectives.

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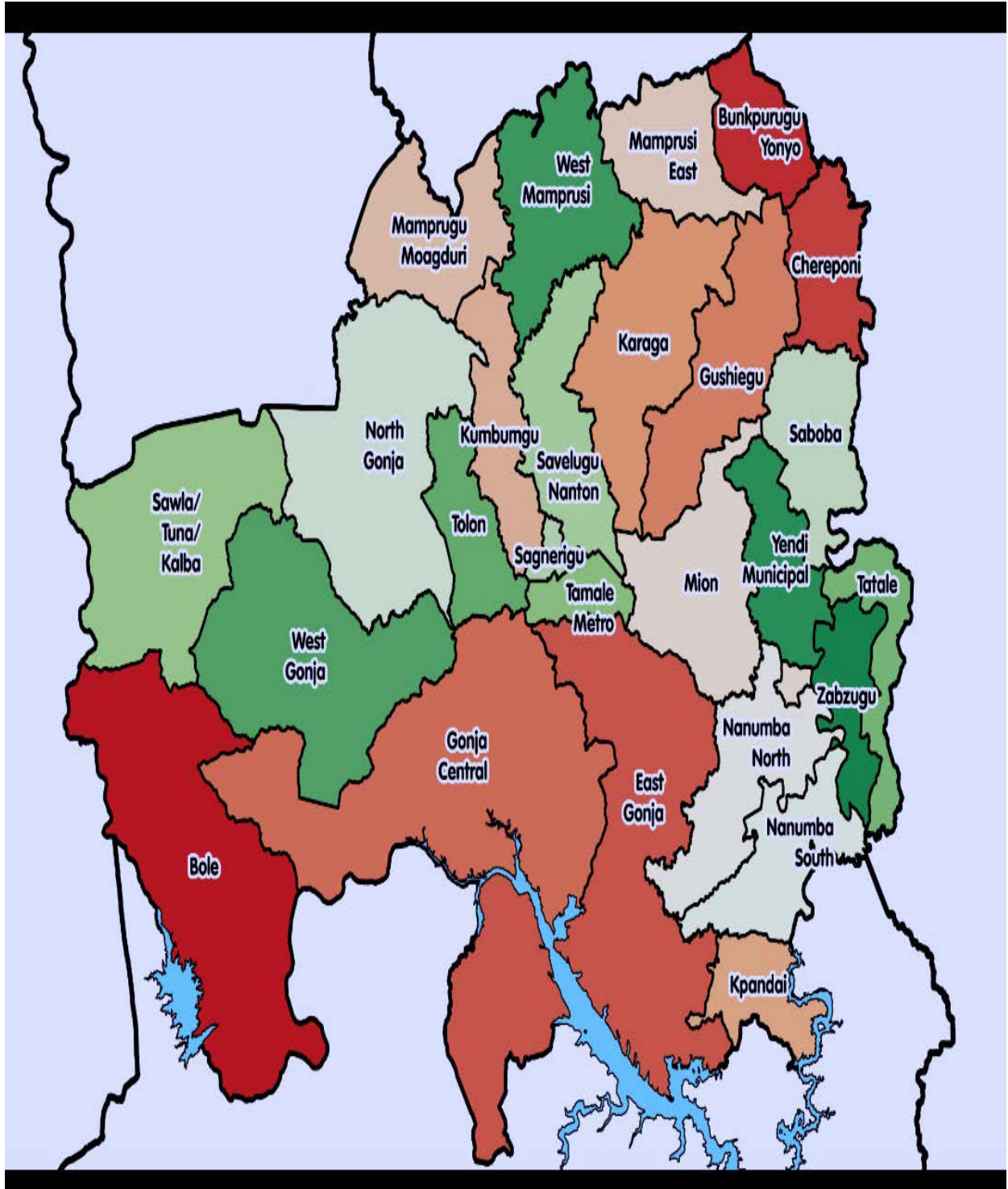
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Appendix 1: Map of the study Area



## **Appendix 2: Questionnaire**

### **Title**

**Assessing the effectiveness and functionality of the departments of agriculture in northern region under the local government service**

### **Informed Consent**

Dear respondent, you have been purposively selected in this survey. For a successful survey, kindly permit me to take 30 to 60 minutes of your time. Any information you will share with me will be treated as anonymous and will not be associated to your name in my work or during my interview with other people.

My contact address and number:

Jawula Abdulai Tahiru

[ajawula56@gmail.com](mailto:ajawula56@gmail.com)

0243624482/0203303183

Date of interview:.....Interviewer:.....

Questionnaire code:.....District.....

**A.SOCIO-DEMOGRAPHIC CHARATERISTICS OF RESPONDENT**

Name of personnel.....Contact Number.....

Age of personnel..... years Sex of Personnel: 1 = Male 2 = Female

Position/Designation .....

Operational Area..... Years in service.....

Highest academic qualification.....

Academic qualification at time of appointment.....

Number of years with MOFA .....

Number of years at the current position.....

**A. ASSESSING THE RESOURCE (HUMAN AND PHYSICAL) GAPS OF THE DOAs UNDER THE LGS. EFFICIENCY OF THE DOA WITH RESPECT TO RESOURCE ALLOCATION FOR EFFECTIVE EXTENSION DELIVERY SERVICES THROUGH IMPROVED GOVERNANCE UNDER THE NEW DECENTRALIZED SYSTEM**

**Please tick and respond appropriately the following questions on the assessment of resource gaps of the DOA under the LGS.**

**I. Human Resource Gap**

a. How many functional units do you have in your jurisdiction under the LGS? ( ) Please tick appropriately; Extension Unit. ( ) Crops unit. ( ) Livestock unit. ( ) Engineering Unit. ( ) WIAD Unit. ( ) Veterinary unit. ( ) PPRSD. ( ) Others ( ) .....

b. How many functional units did you have under the centralized system (MoFA)? ( ) Please mention them: Extension Unit. ( ) Crops unit. ( ) Livestock unit. ( ) Engineering Unit. ( ) WIAD Unit. ( ) Veterinary unit. ( ) PPRSD. ( ) Others ( ) .....

c. How many functional units do you need to implement your mandate? ( )

Please mention them:

.....  
.....  
.....  
.....  
.....

**d. Operational Area statistics**

Number of Operational Areas	Number of Operational areas with extension officers under		Number of operational areas without extension officers under		Percentage change (LGS/MoFA)
	LGS	MoFA	MoFA	LGS	

**e. What is the highest educational qualification for each of staff category below?**

Category	Middle School	Certificate	Diploma	Bachelor	Masters & Above
AEA					
DAO					
MMDOA					

**f. What is the highest educational qualification desired for appointment of each of the staff category below? Please tick appropriately**

Category	Middle School	Certificate	Diploma	Bachelor	Masters & Above
AEA					
DAO					
MMDOA					

**g. How many forms of training programmes by category have you received? Please give examples;**

.....  
 .....

**Types of training received. Hint:(1) Internal (2)External**

Staff Category	Type of training under		Frequency		Number	
	LGS	MoFA	LGS	MoFA	LGS	MoFA
AEA						
DAO						
MMDOA						

- h. How many forms of training programmes for all staff category is required/received per quarter and year?

Staff Category	Forms of training programmes in a quarter				Forms of training in a year			
	<i>Required</i>		<i>Received</i>		<i>Required</i>		<i>Received</i>	
	LGS	MoFA	LGS	MoFA	LGS	MoFA	LGS	MoFA
AEA								
DAO								
MMDOA								

**II. PHYSICAL RESOURCE GAP**

- a. Do you have office accommodation? Yes.( )
- b. If yes, Permanent ( ) or Temporary( ) No.( ), Owned( )? Or Rented ( )?
- c. Do you have office space for all the units?1.Yes 2.No (If yes list the units with office space):

1.....

2.....



If yes, what was the frequency? Sufficient & Regular( ). Partly sufficient & Irregular ( )  
Partly sufficient &Regular. ( ) Insufficient &Irregular.( ) Insufficient but Regular.( )

**B. EXAMINING THE LEVEL AND FORMS OF INCENTIVES FOR THE DOAS UNDER THE DECENTRALIZED AND THE CENTRALIZED SYSTEMS OF GOVERNANCE. IS THE LEVEL OF PRIORITY GIVEN TO AGRICULTURALPROGRAMMES?**

a. Are there opportunities for academic progression for DOA staff under the LGS?  
Yes. ( ) No. ( ) If yes please indicate the conditions and process to merit it;

.....  
.....  
.....  
.....

b. Are there improved forms of opportunities for staff promotion procedure or trends under the LGS compared to MoFA? Yes.( ) No.( ) If yes what are the procedures and trends?

.....  
.....  
.....  
.....  
.....  
.....

Please indicate below (Tick) how much you agree or disagree with each of the following statements on level and forms of incentives for DOA under the LGS and MoFA

STATEMENT	STRONGLY AGREE 1	AGREE 2	NEUTRAL 3	DISAGREE 4	STRONGLY DISAGREE 5
Under the LGS, head of the DOA (DDA) have the opportunity to rise to become District Coordinating Director when qualified and vacancy available than it was with MoFA					
The chance for promotion of all category of DOA staff is better under the LGS than it was with MoFA					
Under the LGS, there are better opportunities for academic progression of DOA staff than it was with MoFA					
Staff of the DOA receive better remunerations under the LGS than they did under MoFA					

### C. ASSESSMENT OF PRIORITIZATION OF DOA ACTIVITIES IN THE LGS

#### PLANNING

- a. Please indicate below (Tick) how much you agree or disagree with each of the following statements on assessment of prioritization given to agriculture programmes and activities

STATEMENTS	STRONGY AGREE 1	AGREE 2	NEUTRAL 3	DISAGREE 4	STRONGLY DISAGREE 5

DOA programmes and activities under the LGS are able to compete with the priorities of other decentralized departments and received funding from the Assembly and other donor partner to execute their mandates					
The DOA receives feedback from the DA on information/reports shared under the LGS					
The DA always has representation at DOA meetings and functions when invited					
There is a functional and capable Agriculture sub-committee in place to support the DOA achieve its mandate in the District under LGS than it was under MoFA					

**b.** How many DOA programmes/activities under the LGS are placed among the topmost five (5) approved and funded programmes of the District Assembly?

( ) Enumerate them;

.....  
 .....

**c.** On average, how many of the District Assembly representation under the LGS attend DOA programmes or functions in a year when invited? ( )

d. What are the selection criteria for membership of the Agriculture sub-committee in the district?

.....  
.....  
.....  
.....

e. Who are members of the Agriculture sub-committee in the district? List them

.....  
.....  
.....  
.....

f. How many of the District Assembly core staff are members of the Agriculture sub-committee in the District? (      )

g. What have been some of the core initiatives or efforts of the Agriculture sub-committee in support of DOA to achieve its stated mandate? Mention them please;

.....

a. **PERCEPTIONS OF STAFF ON THE FUNCTIONALITY AND EFFECTIVENESS OF THE FEEDBACK MECHANISMS BETWEEN DOAS AND THE DISTRICT ASSEMBLIES TO IMPROVE ACCOUNTABILITY UNDER THE LOCAL GOVERNANCESERVICE**

a. What is the state of feedback mechanism between the DA and the DOA under the LGS?

1. Very effective & functional (   ) 2. Weak (   ) 3. Very weak. (   )

- b. Do you still attend cost centre managers' meetings under the LGS? 1.Yes ( ) 2.No ( )
- c. If yes, what is the frequency? 1. Once every quarter 2. Once every mid-year  
3. Once /year

**Please indicate (Tick) Yes or No to the accountability and feedback mechanisms for the functionality and effectiveness of the DOA under the local government service.**

Types of reports	Local Government Service		Ministry of Food & Agriculture	
	Yes	No	Yes	No
Does the DOA write and submit M & E reports to the				
1. DA?				
2. RADU?				
Does the DOA write and submit MDA performance reports to the				
1. DA?				
2. RADU?				
Does the DOA write and submit market reports to the				
1. DA?				
2. RADU?				
Does the DOA write and submit quarterly reports to the				
3. DA?				
4. RADU?				

Does the DOA write and submit Mid-year reports to the				
1. DA				
2. RADU?				
Does the DOA write and submit Annual reports to the				
1. DA				
2. RADU?				

- a. What is the technical capacity of DOA to produce the above reports under the LGS compared to MoFA? 1. Sufficient and more capable 2. Weaker 3. Less sufficient and incapable
- b. What is the material resource capacity of DOA to produce the above reports under the LGS compared to MoFA? 1. Sufficient and capable 2. Weak 3. Insufficient and incapable
- c. What support do DOAs need to produce such reports?  
 1.....2.....3.....4.....

**d. Feedback check**

Types of feedback	Local Government Service		Ministry of Food & Agriculture	
	Yes	No	Yes	No
Does the DOA receive feedback from the M & E reports shared with				
1. DA?				
2. RADU?				

Does the DOA receive feedback from the MDA performance reports shared with				
5. DA?				
6. RADU?				
Does the DOA receive feedback from the market reports shared with				
1. DA?				
2. RADU?				
Does the DOA receive feedback from the Mid-year reports shared with				
1. DA				
2. RADU?				
Does the DOA receive feedback from the annual reports shared with				
1. DA				
2. RADU?				

e. Does the District Assembly follow-up on their feedback as accountability check of DOAs programmes and activities? 1.Yes( ) No. ( )

f. If yes, what is the frequency? 1. Monthly Situational. Enumerate areas of follow-up

.....

.....

.....

g. What is the state of monitoring and evaluation system for DOA programmes and

activities under the LGS? 1. Very effective and regular 2. Weak 3. Ineffective and irregular.

**Appendix 3**

**STATA Results of the Probit Regression Model**

```

Probit regression                Number of      = = 140
                                obs
                                LR chi 2(7)    = =
                                117.60
                                Prob > chi2      = = 0.0000
Log likelihood= -18.807433      Pseudo R2      = = 0.7577
    
```

Perception	Coef.	Std.Err.	z	P> z	[95% Conf. Interval]
Gender	-.3144945	.5001394	-0.63	.529	-1.29475 .6657608
Age	.0061916	.0227143	0.27	.785	-.0383275 .0507108
YrsEducation	-.2691298	.1079599	2.49	.013	-.4807274 -.0575322
Religion	-.3684944	.5330746	0.69	.489	-1.413301 .6763125
Maritals	-.218222	.3400677	0.64	.521	-.8847423 .4482984
Experience	.4930715	.1048518	4.70	.000	.2875658 .6985772
StafferRole	-.1688863	.5288104	-0.32	.749	-1.205336 .867563
_cons	-.7884989	1.127901	-0.70	.484	-2.999145 1.422147

Marginal effects after probit

$$y = \text{Pr}(\text{Perception}) (\text{predict})$$

$$= .99909606$$

variable	dy/dx	Std. Err.	z	P> z	[ 95% C.I.]	X
Gender*	-.0009862	.00243	-0.41	0.685	-.005747 .003774	.514286
Age	.000019	.00008	0.25	0.805	-.000132 .00017	43.0143
YrsEdu~n	-.0008259	.00153	-0.54	0.588	-.003818 .002166	6.92143
Religion	-.0011308	.00287	-0.39	0.694	-.006759 .004498	1.37143
Marital	-.0006697	.00167	-0.40	0.689	-.00395 .00261	2.07143
Experi~e	.0015131	.00285	0.53	0.596	-.004078 .007104	13.6571
Staffe~e*	-.0004838	.00165	-0.29	0.769	-.003717 .002749	.65

(\*)dy/dx is for discrete change of dummy variable from 0 to 1