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Pluralistic Extension System in Malawi

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ABSTRACT

This descriptive study was undertaken in order to assess the status of extension services in Malawi 10 years after implementation of the pluralistic and demand-driven extension policy. The findings would help practitioners and policy makers in their efforts to strengthen the extension system and enable it to serve the smallholder farmers more effectively. A worldwide extension assessment mail-out questionnaire was administered to 37 agricultural extension service providers to collect quantitative data on primary organizational goals, functions, and resources, and the linkages of different extension organizations within an agricultural innovation systems framework.

The findings indicate that there were many players in agricultural extension service delivery as a result of the pluralistic policy but the government extension service remained the largest in terms of staffing and spread. The primary focus for most organizations was to help smallholder farmers improve their livelihoods with special efforts to target women. Government extension service was characterized by limited resources, but many field staff with low qualifications. Most of the other extension organizations had limited staff concentrated at higher levels with no grassroots staff thereby depending on government extension staff to reach farmers. Strong institutional linkages existed at district levels and local agencies as well as with non-governmental organizations but there were weak linkages with education and research institutions. Among others, the study calls for more investments in the government extension system while strengthening coordination with the civil society organizations to effectively serve the needs of smallholder farmers in Malawi.

Keywords: agricultural extension service, extension organization, Malawi, pluralistic extension policy, smallholder farmers

ABBREVIATIONS AND ACRONYMS

ACE	Agriculture Commodity Exchange
ADD	agricultural development division
ADMARC	Agricultural Development and Marketing Corporation
AEDC	agricultural extension development coordinator
AEDO	agricultural extension development officer
AIDS	acquired immunodeficiency syndrome
ARET	Agricultural Research and Extension Trust
BES	block extension system
CADECOM	Catholic Development Commission of Malawi
CAETS	controller of agricultural extension and technical services
CAIP	controller of agriculture investment programmes
CARD	Churches Action in Relief and Development
CCAP	Church of Central Africa Presbyterian
COYIDA	Community Youth in Development Activities
DADO	district agricultural development officer
DAECC	District Agricultural Extension Coordinating Committee
DAES	Department of Agricultural Extension Services
DAESS	District Agricultural Extension Services System
DAHL	Department of Animal Health and Livestock
DAPP	Development Aid from People to People
DARS	Department of Agricultural Research Services
DCD	Department of Crop Development
DLRM	Department of Land Resources Management
DP	Department of Planning
EPA	extension planning area
FAO	Food and Agriculture Organization of the United Nations
FBO	farmer-based organization
FFS	farmer field school
FUM	Farmers Union of Malawi
HIV	human immunodeficiency virus
ICT	information and communication technology
MDFA	Mpoto Dairy Farming Association
MoA	Ministry of Agriculture
MoAFS	Ministry of Agriculture and Food Security
MoAI	Ministry of Agriculture and Irrigation
MRFC	Malawi Rural Finance Company
MZCPCU	Mzuzu Coffee Planters Cooperative Union
NASFAM	National Smallholder Farmers Association of Malawi
NGO	nongovernmental organization
NRDP	National Rural Development Programme
OFD	on-farm demonstration
PRA	participatory rural appraisal
RDP	rural development project
SHFS	smallholder food security
SHMPA	Shire Highlands Milk Producers Association
SMS	subject matter specialist
SRGDI	Sustainable Rural Growth and Development Initiative
SSLPP	Small Scale Livestock Production Program
WACRAD	World Alive Commission for Relief and Development

1. INTRODUCTION

Malawi made a major revision to its agricultural extension approach at the turn of the new millennium by introducing a policy that promoted pluralistic and demand-driven extension systems, in line with the decentralization policy of the country. The policy document, which is titled "Agricultural Extension in the New Millennium: Towards Pluralistic and Demand-Driven Services in Malawi," was launched in 2000. It was introduced in order to create an environment in which extension services would be able to respond effectively to challenges such as the democratization process itself, market liberalization, HIV and AIDS, decentralization, shrinking public resources, and public-sector reforms, as well as others that came along with the introduction of a multiparty system of government.

The introduction of the new agricultural extension policy resulted in some changes in the way extension services are provided in the country. One of the changes is that the policy allowed the participation of other service providers apart from the government. Since the colonial period, agricultural extension service provision had mainly been the responsibility of the government, through the Department of Agricultural Extension Services (DAES). Other initiatives implemented soon after independence by the government included the establishment of the Malawi Young Pioneers Training Bases for training rural youth in various agricultural skills and providing related knowledge, and the establishment of smallholder farmer crop authorities for coffee, tea, and tobacco, as well as special agricultural development projects.

This government monopoly started changing in the late 1980s to early 1990s when some nongovernmental organizations (NGOs) started offering agricultural extension services to smallholder farmers in their areas of operation. This situation was most common in areas and districts where Malawi shares common boundaries with Mozambique. These districts had an influx of Mozambican refugees at the peak of the Mozambican war, which attracted the activities of NGOs, especially those engaged in relief activities in support of the refugees. The influx of these refugees created so much pressure on the Malawian communities that most of them ended up being entrenched in more serious poverty, while the land on which they settled was very heavily degraded. The NGOs therefore had to transform themselves from relief to development organizations when the refugees were being repatriated back into Mozambique at the end of the war.

This was the major development that led to the involvement of NGOs in the provision of agricultural extension. The new policy in a way legitimized this development, and currently there are a number of NGOs operating and providing extension services in the country. In addition to the NGOs, there are several private-sector organizations as well as farmer organizations that are also engaged in extension service provision.

Study Objectives

This study was aimed at assessing the status of extension services in Malawi 10 years after implementation of the pluralistic and demand-driven extension policy in order to identify key factors that could help strengthen the extension system and enable it to serve the smallholder farmers more effectively. The following were the specific objectives:

- To identify the major extension organizations that provide different types of extension services to smallholder farmers
- To identify the basic features of each type of extension organization
- To assess the quantity and quality of human resources in these extension organizations
- To determine the source, allocation, and sustainability of financial resources in the extension organizations
- To assess the clientele being served and the extension methods used
- To assess institutional linkages within the agricultural extension system
- To identify key factors for strengthening the pluralistic extension system that could help improve the livelihoods of smallholder farmers

Methodology

A rapid reconnaissance and assessment study was carried out of the major organizations that provide agricultural extension services to smallholder farmers in Malawi. This study was part of a Worldwide Agricultural Extension and Advisory Service Study for the International Food Policy Research Institute coordinated by Dr. Burton Swanson. A total of 37 extension organizations were included in the study.

The study began with a literature review covering the agricultural extension system in Malawi. Then a worldwide extension assessment mail-out questionnaire was administered to collect quantitative data on primary organizational goals, functions, and resources, and the linkages of different extension organizations within an agricultural innovation systems framework. This was followed by a face-to-face interview with a representative of each organization, using an interview guide that collected qualitative data focusing on the status quo of the organization in terms of its primary goals, functions, and extension approach, linkages between research and extension systems, coordination of agricultural service delivery, extension dissemination methods, and key institutional constraints experienced. Copies of the questionnaire and interview guide are included in Appendix A.

The data were collected between April and September 2010. They were later analyzed using descriptive analysis such as means and percentages. This report first presents a description of the agricultural extension system in Malawi, its background, and how it has evolved to become a pluralistic and demand-driven extension system. Later, the results of the study are presented and conclusions made.

2. BACKGROUND ON MALAWI'S AGRICULTURAL SECTOR AND EVOLUTION OF ITS EXTENSION POLICY

This section describes how the agricultural sector in Malawi developed, as well as how the agricultural extension policy was developed, to help us understand the agricultural sector and the extension policy as it is today.

Historical Development of Malawi's Agricultural Sector

The historical development of the agricultural sector in Malawi cannot be fully understood without tracing the land question from the colonial period. The colonial system of government started with the establishment of a Nyasaland Protectorate by the British government in 1891, with a centralized unitary state system that replaced the autonomous kingdoms and chiefdoms that existed in the precolonial period (Kaunda 1992). Agriculture formed the economic base of the colonial state when the colonial settlers established estates, especially in the Shire Highlands of southern Malawi. According to Kaunda (1992), Malawi, which was then known as Nyasaland, suffered from epidemics, droughts, and locust plagues in the 1890s, just like other countries in the southern and central African region. These crises, according to the colonial government, were worsened by the shifting cultivation practiced by African farmers. Nyasaland was therefore considered a territory with less potential for economic development.

This situation was used as a justification for introducing radical changes to some agricultural policies and for the creation of a political and legal system with far-reaching consequences for the African smallholder farmer. These changes included a land appropriation bill, forced taxation, and the use of military campaigns to force compliance. This gave the colonial settlers the opportunity to expropriate land from the African smallholder farmers, while pressure to pay taxes forced the Africans to seek wage employment or migrate to other countries in search of employment. Those who sought wage employment in the country ended up mostly serving as a source of labor for estates that belonged to white settlers. The land that was expropriated from the Africans was put under either freehold or long-term leasehold land tenure arrangements. Mkandawire (1992) has illustrated the land expropriation process in more detail, as described in Box 1. The land expropriations resulted in large chunks of land being alienated into freehold and leasehold arrangements. Pachai (1973) stated that by 1930, an estimated 78,329 hectares of land were under freehold, while 47,977 hectares were under leasehold arrangements.

The Africans who remained on the land practiced smallholder subsistence farming, creating a dualistic agricultural sector composed of the large estate subsector and the smallholder subsistence subsector. The smallholders mostly worked on very small landholdings, especially in the southern region, where most of their land was expropriated by the Europeans. Scarcity of land was a major issue, which in many cases resulted in conflicts between the European estate owners and smallholder encroachers. As a solution to these conflicts, a tenancy agreement was established whereby smallholders had to supply labor to the estates in exchange for small plots of land, and this system was popularly known in the local language as *thangata*, meaning *to assist*.

Emphasis on agricultural development in the colonial period was obviously on the estate subsector, which was considered to have significant potential for growth. The policies that the colonial government put in place were aimed at promoting production in the large-scale estate subsector. The taxation policy, for example, was implemented partly to serve as a motivation for the Africans to seek employment in the estate subsector. Gann (1958) observed that in the colonial period, the taxation question was closely linked to the labor question. The need to earn money to pay taxes was the most important incentive to induce the Africans to seek paid employment on the estates. Mkandawire (1992) noted that the colonial authorities offered various incentives to the Africans in order to ensure that there was a continued flow of labor into the estates. The authorities allowed employers to pay taxes for the Africans who were employed on their estates, while the Africans who hired themselves to the Europeans for at least one month were allowed a 50 percent tax rebate. Those who failed to pay the tax and were not able to produce evidence that they had worked for at least one month in the European estate sector had to pay double taxes.

Agricultural Extension Policy in the Colonial Era

Efforts to promote smallholder agriculture became important only when there was a need to produce raw materials for European industries. With industrialization in Europe, the demand for raw materials such as cotton increased, and this motivated the colonial government to introduce an agricultural extension system, which was first recorded in 1903. The agricultural extension system started with the distribution of free cottonseed through the British Cotton Growers Association to African farmers who were willing to try to grow the crop. Instructors known as *traveling agents* were dispatched to teach the cultural practices associated with cotton production (Dequin 1970). The farmers responded very well to the extension efforts, despite the fact that they were not offered adequate support resources such as credit and markets and were often left unprotected from unscrupulous profiteers (Mkandawire 1987).

In an effort to modernize agriculture, the colonial government found it necessary to force African farmers to increase their productivity. The government enacted a natural resources ordinance that legalized the use of force in compelling the Africans to follow certain prescribed farming practices such as early land preparation and planting, correct spacing, and uprooting of old stalks by certain dates after harvesting. Violators of these measures were either fined or made to serve short-term prison sentences (Kettlewell 1965; Dequin 1970). These regulatory measures were further enforced in the 1950s, after the 1948 famine, which the colonial authorities partly attributed to the weaknesses of the traditional African farming practices (Kettlewell 1965). Extension workers saw their role as that of enforcing agricultural regulations rather than advising farmers. This created great animosity between the extension workers and the African farmers, to the extent that farmers would run away from their villages whenever they spotted the extension workers. Others tried to buy favors from the extension workers by giving them gifts, such as chickens and eggs.

This extension system was supplemented later in the 1950s by the master farmer system of extension. The master farmer system was an attempt to introduce a more educative and persuasive extension approach. This involved the selection and concentration of resources on a group of farmers who were considered to be progressive. These were called master farmers, and they were provided access to loans and given permission to grow certain crops such as tobacco, coffee, and tea. They received more friendly visits from extension agents, in contrast to the other African farmers (Chanock 1972). Extension to the master farmers was supplemented with printed materials. Despite the persuasive approach accorded to the master farmers, the rest of the African farmers suffered from an extension system whose primary role continued to be that of enforcing agricultural regulations. This created conflicts between the African farmers and the extension agents, and these conflicts were later fuelled by nationalist movements for independence. The nationalist leaders actually encouraged the African farmers to openly disobey and strike against the agricultural extension workers. This movement led to the repeal of all agricultural legislation when Malawi attained independence in 1964 (Mkandawire 1987).

Agricultural Extension Policy after Independence

The agricultural extension policy changed drastically with the attainment of independence, from a regulatory system to a more educative and persuasive system. The Department of Agriculture was directed to abandon all regulatory practices (Bradfield 1966). The emphasis, however, was still on increasing the production of cash crops, especially export-oriented crops such as cotton, tobacco, and groundnuts. This was contrary to the needs of smaller farmers, whose main concern was producing enough food for their own subsistence needs. The main extension approach used was individual extension supported by mass media approaches such as radio programs, puppet shows, and farmers' magazines (Masangano 1989). The individual approach had the major weakness of low coverage. Alongside these extension efforts was the promotion of the progressive farmer system, whereby farmers who were deemed

to be progressive were accorded the prestigious title of *mchikumbe*[1] number 2s. Just like the master farmers of the colonial period, these progressive farmers were given preferential support by extension.

The low coverage associated with the individual approach and the emphasis on cash and export-oriented crops were considered to be major weaknesses of the extension system, and group approaches were therefore introduced, with a major emphasis on food crop production. This policy shift started with a number of initiatives, including the introduction of the Malawi Young Pioneer Training Bases, the introduction of smallholder crop authorities, the establishment of special projects, the establishment of the National Rural Development Programme, and the introduction of the block extension system (BES).

The Malawi Young Pioneer Training Bases

The Malawi Young Pioneer Training Bases were aimed at training rural youth in various agricultural production techniques, with a view to encouraging them to go into productive farming and act as role models from whom other farmers could learn.

Smallholder Farmer Crop Authorities

Another initiative was the introduction of smallholder farmer crop authorities in areas that were considered suitable for specific crops. These commodity-based extension systems included the Smallholder Coffee Authority, the Smallholder Tea Authority, and the Kasungu Flue Cured Tobacco Authority, as well as the Smallholder Sugar Authority in Dwangwa and Nchalo. They were aimed at promoting the production of specific crop commodities, and they provided extension services mostly based on group approaches. Most of the commodity-based systems still exist, and the extension systems being used are based on group approaches.

Special Projects

Malawi, with support from a number of donors, implemented four special projects: Lilongwe Land Development Programme, Salima Lakeshore Project, Karonga/Chitipa Rural Development Project, and Chikwawa Cotton Development Project. The main objective of these projects was to promote agricultural development in an integrated manner. Extension services were provided in these projects using group approaches through farmers clubs. The same clubs were also used as vehicles for providing credit to farmers. The benefits generated from these projects created political pressure from outside areas. People from other areas argued that they needed development to spread to their areas as well. With this pressure, the government decided to introduce the National Rural Development Programme.

The National Rural Development Programme

The need to respond to political pressure to ensure that development spread to all areas of the country influenced the government's decision to introduce the National Rural Development Programme (NRDP). Under this program, Malawi was subdivided into eight agricultural development divisions (ADDs), and each ADD was subdivided into rural development projects (RDPs). In total, the country was subdivided into 30 RDPs, and these RDPs were further subdivided into a total of 173 extension planning areas (EPAs). Each of these RDPs was a discrete project that was funded for at least one project phase. Some of the RDPs were funded for several phases, depending on their specific needs and characteristics. The EPA was defined as the lowest planning level. Each EPA had a number of field extension workers, and these extension workers were required to work with farmers in their areas of operation, mostly in groups such as farmers clubs.

[1] The term *mchikumbe* means farmer in Chichewa (the local language). The state president then used to refer to himself as *Mchikumbe* number 1, and any farmer who was progressive was being accorded the title *Mchikumbe* number 2 as a way of encouraging farmers to have a competitive spirit and to continue to work hard in their farming.

The Block Extension System (BES)

The National Rural Development Programme was further strengthened by the introduction of the training and visit system of extension in 1981. In Malawi the system was referred to as the block extension system. The system required that the field extension worker subdivide his or her section (working area) to eight subsections, which were called blocks. Each block had a block center where all extension activities took place. The extension worker was supposed to visit and work with farmers in each of these blocks at least once every fortnight. This visitation schedule meant that the extension worker had two days for planning and doing other duties in each fortnight. At the time the system was being implemented, Malawi aimed at an extension worker–to–farmer ratio in the range of 1:750 to 1:850. With this kind of ratio, it was expected that every time the extension worker visited a block, he or she should meet with an average of 100 farmers, but this was not the case.

Studies show that the extension workers worked in most cases with fewer than 30 farmers, and the farmers who attended such extension activities were mostly larger and resource-rich farmers, while the resource-poor were left unattended to (Carr 1988; Mkandawire and Chipande 1988; Quinn et al. 1988). Efforts to increase coverage were made by introducing the concept of on-farm demonstrations (OFDs) on contact farmers' farms. In addition to meeting farmers at block centers, the extension workers were supposed to organize at least five OFDs in each block and meet farmers at such OFDs. This meant that when an extension worker visited a block, after his or her activities at the block center, the worker was supposed to visit all the OFDs. Assuming he or she was able to meet at least five farmers at each OFD, it would mean the extension worker had increased his or her contact with farmers to 55 percent. Despite all these efforts, the low-resource farmers were still not adequately covered by extension.

One major problem associated with this system was that to reach the required extension-to-farmer ratio required recruitment of many extension staff, and the system became too expensive to sustain. The Malawi government could not sustain the extension system on its own. Actually, the system worked only when it received heavy financial support from the World Bank, the originator and promoter of the training and visit system. Another problem with the system was its rigidity, in that it required fortnightly visitation schedules and fortnightly training sessions, as well as monthly research and extension workshops. These were in most cases not workable due to various unplanned activities such as funerals and other social events. A third major problem was that the system used top-down approaches that were heavily criticized by proponents of participatory and bottom-up approaches.

3. INTRODUCTION OF MULTIPARTY POLITICS IN MALAWI

Malawi briefly followed a multiparty system of government when it obtained its independence in 1964. This was, however, very short lived because the Malawi Congress Party, which was in power then, never tolerated any opposing views. This suffocated all efforts to maintain plural governance systems, and the country very quickly slid into one-party totalitarian rule. The multiparty system of government was reintroduced through a referendum in 1993, when there was a general move toward the introduction of multiparty democracies in Africa.

Extension Challenges

The multiparty system came along with several other freedoms, such as freedom of choice, freedom of speech, and freedom of association. These freedoms created some major challenges to the way extension services were being provided in the country. Some of the challenges are listed in the new agricultural extension policy (Malawi, MoAI[2] 2000), and they include the following:

- Democratization process
- Market liberalization
- HIV and AIDS crisis
- Decentralization
- Shrinking public-sector resources
- Problems of coordination

Democratization Process

One of the effects of the democratization process was the creation of an open society in which people began to be proactive in demanding services from the public sector. The extension system, however, was using a top-down approach in which programs and recommendations were decided by researchers and policymakers from above, and these recommendations were simply handed over to farmers. This was in conflict with democratic principles, and there was a need to introduce an extension system that was based on democratic principles and practices.

Market Liberalization

One of the issues under the structural adjustment programs of the mid-1980s to the early 1990s was the promotion of market liberalization. Malawi, as one of the countries that relied heavily on financial support from the World Bank and the International Monetary Fund, had to liberalize most of its economic activities. One impact of this liberalization was the emergence of new players on the market, providing market opportunities for a diversity of products. Farmers have since then had a wider choice of what crops and livestock products to produce and sell on the market, but in order to do this they need new skills in production, farm management, and marketing. These opportunities present a new set of challenges to extension service providers. Extension services need to be more specialized and diverse if they are to provide the right services for farmers to benefit.

[2] The Ministry of Agriculture has changed names a number of times, and, depending on the year of reference, the name will vary accordingly; other names include the Ministry of Agriculture and Food Security and the Ministry of Agriculture and Irrigation.

HIV and AIDS Crisis

The HIV and AIDS pandemic has brought a different set of challenges to the agricultural sector in general and to extension services more specifically. The pandemic has in many cases led to the loss of the most economically productive members of families, the emergence of child-headed households and households headed by the elderly who are not able to support themselves, and increased absenteeism due to frequent sickness and funerals, resulting in low agricultural productivity. Extension needs to integrate its messages with HIV and AIDS mitigation and adaptation messages. Extension staff members have also not been spared by the pandemic, and this has led to loss of staff time through sickness as well as through death, and hence serious shortages of staff, resulting in poor service delivery.

Decentralization

The Malawi government introduced a decentralization policy, which was approved by the cabinet in 1998, and alongside it the Local Government Act was passed in the same year (Malawi, Decentralization Secretariat 1998). Both the policy and the act devolved power to district levels in order to promote increased effectiveness of interventions. Decentralization of services to the district levels allowed for decision making at the lowest levels. This provided the opportunity to bring control of the extension services closer to the people at the local level. The challenge, however, was how to ensure adequate human capacity with the limited numbers of extension staff in the country.

Shrinkage of Public-Sector Resources

Financial and human resources for extension have been shrinking for various reasons in Malawi. With this challenge, the Malawi government introduced a public-sector reform process that involved downsizing and streamlining public-sector organizations under the assumption that lean organizations are more efficient. This exercise also affected the government agricultural extension services. It has therefore been difficult for the public sector to continue providing quality extension services to local communities. In response to this limitation, extension services must become more efficient and accountable to their clients. Second, pluralistic extension services need to be promoted so as to widen the resource base and thereby ensure the provision of quality services to farmers.

Coordination

The number of extension service providers has increased since the early 1990s. These service providers are of different types and backgrounds and in most cases pursuing different purposes and objectives. They include private-sector organizations, such as companies that supply farm inputs to farmers, and their objectives are purely to serve their private interests; farmer organizations, which are basically interested in promoting the production and marketing of their products for the purposes of profit maximization; NGOs, which in most cases pursue altruistic interests; and public-sector organizations interested in serving public interests. The diversity of these organizations' origins, interests, and objectives tends also to relate to the diversity in their approaches to service provision. This diversity tends to present major challenges in the coordination of service provision.

The New Extension Policy

In response to these challenges, the Malawi government decided to change its agricultural extension policy in 2000 (Malawi, MoAI 2000). It introduced a policy that promotes the provision of decentralized, demand-driven services and encourages the participation of many service providers in agricultural extension. The main aim for introducing the policy was to ensure that farmers demand and have access to high-quality extension services.

Offering decentralized services ensures that decision making takes place close to the farmer's level and thereby increases the chances for farmers to participate both in the decision making process and in accessing the services. Demand-driven services, in contrast, imply that farmers receive services that

they have demanded, thereby increasing the chances that services that are relevant in the farmers' perspective will be provided. Supply-driven services have a tendency to respond to higher-level objectives such as national goals and objectives. Such objectives are oftentimes different from smallholder farmers' objectives, and because of this difference, farmers tend not to commit themselves to implementing extension advice. A demand-driven system implies that farmers are not only beneficiaries but clients and must therefore be more in control. The liberalized market economy, however, creates a diversity of demands for products and inputs, and therefore a diversity of production systems that they need to go into. Such a market environment requires provision of more diversified and specialized services so as to allow farmers to have greater choice among quality services. Promotion of pluralistic services also helps diversify the sources of financing and other resources such as staff.

4. MAJOR AGRICULTURAL EXTENSION SERVICE ORGANIZATIONS

For a long time, agricultural extension service was the prerogative of the government through the Ministry of Agriculture (MoA). With the proliferation of NGOs since the 1990s, the advent of democracy and decentralization, and the change in the extension policy to a pluralistic and demand-driven service, the number of nonstate actors involved in the provision of advisory services increased, resulting in the development of a pluralistic agricultural extension system.

The study interviewed 37 major extension organizations at both national and district levels and across the country, as listed in Table 4.1. A summary of each organization, in terms of the number of years in operation, major extension objectives, and primary extension methods used, is in Table A.1. In addition, selected characteristics of these organizations, such as operational mandate, clients served, source of funding, human and organizational resources, and role of farmers' groups are presented in Table A.4.

Table 4.1—Names and types of extension organizations included in the study

Name of Organization	Type	Level
Mzuzu Coffee Planters Cooperative Union Limited (MZCPCU)	Farmer-based organization (FBO)	Regional
National Smallholder Farmers Association of Malawi (NASFAM)	FBO	National
Malawi Organic Growers Association	FBO	National
Farmers Union of Malawi (FUM)	FBO	National
World Alive Commission for Relief and Development (WACRAD)	FBO	National
Mpoto Dairy Farming Association (MDFA)	FBO	Regional
Shire Highlands Milk Producers Association (SHMPA)	FBO	District
Department of Agricultural Extension Services (DAES)	Government	National
Farm Income Diversification Programme	Government	National
Food and Agricultural Organization of the United Nations (FAO)	Multilateral organization	National
Malawi Africare	Nongovernmental organization (NGO)	National
Action Aid Malawi	NGO	National
Catholic Development Commission in Malawi – Chikwawa Diocese	NGO	District
Catholic Development Commission in Malawi – Mzuzu Diocese	NGO	District
Evangelical Association of Malawi	NGO	National
Church of Central Africa Presbyterian (CCAP) – Synod of Livingstone Development Department	NGO	Regional
Community Youth in Development Activities (COYIDA)	NGO	District
Japan Oversees Cooperative Association (JOCA)	NGO	National
Small Scale Livestock Production Program (SSLPP)	NGO	National
Care Malawi	NGO	National
Development Aid from People to People (DAPP)	NGO	District
Heifer International Malawi	NGO	National
World Vision International – Malawi	NGO	National

Table 4.1—Continued

Name of Organization	Type	Level
FAIR[3]	NGO	District
Plan International (Malawi)	NGO	District
Christian Service Committee	NGO	National
Churches Action in Relief and Development (CARD)	NGO	National
Hunger Project Malawi	NGO	National
Maranatha Ministries	NGO	National
Sustainable Rural Growth and Development Initiative (SRGDI)	NGO	District
Emmanuel International Malawi	NGO	National
Agriculture Commodity Exchange (ACE)	NGO	National
Eagles Relief and Development Programme	NGO	National
Alliance One	Private-sector organization	National
Malawi Bio-Energy Resources	Private-sector organization	National
Land O'Lakes	Private-sector organization	National
Malawi Rural Finance Company (MRFC)	Semiautonomous governmental organization	National

Source: Compiled from questionnaire data set.

[3] FAIR was a name given to an integrated community based rural livelihoods program jointly supported by Self Help Africa (then Harvest Help), Find Your Feet from 2001 and Development Fund of Norway from 2006. The program has since phased out but the organizations continue to exist as separate entities.

5. BASIC FEATURES OF THE EXTENSION ORGANIZATIONS

This section describes the legal status of the extension organizations as well as their management structures. The collection of data on basic features focused on the legal and management structure of each extension organization as well as its policymaking, program planning, and other management responsibilities.

Legal and Management Structure of Agricultural Extension Organizations

The legal status of an extension organization and its management structure affects its sustainability and level of operation. The 37 extension organizations interviewed were of different types, as detailed in Table 5.1. Twenty-three organizations were NGOs (62 percent), while 7 organizations (19 percent) were farmer-based organizations (FBOs), 3 (8 percent) were private sector, 2 (5 percent) were government organizations, 1 was a multilateral organization, and 1 (3 percent) was a semi-governmental extension organization. The multilateral organization, the Food and Agriculture Organization of the United Nations (FAO), was implementing a project with some agricultural extension activities. The government organizations were the Farm Income Diversification Programme and the Department of Agricultural Extension Services (DAES) in the Ministry of Agriculture and Food Security. As discussed above, the government was the main extension service provider from the colonial period to the late 1980s and mid-1990s, when some NGOs started providing extension services.

Table 5.1—Type of extension organizations

Type of Organization	Frequency	Percentage
Government ministry	2	5
Semiautonomous organization	1	3
Nongovernmental organization	23	62
Farmer-based organization	7	19
Private-sector organization	3	8
Multilateral organization	1	3
Total	37	100

Source: Compiled from questionnaire data set.

With the exception of DAES, which was established in 1904, the rest of the extension service providers have been in operation for a period ranging from 1 to 43 years, with a mean of 9 years. The longest-serving organization apart from DAES was Christian Service Committee. Table 5.2 shows that most organizations were established in the 1990s and 2000s. This reflects the advent of democratic rule, which was ushered in in 1994 with multiparty elections. The arrival of many extension organizations therefore necessitated the introduction of the pluralistic and demand-driven extension policy, as stated above, to improve the effectiveness and efficiency of the extension service. A brief description of each type of extension organization is provided below.

Table 5.2—Date the organization was established

Decade Established	Frequency	Percentage
1970	1	2.9
1980	2	5.7
1990	16	45.7
2000	15	42.9
2010	1	2.9
Total	35	100.0

Source: Compiled from questionnaire data set.

Government Organizations

The most prevalent type of extension provider in the least-developed countries is the government extension service (Arnon 1989), and Malawi is no exception. The government extension service is a public good and is located in the Department of Agricultural Extension and Services (DAES) within the Ministry of Agriculture and Food Security (MoAFS), which is critical, as Malawi's economy depends on agriculture. The other government organization sampled in this study was the Farm Income Diversification Programme, which is a project implemented by MoAFS at the national level. As this study will show, MoAFS, through DAES, remains the largest agricultural extension service provider in the country and will remain so for years to come. As such, a description of its organization is important in understanding how the extension system operates in the Malawi.

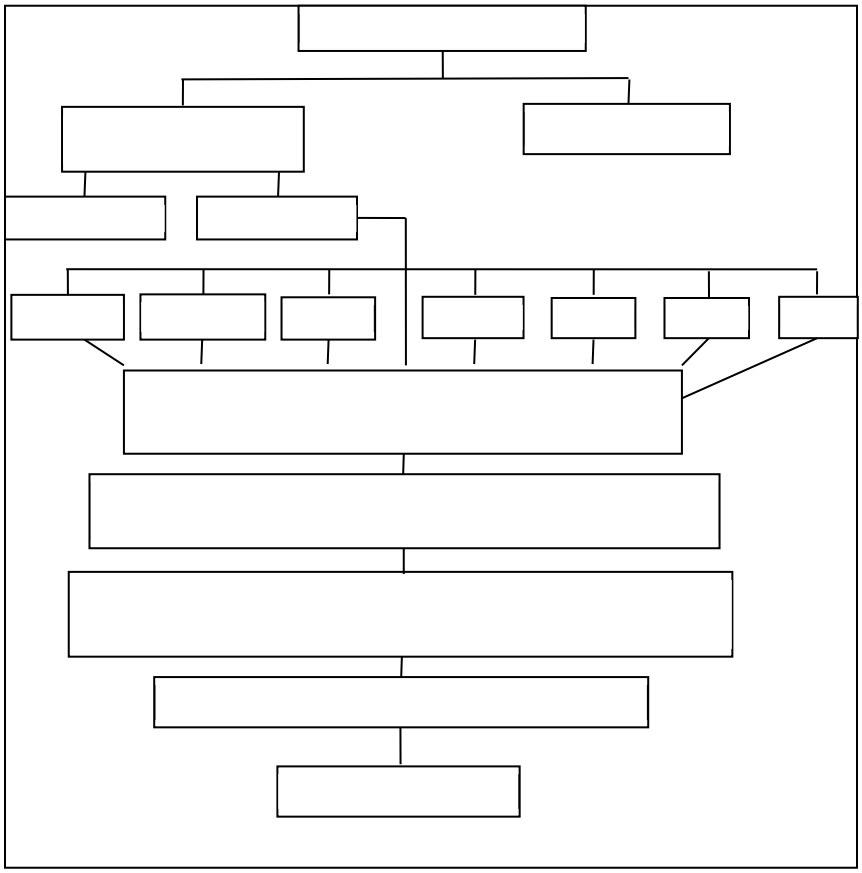
MoAFS Organizational Structure

MoAFS is headed by the principal secretary, who is responsible for two major wings: technical, and administration and finance. The technical wing is divided into agricultural institutions and technical departments. The principal secretary is supported by two controllers on technical matters and a deputy secretary on administration and financial matters. There is a controller of agricultural services (CAS) responsible for the operations of agricultural institutions such as the Agricultural Development and Marketing Corporation (ADMARC), the Agricultural Research and Extension Trust (ARET) for tobacco, smallholder crop trusts (for tea and sugar), and the Natural Resources College.

The controller of agricultural extension and technical services (CAETS) is responsible for the proper functioning of the seven technical departments. Headed by directors, the technical departments include the following: Department of Agricultural Research Services (DARS), Department of Animal Health and Livestock (DAHL), Department of Crop Development (DCD), Department of Agricultural Extension Services (DAES), Department of Land Resources Management (DLRM), Department of Fisheries (DF), and Department of Planning (DP). All these departments work directly with the ADDs, districts, and EPAs. Each of the technical departments contributes to the main goal of improving agricultural productivity. The provision of the public agricultural extension service falls under the responsibility of DAES.

In addition, the CAETS is responsible for the operations of the ADDs, where all these technical departments are represented. The ADDs are headed by the program manager and cover two to five districts. With decentralization, MoAFS works through the district assemblies, which are headed by district commissioners. In each assembly, agricultural services are under the responsibility of a district agricultural development officer (DADO), supported by a team of subject matter specialists (SMSs). The DADO is basically an agricultural extension expert, although this position is not under DAES. He or she coordinates all agricultural services in the district. The SMSs are specialized extension agents who provide technical backstopping to the frontline extension workers. The public extension service is implemented through the district agricultural extension system. Each district is further subdivided into extension planning areas (EPAs), which are the basic agricultural operational or administrative units. Each EPA has a number of frontline extension workers, called agricultural extension development officers (AEDOs), who are responsible for providing extension services to smallholder farmers in a particular section of the EPA. The EPA is composed of several villages where the farmers are located. Figure 5.1 below shows the organizational structure of MoAFS.

Figure 5.1—Organizational structure of MoAFS



Source: Authors' compilation.

Note: CAIP = controller of agriculture investment programmes; CAETS = controller of agricultural extension and technical services; DARS = Department of Agricultural Research Services; DAHL = Department of Animal Health and Livestock; DCD = Department of Crop Development; DAES = Department of Agricultural Extension Services; DLRM = Department of Land Resources Management; DF = Department of Fisheries; DP = Department of Planning; MoAFS = Ministry of Agriculture and Food Security.

DAES's Mandate

- Under the extension policy, the mandate of DAES is to
- coordinate agricultural extension activities for all technical departments of MoAFS;
- institutionalize a decentralized agricultural extension service system in all districts;
- develop and disseminate agricultural extension messages;
- enhance research/extension/farmer linkages;
- coordinate formation and management of farmer organizations;
- enhance mainstreaming of gender and HIV/AIDS issues in all agricultural programs;
- enhance agribusiness knowledge and skills in staff and farmers; and
- enhance community nutrition knowledge and skills in staff and farmers. (Tolani 2005)

To implement this extension system effectively, DAES has five technical branches:

- Extension Methodology and Systems
- Agriculture Communication
- Agribusiness Development
- Food and Nutrition
- Agriculture Gender Roles

This structure is ideally replicated at the divisional level (ADD) and at the district level.

The District Agricultural Extension Services System (DAESS)

DAES implements its extension policy through the District Agricultural Extension Services System (DAESS), based on the model village approach (Malawi, MoAFS 2005). Booklets containing the guidelines for implementing the system were published and distributed to all extension staff. The guidelines stipulate that the extension system and the model village approach are aimed at promoting participatory principles for the creation of demand-driven extension services whereby farmers are empowered to identify problems and establish priorities according to their needs.

According to MoAFS (Malawi, MoAFS 2004), the DAESS translates the extension policy into practice using two main structures: the stakeholder panels at the district and area levels and the District Agricultural Extension Coordinating Committee (DAECC). The two structures are tools for integrating the agricultural extension system into the district assembly. The stakeholder panel represents all actors in the agricultural sector, which include farmers, farmer organizations, and NGOs. The major roles for stakeholder panels are to provide a forum for dialogue where farmers can demand service directly from both private and public service providers and ensure that the quality and standards of the service are maintained.

These panels are facilitated by the DADO and agricultural extension development coordinator (AEDC) at the district and area levels, respectively. The district extension system has been established in all districts and, if strengthened, it has potential to develop into an effective partnership in the provision of extension in agriculture. The DAECC is critical if the pluralistic extension system is to be effective. However, the extent to which the structures are functioning is not clear. As it will be shown in this study, a lack of or poor coordination among the stakeholders is one of the challenges in the provision of extension services in Malawi.

The DAECC is comprised of DAES officials and other agricultural extension service providers in the private sector, such as NGOs and farmer organizations. Its major role is to coordinate extension service delivery in the district assembly and ensure that the quality and standards of the extension service are controlled.

The district agricultural extension system rests on four pillars (Malawi, MoAFS 2005):

- *Organization of farmer demand:* Extension staff members are encouraged to organize farmers based on their categories and respond to their needs and problems accordingly. MoAFS categorizes farmers into three groups based on their resource endowments and socioeconomic status:
  a) Commercial farmers (CFs): These are economically active on a large scale, with farm enterprises such as tobacco, maize (seed and food), tea, coffee, and dairy.
  b) Small-scale commercial (SSC) farmers: These farmers have attained food security, possess commercial and market orientation, and are skilled in the specialist enterprises such as tobacco, horticultural crops, rice, paprika, spices, and dairy.
  c) Smallholder food security (SHFS) farmers: These are farmers who possess the potential to achieve household food security from agricultural production on their farms, but due to limited land and resources are unlikely to produce a surplus for the market.

- Emphasis is on SHFS farmers, who represent 80 percent of the smallholder farmers. In view of the top-down approach that has characterized the public extension system for decades, this pillar calls for a change in attitudes by both extension staff and farmers to allow for dialogue that will facilitate a responsive, demand-driven extension system (Malawi, MoAFS 2003).
- *Facilitation of service provider response:* This pillar focuses on the need for the DAECC to coordinate extension services in the district and ensure that the services respond to the needs of all farmer categories. It identifies who is doing what and where in terms of extension service provision in the district and works to reach agreement on how best to utilize the available resources.
- *Coordination and agricultural strategy development:* This calls for the development of an agricultural strategy for the district in view of the many players in extension service delivery with different approaches and methods. A coordinated strategy helps minimize conflicts that may bring confusion among farmers.
- *Funding acquisition:* In response to dwindling public resources for the delivery of extension services, this pillar encourages extension providers to maximize the available resources from different stakeholders in the district as well as work to source more funds for the benefit of the farmers.

Nongovernmental Organizations

A number of NGOs are involved in agricultural extension. In this study, 62 percent (23) of the extension organizations identified as involved in various agricultural activities were NGOs. NGOs such as the Catholic Development Commission in Malawi (CADECOM), the Evangelical Association of Malawi, the Church of Central Africa Presbyterian (CCAP), World Vision International – Malawi, and the Christian Service Committee are identified with a particular church or religion. Others, such as the Small Scale Livestock Production Program (SSLPP) are associated with a particular commodity such as livestock. The NGOs in agricultural extension are both local and international. Examples of international NGOs are Action Aid, Africare, Care Malawi, Development Aid from People to People (DAPP), Emmanuel International, Heifer International Malawi, Hunger Project Malawi, Japan Oversees Cooperative Association (JOCA), Plan International (Malawi), and World Vision International – Malawi

The NGOs vary widely in terms of geographical area of operation. Some focus on one particular area such as food security, irrigation, small-scale livestock production, or maize production. Others are more general and focus on such things as agriculture in general, community empowerment, or sustainable livelihoods. There are NGOs that cover one extension planning area, traditional chief, or district, while others cover more than one district within one region or multiple districts spread across the three regions of Malawi. NGOs receive their mandate to operate in certain areas from the district assembly.

Civil Society Agriculture Network's database documents at least 100 NGOs involved in various agriculture-related activities such as food security, irrigation, seed production, and farm inputs. However, most of the NGOs focus on food security. This is not surprising, as most NGOs target smallholder farmers whose livelihoods depend on agriculture and whose income is below the poverty line.

Farmer-Based Organizations

In this study, FBOs include farmers associations such as the National Smallholder Farmers Association of Malawi (NASFAM), the Malawi Organic Growers Association, the Mpoto Dairy Farming Association (MDFA), and the Shire Highlands Milk Producers Association (SHMPA), as well as unions such as the Mzuzu Coffee Planters Cooperative Union Limited (MZCPCU) and the Farmers Union of Malawi (FUM) aimed at promoting smallholder farming as a business. They focus on promoting the production and marketing of a particular crop or livestock product and representing the interests of the members.

The commodities tend to be high-value cash or export commodities such as milk, sugar, tea, coffee, and paprika. Their activities generally involve provision of inputs, marketing, and extension. In addition, they also serve as key partners to the private sector in the production of high-value horticultural and other commodity crops (Thomson et al. 2009). One unique FBO is the World Alive Commission for Relief and Development (WACRAD), which aims to create a healthy community through spiritual, moral, social, and economic support.

The democratic era brought about renewed interest in associations and cooperatives that could participate in the delivery of extension service, input provision, and marketing as well as advocacy. Their existence is seen as a critical factor in making the demand-driven pluralistic extension policy operational.

Some FBOs are local, involving farmers within a specific area, such as SHMPA, which caters for dairy farmers in the Shire Valley milkshed area. Others are national, such as NASFAM and the coffee cooperative union, with local groups and associations across the country to cater for local needs.

Multilateral Organizations

Of late, international development partners such as the World Food Programme and FAO that provide material, technical, and/or financial support to extension organizations have been involved in the provision of extension service directly to farmers or through another extension organization. FAO is involved in agricultural extension through a project being implemented in conjunction with MoAFS. This phenomenon could imply that the government has inadequate capacity to service smallholder farmers in some critical areas.

Private-Sector Organizations

Three private-sector organizations—Land O'Lakes, Alliance One, and Malawi Bio-Energy Resources—are involved in agricultural extension directly, as part of their marketing strategy to promote particular commodities. These are all international organizations. They provide support in terms of inputs and technical advice. The role of the extension officers is to identify producers, administer contracts, and monitor production to ensure that farmers produce the commodity based on set standards. Quality control is at the heart of the entire production process.

Semiautonomous Organizations

Only one semiautonomous organization—Malawi Rural Finance Company (MRFC)—was included in this study. This is a microfinance company that provides extension services and loans to agricultural enterprises, including smallholder and small-scale commercial farmers. The organization was funded by the government in its initial phase, but it now runs on revolving funds. Hence control by the government has been considerably reduced.

Semiautonomous organizations were common in agriculture soon after independence, in the form of crop authorities. Their aim was to promote the participation of smallholder farmers in the production of high-value export crops such as coffee, tobacco, tea, and sugarcane in order to increase foreign exchange and improve the livelihoods of smallholder farmers. To achieve this, crop authorities provided extension services and input loans to farmers under contract. However, the crop authorities experienced similar problems to those associated with parastatals in the 1980s (Chirwa, Dorward, and Kydd 2007). All the authorities had high staffing levels, experienced poor financial performance and mismanagement, and incurred huge debts. Therefore, they were unable to service farmers effectively and efficiently. These problems were worse in the tea and coffee authorities, where farmers had no markets to sell their produce and payments were made late. As a result, farmers neglected the production of tea and coffee. In light of these problems, the government reformed the crop authorities to become trusts as a transitional arrangement in 1999. In the mid-2000s, the trusts for tea, coffee, and sugar were fully privatized to become FBOs.

Policy Making, Program Planning, and Other Management Responsibilities

This section will examine the extension organizations in terms of whether they are demand- or farmer-driven, as the extension policy stipulates, and whether they focus specifically on the needs of smallholder farmers (both men and women), the key extension target group. This analysis excludes MoAFS, which has been handled separately.

Primary Focus of the Organizations

In the face-to-face interviews, a variety of major objectives were mentioned. However, the most frequently cited areas of primary focus related to helping smallholder farmers improve food security or improve their livelihoods, followed by entrepreneurship/agribusiness, mentioned by 38 percent and 24 percent of the organizations, respectively (Table 5.3). Sixteen percent mentioned promotion of community empowerment and agribusiness or entrepreneurship among the smallholder farmers. The results reflect MoAFS's goal to achieve food security and increase income, as well as its recent drive toward a more business-oriented type of farming for smallholder farmers. The social orientation issues, such as community empowerment, reflect the democratization and decentralization policies. They confirm that agricultural extension service in Malawi is mainly occupied with the above objectives, with a few touching other areas such as financial services, trade facilitation, relief and development, organic agriculture, and the like. Although the other areas are not agricultural extension's priority, the results indicated that a few organizations are involved in organic agriculture.

Table 5.3—Main objectives of agricultural extension organizations

Main Objectives	Frequency	Percentage
Food security / improve livelihoods	14	38
Agribusiness/entrepreneurship	9	24
Community empowerment	6	16
Promote livestock production	6	16
Reaching out to people physically and spiritually	2	5
Provision of extension services	1	3
Sustainable relief and development	1	3
Provision of financial services	1	3
Trade facilitation	1	3
Promotion of tobacco	1	3
Promotion of bioenergy plants such as jatropha	1	3
Promotion of organic agriculture	1	3

Source: Compiled from interview guide data set.

Focus of Extension Approach

We also asked the representatives of the organizations to indicate the focus of their extension approach. In the face-to-face interviews, about 34 percent of the respondents mentioned the group and community approach to extension service delivery, as shown in Table 5.4. The services are delivered to farmers through their respective groups or clubs. Sometimes these services are delivered by addressing the whole community or village. The study also revealed that about 29 percent of the respondents used farmer field schools to deliver their extension services. The trainings are conducted especially when introducing an innovation and are usually supply driven (top-down approach).

Although most of these approaches could be participatory, with a high degree of farmer involvement, it is not clear from these results the extent to which the organizations are focusing on the demand-driven approach. It was apparent only under the farmer field school approach that a top-down approach was being used to introduce new technologies.

Table 5.4—Focus of extension approach

Focus of Extension Approach	Frequency	Percentage
Group and community approach	12	34.3
Farmer field school approach	10	28.6
Participatory rural appraisal approach	5	14.3
Farmer-to-farmer approach	4	11.4
Technical transfer approach	4	11.4
Total	35	100.0

Source: Compiled from interview guide data set.

It was also discovered that about 14 percent of the respondent used participatory rural appraisal (PRA) as a way of providing extension services to the targeted groups. This approach aims at helping the target group identify the resources that are locally available in their communities and then make full use of them. They also encouraged their targets to make full use of indigenous technical knowledge. The study also found that 11.4 percent of the interviewed organizations use the farmer-to-farmer approach. These organizations use demonstrations and lead farmers to pass on their extension services. Another 11.4 percent use the technical transfer approach, meaning that they provide technical support to individual farmers who demand such services. This is especially common in livestock production, particularly beef and dairy farmers needing veterinary services, because there are only a few farmers with such animals.

Major Changes

The organizations were asked to state whether they had experienced any major changes in the sector with regard to the extension service system over the past 15 years. This was in view of the changes in the extension policy toward a pluralistic and demand-driven one. Fewer than half of the organizations (14) had experienced major changes, and 5 of them mentioned the introduction of the new extension policy. Other changes mentioned included the reduced number of field extension staff, a lack of coordination, and commercialization, among others. However, the results are not conclusive, as it was just one or two organizations mentioning these.

Primary Management Authority for Extension Organizations

The extension organizations were requested to indicate the operational level of the organization with the primary management authority for administrative (finance) and personnel matters. The results are presented in Table 5.5. Out of 32 organizations, 21 indicated the national level as having primary management authority, while 2 and 5 indicated regional (provincial) and district levels, respectively. For almost all the organizations, primary management authority relates to their operational area mandate. That is, if the mandate is for the regional level, then the primary management authority is at that level, which is their head office. This suggests that policies and important decisions for most organizations are made at their head office, implying that most of the organizations are operating in a top-down mode.

Table 5.5—Primary management authority of extension organizations

Level	Frequency	Percentage
National	21	65.6
Regional	2	6.3
District	5	15.6
National/district	4	12.5
Total	32	100

Source: Compiled from questionnaire data set.

The organizations were asked which system level had primary responsibility for program planning and extension/advisory priority setting (for example, in an annual work plan). In response, MoAFS indicated the national level, and its Farm Income Diversification Project indicated both national and district levels. Only 20 civil society organizations responded to this question. Out of these, 58.6 percent said the head office had primary responsibility for program planning and extension priority setting, while 27.6 percent mentioned branch offices.

We also asked the organizations to indicate the level of importance of the role that farmers play, if any, in influencing extension policy, in specifying extension programs, in helping set extension priorities, in assessing extension's performance, and in encouraging farmer-to-farmer extension activities. The results, presented in Table 5.6, show that most organizations said that the role of farmers in helping to set extension activities and encouraging farmer-to-farmer extension activities is very important. Collapsing the "very important" and "important" categories, we can say that 75.1 percent and 86.7 percent of the organizations said the role the farmers play in these two activities, respectively, is important, which is encouraging. In contrast, the figures drop to 65.5 percent, 59.2 percent and 53.6 percent when we consider the role of farmers in assessing extension's performance, specifying extension programs, and influencing extension policy, respectively. This implies that most organizations believe the role of farmers is more important in terms of the implementation of extension activities than in program planning, evaluation, and policymaking. Again, this clearly shows that although most organizations claim to have embraced participatory approaches, there is room to consider bringing in more farmer involvement in decision making to ensure that the extension programs address the needs of their target clientele.

Table 5.6—Role of farmers in policymaking, program planning, and managing extension activities

Role of Farmers in:	Very Important	Important	Somewhat Important	Of little Importance	Not at All Important	Total	N
Influencing extension policy	39.3	14.3	21.4	17.9	7.1	100	28
Specifying extension programs	22.2	37.0	22.2	14.8	3.7	100	27
Helping set extension priorities	43.8	31.3	9.4	9.4	6.3	100	32
Assessing extension's performance	27.6	37.9	13.8	6.9	13.8	100	29
Encouraging farmer-to-farmer extension activities	56.7	30.0	13.3	0	0	100	30

Source: Compiled from questionnaire data set.

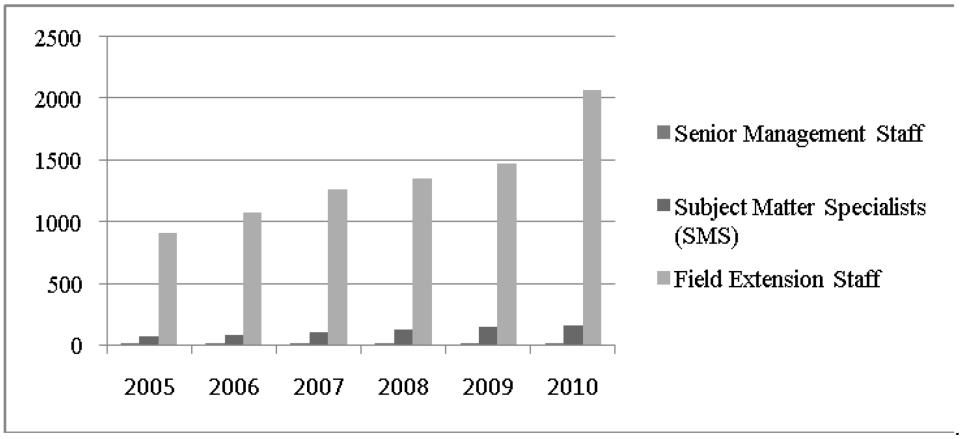
6. QUANTITY AND QUALITY OF HUMAN RESOURCES

One important factor that affects the capacity of an organization to carry out effective extension activities is the size and the technical and management expertise of the extension staff. This study assessed the number and education level of staff members in DAES separately and the civil society organizations as a group. DAES was analyzed separately because it was by far the largest extension organization and had more comprehensive data. The assessment looked at several aspects, including the number and education level of the extension personnel at all levels, technical and management expertise, ratio of female to male extension staff, and allocation of time by the field and technical staff.

Number of DAES Extension Staff from 2005 to 2009

The results show that DAES had a number of professional and technical extension personnel distributed at the various levels of its organizational structure, as indicated in Figure 6.1. The number of senior management staff remained constant at 15 over the years. However, the number of subject matter specialists (SMSs) and field extension staff increased steadily over the same period (2005–2009). SMSs increased about 2.5 times, from 65 in 2005 to 160 in 2009, averaging an approximately 16 percent increase per year. Field extension staff also increased about 2.3 times, from 910 in 2005 to 2,064 in 2010 (Table B.1). The average increase was similar to that of SMSs, at 15 percent per year. Recruitment slowed in 2008 and 2009, probably because of a general freeze on recruitment in the civil service. While 2010 saw the largest increase in extension staff, recruitment of SMSs continued its downward trend. It can therefore be said that the public extension service experienced an increase in the number of extension staff and SMSs from 2006 to 2009, which is commendable. But the increase did not match the increase in smallholder farmers, which has resulted in large extension worker–to–farmer ratios, as explained above, indicating a serious shortage of field extension staff. The number of extension staff is still inadequate and supports the need for a pluralistic approach.

Figure 6.1—Number of professional and technical personnel in DAES from 2005 to 2010



Source: Compiled from DAES, MoAFS questionnaire.

Number of Extension Staff in Other Extension Organizations in 2009

All other organizations were asked to estimate how many professional and technical personnel they had on staff in 2009 and 2010. However, only the 2009 data are presented in Table 6.1 as a point of reference. As in DAES, the results show that most of the extension workers are concentrated at the field level, where they are most needed, and staffing is biased in favor of men. About 44 percent of the organizations (14) had more than 5 male field extension staff (with the number ranging from 8 to 70). Further analysis shows

that 76 percent of these organizations had fewer than 30, and 21 percent had more than 30 (70 for Bio Energy Resources, 69 for NASFAM and 46 for Emmanuel International). There are small numbers of SMSs and senior management staff in the civil society organizations (mostly fewer than 5).

Table 6.1—Number of professional and technical personnel by gender in other extension organizations in 2009

Type of Personnel	Male (%) >5	Male (%) 1–5	Male (%) 0	Female (%) >5	Female (%) 1–5	Female (%) 0	Number of Organizations
Senior management staff	15.6	62.5	21.9	0.0	46.9	53.1	32
Subject matter specialists	15.6	46.9	37.5	3.1	31.3	65.6	32
Field extension staff	43.8	34.4	21.9	21.9	31.3	46.9	32

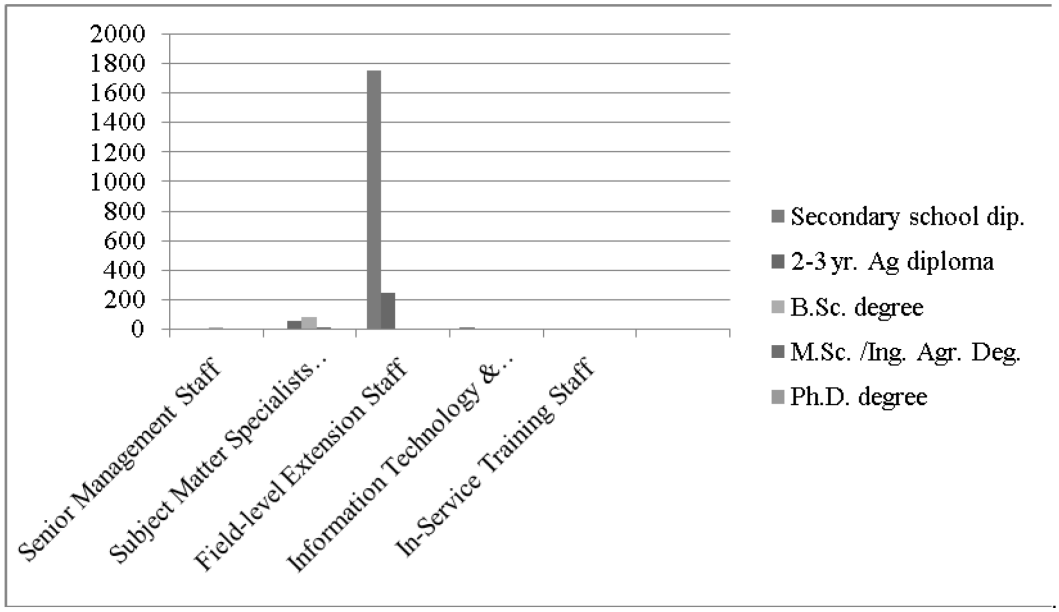
Source: Compiled from questionnaire data set.

These data demonstrate that the civil society organizations are small in terms of human resources as well as area of operation. This causes concern regarding the implementation of the pluralistic extension policy. With these small numbers, it appears that smallholder farmers essentially rely on the government extension service. The results confirm the fact that most NGOs do not have field extension workers at the grassroots level and rely on government staff for the implementation of their projects. Thus, there are many extension players at the national, regional, and district levels, but very few players on the ground. In many cases, the government extension worker wears two hats in terms of field activities. He or she performs one activity for the government and another for an NGO. The results clearly show that pluralism is top heavy.

Number and Education Level of Extension Staff in 2009

In addition to the numbers across the selected years, we zeroed in to assess the quality and quantity of staff in the year of study (2009). Figure 6.2 below (data are in Table B.4) presents the number of DAES extension staff in 2009 by their category of position and education level. The data show that out of 2,167 extension staff, the largest category is the field-level extension staff, who are locally known as the AEDOs, manning sections in the villages (92.3 percent), followed by the SMSs (6.5 percent), with senior management (0.7 percent) and information and communication technology (ICT) staff as negligible (0.6 percent) and with no in-service training staff. This pyramid is expected, as many more extension workers are necessary at the grassroots level, with a few supervisors at the district, ADD, and national levels. The results suggest that ICT has not yet taken root in Malawi's public extension service. There are no designated extension workers for in-service training, as this is undertaken by SMSs at the higher levels. This training is, however, limited, due to financial constraints. A similar pyramid trend exists in the other extension organizations, with smaller numbers, of course.

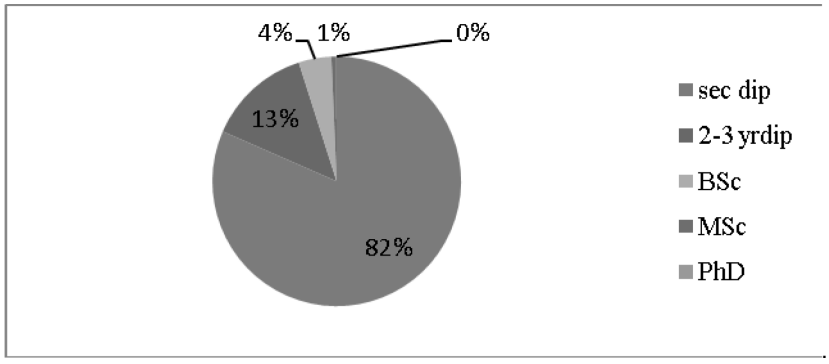
Figure 6.2—Total number of extension staff in DAES by category of position and level of education



Source: Compiled from DAES, MoAFS questionnaire.

Of the DAES extension staff, about 82 percent (1,767) had a secondary school diploma as their education level (Figure 6.3), with 1,760 of these individuals being field-level extension staff. This indicates that most of the field-level extension workers in DAES have been in the service for a long time, because MoAFS changed its policy to favor training and recruiting staff with two- or three-year diplomas in the mid-1990s. The old secondary school diploma staff members were to be upgraded through a special one-year diploma course at the Natural Resource College, which trains field-level extension staff, but it is a slow process. This situation therefore requires more and urgent investment by the government to upgrade the remaining extension staff so that they are up-to-date with the new thinking in extension, such as the pluralistic and participatory approaches as well as new skills and knowledge, as agriculture is dynamic. The urgency is because anecdotal evidence suggests that the secondary school diploma extension workers are demoralized when they have to work with young two-year diploma graduates who look down on their qualifications. In contrast, only 40 percent of the organizations had male field extension staff with secondary school diplomas (Table 6.2); most of these individuals were in MRFC (22) and Emanuel International (30). In the other categories, there were one or two individuals with secondary school diplomas, implying that NGOs are also in favor of employing higher-caliber staff.

Figure 6.3—Percentage of extension staff in DAES by level of education, 2009



Source: Compiled from DAES, MoAFS questionnaire.

Table 6.2—Percentage of extension organizations with secondary school diploma staff

	Male %			Female%			N organizations	
Position	>5	1-5	0	>5	1-5	0	Male	Female
Senior management staff	3.2	0	96.8	0	3.3	96.7	31	30
Subject matter specialists	3.6	0	96.4	0	3.6	96.4	28	28
Field extension staff	16.7	23.3	60.0	3.3	3.3	93.3	30	30
ICT support staff	0	3.3	96.6	4.5	6.6	93.3	30	30
In-service training staff	3.1	6.3	90.6	0	0	100.0	32	32

Source: Compiled from questionnaire data set.

DAES extension staff with two- or three-year diplomas comprised 13 percent (293), with 240 of these individuals serving as field-level extension staff and 51 as SMSs. Only 4 percent had a BSc degree, 0.6 an MSc and zero a PhD. All the graduates occupied SMS or senior management positions at the district, ADD, or national levels. There were no diploma-level officers among the SMSs and senior management positions. This suggests that the secondary diploma field staff that rose to SMS and senior management positions before the change of policy have now left the system. In general, the results show that the capacity of the staff in the public extension service is generally inadequate in terms of quantity as well as knowledge and skills.

Unlike in government, some NGOs have SMSs and senior management staff with two- or three-year diplomas, although these are small in number (see Table 6.3). As discussed above, this should be discouraged. In general, most of the two- or three-year diploma extension workers are employed as field extension staff, and the graduates are in the higher staff categories (Tables 6.4 and 6.5). Generally, the results also show that most of the extension organizations are being managed by staff with high levels of education. PhDs are virtually absent in the extension organizations (Table 6.6). Perhaps this is an area that needs strengthening. As in government, the presence of ICT and in-service staff is minimal.

Table 6.3—Percentage of organizations with two- or three-year diploma staff

	Male %			Female%			N organizations	
Position	>5	1-5	0	>5	1-5	0	Male	Female
Senior management staff	3.6	21.4	75.0	0	14.3	85.7	28	28
Subject matter specialists	3.6	28.6	67.9	0	29.6	70.4	28	27
Field extension staff	30.0	50.0	20.0	3.3	3.3	93.3	30	29
ICT support staff	0	13.3	86.7	0	6.7	93.3	30	30
In-service training staff	0	3.1	96.9	0	6.3	93.8	32	32

Source: Compiled from questionnaire data set.

Table 6.4—Percentage of organizations with BSc degree staff

	Male %			Female%			N organizations	
Position	>5	1-5	0	>5	1-5	0	Male	Female
Senior management staff	3.3	56.7	40.0	0	32.1	67.9	30	28
Subject matter specialists	13.3	26.7	60.0	3.6	21.4	75.0	30	28
Field extension staff	9.7	3.2	87.1	3.1	9.4	87.5	31	32
ICT support staff	0	6.5	93.5	0	3.2	96.8	31	31
In-service training staff	0	3.1	96.9	0	3.1	96.9	32	32

Source: Compiled from questionnaire data set.

Table 6.5—Percentage of organizations with MSc staff

Position	Male % >5	1-5	0	Female% >5	1-5	0	N organizations Male	Female
Senior management staff	3.3	53.3	43.3	0	31.0	69.0	30	29
Subject matter specialists	0	16.7	83.3	0	6.7	93.3	30	30
Field extension staff	0	0	0	0	0	0	31	31
ICT support staff	0	6.6	93.3	0	6.2	93.8	30	32
In-service training staff	0	0	0	0	0	0	32	32

Source: Compiled from questionnaire data set.

Table 6.6—Percentage of organizations with PhD staff

Position	Male % >5	1-5	0	Female% >5	1-5	0	N organizations Male	Female
Senior management staff	0	13.7	86.2	0	7.1	92.9	29	28
Subject matter specialists	0	6.4	93.5	0	0	0	31	31
Field extension staff	0	0	0	0	0	0	31	31
ICT support staff	0	0	0	0	0	0	32	32
In-service training staff	0	0	0	0	0	0	32	32

Source: Compiled from questionnaire data set.

Technical and Management Expertise

Each extension organization was asked to estimate the number of SMSs in the organization that were providing technical, management, and other information in different subject matter areas. The results, presented in Table 6.7, indicate the existence of various types of SMSs covering crops, livestock, fisheries, and marketing, among other specialties. The wide variety of areas covered reflects the diverse enterprises that smallholder farmers in Malawi are involved in. SMSs listed by DAES are grouped into crops, livestock, veterinary, land resources, and fisheries, representing the technical departments in MoAFS. As explained above, DAES has the following SMSs: food and nutrition, gender and HIV/AIDS, extension methodologies, training, agricultural communication, and agribusiness management. The DAES SMSs are those that pertain to its mandate, while the rest belong to other technical departments within MoAFS. Depending on the intensity of the activities, some ADDs and districts may have specific SMSs for tobacco, cotton, horticulture, legumes, and root and tuber crops.

A similar diversity of SMSs is reflected in the other extension organizations. Apart from agricultural marketing, farm management, organic agriculture and rural development, the total number of SMSs in the other extension organizations is much smaller than that in DAES. This means that most organizations have one or two SMSs, an inadequate number to service the large number of smallholder farmers (about 1.5 million farm families). The small number of SMSs also reflects the small size of these organizations' geographical coverage compared to DAES, as explained above.

Table 6.7—Number of SMSs by primary subject matter areas covered

Primary Subject Area	No. of SMSs DAES	Other Organizations
Major cereal crops	37	34
Major root and tuber crops	37	20
Major protein and oilseed crops	37	21
Horticultural crops	37	14
Livestock	120	26
Fisheries	30	9
Agricultural marketing	10	17
Farm management	10	18
Land, soil, water, or forestry management	37	25
Organic agriculture	0	31
Environmental and climate change	37	26
Rural development	0	33
Organizing farmers/women's groups	25	22
Promoting other associations or cooperatives	10	0

Source: Compiled from questionnaire data set.

Gender

The number of female staff members in DAES increased over the period 2005–2010. However, the numbers are too small to make an impact compared to the number of males. On average, the ratio of male to female field extension workers over this period was 8 to 1. While the majority in the secondary school diploma and BSc degree education levels were men, at 83 percent and 73 percent, respectively, the distribution among men and women in the two- to three-year diploma and MSc degree levels favored men only slightly, at 53 and 57 percent, respectively. Thus, women were more visible in the senior management and graduate education levels. This trend is encouraging for the many female farmers the extension service is working with, and DAES should continue the process. The reason for this increase is not clear. One cause could be that the gender policy is making a positive impact at higher education institutions. The gender gap between male and female extension staff is therefore much wider among field-level extension staff (AEDOs) than in the higher extension positions.

In the civil society organizations, there are mostly 5 or less women in the senior management and SMS levels at any one organization. The highest numbers of women in the field extension staff category are in NASFAM (10), Care International (12), CADECOM Lilongwe (14), and Emmanuel International (22). In addition, the number of organizations with female employees in the secondary school diploma category is negligible. In view of the importance of women in smallholder agriculture and the challenges male extension workers face in reaching women farmers, the limited numbers of women at this level is of great concern, as this is where they are needed most. Extension organizations need to increase the proportion of female extension staff in order to improve the ratio of female extension staff to female small-scale farmers.

Means of Transportation Used by Field Extension Personnel

The study revealed that 23 of the 37 organizations (62 percent) provided motorcycles for use by extension staff on their extension duties, 7 organizations (18.9 percent) provided bicycles, 3 organizations (8 percent) provided cars, and 3 organizations requested that their staff walk to their duty sites. Note that the government provides bicycles, while the means in other organizations vary depending on the field extension worker's level in the organizational structure. As noted above, most NGOs do not place their extension workers in the villages or sections as does the government, but at the EPA level, which is a larger area of operation that requires more efficient transport.

7. FINANCIAL RESOURCES

The availability and allocation of financial resources influence the performance of extension organizations. One of the key interests in this study was to determine the source, allocation, and sustainability of financial resources for the extension institutions included in the study.

Primary Sources of Funding for Fiscal Year 2007

The organizations were requested to indicate their main source of funding. DAES received 70 percent of its funding from the government and 30 percent from other donors. For the other extension organizations, 75.7 percent received funding from donors and none received funding from the government (Table 7.1). The majority were fully funded by donors (63 percent), while 17 percent were funded partly by donors and partly from other sources such as service fees or membership fees and or government. This implies that only 20 percent of the organizations either raised their own funds or used other sources apart from donors. This is an issue of concern when one considers the implications for sustainability. These results show that extension service provision in Malawi is mostly sustained by donor financing. This implies that most of these organizations would stop operating—and their services would stop—if donor funding stopped flowing.

Table 7.1—Sources of funding for extension organizations

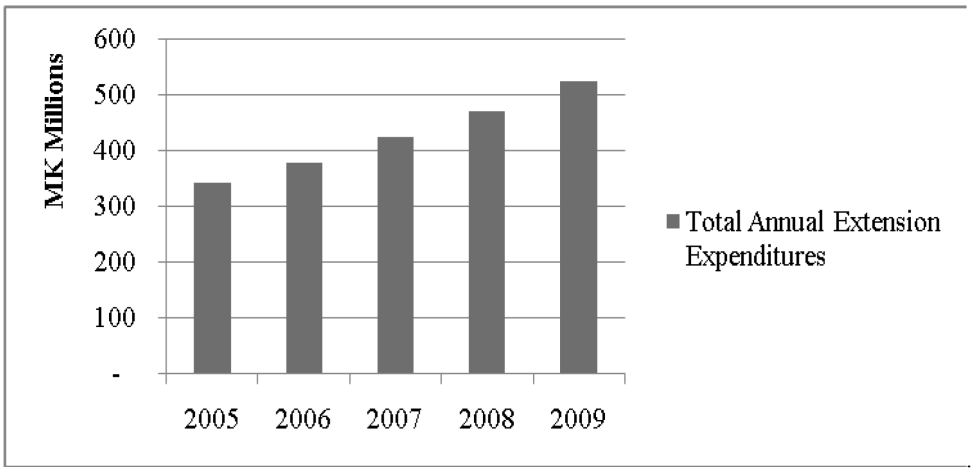
Source of Funding	Number of Organizations (n=37)	Percentage
Donors	28	75.7
Government	1	2.7
Private funding	4	10.8
Income-generating activities	1	2.7
Revolving fund	1	2.7
Member fees	2	5.4
Service fees	2	5.4
Church donations	1	2.7
Sponsorship programs	1	2.7

Source: Compiled from questionnaire data set.

Annual Expenditures for Selected Fiscal Years

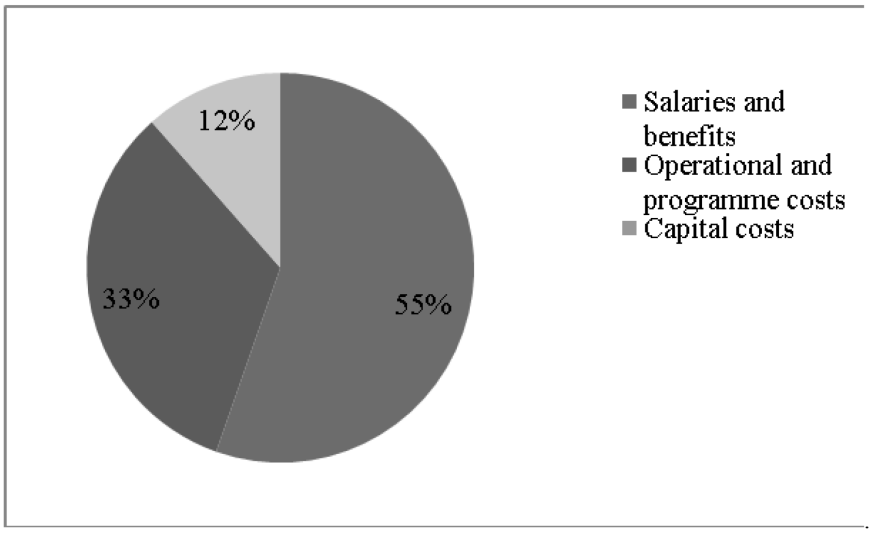
Each organization was requested to state the actual level of expenditures for the 2007 fiscal year in the local currency. However, DAES was requested to indicate the total annual extension/advisory service expenditures for fiscal years 2005–2009. For DAES, data in Figure 7.1 indicate that total annual extension expenditures increased steadily, from MWK 344 million in 2005 to MWK 525 million in 2009. This is a reflection of the recent commitment of the Bingu Wa Mutharika government, which has reaffirmed support to agriculture as one of its priorities since 2004 by committing more that 10 percent of the national budget to agriculture. This upward trend is contrary to expectations, as the literature cites dwindling resources devoted to the public extension organization as one of the major challenges (Malawi, MoAI 2000). The real question is how much of this is spent on program operations apart from personnel emoluments. Figure 7.2 provides a picture of the allocation of DAES's funds in the 2009/10 fiscal year. Salaries and benefits take slightly more than half the funds, and program operations take a third.

Figure 7.1—DAES total annual expenditures, 2005–2009



Source: Compiled from DAES, MoAFS questionnaire.

Figure 7.2—DAES 2009/10 financial expenditures



Source: Compiled from DAES, MoAFS questionnaire.

A closer look at the operational and program costs reveals that the bulk of it (46.9 percent) was allocated to travel expenses, enabling extension staff to conduct field visits and meet farmers. The remainder was allocated to building services (9 percent), extension program activities (16 percent), in-service training (19.8 percent), training production costs (5.2 percent), and mobile phones (3 percent). This annual expenditure is adequate to make DAES a fully functioning extension organization (Swanson and Rajalahti 2010). In practice, however, a lack of resources for government extension staff is the order of the day, implying that factors other than budget allocations are at play.

The civil society organizations were asked to state their annual expenditures for fiscal years 2008 and 2009. The results, presented in Table 7.2, indicate that there was not much difference between the two years. The size of funding ranged from MWK 0.84 million to 980 million in 2008 and from MWK 1.2 million to 750 million in 2009.However, the funding for most organizations is much smaller than that of DAES (except for Action Aid and CARE International), reflecting the size of these organizations' operations some of which go beyond agricultural extension. The study found that only one organization (6.3 percent) spent less than MWK 1million in 2008 and none in 2009. About 63 percent of the

organizations in 2008 and 2009 spent less than MWK 50 million and 12.5 percent in both years spent between MWK 50 to 100 million. A few organizations spent more than MWK 100 million in both 2008 and 2009 (3 and 4 organizations respectively).It is important to note that extension staff for NGOs generally operates with adequate resources, which trickle down to the government field extension workers they work with at the grassroots level.

Table 7.2—Organizations' annual expenditures for fiscal years 2008 and 2009

Annual Expenditure (Million MWK[a])	Percentage of Organizations per Fiscal Year (n=16)	
	2008	2009
Less than 1	6.3	0
1-<20	25.0	18.8
20-<50	37.5	43.8
50->100	12.5	12.5
100+	18.8	25.0
Total	100	100

Source: Compiled from questionnaire data set.

Note: [a] MWK = Malawi Kwacha. MWK150 = US$1 in 2010.

8. CLIENTELE BEING SERVED AND EXTENSION METHODS USED

This section will assess the clientele being targeted and the extension methods used in the organizations under study. As noted earlier, the mandate of DAES and the other extension organizations is to serve smallholder farmers in the country. This study will define this clientele further.

Primary Clientele Served by Each Organization

The organizations were asked to define the primary target groups of their extension activities, how much time they allocated to these groups, and the relative importance of each group. Their responses, presented in Table 8.1, confirm that their main target group is the smallholder farmer, with 95.8 percent of organizations spending no time with large commercial farmers. However, their responses show that smallholder farmers are a diverse group. Among this group, small-scale subsistence farmers and women farmers are the primary groups. Other important groups include the small- and medium-scale commercial farmers and farmers growing major commercial farmers, reflecting the emphasis on commercialization.

Table 8.1—Percentage of time spent by organizations on client groups

	Percentage of Organizations		
Client Group	**More than 50% of Time**	**Less than 50% of Time**	**No Time Spent**
Large commercial farmers	0	4.2	95.8
Small- and medium-scale commercial farmers	15.4	23.0	61.5
Farmers growing major commodities	12.5	25.0	62.5
Small-scale subsistence farmers	44.0	32.0	24.0
Women farmers	24.0	32.0	44.0
Young (adult) farmers	0	32.0	68.0
Landless farmers	0	20.0	80.0
Rural youth	0	24.0	76.0
Rural women (nutrition/health)	2.8	13.9	83.3
Other specific vulnerable groups, including agroforestry farmers	0	21.0	79.2

Source: Compiled from questionnaire data set.

The most important groups are small-scale subsistence farmers and women farmers, with more than 90 percent of the organizations saying these groups are important or very important, as shown in Table 8.2. The group of next-greatest importance is comprised of small- and medium-scale commercial farmers, farmers growing major commodities, and rural youth with more than 50 percent and less than 60 percent of the organizations saying these groups are important or very important. The primary groups identified above also get the most time except the rural youth. It was noted that an organization's primary target group reflected the goals of that organization. For example, organizations such as NASFAM, MZCPCU, and the two Catholic organizations perceive small- and medium-scale commercial farmers as very important. In contrast, CARD, Christian Service Committee, JOCA, and SHMPA perceive farmers growing major commodities as very important. These results indicate that organizations are more specific in terms of their targets, and the priorities reflect the agriculture sector priorities on food security and commercialization (treating farming as a business), as well as the HIV prevalence in the country.

Table 8.2—Percentage of organizations by relative importance of client groups

		Importance					
Client Group	N	Not Important	Of little Importance	Somewhat Important	Important	Very Important	NA
Large commercial farmers	11	45.5	18.2	18.2	9.1	0	9.1
Small- and medium-scale commercial farmers	19	15.8	5.3	15.8	21.1	36.8	5.3
Farmers growing major commodities	14	14.3	14.3	14.3	14.3	35.7	7.1
Small-scale subsistence farmers	28	3.6	0	0	14.3	78.6	3.6
Women farmers	22	4.5	0	0	27.3	63.6	4.5
Young (adult) farmers	15	6.7	26.7	20.0	26.7	20.0	0
Landless farmers	13	46.2	0	7.7	7.7	30.8	7.7
Rural youth	11	9.1	27.3	9.1	9.1	45.5	0
Rural women (nutrition/health)	13	30.8	15.4	15.4	0	38.5	0

Source: Compiled from questionnaire data set.

Primary Extension Methods Used by Field Extension Workers

In the face-to-face interviews, we asked representatives whether they used the lead farmer concept, field days, and farmer field schools. As Table 8.3 shows, most of the organizations used these three methods, but the most commonly used was the field day. Most of them (61 percent) conducted their own field days, and mostly in collaboration with other organizations. Farmer field schools were used by 24 organizations, and 18 of them said they would financially support the participation of their farmers in such schools.

Table 8.3—Extension methods used

	Number of Organizations Using the Method	
Extension Method	Frequency	Percentage
Lead farmer concept	28	77.8
Field days	31	86.1
Farmer field schools	24	66.7

Source: Compiled from interview guide data set.

Other methods that were used to a moderate degree included field visits to individual farmers, meetings, workshops, and field visits to farmer groups. Farmer business groups, radio programs, and working with cooperatives were mentioned by one organization each. Use of more innovative information and communication technologies such as cell phones and the Internet was not mentioned. Most of the cell phone technologies are only now becoming established in rural areas, and this may be the major reason that they are not frequently used. However, at the rate that the technology is spreading, one can predict that it will be one of the most popular approaches for transmitting information to farmers in the near future.

Since the farmer-to-farmer approach has become common, we sought more information on the lead farmer concept. Of those organizations that used the concept, 66.7 percent perceived it to be a success and attributed this to issues of the sustainability of activities, community empowerment, and the increased adoption rate of innovations. It was noted that lead farmers act as role models, which motivates them to try different innovations in their own fields. The study also revealed that 11.1 percent of the respondents perceived this concept as unsuccessful, and this was to do with how lead farmers were selected.

The issue of incentives to lead farmers was also explored. It was noted that 61 percent (22 organizations) gave incentives, as presented in Table 8.4. The most common incentives were farm inputs such as seeds and livestock and bicycles for transport. The limited number of organizations that provide cash for incentives reflects the government policy that forbids cash payments to avoid misinterpretation as salary or honorarium.

Table 8.4—Type of incentives given to lead farmers

Type of Incentive	Frequency	Percentage
Farm inputs	10	27.8
Bicycles	8	22.2
Allowances (cash)	2	5.6
Farmer-to-farmer visits	1	2.8
T-shirts, caps, and hats	1	2.8
All the above	2	5.6
N/A	12	33.3
Total	36	100.0

Source: Compiled from interview guide data set.

In terms of scaling up, the most common obstacles cited were inadequate farming and training resources, inadequate incentives to motivate lead farmers, and the high illiteracy rate (Table 8.5). About 22 percent of the organizations did not report any obstacles. Given the importance of the lead farmer concept in Malawi, more data are needed to shed greater light and provide guidance to policymakers.

Table 8.5—Perceived constraints in scaling up lead farmer concept

Type of Constraint	Frequency	Percentage
Inadequate farming and training resources	9	25.0
Inadequate incentives	4	11.1
Time constraints	1	2.8
Coordination	3	8.3
Access to markets	2	5.6
Low literacy level among farmers	5	13.9
Sustainability of the concept	3	8.3
Selection criteria	1	2.8
N/A	8	22.2
Total	36	100.0

Source: Compiled from interview guide data set.

Finally, we asked representatives to distribute 10 points between the lead farmer concept, field days, and farmer field schools with regard to their effectiveness in supporting their organizations' objectives. The data in Table 8.6 indicate that for the lead farmers and farmer field schools, the points clustered around 2–6, while field days generally received 2–4 points, with 10 points as an outlier. Most of the ratings were 5 or below, on the lower side. It is not clear why.

Table 8.6—Effectiveness of selected extension methods

Number of Points (N=30)	Lead Farmers	Field Days	Farmer Field Schools
0	10.0	3.3	10.0
1	0	6.7	6.7
2	16.7	20.0	36.6
3	16.7	30.0	20.0
4	16.7	23.3	10.0
5	26.7	3.3	6.7
6	10.0	0	6.7
7	3.3	0	3.3
8	0	0	0
9	0	3.3	0
10	0	10.0	0

Source: Compiled from interview guide data set.

The mail-out questionnaire included a question asking organizations to indicate the percentage of staff time devoted to each method listed in Table 8.7. The results show that regular field visits to individual farmers were allocated the most time by most of the organizations. Conducting demonstrations and meetings was allocated less time, although these are popular methods, probably because they happen less frequently. We expected the regular visits to producer groups to be allocated more time because Malawi generally uses the group approach in reaching out to farmers because it is more effective and efficient in view of the shortage of staff.

Table 8.7—Percentage of staff time devoted to primary extension methods used by field extension workers

Extension Method	Percentage					
	Range	0	1–25	>25–50	>50–75	>75–100
Regular field visits to individual village-level farmers	0–70	15.6	21.9	43.8	18.8	0
Regular field visits to producer groups	0–95	31.3	25.0	21.9	12.5	9.4
Conducting demonstrations, workshops, and field days for farmers	0–60	9.7	58.1	29.0	3.2	0.0
Meetings with farmers at the field extension office	0–75	33.3	60.0	3.3	3.3	0.0

Source: Compiled from questionnaire data set.

9. INSTITUTIONAL LINKAGES WITHIN THE AGRICULTURAL INNOVATION SYSTEM

The aim of this section is to assess the institutional linkages existing among the extension organizations under study. The assumption is that an extension organization is one part in a network of institutions within the agricultural innovation system. Each organization was therefore requested to characterize its linkages with the organizations listed in Table 9.1. The responses indicated that slightly over half of the organizations had strong linkages (combining "strong" and "very strong" responses) with district or local government agencies (75 percent), NGOs involved in extension activities (59.4 percent), other extension/advisory service providers (56.5 percent), and the private sector, input supply firms (54.8 percent). Notably, 50 percent had very strong linkages with district or local agencies. This reflects the decentralization policy, which has given more power to the district assemblies that act as gatekeepers to all development activities in the communities. Thirty percent had weak linkages with the agricultural school (Natural Resources College) and 38.7 percent with agricultural university (Bunda College). As agriculture is a dynamic science, linkages with the university are essential in an agricultural innovation system. In general, the figures show that there is room for each organization to strengthen its linkages with other organizations in order to better serve the interests of smallholder farmers.

Table 9.1—Strength of linkages and partnerships with other organizations

Institution	Strength of Linkages				
	Very Strong	Strong	Moderate	Weak	No Linkage
Agricultural research organizations	9.4	37.5	28.1	12.5	12.5
Agricultural universities	3.2	25.8	19.4	38.7	12.9
Agricultural schools (diploma level)	6.7	33.3	10.0	30.0	20.0
Private sector; input supply firms	16.1	38.7	35.5	3.2	6.5
Private sector; markets or exporters	12.9	25.8	25.8	22.6	12.9
NGOs involved in extension activities	25.0	34.4	31.3	9.4	0
District or local government agencies	50.0	25.0	15.6	3.1	6.3
Cooperative/consumer organizations	6.3	12.5	34.4	25.0	21.9
Banks and credit institutions	13.3	20.0	23.3	26.7	16.7
Other extension/advisory service providers	8.7	47.8	34.8	0	8.7

Source: Compiled from questionnaire data set.

10. EXTENSION CHALLENGES IN THE PLURALISTIC SYSTEM

We asked the representatives of the organizations to state the main constraints on an effective and efficient agricultural extension service provision in Malawi, if any. The major constraints noted in the responses are shown in Table 10.1. The major problem was the inadequate number of trained extension workers, which results in a large extension worker–to–farmer ratio. It was indicated, as noted above, that in some areas there are no field extension staff. The other major problem was inadequate resources in terms of inputs for farmers and operational funds for field extension staff. There is also a lack of proper means of transportation and a lack of incentives for both staff (in terms of travel allowances and accommodation) and lead farmers. It is worth noting, however, that there is no consensus as to whether to give incentives to lead farmers in kind or in cash. A few organizations provide cash, while most provide materials such as inputs and bicycles. Yet there are others who think there should be no incentive at all, with the assumption that communities should be able to thank the lead farmers in kind.

Table 10.1—Constraints in agricultural extension service provision

Constraint	Organizations [a]	Percentage
Inadequate resources	16	21.9
Inadequate numbers of trained extension workers	20	27.4
Lack of coordination and harmonization	7	9.6
Lack of proper means of transportation	11	15.1
Farmers' resistance to modern technologies	2	2.7
Lack of incentives	9	12.3
Privatization and commercialization	4	5.5
HIV/AIDS pandemic	4	5.5
Total	73	100.0

Source: Compiled from interview guide data set.
Note: [a] Multiple responses.

One of the issues that organizations usually complain about is coordination, although in the results above, it did not come out strongly. We therefore sought more information on this issue during the face-to-face interviews. The data in Table 10.2 show that 30.6 percent of the organizations coordinated their extension approach and message development with the government alone; as noted above, district assemblies are the gatekeepers of development activities. About 22 percent coordinated with NGOs and the government. Others coordinated with NGOs only and some research institutions. In general, few organizations are coordinating with each other, which confirms the need to strengthen linkages and partnerships, as noted above. Thirty-one of the organizations coordinate with the DADO, mainly in terms of sharing information. The experience of 13 organizations was that this office is supportive but lacks the resources to provide effective coordination as the team leader. Seven organizations said DADOs demanded allowances from the NGOs to work with them.

Table 10.2—Type of institutions for coordination

Institution	Frequency	Percentage
Government	11	30.6
NGOs	7	19.4
Farmers	1	2.8
NGOs and government	8	22.2
Research institution and government	6	16.7
N/A	3	8.3
Total	36	100.0

Source: Compiled from interview guide data set.

11. CONCLUDING REMARKS AND RECOMMENDATIONS

Ten years after the launch of Malawi's pluralistic and demand-driven extension policy, this study was conducted to assess the status quo with the aim of drawing lessons on how the extension system could be strengthened to be more effective and efficient in serving the needs of smallholder farmers. A summary of the major issues from this study is provided below.

Types of Agricultural Extension Organizations

A number of extension organizations have been established, particularly in the 1990s and 2000s, reflecting the change in the political system as well as the introduction of the pluralistic extension policy. Thus, in addition to the government ministry, players in the pluralistic agricultural extension system include NGOs (which are in the majority), FBOs, multilateral organizations, private-sector organizations, and semiautonomous organizations. The major change is the entrance of more FBOs, multilateral organizations, and private-sector organizations. In addition, semiautonomous organizations have decreased as a result of the decentralization policy. This has changed the face of the agricultural extension system and calls for a more coordinated system to avoid confusion. It means that MoAFS's core mandate of coordination of the extension system should become more clear and visible for an effective and efficient system.

Basic Features of the Extension Organizations

The study found that although a number of extension organizations have been established in Malawi, the public extension system remains the largest in terms of the number of extension staff employed as well as its spread, being the national service provider. MoAFS has well-established structures that are evident throughout the country. It directly reaches farmers in their villages, unlike most NGOs, which go through the government staff to provide extension services**.** In addition, the public system has established coordination structures for extension provision. However, their effectiveness is not clearly known.

NGOs are the largest group in the extension system. They vary widely in terms of geographical area of operation, from one or a few districts to regions and the nation. They also vary in terms of their primary focus, but most of them concentrate on food security since they target smallholder farmers whose livelihoods depend on agriculture and whose incomes are below the poverty line. NGOs receive their mandate to operate in certain areas from the district assembly.

FBOs are a new group in the agricultural extension system. They appear to be small in number and size. Their role in the system is critical, however, if the demand-driven extension policy is to be operational and effective. There was not enough information about FBOs in this study for meaningful conclusions to be drawn. More data on this group, as to the nature and extent of their role in extension provision, are therefore needed. The issue is: how can they be strengthened to have a greater voice in the system?

Private-sector organizations are also new players in the system; most are interested in specific commodities and products. Their presence is a welcome development, as they can enhance marketing and value addition, which can have a positive impact on the farmers' livelihoods as some of them transition into small-scale commercialization. Multilateral organizations appear to be misplaced in the system. Actually, they are part of the government structure, funding projects and facilitating their implementation. The semiautonomous organization is in fact a microfinance institution rather than an extension service provider; however, its role as a financier is critical in the agricultural innovation system.

Extension Organizations: Demand-Driven or Not?

The study has found that the primary focus of most extension organizations is on helping smallholder farmers improve their livelihoods in terms of food security and income. This has always been the case in Malawi, but what is interesting is that the objectives have become broader, to include issues of entrepreneurship, community empowerment, and farming as a business. With the major extension challenges that brought about the pluralistic and demand-driven extension policy, today's farmer is becoming business-oriented and therefore requires special production as well as entrepreneurial skills and knowledge. In addition, farmers need to be more organized and have better communication skills to demand service from the extension organizations. The broad-based objectives that include human resource development would therefore respond better to the needs of the farmers, rather than the narrow production focus that was common before the liberalization policy.

The prominent extension approach has to do with groups and communities. Other approaches and methods include farmer field schools and participatory rural appraisals (PRAs). These are participatory approaches that demand more farmer involvement and facilitate demand-driven services. However, the study has revealed that the operational level that has primary authority for administrative (finance) and personnel matters is at the national level for 65.6 percent of the organizations. Similarly, MoAFS and 58.6 percent of the civil organizations said the national/head office had primary responsibility for program planning and extension priority setting, with a few mentioning branch offices. In addition, more than 75 percent of the organizations said the role farmers play in helping to set extension activities and encouraging farmer-to-farmer extension activities is important, while only 53.6 percent mentioned the role farmers play in influencing policy as important. These data demonstrate clearly that most of the organizations were operating in a top-down mode, contrary to the objectives of community empowerment and a focus on participatory extension approaches. In such a mode, it is unlikely that the demands from smallholder farmers are being met. It means that organizations should strengthen the role that farmers play in their organizations. Issues of community empowerment should be emphasized in order to make the agricultural extension system more demand-driven. As stated above, farmers should be more organized.

Numbers of Staff in Extension Organizations

An assessment of the numbers of extension staff in DAES has revealed that while the numbers in senior management remained constant, the numbers of SMSs and field extension staff more than doubled (about 2.5 times), averaging annual increases of 16 and 15 percent, respectively, from 2005 to 2010. However, the increase did not match the increase in smallholder farmers, which resulted in large extension worker–to–farmer ratios, indicating a serious shortage of field extension staff. The number of extension staff is still inadequate and supports the need for a pluralistic approach so that there are more players in extension servicing more farmers.

The civil society extension organizations' human resources and areas of operation are much more limited than those of the public extension organization. In addition, most NGOs do not have grassroots extension staff and rely on the same government extension staff. There are more extension organizations at higher levels than at the village level where the farmers are. This causes concern regarding the implementation of the pluralistic extension policy, as suggested above. The implication is that smallholder farmers rely almost exclusively on the government extension service and that pluralism is more visible at higher levels. The evidence therefore suggests a need to strengthen the public extension system to better service both male and female farmers in terms of staff and financial resources. It also calls for strengthening NGOs to bring their services closer to the communities and farm families to avoid overloading the government extension workers.

Education Level of Staff in Extension Organizations

As expected, most extension organizations had the largest numbers of staff at the field extension staff level. What was striking was the absence of ICT staff, as well as in-service staff, in most organizations. This suggests that ICT activities have not taken root in these organizations, and it is an area worth looking into. As for in-service staff, it could mean that this is usually outsourced.

The study also found that 82 percent of the staff in DAES have a secondary diploma with a certificate in agriculture as their main qualification. These individuals are mainly found in the field extension staff category—those directly working with farmers in the villages. This was unlike civil society organizations, which had a higher quality of field extension staff, with two- and three-year diplomas and BSc degrees in some cases. While the government has started upgrading the secondary diploma cadre to two-year diplomas at Natural Resources College**,** the situation deserves more and urgent investment so that the field extension staff is up-to-date with the new broad-based agricultural innovation system that requires staff to be equipped in production and entrepreneurial as well as social knowledge and skills to effectively serve today's farmer, who is becoming more empowered and business-oriented. As this study has shown, today's government field extension worker is servicing both the government and NGOs and therefore should be better trained**.** Concerted efforts from both government and civil society are necessary if this is to be achieved in the shortest time. This will broaden the pool of quality staff in the agricultural extension system.

Generally, the results also show that most of the extension organizations are being managed by staff with high levels of education at the SMS and senior management levels, and the government is particularly exemplary. While BSc and MSc degrees are noted, PhDs are virtually absent in the extension organizations. Extension organizations should aim to build capacity at all levels.

In terms of technical and management expertise, the study has shown that both government and civil society organizations employ a variety of SMSs, depending on their areas of focus and operational mandates. The wide variety reflects the agricultural diversity of the country.

Gender in Extension Organizations

Female staff in DAES increased during the period 2005 to 2010 alongside males, but the numbers are too small to make an impact. On average, the ratio of male to female field extension workers over the same period was 8 to 1. However, women were more visible in the senior management and graduate education levels. The gender gap between male and female extension staff is therefore much wider among field-level extension staff than in the higher extension positions. The reason for this increase is not clear. This trend is encouraging and should be maintained. At the same time, more needs to be done to reduce the wide gender gap at the lower levels, considering the importance of women in agriculture and the challenges male extension workers face in reaching women farmers. In the civil society organizations, there are fewer women across the board. Extension organizations should make deliberate efforts to increase the proportion of female extension staff in order to improve the ratio of female extension staff to female small-scale farmers.

Financial Resources

Government funding was only evident in the government department, while the other extension organizations were funded by donors. Only 30 percent of DAES funding comes from donors, which means extension provision can be sustained without donor funding. In contrast, the majority of civil society organizations were fully funded by donors, while a few were partly funded by other sources. This indicates that extension provision by NGOs in Malawi is sustained by donors, which raises concerns over its sustainability should donors suspend funding.

The study has shown that the total annual expenditure for the government extension department has been increasing steadily despite the high competition for its share of the national budget. This reflects the government commitment to the goals of food security, as demonstrated by the Bingu Wa Mutharika

government, which has increased the budget for MoAFS. An analysis of the allocations within the department also indicates that the bulk of the operational and program costs are allocated to real extension activities. However, a shortage of resources is one of the key challenges experienced in the government extension organization. This indicates that the government is committed to the goals of extension but the funding is not adequate; extension's piece of the pie is too small, and this makes extension work ineffective. There is need for more investment in extension activities.

Clientele Being Served

Smallholder farmers continue to be the primary target group for all the extension organizations. However, the results of the study have demonstrated a degree of diversity among the smallholder farmers. Both the government and civil society organizations target a number of the groups, but small-scale subsistence farmers and women farmers appear to be the primary target groups and rated the most important. Other groups that receive some time and rated important are the small- and medium-scale commercial farmers and farmers growing major commodities. A few organizations target a particular smallholder farmer group such as dairy, tobacco, or cotton farmers, aiming at addressing their special needs. The choice of clientele reflects the main objectives of the organizations and the country's agriculture sector priorities of food security and commercialization, as well as the HIV prevalence in the country.

The clientele is reached using different methods, but the most popular appear to be individual visits to farmers. This is contrary to the norm in Malawi of meeting farmers in groups, as this is considered to be more effective and efficient in view of the shortage of staff and the many farmers to be served.

Institutional Linkages

The study has demonstrated that the agricultural innovation system in Malawi has moderate linkages. Organizations had strong linkages with the district or local agencies, and this is probably because it is a must for them, as the districts are gatekeepers to the communities. Slightly over half of the organizations had strong linkages with NGOs involved in extension activities, other extension/advisory service providers and private sector firms. Weak linkages were evident with the agricultural education institutions, and this is a concern, as agriculture is a dynamic science. Practitioners should be in touch with the scientists to enhance their extension activities. Educational institutions should also interact with practitioners to ensure that their research and teaching activities are responding to real issues in the field. These linkages should therefore be strengthened.

Recommendations

To sum up, the reconnaissance study has demonstrated that the pluralistic and demand-driven extension policy has resulted in many different players operating in the field. Smallholder farmers continue to be the main target group, with small-scale subsistence farmers and women farmers taking precedence. In this section, a number of recommendations are made to strengthen the system (based on some weaknesses highlighted above) in order to serve smallholder farmers better.

1. With the introduction of pluralism, the face of the agricultural extension system has changed, with many more players participating. To facilitate the efficient use of human and financial resources, MoAFS should strengthen coordination among the players in the system through the established structures of DAESS.
2. Considering that most civil society extension organizations cover small and specific geographical areas with a specific mandate, MoAFS will remain the largest extension service provider for some time in many areas. It is therefore recommended that the ministry should continue to make more investments in the extension system while encouraging more players and partnerships by taking the following actions:

- Increasing the number of field extension staff so as to reduce the staff-to-farmer ratio to manageable levels. Alternatively, field extension staff should be provided with more efficient transport to enable them cover wider areas.
- Continue the upgrading of the secondary school diploma staff to a two- or three-year diploma at Natural Resources College as a matter of urgency to enhance their skills and knowledge.

3. Extension objectives have become broader to cover food security, commercialization, and farmer empowerment. At the same time, the farmer is becoming more business-oriented. It is therefore recommended that extension organizations have relevant and trained SMSs to address these new areas. Further, educational institutions should ensure that the curriculum responds to broader extension objectives.
4. With the advent of a demand-driven extension policy and having noted the top-down approach of some extension organizations, it is recommended that community empowerment be one of the primary focuses of extension activities. As per the commitment to participatory approaches, farmers ought to be given a chance to participate in all stages of the extension programming so that the extension service responds to their needs and priorities.
5. Considering that most civil society organizations do not have staff at the grassroots level and therefore rely on the government extension workers, it is recommended that these organizations increase their investments in human resources at the lower levels, that is, employ more field extension staff so as to bring their services closer to the communities and reduce the burden on public extension workers. In addition, they should increase investment in the government extension workers who operate with minimal resources.
6. The use of information and communication technology has enhanced the extension system in other countries. Extension organizations are therefore urged to consider investing in such technologies.
7. The small numbers of female extension staff remain a concern in the agricultural sector. Extension organizations should make deliberate efforts to increase the proportion of female extension staff in order to improve the ratio of female extension staff to female small-scale farmers.
8. Extension organizations should strengthen linkages with other players such as education institutions, input suppliers, and markets in the agricultural innovation system in order to enhance their effectiveness and efficiency in serving farmers.
9. Since this was a reconnaissance study, further research is required in the following areas:
    - The effectiveness of the DAESS structures in the coordination of agricultural extension activities.
    - The nature and extent of the role of FBOs in the agricultural innovation system.
    - The use of information and communication technology in the extension system.

APPENDIX A: SUPPLEMENTARY SURVEY INFORMATION

Survey Instrument: Agricultural Extension Service Providers

Instructions: Please complete as much of this survey instrument as possible. If some questions do not apply to your organization, just write **NA** on those questions; or if you do not have accurate data available for specific questions, just write **Not Available**.

SECTION A: GENERAL INFORMATION

1. <u>Basic Contract Information for the Extension Organization</u>

- **Name of Organization**: _____
- **Year Established**: _____
- **Name and Title of the Director**:
  _____(title)_____
- **Postal address**
  P.O. Box _____; Street name and number: _____
  City: _____; State/Province: _____
  Postal Code: _____; Country: _____
- Telephone number, including country and city code: _____-_____ - _____
- Fax Number, including country and city code: _____-_____ -_____
- URL for the organization's web site (if available): _____
- Email address for Information Officer: _____

2. Legal Status of the Organization (Check only one box)

☐ Governmental or ministry-based extension organization
☐ Public research institution with extension unit
☐ Semi-autonomous governmental extension organization
☐ University-based
☐ Nongovernmental Organization (NGO)
☐ Farmer-based Organization (FBO)
☐ Private sector organization or firm

3. Primary Management Authority for this Extension Organization

Please indicate which operational level has the primary management authority for administrative (finance) and personnel matters (please check only one box):

☐ National level
☐ State/Provincial level
☐ District/County level
☐ Other (please specify):

4. Primary Source(s) of funding for Fiscal Year 2007.

Please indicate the percentage of funding received from *each source*:

☐☐ National government (Ministry of Agriculture): ……..... _____%
☐☐ State government (Department of Agriculture): ……. _____%
☐☐ District level government …… _____%
☐☐ Fee for Service financing (Cost recovery from farmers) ……. _____%
☐☐ Private sector financing … …… _____%
☐☐ Donor financing ……. _____%
☐☐ Other (please specify): _____ _____%
Total source(s) of funding for the extension organization <u>100%</u>

SECTION B: HUMAN RESOURCES

5. Number of Professional and Technical Extension Personnel for Selected Years

Year	Senior Management Staff		Subject Matter Specialists (SMS)		Field Extension Staff	
	Male	Female	Male	Female	Male	Female
2009						
2010						

6. Total Number of Extension Staff by Category of Position and Level of Education

Major Categories of Extension Staff	Secondary School dip.		2-3 yr. Ag diploma		B.Sc. degree		M.Sc./Ing Agr. Deg.		Ph.D. degree	
Sex	F	M	F	M	F	M	F	M	F	M
Senior Management Staff										
Subject Matter Specialists (SMS)										
Field-level Extension Staff										
Information Technology & Communications Support Staff										
In-Service Training Staff										
Total No. of Extension Staff										

7. Subject Matter Specialists and Primary Subject Matter Areas Covered

a. Please estimate the number of subject matter specialists (SMSs) in your organization that are providing technical, management and other information in different subject matter areas:

No. of SMSs	Primary Subject Area	No. of SMSs	Primary Subject Area
_____	Major cereal crops	_____	Agricultural Marketing
_____	Major root and tuber crops	_____	Farm Management
_____	Major protein & oil seed crops	_____	Land, soil, water & forestry mgt
_____	Horticultural crops	_____	Organic agriculture
_____	Livestock	_____	Environmental and Climate change
_____	Fisheries	_____	Rural Development
_____	_____	_____	Organizing farmer/women's groups
_____	_____	_____	_____

b. Other major cash/export crops (e.g. cotton, rubber) and/or other subject matter areas.
[Please specify the number of SMSs by crop (e.g. cotton, rubber, groundnuts) *or enterprise*]

No. SMSs	Major export crop/enterprise	No. SMSs	Major crop or enterprise
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

SECTION C: FINANCIAL EXPENDITURES

8. Annual Expenditures for Selected Fiscal Years

To the extent possible, please indicate the total annual extension/advisory service expenditures for recent fiscal years.

Fiscal Year	Total Annual Extension Expenditures
2008	
2009	

9. Clientele Served (targeted): Please specify the primary group or groups that your organization serves (targets) and indicate the relative importance of each group. If more than one group, please indicate the approximate amount of time and effort (as a percentage) that your organization devotes to each group.

% of Time ↓	Client Groups	Importance: Not Important				Very Important
_____	Large commercial farmers	1.◯..	2.◯..	3.◯..	4.◯	5.◯..
_____	Small/medium-scale commercial farmers.	1.◯..	2.◯..	3.◯..	4.◯	5.◯..
_____	Farmers growing _____ (specify the major commodities)	1.◯..	2.◯..	3.◯..	4.◯	5.◯..
_____	Small-scale subsistence farmers …….	1.◯..	2.◯..	3.◯..	4.◯	5.◯..
_____	Women farmers ……..	1.◯..	2.◯..	3.◯..	4.◯	5.◯..
_____	Young (adult) farmers …….	1.◯..	2.◯..	3.◯..	4.◯	5.◯..
_____	Landless farmers ……	1.◯..	2.◯..	3.◯..	4.◯	5.◯..
_____	Rural youth ……. Age ___through ____years	1.◯..	2.◯..	3.◯..	4.◯	5.◯..
_____	Rural women (nutrition, health, hygiene) ...	1.◯..	2.◯..	3.◯..	4.◯	5.◯..
_____	Others:_____	1.◯..	2.◯..	3.◯..	4.◯	5.◯..

100%

10. Primary Extension Methods used by Field Extension Workers

Please indicate the percentage of staff time devoted to each method:

☐ Regular field visits to individual village-level farmers: ……_____%
☐ Regular field visits to *producer groups*: ……....._____%
☐ Conducting demonstrations, workshops and field days for farmers…..._____%
☐ Meeting with farmers at the field extension office…….……_____%
☐ Other (please specify):_____....._____%
Total ……..__100 %

SECTION D: ORGANIZATIONAL RESOURCES/SUPPORT SERVICES

11. What means of transportation is used by most field extension personnel? (Check only one)

☐ Personal car
☐ Office car or vehicle
☐ Office motorbike or motorcycle
☐ Public transportation (e.g. bus or van)
☐ Personal motorbike or motorcycle
☐ Walking by foot
☐ Other (please specify: _____

12. Program Planning and Priority Setting

a. Which system level has primary responsibility for program planning and extension/advisory priority setting (for example, in an annual work plan)?

In the case of a public organization:	In the case of NGO, private firm, etc.
☐ National level	☐ Head office
☐ State/Provincial level	☐ Branch offices
☐ District/County level	☐ Other (Please specify): _____
☐ Sub-District level (local government)	_____

b. What role, if any, do farmer groups or organizations play in (check only one box per category)?

Role of farmer organizations in:	**Very Important**	**Important**	**Somewhat**	**Little**	**None**
Influencing extension policy	☐	☐	☐	☐	☐
Specifying extension programs	☐	☐	☐	☐	☐
Helping set extension priorities	☐	☐	☐	☐	☐
Assessing exten.'s performance	☐	☐	☐	☐	☐
Encouraging *farmer-to-farmer* extension activities	☐	☐	☐	☐	☐

SECTION E: INSTITUTIONAL LINKAGES AND PARTNERSHIPS

13. <u>Please characterize your organization's linkages with the organizations listed below</u>: (*Please check only one box for each type of institution*)

Institutions	Strength of Linkages				
	Very Strong	**Strong**	**Moderate**	**Weak**	**No Linkage**
Agricultural Research Organizations	☐	☐	☐	☐	☐
Agricultural Universities	☐	☐	☐	☐	☐
Agricultural Schools (diploma level)	☐	☐	☐	☐	☐
Private sector <u>input supply firms</u>	☐	☐	☐	☐	☐
Private sector <u>markets or exporters</u>	☐	☐	☐	☐	☐
NGOs involved in extension activities	☐	☐	☐	☐	☐
District or local government agencies	☐	☐	☐	☐	☐
Cooperative /Consumer organizations	☐	☐	☐	☐	☐
Banks and credit institutions	☐	☐	☐	☐	☐
Other extension/advisory service providers	☐	☐	☐	☐	☐

Many thanks for your cooperation and interest in strengthening agricultural extension and advisory systems worldwide. Important information on your organization will be included in the forthcoming Worldwide Directory of Agricultural Extension and Advisory Systems. When finished, please send a copy of this completed questionnaire by e-mail to Dr. Burton Swanson, Coordinator of this **Worldwide Agricultural Extension and Advisory Service Study** for the International Food Policy Research Institute (swansonb@illinois.edu). If you do not have e-mail access, please airmail this completed questionnaire to Dr. Burton E. Swanson, 451 Mumford Hall, 1301 West Gregory Avenue, Urbana, IL 61801, USA.

Survey Interview Guide

1) Status quo of extension service system
   a. What is your organization's main/core objective/business?
   b. When was your organization established in Malawi?
   c. Since when has your organization engaged in extension service provision?
   d. What is the focus in your extension approach?
   e. What are your main extension messages?
   f. Did you experience any major changes in the sector with regards to the extension service system over the past 15 years?

2) Linkages between research and extension systems
   a. Do you develop your own extension messages?
   b. If yes, can you describe briefly how:
   c. If not, can you tell us how you obtain extension messages / materials:

3) Coordination of agricultural extension service delivery
   a. Do you coordinate your extension approach (e.g. PRAs) and messages (e.g. on CF, or marketing) with any other organization and/or stakeholder platform (please name these)?
   b. Do you participate in district level participation fora and what is your experience with them?
   c. Do you collaborate with the DADO's offices and what is your experience with them?

4) Extension dissemination methods
   a. Do you use the lead farmer concept?
   b. Do you perceive this concept as successful?
   c. What incentives do you provide for lead farmers?
   d. What do you see as the main obstacle/constraint in scaling up this concept?
   e. Do you use field days to reach out to famers?
   f. Do you organize your own field days or do you collaborate with other organizations?
   g. Do you conduct farmer field school events (multi- day/week intensive trainings)?
   h. Would you support FFS participation of your target farmers financially?
   i. If you had to distribute 10 points between lead farmer concept, field days and FFS with regards to their effectiveness in supporting your organizations objective, how would you do that?

5) What do you think are the main constraints effective and efficient agricultural extension service provision in Malawi?

Table A.1—A summary of organizations interviewed

	Name of Organization	Type	Years in Operation	Major Extension Objective	Primary Extension Methods
1	Action Aid Malawi	NGO	38 years	Uplifting poor, vulnerable, and marginalized groups out of poverty, especially women	Field visits to individual farmers, field visits to farmer groups, demonstrations, field days, meetings
2	Agriculture Commodity Exchange (ACE)	NGO	6 years	Trade facilitation	Works with farmer cooperatives and farmer groups
3	Alliance One	Private-sector organization	6 years	Primarily tobacco-buying company operating in southern Africa—ensuring continuity of well-supplied product through investment in farmers	Demonstrations and field days
4	Care Malawi	NGO	12 years	Alleviating poverty through all means, especially via food security for women and children	Field visits to individual farmers, field visits to farmer groups, demonstrations, field days, meetings, workshops
5	Catholic Development Commission in Malawi – Chikwawa Diocese	NGO	11 years	To improve community livelihoods	Field visits to individual farmers, field visits to farmer groups, demonstrations, field days, meetings, workshops
6	Catholic Development Commission in Malawi – Mzuzu Diocese	NGO	11 years	To improve community livelihoods	Field visits to individual farmers, field visits to farmer groups, demonstrations, field days, meetings, workshops
7	Christian Service Committee	NGO	43 years	Rural development work in Malawi by building capacity of farmers to improve own livelihoods using low-cost technologies and volunteers in extension messages	Mostly using lead farmers, which they use as extension multipliers, supported by field visits to individual farmers, demonstrations, field days, workshops
8	Church of Central Africa Presbyterian (CCAP) – Synod of Livingstonia Development Department	NGO	18 years	Not available	Field visits to individual farmers, field visits to farmer groups, demonstrations, field days, meetings, workshops
9	Churches Action in Relief and Development (CARD)	NGO	16 years	Food security and livelihoods	Field visits to individual farmers, meetings with farmers, as well as conducting meetings, demonstrations, workshops, field days for farmers
10	Community Youth in Development Activities (COYIDA)	NGO	9 years	COYIDA anticipates a self-reliant community with improved livelihoods	Field visits to individual farmers, field visits to farmer groups, demonstrations, field days, meetings, workshops

Table A.1—Continued

	Name of Organization	Type	Years in Operation	Major Extension Objective	Primary Extension Methods
11	Department of Agricultural Extension Services (DAES)	Government	103 years	Promoting the production of various smallholder crops, livestock, and fisheries, as well as agricultural marketing; farm management; land, soil, water, and forestry management; environmental and climate change mitigation; organization of farmers and women farmers into groups, as well as cooperatives and associations	Field visits to individual farmers, field visits to farmer groups, demonstrations, field days, meetings, workshops
12	Development Aid from People to People (DAPP)	NGO	6 years	Many crops as well as farmer organization; organizing women's groups; land, soil, and water as well as forestry management; environmental and climate change mitigation; organic agriculture; agricultural marketing; and rural development	Field visits to individual farmers, field visits to farmer groups, demonstrations, field days, meetings, workshops
13	Eagles Relief and Development Programme	NGO	9 years	Community empowerment	Working with farmer groups, meetings with farmers, as well as conducting meetings, demonstrations, workshops, field days for farmers
14	Emmanuel International Malawi	NGO	36 years	To reach out to people physically and spiritually	Field visits to individual farmers and farmer groups, meetings with farmers, as well as conducting meetings, demonstrations, workshops, field days for farmers
15	Evangelical Association of Malawi	NGO	9 years	Holistic transformation and grassroots empowerment	Lead farmers, farmer field schools and field days
16	FAIR	NGO	11 years	Increase sustainable agricultural production through an agro-ecological approach to farming using low-cost and environmentally friendly agricultural practices	Farmer-to-farmer extension through lead farmers
17	Farm Income Diversification Programme	Government	6 years	Improve the living standards of people through crop and livestock diversification	Field visits to individual farmers, field visits to farmer groups, demonstrations, field days, meetings, workshops
18	Farmers Union of Malawi (FUM)	FBO	10 years	Umbrella body for Malawian farm organizations to become a vibrant collective voice	Field visits to individual farmers, field visits to farmer groups, demonstrations, field days, meetings, workshops, radio and annual general meetings

Table A.1—Continued

	Name of Organization	Type	Years in Operation	Major Extension Objective	Primary Extension Methods
19	Food and Agricultural Organization of the United Nations (FAO)	Multilateral organization	31 years	Help government eradicate hunger	Field visits to individual small-scale farmers and farmer/producer groups
20	Heifer International Malawi	NGO	3 years	Improve the living standards of smallholder farmers through the provision of livestock and training	Field visits to individual farmers, field visits to farmer groups, demonstrations, field days, meetings, workshops
21	Hunger Project Malawi	NGO	12 years	To end hunger and poverty among the rural communities	Field visits to individual farmers, field visits to farmer groups, demonstrations, field days, meetings, workshops, usage of lead farmers, farmer field schools
22	Japan Oversees Cooperative Association (JOCA)	NGO	6 years	Community empowerment	Field visits to farmer groups, demonstrations, field days, workshops
23	Land O'Lakes	Private-sector organization	13 years	Promotion of livestock as well as major protein and oilseed crops	Field visits to individual farmers, field visits to farmer groups, usage of lead farmers and training of lead farmers at residential training centers
24	Malawi Africare	NGO	26 years	To help improve the quality of life in Africa	Field visits to individual farmers, demonstrations, field days, meetings
25	Malawi Bio-Energy Resources	Private-sector organization	5 years	To produce biodiesel through contract farming arrangements as a commercial objective and to qualify for carbon credit payments to attract additional funds by promoting *Jatropha curcas* as an energy plant	Demonstrations, workshops and field days
26	Malawi Organic Growers Association	FBO	11 years	Advance and promote organic agriculture in Malawi	Field visits to farmer groups, demonstrations, field days, meetings, workshops
27	Malawi Rural Finance Company (MRFC)	Semi-autonomous governmental organization	16 years	To provide microfinance services to small- and medium-sized farmers and entrepreneurs in Malawi	Regular visits to business groups and individuals
28	Maranatha Ministries	NGO	16 years	Provide fulfilling and sustainable relief and development to the disadvantaged	Field visits to individual farmers as well as meetings with farmers
29	Mpoto Dairy Farming Association (MDFA)	FBO	5 years	Promotion of dairy and livestock farming	Not available
30	Mzuzu Coffee Planters Cooperative Union Limited (MZCPCU)	FBO	14 years	Agricultural marketing and rural development	Field visits to individual farmers, field visits to farmer groups, demonstrations, field days, meetings, workshops
31	National Smallholder Farmers Association of Malawi (NASFAM)	FBO	13 years	Agribusiness	Field visits to individual farmers, demonstrations, field days, meetings, workshops

Table A.1—Continued

	Name of Organization	Type	Years in Operation	Major Extension Objective	Primary Extension Methods
32	Plan International (Malawi)	NGO	18 years	Promoting food security through the promotion of production of various smallholder crops, livestock, and sustainable natural resources management	Working through partners, usage of lead farmers and field days
33	Shire Highlands Milk Producers Association (SHIMPA)	FBO	26 years	Dairy development	Field visits to individual farmers, field visits to farmer groups, demonstrations, field days, meetings, workshops
34	Small Scale Livestock Production Program (SSLPP)	NGO	14 years	Promotion of livestock among small-scale farmers	Field visits to individual farmers, field visits to farmer groups, demonstrations, field days, meetings, workshops
35	Sustainable Rural Growth and Development Initiative (SRGDI)	NGO	6 years	Promotion of food security through sustainable natural resources management	Field visits to individual farmers, meetings with farmers, as well as conducting meetings, demonstrations, workshops, field days for farmers
36	World Alive Commission for Relief and Development (WACRAD)	FBO	19 years	To create a health community through spiritual, moral, social, and economic support	Field visits to individual farmers, meetings with farmers, as well as conducting meetings, demonstrations, workshops, field days for farmers
37	World Vision International – Malawi	NGO	28 years	Food security and community infrastructure development (promoting agriculture as a business)	Field visits to individual farmers, field visits to farmer groups, demonstrations, field days, meetings, workshops, usage of lead farmers, farmer field schools

Source: Compiled from questionnaire and interview guide data sets.

Table A.2—Selected characteristics of extension organizations

	Name of Organization	Operational Mandate	Type of Clients Served	Source of Funding	Qualifications of Staff				Organization Resources	Role of Farmer Groups
					Certificate	Diploma	BSc	Post grad		
1	Malawi Africare	National	NA	Private funding	2	3	3	1	Motorbike	1, 3, 4, 5
2	Action Aid Malawi	National	2, 5, 7	Private funding Donor and sponsorship program	0	3	5	1	Motorbikes	1, 2, 3
3	Alliance One	National	2,3	Donors	NP	NP	NP	NP	NP	NP
4	Malawi Bio-Energy Resources	National	2, 5	Private sector	0	53	22	3	Bicycles	1, 2, 3, 4, 5
5	Catholic Development Commission in Malawi – Chikwawa Diocese	Regional	3, 5, 8	Donors	0	5	3	1	Motorbikes	2, 3, 5
6	Catholic Development Commission in Malawi – Mzuzu Diocese	Regional	2, 3, 4	Donors and income generating activities (IGAs)	0	14	8	1	Motorbikes	1, 2, 3, 4, 5
7	Evangelical Association of Malawi	National	2, 5	Donors	0	14	8	1	Car	4, 6, 7
8	Malawi Organic Growers Association	National	2, 5	Donors	6	7	4	1	Motorbikes	1, 2, 3, 4, 5
9	Church of Central Africa Presbyterian (CCAP) – Synod of Livingstonia Development Department	Regional	4	Donors	0	12	4	0	Motorbikes	4, 5
10	Community Youth in Development Activities (COYIDA)	District	2, 5	Donor	4	5	0	0	Motorbikes	1, 2, 5
11	Japan Oversees Cooperative Association (JOCA)	NP	3, 4, 5, 6	JOCA	1	1	2	0	Motorbikes	1, 4, 5
12	Mpoto Dairy Farming Association (MDFA)	NP	4	Member fees	11	1	1	0	Walking	3
13	Malawi Rural Finance Company (MRFC)	National	2, 4	Revolving fund	22	5	2	0	Motorbikes	2, 3, 4, 5
14	Mzuzu Coffee Planters Cooperative Union Limited (MZCPCU)	NP	2, 4	Member fees, donors, and private-sector financing	7	13	3	1	Motorbikes	5 (1, 2, 3, 4)
15	National Smallholder Farmers Association of Malawi (NASFAM)	National	2, 5	Donors	0	54	14	5	Motorbikes	1, 3, 4, 5
16	Small Scale Livestock Production Program (SSLPP)	National	4, 9	Fee for services, donors	0	NP	NP	1	Motorbikes	3, 4, 5
17	Care Malawi	National	4, 5, 7, 8, 9	Donors, international private corporations	0	20	14	6	Motorbikes	1, 2, 3, 4, 5

Table A.2—Selected characteristics of extension organizations

	Name of Organization	Operational Mandate	Type of Clients Served	Source of Funding	Qualifications of Staff				Organization Resources	Role of Farmer Groups
					Certificate	Diploma	BSc	Post grad		
18	Development Aid from People to People (DAPP)	District	4, 5	Donor	116	1	1	0	Bicycles	4, 5
19	Farm Income Diversification Programme	National	4, 5	Donor	0	0	0	8	Bicycles and motorbikes	1, 3, 5
20	Farmers Union of Malawi (FUM)	National	4	Donor	0	4	1	3	Bicycles	1, 2, 3, 4, 5
21	Heifer International Malawi	National	2, 4, 5	Donor	0	2	5	1	Motorbikes	1, 2, 3, 5
22	Department of Agricultural Extension Services (DAES)	National	3, 4, 5, 6, 7, 9, 10	Government and donors	1,767	293	92	15	Bicycles and motorbikes	5
23	World Alive Commission for Relief and Development (WACRAD)	National	8, 9, 10	Donors and church	0	9	4	2	Car	1, 3
24	World Vision International – Malawi	National	NP	NP	NP	NP	NP	NP	NP	NP
25	Land O'Lakes	National	2	Donor	0	2	2	0	Bicycle	4, 5
26	FAIR	District	4	Donor	0	12	5	3	Motorbikes	1, 2, 3, 4, 5
27	Plan International (Malawi)	District	4	Private	0	10	1	0	Motorbikes	5
28	Food and Agricultural Organization of the United Nations (FAO)	National	4	Donor	0	0	0	0	Motorbikes	2, 3, 5
29	Christian Service Committee	National	4, 5	Donor	2	1	0	0	Bicycle	2, 3, 5
30	Churches Action for Relief and Development (CARD)	National	3, 4, 5, 6,7	Donor	0	8	2	2	Motorbikes	3
31	Hunger Project Malawi	National	4, 5	Donor	3	5	2	1	Walking	NP
32	Maranatha Ministries	National	5	Donor	1	4	0	0	Car	2, 3, 5
33	Shire Highlands Milk Producers Association (SHMPA)	District	3, 4, 5	Fee for service, donor	10	10	0	0	Motorbikes	1, 2, 3, 4, 5
34	Sustainable Rural Growth and Development Initiative (SRGDI)	District	4, 5, 8, 9, 10	Donor	8	2	6	0	Walking	1, 4, 5
35	Emmanuel International Malawi	National	4	Donor	52	38	14	0	Motorbikes	3, 4, 5
36	Eagles Relief and Development Programme	National	4	Donor	1	3	1	1	Motorbikes	2, 4
37	Agriculture Commodity Exchange (ACE)	National	2,3	Donors	NP	NP	NP	NP	NP	NP

Source: Compiled from questionnaire data set.

Notes: Codes for Types of Clients Served: 1 = Large commercial farmers; 2 = Small and medium-sized commercial farmers; 3 = Farmers growing specialized crops/enterprises; 4 = Small-scale subsistence farmers; 5 = Women farmers;6 = Young (adult) farmers; 7 = Landless farmers; 8 = Rural youth; 9 = Rural women (nutrition, health, hygiene); 10 = Others

Role of Farmer Organizations: 1 = Influencing extension policy; 2 = Specifying extension programs; 3 = Helping set extension priorities; 4 = Assessing extension performance; 5 = Encouraging farmer-to-farmer extension activities.

APPENDIX B: SUPPLEMENTARY TABLES

Table B.1—Number of professional and technical extensional personnel from 2005 to 2010 in DAES

	Senior Management Staff			Subject Matter Specialists (SMSs)			Field Extension Staff		
Year	Male	Female	Total	Male	Female	Total	Male	Female	Total
2005	12	3	15	56	9	65	810	100	910
2006	12	3	15	63	10	73	940	132	1,072
2007	12	3	15	90	12	102	1,120	140	1,260
2008	10	5	15	110	15	125	1,200	150	1,350
2009	9	6	15	120	20	140	1,300	170	1,470
2010	9	6	15	128	32	160	1,859	205	2,064

Source: Compiled from DAES, MoAFS questionnaire.

Table B.2—DAES annual expenditures for Fiscal Years 2005 to 2009

Fiscal Year	Total Annual Extension Expenditures (MWK)
2005	344,000,000
2006	380,000,000
2007	425,000,000
2008	472,000,000
2009	525,000,000

Source: Compiled from DAES, MoAFS questionnaire.

Table B.3—DAES 2009/10 financial expenditures

2009/10 Financial Expenditures	MWK Millions	% Expenditure
1. Salaries and benefits	837,037,089	55.4
2. Operational and program costs	499,000,000	33.0
Estimated travel expenses	234,000,000	15.5
Estimated building services	45,000,000	3.0
Estimated extension program activities	80,000,000	5.3
Estimated in-service training	99,000,000	6.6
Estimated training production costs	26,000,000	1.7
Provision of mobile phones	15,000,000	1.0
3. Capital costs	175,000,000	11.6
Building construction and maintenance	27,000,000	1.8
Purchase and maintenance of equipment	18,000,000	1.2
Purchase and maintenance of vehicles	130,000,000	8.6
Provision of loans for motor vehicles, house		0
Total expenditures	1,511,037,089	

Source: Compiled from DAES, MoAFS questionnaire.

Table B.4—Total number of DAES extension staff by category of position, level of education, and gender in 2009

Major Categories of Extension Staff	Secondary School Diploma			2- or 3-Year Ag Diploma			BSc Degree			MSc Degree			PhD Degree			Grand Total	
Gender	F	M	Total	F	M	Total	F	M	Total	F	M	Total	F	M	Total	Total	%
Senior management staff	0	0	0	0	0	0	3	6	9	3	2	5	1		1	15	0.7
Subject matter specialists (SMSs)	0	0	0	21	30	51	21	60	81	3	5	8	0	0	0	140	6.5
Field-level extension staff	300	1,460	1,760	115	125	240	0	0	0	0	0	0	0	0	0	2,000	92.3
Information technology and communications support staff	3	4	7	1	1	2	1	1	2	0	1	1	0	0	0	12	0.6
In-service training staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total no. of extension staff	303	1,464	1,767	137	156	293	25	67	92	6	8	14	1	0	1	2,167	
Percentage	17.1	82.9		46.8	53.2		27.2	72.8		42.9	57.1		100.0	0.0			

Source: Compiled from DAES, MoAFS questionnaire.

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