Evaluation of the Agricultural Information Service (AIS) in Lesotho

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A B S T R A C T

This paper presents findings of a study conducted to evaluate the extent to which the Agricultural Information Service (AIS) is providing agricultural information services to farmers in Maseru district, Lesotho. The study used the survey method consisting of various components of data collection strategies including field work, document research and observations. A total of 300 farmers were surveyed from a population of 1700 farmers. The study yielded 215 respondents representing a 70% of response rate. Two hundred and nine respondents were farmers while 6 respondents were AIS staff members.

The findings revealed that information services provided by AIS were somewhat of good quality in terms of relevancy, sufficiency and currency and had improved productivity but were not easily accessible to most farmers. Several problems that hinder the utilization of the AIS services were cited such as failure to visit farmers at their respective areas, wrong broadcasting time, lack of promotion of AIS services and lack of training of farmers on how to use AIS services. The study recommended regular and continuous training program, active promotion of AIS services, introduction of appropriate information channels/technologies and the encouragement for farmers to visit AIS so that they can utilize the existing services.

Although the study was limited to the evaluation of the AIS in Lesotho, the outcome of the study sheds more light on the challenges of the provision of agricultural information in Lesotho and other similar countries in Africa.

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1. Introduction

Agriculture is regarded as the engine of development in most developing countries. Agricultural development is usually measured in terms of increase in production and productivity, and is often brought about by the adoption of new technologies. Specifically, agriculture is a significant factor in the improvement of the living conditions of the rural people and farmers in particular (Manda, 2002). This is why developing countries are putting more emphasis on shaping the future of agriculture. Thus, growing market opportunities in certain developing countries have been coupled with a shift in production and exports of farm commodities. Like other developing counties whose livelihood depends mostly on agriculture, Lesotho is not an exception. A large percentage of Basotho population resides in rural sector and depends on agriculture for growing food and raising livestock for their livelihood. Lesotho produces maize, sorghum, peas, beans, wheat, oil seeds, nuts, soya, potatoes and vegetables. Lesotho’s agricultural year starts from August to July with harvests for winter being wheat and peas in the first half of the year and maize, sorghum and beans in the second half (Mokotjo, 2009). Given its importance to the national economy, the Lesotho Government is putting in place measures to improve agricultural productivity (Mokotjo, 2009). For example, in 2006/2007 the Ministry of Agriculture was allocated M106.1 Million (US$ 9.8m) while in 2007/2008 it got M141.1 Million (US$ 13.2m) and extra M59 Million (US$ 5.4m) was allocated to finance agricultural project, including irrigation crop production to offset the negative impact of repeatedly increasing drought and supported the Block Farming with loans of up to M105 Million (US$ 5.5m) (Ministry of Finance, 2008). In 2008, the Ministry of Agriculture and Food Security was allocated M208.8 Million (US$ 19.2m) with M50.6 Million (US$ 4.6m) earmarked for development expenditure (Ministry of Finance, 2008).

2. Agricultural information services in Lesotho

Despite the strong support from the government, agricultural productivity and its share in GDP has been declining in Lesotho (Ministry of Finance, 2008). For example, according to the 2007 Food and Agriculture Organisation (FAO)/World Food Programme (WFP) Special Report, there has been a substantial decline of 47% in cereal production, 51% in maize production, 42% in sorghum and 4%
in wheat production in the past 5 years (FAO/WFP Special Report, 2007).

Several researchers agree that in order to improve agricultural production in Lesotho, farmers must make their own decision, understand agricultural issues clearly and answer questions related to agricultural production. To achieve this, farmers must be linked with appropriate information and in appropriate format that will help them resolve their information needs and thereby boost production (Mokone, 1999; Mokotjo, 2009; Tshabalala, 2003).

Mokone (1999), for instance, shows that many farmers in Lesotho rely on their indigenous knowledge, in that, most families discuss and advise each other on agricultural issues because of lack of mass media in their localities. Mokone also argues that although 85% of farmers in Lesotho can read and write, there are no agricultural publications available in their villages and that most farmers are not aware of agricultural programs broadcast over the radio. In addition, Tshabalala (2003) revealed that most farmers in Lesotho were not aware of the available information services and their right to use any information service. He contends that it is for this reason that farmers continue growing the same crops every year thus degrading the soil leading to the loss of productivity and consequently decline in yield. Tshabalala (2003) has also observed that there is poor transfer of knowledge about modern crop and animal production, and that most farmers were not even aware of the existing subsidies.

Given the foregoing, several initiatives have been cited as key to revamping the agricultural information services in Lesotho. One such key effort has been the support and development of the agricultural information service (AIS). However, available literature shows that over the past years, one of the key problems in the development of agricultural information services in Lesotho has been that no major evaluation has been carried to examine if the AIS has been able to meet its intended objectives (Mokotjo, 2009). To this end, this paper documents part of the findings of a study that sought to evaluate and determine the extent to which the AIS was providing agricultural information services to rural farmers in Maseru district, Lesotho.

3. The agricultural information service (AIS)

The agricultural information service (AIS) in Lesotho was established in 1960. The division is under the department of Field Services of the Ministry of Agriculture and Food Security. The division comprises eight sections namely: radio broadcast, television, print media, campaign and the library, stores, maintenance and accounts and administration. It has a total number of 40 members of staff (AIS Annual Report, 2004).

The agricultural information service (AIS) has two main functions: (1) disseminating agricultural information to support agricultural development and (2) serving as public relations unit of the Ministry of Agriculture and Food Security. The principal feature of AIS is mass communication. The division produces agricultural information posters, newsletters, extension folders, booklets, photographs, magazines, colour slides, video lessons, field campaigns, farm radio broadcasts and agricultural news articles for broadcast over Lesotho National Broadcasting Service (AIS Annual Report, 2004). The following are the AIS information goals:

- To provide agricultural information needed by farmers for their empowerment in the agricultural production.
- To create awareness on important agricultural-related programs and issues so that clients can make informed decision.
- To improve knowledge and skills of stakeholders to optimize agricultural production.
- To capacitate farmers to identify and find solutions to their own problems.
- To formulate appropriate information and extension policies so as to provide a conducive environment for quality service delivery (AIS Annual Report, 2004).

4. Methodology and research design

The main purpose of the study was to assess the extent AIS is providing agricultural information services to farmers in Maseru district in Lesotho. A total of 300 farmers were randomly sampled and surveyed from a population of 1700 farmers; while 6 AIS staff members were also purposefully selected. In this study, a combination of interviews, questionnaires and observations were used to collect data based on both qualitative and quantitative research paradigms. The study yielded 215 respondents representing a 70% of response rate. Two hundred and nine respondents were farmers while 6 respondents were AIS staff members. Of the 209 farmers, 87% were subsistence farmers, 11% were semi-commercial farmers while 2% were commercial farmers; 52.8% were female farmers while 47.1% were male farmers; 31.5% fell under the age bracket of 41–50 years and 28.7% fell under the age bracket of 51–60 years. In terms of the educational level, most of the respondents (61.7%) had primary education; 28.2% had secondary education; 5.2% had degree while only 2.3% had postgraduate degree. Out of 6 AIS staff members, 2 were female while 4 were male. They had all received their highest education at the university level; 4 had worked for AIS for a period ranging between 20 and 24 years, while 2 had worked for a period ranging between 7 and 8 years.

5. Findings and discussions

The findings covered the following areas of focus of the study:

- awareness of information services;
- quality of information service;
- access and use of agricultural information;
- appropriate media/channels of agricultural information dissemination;
- benefits and challenges of using AIS services to farmers.

5.1. Awareness of services

It is widely known that low awareness is among the primary reasons for under-utilization of information services (Majid et al., 2001). Similarly, Shibanda (1999) maintained that awareness of information services is usually associated with the awareness stage, where farmers learn about new ideas by being introduced to new sources of information such as farmers training centres, extension agents, agricultural research institutions, film shows, farm radio, newspapers/magazines, government officials and cooperatives societies.

The findings of this study revealed that majority of the respondents (95.2%) knew about AIS services although AIS did not put in place promotion measures. This may be due to the monopolistic nature of this agricultural information service in Lesotho. The study also revealed that the majority of the respondents were also aware of different services provided by AIS such as radio, TV, print media, public campaigns and the library services. It also showed that most of the farmers who knew about AIS and their different composite services were female (69%). This implies that more women rather than men knew about AIS. Earlier studies by Mokone (1999) also indicated that women in Lesotho seem to be more informed than men about agriculture. Mokone (1999) further argued that the majority of women in Lesotho enjoy higher rates of educational attainment and literacy rates, unlike in most other countries in
Africa. Soquel (2008) also showed that women are the most and constitute 40–80% of the of the developing world’s rural farmers yet they are marginalised in terms of limited access to information, land, capital and technology. However, the gap between females and males is shrinking at most levels, especially at primary level where the proportion is almost one to one in Lesotho (Mokotjo, 2009).

5.2. Quality of information

The characteristics of quality information involve relevancy, accuracy, sufficiency, timeliness, and currency. Majid et al. (2001) maintained that lack of current, accurate, sufficient, relevant and timeliness of information could hinder agricultural research and development. Aina (2007) suggested that the road to success for information centres in Africa is the provision of relevant and timely information to rural communities. Other authors also agree and contend that in order for agriculture to improve, there is a need to strengthen the existing information system so as to provide information that is timely, relevant, accurate and reliable and in an appropriate language and format (Kalusopa, 2005; Shibanda, 1999).

Broadly put, when each of the key quality characteristics was considered using a multi-response list, the findings of this study revealed that most of the farmers were somewhat satisfied with information provided by AIS. Thus most farmers felt the information they got was sometimes: relevant – 37%; sufficient – 34.7%; accurate – 44.9%; timely – 58.3%; clear and appropriate formats – 46.2%; current – 41.2%; and it was most of the time: relevant – 50%; sufficient – 52.3%; accurate – 37.9%; timely – 18.1%; clear and appropriate formats – 37.2%; current – 46.2%.

When the analysis was broken down to the educational level of respondents, most of those who had never received any formal education said they had never found quality information at AIS. Nevertheless, those with higher education indicated that they got quality information all the time. This implies that educational level of farmers has an impact on how they perceived the quality of information at AIS. In a study by Yongling (2004) conducted in China, it was found that there is a problem of low-quality, outdated, inaccurate or incomplete information because farmers lack the ability to distinguish between ‘good’ and ‘bad’ information due to low educational level of farmers.

5.3. Access and use of agricultural information

Farmers need to have access to agricultural information if their agricultural efforts are to be realized. In a study in Delta State in Nigeria, Adomi et al. (2003) found out that farmers need to have access to agricultural information in order to improve their agricultural production. They further contend that farmers need to have access to financial information for their actual performance as well as access to credit. Furthermore, Irivwieri (2007) stressed that access to and utilization of appropriate information services by all members of society is a duty of every government. Irivwieri (2007) opined that rural people, who are mainly illiterate, require access to appropriate information to be able to make decisions and participate fully in the national development process, including agriculture.

The findings of this study showed that the majority of farmers do not access information easily from AIS most of the time. With regard to whether the utilization of services has improved farmers’ effectiveness in agricultural production, a large number of respondents (62.1%) agree that utilization of AIS services had improved their effectiveness in agricultural production. Information gathered through interviews also confirmed that the utilization of AIS services had improved many farmers productivity. In a study in Nigeria, Fawole (2006) also found that the utilization of available information by farmers is very important because it justifies among other factors, efforts by research and related organization to improve farmers’ activities and output.

Furthermore, information gathered through interviews with the Chief Information Officer showed that AIS services are not fully utilized due to lack of radio frequencies. Frequencies of radio and TV depend on Radio Lesotho and AIS do not have the capacity to open its own and that AIS only produce radio programs but do not have full control over their dissemination. Moreover, although there are seven radio stations in Lesotho, AIS, as a government agency, is only allowed to use government-owned radio station, Radio Lesotho. This means access to AIS services is also hindered by government bureaucratic rules thus denying access to agricultural information to those who listen to other radio stations other than Radio Lesotho.

The results also showed that 48% of the respondents had received a good help from AIS. However, it has been observed that very few farmers visited AIS and those who managed to visited confirmed they received good help. It is important to note that information centres are key source of information and there is a need for closer co-ordination and collaboration between farmers and information providers. Kalusopa (2005) in his study focusing on small-scale farmers in Zambia confirmed that there is a need for closer relationship between information providers and users. He pointed out that a closer contact between information providers and end-users enables provision of broad and variety of information. In the same vein, farmers in Lesotho need to be encouraged to visit AIS in order to be familiar with different services provided.

With regard to educational level of respondents, the findings revealed that the majority of those who attended adult education, primary education, secondary education and degree did not access information easily most of the time but they seem to receive a good help from AIS. They also agree that utilization of AIS services had improved their effectiveness in agricultural production. On the contrary, the majority of those who had postgraduate (60%) access information easily most of the time. Okwu et al. (2007) for instance indicated that individual’s level of education can affect accessibility, comprehension and adoption of modern agricultural practices. In addition Ofooke et al. (2008) argue that the level of education of farmers has significant relationship with information utilization because educational level influences information utilization. The higher the educational level of farmers, the more they are willing to use information provided. This study also confirms this trend in that the higher the level of education the more access to AIS in Lesotho.

5.4. Appropriate media/channels of agricultural information dissemination

Irfan et al. (2006) indicated that the available technologies, if adopted by farmers, can enhance agricultural production considerably. This study sought to find out which medium, technology or channels were appropriate to disseminate agricultural information to farmers. Such medium could include: radio, television, computer, cell phone, public campaign and the library service. These are discussed below.

5.4.1. Radio

Radio is one of the most widespread and popular tools of communication in Africa. Chapman et al. (2003) argue that the strength of radio as an extension tool is widely praised for its ability to reach illiterate farmers and provide them with information related to all aspects of agricultural production in a language they understand. They further maintain that in an era of rapidly developing information and communication technologies, rural radio is a powerful mechanism for linking old and new technologies, providing information resources cheaply to those who need to improve their
livelihoods, while at the same time strengthening existing resource of knowledge, enterprise and cultural identity. Furthermore, Okwu et al. (2007) also show that radio is one broadcast medium which almost all experts have found to be the most appropriate medium of mass communication in the rural population. He further maintains that radio is favoured as a medium of communication in rural communities because of the advantage of demanding less intellectual effort than the print media messages and also because it is able to reach remote areas, even where there are no extension agents, as long as there is a good reception.

However, Tshabalala (2003) indicated that although radio cost is affordable and is very cheap to maintain, unfortunately in most developing countries, agricultural information programs are not determined along national information dissemination policy; messages are usually not tailored to the agricultural information needs and the rural farmer and population have limited access due to poor reception and limited area coverage. The findings from the present study revealed that a large number of farmers (43.2%) chose radio as the most appropriate technology to access AIS service. In Lesotho people can carry radio sets anywhere; there is no restriction as to when and where one can listen to the radio. However, most farmers contend that the 15 min morning and 30 min evening broadcast times from Monday to Friday were inadequate.

5.4.2. Television

Television is another means of disseminating agricultural information to farmers. Irfan et al. (2006) stressed that television is used to reach large number of people quickly and serves an important and valuable function in stimulating farmers’ interest in new ideas. However, Tshabalala (2003) maintained that although television is a powerful medium, many people could not afford it in most developing countries. Furthermore, Kari (2007) also stressed that to some of the farmers, television is not seen as a source for obtaining information, but rather as entertainment media.

This study indicated that only 24.6% of respondents chose television as the most appropriate technologies. Information gathered from interviews indicated that farmers who reside in the highlands of Lesotho cannot have access to TV due to poor TV coverage; only farmers in the lowlands can have access to TV. One other reason is that TV sets are very expensive to most of the rural farmers and also use electricity which most them do not have in their homes.

5.4.3. Cell phones

Cell phones can be used to provide access to agricultural markets information. In modern times, this has strengthened the farmers’ bargaining power, as they now have access to real time marketing information alternatives (Shaibu & Powell, 2008). The present study showed that a very small number of respondents (2.01%) chose cell phones as the most appropriate technology to disseminate information. Further observations and interviews revealed that although cell phones are good in communicating urgent massage and making farming inquiries, the cost of making calls in Lesotho is very high. However, most studies elsewhere in Africa have showed the potential of cell phones in the dissemination of information to farmers. For example, towards the end of 2007 the Eastern Corridor Agricultural Marketing Information Centre (ECAMIC) project of the SEND foundation in Ghana started using mobile phones to improve market access for rural farming communities (Shaibu & Powell, 2008). According to Shaibu and Powell (2008), farmers in Ghana are now able to demonstrate their knowledge and awareness of current market trends to traders at the major market centres, and this is proving to be a very useful asset in the bargaining process.

Similarly, Chisenga (2007) also posit that BusyLabs in Accra has launched Tradenet as a media channel that allows anyone anywhere to affordably share market information via mobile phones. By tracking activities and profiles, the service becomes a crucial profiling and business monitoring tool, as well as an advertising medium. By focusing on profiling, Tradenet is able to offer a unique service that can minimize risk in transactions, offer some brokerage services, and provide a revenue stream by permitting advertising and data mining. Commodities traded on Tradenet include livestock, cattle, chicken, goat, sheep and pig. Nevertheless, the small-scale poultry farmers in Accra have not yet taken advantage of the facilities provided by Tradenet and the GPRS services by the mobile phone service providers, which have potential of opening up the sub-regional markets to their poultry and poultry products.

In Lesotho, Regional Hunger and Vulnerability Program (RHVP) ran the project as part of a pilot program to see how vulnerable people benefit from cell phones, to disprove arguments against the use of mobile phones for cash transfers, and to prove that illiterate people are able to embrace technology. Cell phones were distributed to three cooperatives women’s farming groups in different agro-ecological zones in Maseru district (IRIN, 2009). The study found that cell phone has transformed the women farmers’ lives completely. They are able to market their produce, access information on prices, and it has made them so confident. The pilot also took a step further to prove that not only are illiterate people able to handle technology, but they also benefit from improved communications, both in terms of their farming activities and the reduced time and cost of staying in touch with each other (IRIN, 2009).

Further, Kari (2007) stated that in hundred more years to come, the mobile phone will remain the technology most able to make a difference to peoples’ lives. However, most of the communities lack access to electricity and many send their phones to town for recharging. RHVP recommended the use of solar powered chargers, but these cost about $30, putting them beyond the reach of many in Lesotho, where the average annual income is about $400 (IRIN, 2009).

5.4.4. Computers

The use of computers and the number of Internet Service Providers (ISPs) as well as Internet users is increasing day by day in the world. Agricultural information technology systems are being developed now based on web technology. Better connection between the IT and research bodies is now needed for generation, compilation, dissemination and exchange of agricultural information (Zaman, 2002). Similarly, Ha et al. (2008) contend that Internet use has become a new skill that farmers have realized can be useful for them to find agricultural information they need. Furthermore, Kiplang’at and Ocholla (2005) in a study conducted in Kenya maintained that the rapid development and application of the Internet and other forms of ICTs in the agricultural sector have presented a whole new dimension in the transfer and access of agricultural information and showed that these technologies had improved the provision of agricultural information among agricultural researchers, extension workers and other actors.

However, findings from this research study shows that only 2.51% chose computer as the most appropriate technology to disseminate information to them. This can be attributed to the lack of ICTs infrastructure in most rural parts of Lesotho (Mokotjo, 2009). These findings are similar to the Zambian situation where Kalusopa (2005) found out that there was limited access to computer technology in most rural areas because of poor telecommunication infrastructure, high tariffs and slow pace of private investment. Van Brakel and Chasenga (2003) also confirmed that in most countries in Sub-Saharan Africa, the cost of computers is too high for many to afford, monthly Internet access rates are very high, and the charges for satellite television are unaffordable for most people.

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5.4.5. Print media
Print has qualities that make it a suitable medium for information diffusion in rural areas because print messages need relatively simple and cheap technology to produce. Morris and Stilwell (2003) contend that print media allows for greater accuracy of content and precision of expression than media where the message depends on oral transmission and the receivers' memory. However, Tshabalala (2003) further emphasize that print is still a primary medium whereby agricultural information is recorded, stored and transmitted, despite other medium made by electronic media. However, Tshabalala (2003) argues that although many information centres in Lesotho still use print media even though it is costly, such media is not very effective especially in addressing the information needs of rural farmers.

This study revealed that, although most farmers have primary education and AIS publications are written in local language (Sesotho), only 13% were of the view that print media was one the appropriate technologies to disseminate information. Information from interviews revealed that farmers did not have full access to AIS publications such as leaflets and newsletters due to poor dissemination strategies by the AIS of using the ineffective postal services and extension agents.

5.4.6. Public campaign
The primary task of public campaign in Lesotho is to supplement the extension service by way of planning and mounting campaigns in district extension areas throughout the country (Mokotjo, 2009). The campaign section plans and conducts national shows in liaison with other departments in different ministries (AIS Annual Report, 2004). They also provide expertise in design, layout and production of shows, exhibition brochures and newsletters. Usually the campaign is carried out by AIS staff using mobile vans (AIS Annual Report, 2004). In most cases, a session would involve the van moving into a village at a time previously agreed upon with the village chief and demonstrations would be done at the village square. Leaflets are also given out after demonstration (AIS Annual Report, 2004).

In the present study, only 15% of the respondents felt public campaigns were the most appropriate channel to disseminate information to them. However, in-depth interviews showed that public campaign section is under-staffed and is currently manned by only two officers instead of six. The centralized type of operation under which the section operates also leads to some difficulties in knowing the local needs and relevant of information of the farmers. Like other AIS sections, lack of financial support and transport also hinders the effectiveness of information in this section.

5.4.7. Library and information services
A library is considered as an important component of any high quality agricultural information services. Well developed libraries are essential to provide information support agricultural development (Aina, 2007). The AIS library has a collection of over 3000 volumes of books, journals, reports, unpublished materials and other agricultural-related materials. Its information services include issuing of books and other materials, current awareness services, paper clippings, interlibrary loan and Internet service (Mokotjo, 2009). The library has now entered a cooperative network in the exchange of information with libraries of other similar institutions such as National University of Lesotho (NUL), Lesotho College of Agriculture, Leroholi Polytechnic and State Library (Mokotjo, 2009). From the observations and interviews, the library is manned by only one librarian and in the absence of the librarian, it was usually closed (Mokotjo, 2009). Moreover, the library does not collect studies on AIS-related topics or staff theses and dissertations. Aina (2007) argues that for information centres to provide global information, it is expected that such centres would recruit skilled professionals in library and information science, who would be responsible for capturing relevant information from Internet, from respective ministries and also from other agricultural-related organization. However, as the study had showed, very few farmers were using AIS library and seem not to have been aware of such an information service.

5.4.8. Extension services
According to Tshabalala (2003), extension service represents a very important link in the dissemination of information. It is through extension workers that adopted information of technologies can be transferred to the end-user. Extension workers in the developing countries are the farmers’ main information source and they assist farmers to increase their production.

The findings from this present study revealed that extension service in Lesotho is manned by Department of Field Services in the Ministry of Agriculture. Nevertheless, AIS works hand in hand with extension service and their publications are distributed to District Agricultural offices, where they are given out to extension workers for distribution to farmers. In most cases, AIS follow-ups are made by extension workers in the department of Field Service. Training of farmers is also performed by extension services.

5.4.9. Physical access to AIS services
This study also revealed that a large number of the respondents (84%) do not visit AIS while very few visited AIS on daily, weekly, monthly, annually and quarterly basis. This is because most farmers felt that information collected and maintained there is irrelevant to their needs (Mokotjo, 2009). Morris and Stilwell (2003) emphasized that a visit constitutes a powerful means of training and information exchange and that the acquisition of knowledge and changes in attitudes are the most obvious outcomes of the visits. Observations showed that the few farmers who managed to visit AIS premises were also trained on how to access and use AIS services. The AIS officials indicated that farmers who had visited AIS were also provided with publications and submitted their postal address so that they could receive them on quarterly basis through the post. Those farmers with higher education were also introduced to AIS library services such as Internet service, current awareness service and interlibrary loan service. However, most farmers indicated they were not aware of the existence of such services due to lack of promotion of AIS services.

5.4.10. Information skills and knowledge
Soquel (2008) maintained that the intention of training is to improve the occupational skills and competence of farmers and other rural workers; to enhance diversification in farming and to increase the competitiveness and strength of the rural economy. Accordingly, training is an important aspect to develop a wider knowledge, without accurate training possibility of lower productivity is very high.

The study showed that highest number of the respondents (96.4%) had never received any training on how to use AIS services. Only 3.5% of the respondents were trained. These results indicate that a large number of respondents were not trained on how to use AIS services. Farmers need guidance from AIS for effectively using AIS services.

The study also found that AIS do not have facilities to train farmers in that 20% of the respondents were trained whenever required and the other 20% were trained annually, while 60% were never trained at all. The training is performed by another arm within the Ministry of Agriculture which deals specifically with training of the farmers. AIS management seemed not satisfied with this type of training and was planning to perform more training in the near future (Mokotjo, 2009).

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5.5. Benefits and challenges of using AIS services to farmers

Farmers were also asked to cite any major benefits and challenges of using AIS services in their agricultural activities.

As indicated from the findings, farmers had demonstrated that AIS services had contributed significantly in improving their agricultural production such as the following: cereal production, crop production including vegetables and gardening, poultry production and livestock production. In addition, AIS services had improved their nutrition since they had learned on how to use nutritious food at their homes. Moreover farmers indicated that they had gained more knowledge on agricultural activities. For example farmers are now well informed than before about loan possibilities, pest control, different methods and techniques on how to deal with plant diseases. Aina and Mohai (1994) indicated that information services should help improve farmer’s livelihood by accelerating the flow of critical knowledge which should result in greater food and export crop production, improved food security and higher incomes for farmers. They further indicated that access to information by stakeholders could change the way farming and marketing is done, leading to a more efficient and competitive agro-business environment.

Furthermore, farmers showed that they had managed to exchange knowledge with one another over the radio programs, advertised their products to the public over the radio and also gained access to market.

The major challenges which were identified include the following: wrong broadcasting time, late announcement, lack of visit by AIS staff, broadcasting of same information throughout the year and lack of feedback. Furthermore, some farmers stated that AIS staff do not visit farmers to see if what they are broadcasting is well practiced in the fields and they also do not make some follow-ups. Farmers also complained that AIS was even slow to respond to their information needs such as information on loans, market situation, government assistance programs and how to hire tractors.

6. Recommendations and strategies

Based on the findings above, the following recommendations and strategies could be considered to improve agricultural information services in Lesotho.

6.1. Awareness of services

It became apparent that respondents lack training on how to use AIS services effectively. It is recommended that a regular and continuous training program should be designed for farmers to use AIS services. User needs assessment would most likely be the starting point to establish who needs training and what type of training would be appropriate for a particular farmer.

6.2. Promotion of AIS services

Although the majority of farmers indicated that they were aware of the existence of AIS and that they were also aware of different services provided by AIS, the study recommends that AIS should publicize its service more to public so that their services are fully utilized. Proactive marketing strategy should be adopted and this should include introduction of current awareness programs. More importantly, services rendered by AIS should be marketed on an on-going basis.

6.3. Access and use of AIS services

The findings from this study showed that majority of farmers do not access information easily from AIS. This is sometimes due to lack of appropriate media, technology, and channels to disseminate information to farmers. In terms of appropriate media, technology and channels to disseminate information, the following are recommended.

6.3.1. Radio

It was also revealed that most farmers prefer radio as their most suitable technologies to disseminate information but AIS do not have their own frequency. This study therefore recommends that AIS should have its own frequency where they will have a full control and that AIS should use the other radio stations to disseminate information to the farmers. In addition, the content of radio programs needs to be improved and the broadcast times should be convenient to the farmers.

6.3.2. Television

The study revealed that farmers who reside in the highlands of Lesotho cannot access TV because of poor television coverage in Lesotho. The study therefore recommends that AIS through the Ministry of Agriculture should encourage government to put more TV signals in the highlands so that people in the highlands should have access to TV. In addition, AIS programs that are aired for 30 min on Tuesday only should be aired at least three times a week.

6.3.3. Cell phones

Although the high cost of local call charges limits the use of cell phone in Lesotho, most studies in Africa have shown the potential of cell phones in the dissemination of information to farmers. Studies have found that cell phones had transformed the farmers’ lives. Through the use of cell phones farmers are able to market their products; they are able to access information on prices. It has also improved farmers’ communications in terms of their farming activities and also reduce time and cost of staying in touch with each other. The study therefore recommends that AIS should introduce means of disseminating information to farmers through cell phones.

6.4. Physical access

The study also recommends that AIS should encourage farmers to visit AIS so that they can utilize the existing services which they are not aware of. This will also help them to know whether services are fully utilized or not and also to know whether attendance has declined or increased and will enable a user to make suggestions.

6.5. Clarity and format of information

Furthermore, the study also recommends that AIS should introduce appropriate technologies to disseminate information to farmers which are tailored to their needs such as traditional folk media and rural radio.

7. Conclusion

This paper has attempted to present part of the findings of a study conducted to evaluate the extent to which the Agricultural Information Service (AIS) is providing agricultural information services to farmers in Maseru district, Lesotho. The findings revealed that information services provided by AIS were somewhat of good quality in terms of relevancy, sufficiency and currency and had improved productivity but were not easily accessible to most farmers. Several problems that hinder the utilization of the AIS services were cited such as failure to visit farmers at their respective areas, wrong broadcasting time, lack of promotion of AIS services and lack of training of farmers on how to use AIS services. The study recommended regular and continuous training program, active
promotion of AIS services, introduction of appropriate information channels/technologies and the encouragement for farmers to visit AIS so that they can utilize the existing services.

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