

THE ROLE OF LIBRARIES IN MEETING THE INFORMATION NEEDS OF SMALL-SCALE FARMERS IN ZAMBIA

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ABSTRACT: Information is a key resource for any sector in a country. In Zambia, a lot of developmental efforts are being channeled to achieving the 7th National Development Plan (7NDP). The goal of the 7NDP is to create a diversified and resilient economy for sustained growth and socio-economic transformation that is being driven amongst others, by agriculture. It is for this reason that various stakeholders, including librarians, involved in promoting agriculture need to ensure that farmers have the necessary resources to increase productivity. Zambia has about 1.5 million small-scale farmers. For farmers to make sound decisions, they require timely information, in a format that is easy to understand. With this, it is imperative that libraries in Zambia align some of their services to meeting the demands of these farmers. Libraries are key in helping to improve farmers' lives and livelihoods by connecting them to information and providing other skills and resources needed to better their agricultural activities. The objectives of this study included: to determine how small-scale farmers in Zambia looked for information; to determine the challenges that small scale farmers faced in acquiring the needed information in their work; and to explore the ways in which libraries and librarians in Zambia could take advantage of various opportunities that were available to help meet information needs of small scale farmers.

KEYWORDS: libraries, small-scale farmers, information needs, information seeking behavior, farmers.

INTRODUCTION

The agricultural sector is an important instrument for development and a source of livelihood in Africa. In Zambia, the 7th National Development Plan (7NDP) which runs from 2017 to 2021 prioritizes creating a diversified and resilient economy for sustained growth and socio-economic transformation driven, among others, by agriculture. With the theme "Accelerating development efforts towards the Vision 2030 without leaving anyone behind", this integrated approach recognizes the multi-faceted and interlinked nature of sustainable development which calls for interventions to be tackled simultaneously through a coordinated approach to implementing development programmes Zambia. Ministry of National Development Planning (2017). The 7NDP is in principal a policy document that outlines the Zambia's government's desired developmental outcomes as well as the accompanying strategies and programmes. This approach involves various stakeholders working together and leaving no one behind. National development agendas are important because they help shape many government spending activities as well as help determine programme priorities. It is a well-known fact that information plays a key role in decision making. The International Federation of Library Associations and Institutions (IFLA) (2015) believes that increasing access to information and knowledge across society, assisted by the availability of Information and Communications Technologies (ICTs), supports sustainable development and improves people's lives. The Zambian government is promoting agriculture to diversify the economy away from an overreliance on mining. Agriculture contributes about 19 percent to the Gross Domestic Product (GDP) and employs three quarters of the population. The Zambia territory is 75 million hectares (752,000 km²), out of which 58% (42 million hectares) is classified as medium- to high-potential for agriculture production Zambia. Ministry of Fisheries and Livestock (2019). Simatele and Binns (2008) also agree when they say that agriculture makes a significant contribution to the food basket of many urban households in Zambia. With so much potential with regards to farming and national

development, it is important that all stakeholders involved make all the efforts possible to support farming in Zambia. Garforth (2001) believes that knowledge about the information needs and information seeking behavior of small-scale farmers is crucial to effectively satisfy their information needs and develop demand-led extension and advisory services. In addition, Lesaoana-Tshabalala (2003) also agrees that with relevant agricultural knowledge and information, farmers could improve their work to sustain agriculture and also benefit economically.

Agriculture in Zambia is one of the key priority sectors that contribute to economic growth and poverty reduction. The Zambian agricultural sector comprises crops, livestock, and aquaculture. There are three broad categories of farmers: small-scale, medium, and large-scale. Small-scale farmers are generally subsistence producers of staple foods with occasional marketable surplus. Medium-scale farmers produce maize and a few other cash crops for the market. Large-scale farmers produce various crops for the local and export markets. Most Zambians are subsistence farmers Zambia. Ministry of Fisheries and Livestock (2019). According to the Zambia National Farmers Union, farmers in Zambia are categorized as small-scale farmers and commercial farmers; the former being those farming up to 10 hectares of land and the latter farming above 10 hectares. Small-scale farmers play a vital role in promoting food security, yet they have to cope with numerous challenges ranging from farming inputs to market access. It is for this reason that libraries, which are amongst the stakeholders in national development, must ensure that they align some of their services to supporting small-scale farmers.

Libraries, especially public ones are strategic institutions, and if well managed, can be very instrumental in supporting small-scale farmers. All libraries regardless of type have the capacity to support information needs of small-scale farmers. Electronic Information for Libraries EIFL (2013) report that public libraries are effective development partners, helping improve farmers' lives and incomes, according to the newly released impact assessment results of five innovative public library services. With about 1.5 million small-scale farmers in Zambia, it became imperative to ascertain their information needs and to also establish what role public libraries in Zambia can play to support their work. This is cardinal because small-scale farmers need relevant and timely access to information in their day-to-day farming activities. No studies have been done in the recent past to ascertain what libraries in Zambia can do to help farmers access the relevant information that they need to carry out their activities effectively. This study hoped to establish not only the information needs of small-scale farmers in Zambia, but to also make suggestions to libraries and librarians on what they could do to help the small-scale farmers.

OBJECTIVES

The objectives of this study included the following:

- To determine how small-scale farmers in Zambia looked for information;
- To determine the challenges that small-scale farmers faced in acquiring the needed information in their work;
- To explore the ways in which libraries and librarians in Zambia could take advantage of various opportunities that were available to help meet information needs of small-scale farmers.

METHODOLOGY

This study targeted about 100 small-scale farmers across Zambia using random sampling. An online survey tool, eSurv, was used to collect information from small-scale farmers and to analyze some of the data received. The link to the questionnaire was shared with the National Union for Small Scale Farmers in Zambia (NUSFAZ) which subsequently shared the link with its members via two Facebook groups - Small-scale Farmers (farming as business) and Nkoka Women in Agro-Business. The study used both quantitative and qualitative approaches. Interviews were used to collect data from Zambia National Broadcasting Corporation.

RESULTS AND DISCUSSION

Respondents: gender, qualifications and source of income

This study had a response of 92% from the survey that was shared on various farmers' fora. Of these, 57.1% were males and 42.9% were females. About 7.7% had a secondary school qualification whilst the majority, 92.3% had some form of tertiary qualifications. The survey also revealed that 80% of the small-scale farmers had other sources of income apart from farming and 20% indicated that they solely depended on farming.

Small-scale farming is done by different people, regardless of level of education. This study revealed that most respondents had tertiary education. It was also interesting to see the number of female small-scale farmers in Zambia. Women constitute an important part of urban farmers, since agriculture and related processing and selling activities, among others, can often be more easily combined with their other tasks in the household. The ability of small-scale farmers to earn a living income is critical to ensure their viability and economic success. Small-scale farmers play a critical role in the global food system. Their success depends on having adequate resources to manage the risks of growing food crops, engaging with profitable and equitable markets, and a governance environment that supports small-scale farmers Oxfam (2018). In Zambia, it was evident from the findings that workers in formal employment also engaged in some form of agricultural activities.

It is encouraging to note that despite having formal employment, people still saw the need to engage in small-scale farming which is a positive trend for the growth of Zambia.

Distribution of small-scale farmers across Zambia

About 65% of the participants that took part in the survey carried out their small-scale farming in Lusaka Province, about 15% did it from Southern Province. The remaining provinces all had less than 1% of the participants carrying out their small-scale farming activities there.

The majority of participants were from the urban area, an indicator that more people in the urban areas were taking up farming as an alternative source of income aside formal employment. With the creation of highly populated areas due to the growing number of people migrating to urban areas because of poverty, there has been an increase in urban farming to counter food insecurity and provide a source of livelihood. According to Simatele (2008), urban agriculture in Africa has been identified as an important income generation and survival strategy among poor and not so poor households.

Formal training in farming/agriculture

When asked whether the small-scale farmers had formal training in agricultural related courses, about 84% indicated that they did not and about 16% indicated that they had. The majority of respondents in the survey did not have qualifications in agricultural related courses which created a gap in knowledge needed for their agricultural related activities. This is an opportunity for libraries to provide information for these small-scale farmers to help them obtain the knowledge needed to promote their agricultural activities. The majority of farmers were therefore mainly using experience hence the need for more specialized information to support them.

Experience in small-scale farming

When asked how many years the small-scale farmers had been engaged in farming, the findings revealed that the majority of the respondents in this survey amounting to about 32.2% had between 1 and 5 years' experience in farming, about 28.4% had over 10 years' experience, about 23.9% had experience of between 6 and 10 years and about 12.5% had experience for less than one year. The majority of respondents having been engaged in farming in the last five years may be an indication that the occupation has become an important aspect contributing to national development in terms of food security. It may also be due to other

economic conditions to supplement on their income, since the majority also had other sources of income as indicated in 4.1.

Type of farming

When asked what kind of farming the small-scale farmers were engaged in, it was revealed that the majority, about 75% were involved in both livestock and crop farming; about 21.6% were involved in only crop farming and only about 3.4% were involved in livestock farming alone. This is as shown below in Table 1.

Table 1: Type of farming

Type of farming	No. of farmers	%
Livestock and crop (mixed)	66	75
Crop only	19	21.6
Livestock only	3	3.4

In Zambia, government’s emphasis to make agriculture a major contributor to the country’s gross domestic product is not only focused on diversifying from overdependence on copper, the country’s major foreign exchange earner, but also on the need for farmers to grow other food and cash crops, increase livestock production and invest in fish farming, among other ventures aimed at contributing to economic development and poverty reduction Zambia Daily Mail (2018).

Sources of information related to farming

Respondents were asked to tick the sources of information for farming that they used. The following information in Figure 1 indicated the results:

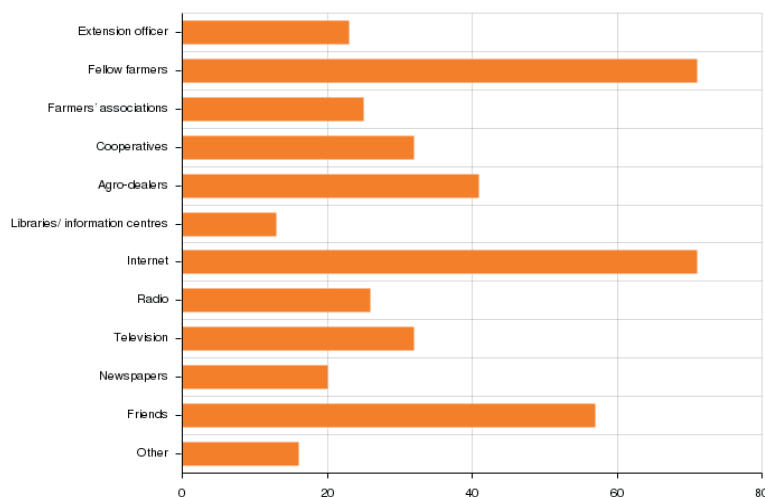


Figure 1: Sources of information

Figure 1 above revealed that the majority of the respondents in this survey (84.5%) relied mainly on fellow farmers and the use of the internet as their sources of farming related information. About 67.9% obtained their information from friends, about 48.8% used agro-dealers as their sources, about 38.1% used agricultural cooperatives and the television as sources, 31% used the radio, and 29.8% used farmers' associations, 27.4% used extension officers as sources of information, 23.8% used newspapers and about 15.5% used libraries and/or information centres as sources of farming information.

Information is key in decision making regardless of the sector concerned. Mgbenka (2016) observes that information is an essential ingredient in agricultural development programmes. It is for this reason that key contributors to national growth such as small-scale farmers have ready access to relevant information.

Mass media plays a critical role in disseminating information to the masses and it constitutes the main vehicle for wide and rapid transmission of information to farmers. Mgbakor (2013) supports this assertion when he says that the mass media have a vital role to play in the communication of agricultural information among the literate farmers. Small-scale farmers have not been left out in benefiting from these sources. From the results above in Figure 2, small-scale farmers used the internet, radio, television and newspapers as some of their sources of information. These are some of the most common platforms for mass media.

The above findings show that fellow farmers and the use of the internet topped the list with about 84.5% using them as sources of information. Libraries can take advantage of this by facilitating a fora or platform where farmers could have discussions with fellow farmers on important issues affecting farming.

Information is an important resource in modern agriculture. The developments in Information and Communication Technologies must be embraced in promoting and supporting current trends in agriculture. Technology has the potential to facilitate efficient access to useful information even remotely. This facilitates effective decision making. The modern farmer is an entrepreneur who tries to grow right crops and animals in the most profitable way and as evident from the results in 4.1, these farmers have other jobs, so time is a factor. They need so much information to support them in their farming activities, but they seldom have the time to visit libraries physically. The use of the internet is a great opportunity to support such farmers. With the majority of them having some form of tertiary education, it even becomes easier to provide e-resources to support their activities. With the current times, there is a lot of information in electronic format that libraries can ensure they acquire on farming, and package it accordingly. This would greatly benefit farmers that access the library resources.

Over a third of the respondents used television and radio as sources of information as shown in figure 2 above. And about 23.8% of the respondents used newspapers as sources of information. Radio is one of the most responsible and efficient mass medium for disseminating information required for mobilizing farmers to participate actively in agricultural activities and programmes.

Lumpa observes that the media in Zambia plays the role of informing, educating and entertaining the general public (personal communication, June 19, 2019). With regards to informing and educating, the media has a number of social and economic issues such as health, education, science, agriculture etc. on which they inform and educate the public. Therefore, the media reports on or produces programmes on these subjects in a general manner. However, when it comes to Agricultural Information, the Government through the Ministry of Agriculture has a dedicated Department called the National Agricultural Information Services (NAIS) which is mandated to inform and educate the public on various agricultural issues. NAIS uses Zambia National Broadcasting Corporation (ZNBC) television and radio and sometimes community radio stations to disseminate agricultural information.

On ZNBC television and radio, the following are some of the programmes produced by NAIS: Lima Time - ZNBC TV, Voice of the Farmer - Radio 2, Farm Magazine - Radio 2, Rural Note Book - Radio 1 (All 7 Local languages), Farmers Note Book - Radio 1(All 7 Local languages), Radio Farm Forum - Radio 2 and Farming Today – Radio 2 produced by Zambia News and Information Services (ZANIS)

With the increase in the number of media houses in Zambia, it is necessary for libraries to partner with these in disseminating information to small-scale farmers. Media Institute for Southern Africa (MISA) Zambia (2019) reports that Zambia has about 19 television stations, 42 commercial radio stations, 47 community radio

stations across the country. In addition, Zambia has six daily newspapers and two weekly ones. Libraries can identify which ones are convenient to work with and ascertain what programmes to work with.

Lumpa further observes that media institutions like ZNBC and other print media report and produce programmes on agriculture as one-off reports and productions (personal communication, June 19, 2019). The recordings of these programmes can be accessed through the respective institutions that produce them such as NAIS, as ZNBC is only used as a platform to broadcast the programmes.

About 38.1% of the respondents used farming cooperatives as sources for their information. The Government of Zambia, through the Seventh National Development Plan (7NDP) has acknowledged the important role cooperatives play in national development. The 7NDP emphasizes the use of cooperatives as a model to contribute to job creation and poverty reduction. The Government also seeks to diversify the cooperative model into sectors other than agriculture with emphasis on realigning the cooperatives to operate as business entities that can create employment and income generating activities (Zambia: Ministry of Commerce, Trade and Industry 2018). Until recently, the idea of Cooperatives in Zambia was largely associated with agricultural activities as they have been a conduit for transmitting agricultural inputs to farmers. However, as stated earlier, in the recent past, there has been renewed interest and focus on the general use of Cooperatives by the Zambian Government. This is because the Government now sees Cooperatives as an effective vehicle to mop up rural capital for investment and contribute to national development.

The main loan products offered by Financial Cooperatives include ordinary loans, emergency or soft loans and agricultural loans. FCs charge interest rates on their loans ranging from 0% to as high as 100%. It is therefore important that libraries do their research to avail this important information to farmers who may need such important information.

When asked whether the farmers had other sources of information other than from the list that was provided, it was revealed that the following were also sources of farming related information: Farmers magazines, Social media platforms such as WhatsApp groups for farmers and Facebook groups for farmers, workshops/trainings on farming (conducted by various people: seasoned farmers, livestock specialists, conferences and seminars for farmers, agricultural expos and shows, place of work, field days for farmers, books on farming (purchased) and experts with technical support (at a fee).

When further asked if the respondents found the information from these sources useful, 76.2% said yes and 23.8% said sometimes. Although the majority of respondents relied on fellow farmers, friends and internet for information related to farming, and also additionally stated that most of the information provided was useful, it is important that institutions such as libraries support farmers by facilitating and/or helping disseminate information about activities that provide expert information for farmers. From the additional sources above which the farmers indicated were also their sources of information, it is evident that workshops, trainings, seminars, agricultural expos and shows, field days etc. still make up great sources of information. It therefore takes organized institutions like libraries to create awareness to farmers about these, document or stock information about them and ensure farmers are updated with all such activities.

The Food and Agriculture Organization (FAO) (2003) observed that farmers can improve agricultural productivity and ensure food security when up-to-date information is provided using appropriate languages and formats and delivered through proper communication channels. Libraries should take advantage of this need for up-to-date information by making it easily accessible.

Kind of information sought

The small-scale farmers that took part in this survey were asked as to what kind of information they sought from various sources. The results as indicated in Figure 2 below revealed that about 83.3% sought information on pest/disease control, about 79.8% sought on agricultural technology, about 72.6% sought information

on market sources for their produce, about 67.9% sought information on agricultural inputs, about 64.3% sought information related to training for farmers, about 46.4% sought information on smart farming whilst 35.7% sought information on credit/loan facilities.

Respondents were also given an opportunity to indicate other kinds of information they sought apart from the options that were itemized. The following were the responses:

- Best crops to grow in certain areas
- Modern and up-to-date ways of farming
- Farming grants
- Other profitable agricultural ventures

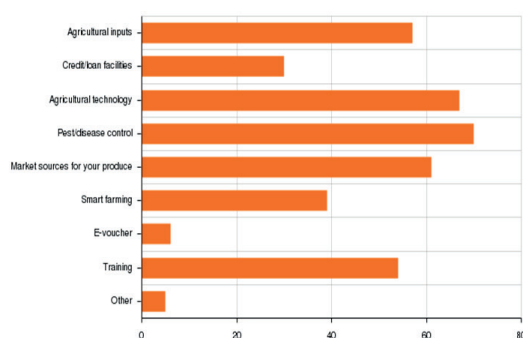


Figure 2: Kind of information farmers sought

Figure 2 above shows the kinds of information that small-scale farmers in Zambia sought from various sources. Topping the list was information on pest and disease control which accounted for 83.3% as shown above. Pests and diseases can have adverse and damaging effects on agricultural production. Pests and diseases may cause problems by damaging crops and food production as well as infesting livestock. FAO (2003) estimates that up to 35% of the losses in annual crop production worldwide are the result of pests. When these losses are combined with postharvest losses, they account for almost one-half of the world's potential food supply creating a food deficit. It is therefore imperative that libraries prioritize disseminating information related to disease prevention and pest control. In times of disease outbreaks, libraries must be in the forefront to disseminate and advertise prevention and control measures.

Agricultural technology was rated second with 79.8% of the respondents seeking such related information for their farming needs. With changing times, and the advancement of technology, farmers are appreciating the need to embrace change by applying modern techniques to control the growth and harvesting of animal and vegetable products. FAO (2014) observes that modern farming technologies have eased the burden of hard labour for many farmers worldwide. However, many of the world's farmers, mainly small-scale farmers, still lack the technology to efficiently reap their crops. Farming technologies are crucial to the evolution of the farming industry. It is therefore encouraging to see that information on agricultural technology was sought by many of the respondents in this survey. It is worth noting that best modern practices in farming could improve small-scale farmers' profits and increase productivity.

Information on market sources was also highly rated as shown in Figure 3. Mizinga (2013) observed that small-scale farmers often faced difficulties in production and marketing of their produce as they usually sold their produce individually at the farm gate to middlemen or on local markets at given prices. This reduces farmers to price takers irrespective of the costs they incur in the production and marketing process. It is therefore important that small-scale farmers are availed with the necessary information on where they could

sell their products. Libraries, being custodians of information, must ensure that they source the relevant marketing information and make it easily accessible to farmers.

Use of libraries/information centres

When asked whether the respondents visited libraries and/or information centres, it was revealed that of the respondents, about 34.5% used libraries and about 65.5% did not.

Of the respondents who visited the library or information centre, when asked how often they visited libraries, the farmers' responses were as indicated in Table 2 below:

Table 2: Visit to libraries

Use of libraries	Respondents	%
Very often	6	20.7
Often	4	13.8
Sometimes	8	27.6
Rarely	10	37.9

Table 2 above shows that about 37.9 % of the small-scale farmers that visited libraries rarely visited them. However, about 20.7% visited the libraries often, about 13.8% indicating that they visited the libraries often, about 27.6% indicating that they visited them sometimes.

The participating farmers were asked to state what kind of information they sought from libraries – whether related to farming or not. The results revealed that about 50% of the small-scale farmers sought farming related information. The kind of information sought was as discussed in 4.7. In addition, it was observed that the farmers also sought other kinds of information from libraries that were not related to farming such as general fiction reading, research in their respective professional fields, current affairs, and children’s reading resources, amongst others. This result creates an opportunity for libraries to beef up resources on farming needs; after all, over a third of the small-scale farmers already accessed library services even for non-farming related reasons. Since most farmers have other professional occupations and educational needs, libraries can provide services to support both their formal professions as well as farming related information. This might even increase the frequency of visits of such members to libraries or where electronic resources are available, an increase in the use of such resources.

Challenges faced in seeking information for farming

Farmers were asked what challenges they faced when seeking information related to farming. Figure 3 below shows the findings:

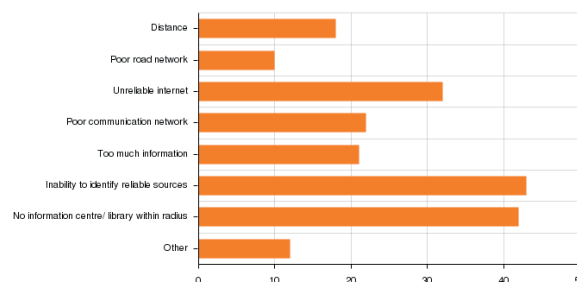


Figure 3: challenges faced by farmers in seeking information

Figure 3 above shows the challenges that small-scale farmers that took part in this survey faced in seeking information for farming. About 52.4% indicated that the inability to find reliable sources of information for farming was the biggest challenge, about 51.2% indicated that not having a library or information centre within radius was a challenge, about 39% alluded to unreliable internet availability as a challenge, about 26.8% said that poor communication network was also a challenge, and about 25.5% indicated that too much information around was a challenge. Other challenges identified included:

- Having scanty useful data;
- Unavailability of Extension Officers;
- Lack of packaged information for farmers in Zambia;
- Inadequate online resources about farming in Zambia as most information available is on other countries;
- Inadequate agro specialized easy reference services;
- Unable to find the actual farming information wanted;
- Sometimes available farming information is outdated;
- The library visited does not stock agriculture information;
- Inability to access information on funding to support farmers;
- Where to find the answers I am looking for/and who or where to ask.

Topping the list was the fact that 52.4% of small-scale farmers did not have reliable sources of information and 51.2% indicated the lack of a library/information centre within radius. This is an opportunity for libraries and librarians to promote information literacy amongst farmers with regards to how they sought information from various sources. The results revealed that in as much as farming related information was available, it was not always well packaged and localized for easy use by small-scale farmers in Zambia. In fact, some respondents indicated that there was more farming related information on other countries unlike Zambia especially on the internet. Libraries role is to provide timely and relevant information in the format that is convenient to the users. The provision of farming information in electronic format must be fully explored by libraries as farmers did state that this is the way to go especially with the current changing times.

Suggestions on what services libraries can do to help farmers

The participants in this survey were asked what they thought libraries should or can do to support them as farmers. The following were the suggestions:

- Libraries to assess the information needs of farmers and then stock resources with appropriate information;
- Stocking adequate current resources on farming in general as well as latest news on farming;
- Libraries to acquire well written practical agricultural articles and guidelines on various aspects of farming;
- Stocking documentaries on farming which farmers can access;
- Stock journals and magazines and other research related documents on farming trends and challenges;
- Documented information on how to grow a variety of crops in Zambia;
- Sensitize farmers on farming related information available in libraries. Libraries need to market their products and services;
- Sensitize farmers on Government policies relating to farming;
- Stocking and/or facilitating translation of books into local languages for local farmers to benefit;
- Information corners on agriculture where different kinds of information sought can be found in the shortest possible time;
- Libraries to provide guidance on where to find information relating to farming especially on e-resources;

- Libraries to be active in providing information about serious national outbreaks (like the army worms) and what farmers should do to avoid or overcome such;
- Libraries to help promote and facilitate the use of localized apps for farmers;
- Libraries to support promote and even initiate Open Days for farmers;
- Libraries to provide facilities such as computers and internet for farmers to access online resources;
- Libraries to help create fora where farmers can help exchange information with fellow farmers or other specialists;
- Libraries to provide remote e-resources to farmers with cutting edge technologies;
- Stock information on customised crops per region in Zambia, crop rotation and their related challenges in management;
- Stock information on genuine sources for inputs as a lot of fake products are available on the market;
- Libraries to promote e-resources on farming since the number of libraries in the country cannot cater for all farmers across the country. It is now easier to access e-resources than physical books.

RECOMMENDATIONS

The following were the recommendations:

- Libraries must create partnerships with agricultural organizations such as Zambia Agricultural Research Institute, NAIS and other media houses to ensure that information is made available to small scale farmers as and when needed;
- Libraries must fully explore the provision of e-resources to support the small-scale farmers in Zambia;
- Libraries must provide a platform for holding awareness activities such as seminars, workshops and demonstrations to farmers;
- Libraries must be proactive in collecting information on availability of loans and other support services for farmers and package and disseminate it accordingly.

CONCLUSION

Many people in Zambia are appreciating having some land to produce some crops and sometimes even keep livestock. This comes with its own challenges and as such small-scale farmers need support to ensure that their produce is good. Libraries must support small-scale farmers by ensuring that information needed to carry out agricultural activities even on a small-scale is made available and accessed. Many small-scale farmers have no formal training in these farming related activities so providing them with useful and timely information will be beneficial and increase productivity. This will help support governments efforts to make Zambia a self-sustaining country in terms of food security.

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