

## **Access and Use of Information Sources by Agricultural Researchers of Fadis and Mechara Agricultural Research Centers, Ethiopia**

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doi: <https://doi.org/10.37745/gjar.2013/vol11n23947>

Published December 04, 2023

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**Citation:** Gudeta A. (2023) Access and Use of Information Sources by Agricultural Researchers of Fadis and Mechara Agricultural Research Centers, Ethiopia, *Global Journal of Agricultural Research*, 11, (2), 39-47

**ABSTRACT:** *Access and use of information is required to improve agricultural production and productivity. Information is believed to be the foundation for improved agriculture. There are different sources of information but what matters are 'what' sources are available and relevant to the different categories of users and what sources of information are useful for their different seeking behavior; and mainly for utilization in order to accomplish tasks/needs. This study was conducted to assess the access and use of information sources by agricultural researchers in Fadis and Mechara Agricultural Research Centers of Ethiopia. The went further to identify how researchers search, articulate and utilize the information sources. Questionnaire was used to collect quantitative data and focus group discussion and observation were used to qualitative data from the entire researchers of the two Research Center. The collected data was analyzed using Statistical Package for Social Sciences (SPSS) version 23 and triangulation respectively. Findings revealed that majority of researchers have physical access to computer in office while some of the researchers have no computer access even in office. The available computers are not fully functional because of the absence of skilled ICT person who maintain the damaged computer at the centers. The use of internet and library visit is not adequate in the study areas thereby led to minimum satisfaction to existing information services. The study therefore recommended that effort should be made to train specialists to keep the available information sources effective and efficient so as to improve information access and utilization.*

**KEYWORDS:** access, Ethiopia, information, researchers, sources, Use

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### **INTRODUCTION**

Agricultural information generation and dissemination are necessary for the development of agricultural products and having adequate and well-presented information will improve the efficiency of rural development, policies, projects and programs. Only a small amount of agricultural information is accessible to rural farmers, despite the large body of knowledge that

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exists in research institutions, universities, public offices and libraries [15]. Information use is a behavior that leads an individual to use the information in order to meet his /her information needs [17]. According to Angello, searching, managing and using information ethically are skills that every proficient researcher ought to have and livestock researchers like all other researchers have to be able to access, retrieve and use information for the successful accomplishment of their research activities [4]. And the abilities to identify an information need, efficiently and effectively access information, critically evaluate information, and use information to develop accurate, creative solutions to real problems are required. There are different sources of information but what matters are 'what' sources are available and relevant to the different categories of users and what sources of information are useful for their different seeking behavior, and mainly for utilization in order to accomplish tasks/needs [1].

Similarly, researchers can access electronic information through a variety of technologies. These include: CD-ROMs (Compact Disk Read Only Memory), OPACs (Online Public Access Catalogues), e-journals, while the internet provides a broad range of information via search engines, subject gateways, subject directories and other web-based resources. And also, researchers in developing countries in general, experience a number of barriers to accessing e-information. These include: a lack of skills required to access these resources and a lack of awareness of the wide range of electronic resources that are available.

Information is a crucial asset for researchers. Without access to up-to-date information, researchers cannot do their job properly. Researchers need access to information within their institute and ideally from their offices. In addition, it is increasingly important that scientists know how to access information that is located outside of their own institution [5]. Agricultural knowledge is crucial for achieving productive, remunerative and sustainable agriculture development in Ethiopia [14]. However, many development practitioners face a challenge in accessing timely and relevant agricultural knowledge resources, especially those that are country (Ethiopia) specific. This is not because there is not enough resource in the country; on the contrary, there is substantial and valuable amount of resource in various institutions Research, Universities, NGOs, projects, etc. However, it is usually difficult for development practitioners to have access to resources they require because, either they don't know the whereabouts of that particular information, it's too costly in terms of time and resource, or they don't know whom to contact in a particular organization.

The new frontier for knowledge dissemination is to address issues related to knowledge and information access [3]. Agricultural information is supposed to be made available to research scientists, extension workers, farmers and other users so that they can all engage in agricultural development and food production [1]. The authors described researches and development work conducted in universities, agricultural research institutes, agricultural colleges are the source of technical/scientific information. Therefore, the current study was aimed to solve the aforementioned problems users face in searching and accessing information.

## **METHODOLOGY**

### **Description of The Study Areas**

Fadis and Mechara Agricultural Research Centers are two among seventeen research centers currently operating under Oromia Agricultural Research Institute (OARI). Fadis and Mechara Agricultural Research Centers found in Eastern Hararghe and Western Hararghe zones respectively in the Eastern part of Ethiopia. Fadis Agricultural Research Center is located in East Hararghe zone at 38 Kilometer from Haramaya University. It was established in the year 2008. Mechara Agricultural Research Center is located in West Haraghe Zone at 343 KM from Haramaya University. It was established in the year 2005.

### **Data Type and Collection Methods**

Before starting the actual data collection, pretesting of the questionnaire was undertaken so that appropriate refinements were made in the questionnaire. The sample for the pre-test was drawn from agricultural researchers who were on study leave, who did not form part of the main study. The sample size for the pre-test was 9 agricultural researchers. Closed ended and open-ended questions were used to develop personal profile of the respondents. Total of two focus group discussion were used.

### **Data Analysis Method**

Statistical Package for Social Sciences (SPSS) software version 20 was used for data analysis to generate percentage, frequency distribution. Categorization of themes contained in data, linking of themes and ideas and exploring new ideas were involved.

## **RESULTS AND DISCUSSION**

### **Access of Computer and Internet in Office**

Respondents were asked about the accessibility of computer in their office and majority of the respondents (96.8%) stated that they have access to computer in office while 3.2% of them said that they can access computer in office to some extent. Physical access to information sources like mobile phone, personal computer was reported as constraints of information access and utilization [2]. During focus group discussion the group participants confirmed that the available computers were not fully functional because the centers have no professionals who can maintain and repair damaged ICTs like computer and this made inaccessibility to some extent.

The type of connection available in these two Agricultural Research Centers was observed by the researcher, there was wireless connection and as well broadband using Digital Subscriber Line (DSL) in Fadis Agricultural Research Center, even though the number of cables in each office was one. The wireless connection was unreliable and electricity interruptions occurred frequently. Similarly, Folaranmi et al., Yusuf et al., indicated that access to adequate, relevant and reliable

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agricultural information is an essential factor towards building a strong and virile agricultural foundation [10], [21]. According to Lecoutere et al., households that are targeted with information within the household seem to be able to use this information to improve outcomes, especially if the benefits accrue directly to the targeted individual [13].

In Mechara Agricultural Research Center there was Broadband connection and there was no wireless connection. Disconnection of network as a result of unreliable electricity is a common problem in these centers. Majority of the respondents (93.7%) have access to internet in their office, while 6.3% of them cannot access it. The reason why they cannot access internet was because of inadequate speed and this makes it difficult to download the required document. This leads to the suggestion that even though the respondents can access internet they cannot use it effectively to seek needed information unless the aforementioned problems solved.

**Computer Skill of Respondents**

Majority of respondents (57.1%) said that they can use computer moderately well. About 23.8% have adequate computer skill for seeking information for their research activities. Of the respondents, 6.4% range between inadequate and very inadequate in their knowledge about the use of computers, which means that they have to depend on their research staff for seeking information using computers. Respondents those who had a master's degree can use computer well and very well. Even though all respondents took computer related course during undergraduate study, they could not equip the literacy required to use since there was inaccessibility of computers as they have been used one computer in a group of 10-15 student. Of the respondents, 36 persons took short course/ formal training concerning information literacy after they joined research center and during graduate study. Research by Azeez, revealed that inadequate skill was one of the reason for not processing and marketing bees wax [7]. Similarly, Das found that women farmers are truly depends on either male or husband in a family due to lack of proper agricultural knowledge, education [8]. This leads to the suggestion that designing computer related courses and short training will improve computer skills of information users.

**Table 1. Computer Skill**

| Skills              | N  | %    |
|---------------------|----|------|
| Very adequate       | 8  | 12.7 |
| Adequate            | 15 | 23.8 |
| Moderately adequate | 36 | 57.1 |
| Inadequate          | 3  | 4.8  |
| Very inadequate     | 1  | 1.6  |

Source: Field survey, 2016

### **Access to Training on information literacy**

For this purpose, the study focused on three questions. The respondents were asked if they have ever received training on information literacy and the results showed that a number of respondents (42.9%) had never received training on information literacy and (57.1%) of respondents stated that they had received training on information literacy after they joined research center and during graduate study. This suggests many researchers were poorly equipped in their ability to use information and communication technologies in information seeking activities. The respondents were asked if they think that such training was useful. This question was directed at those who had received training to determine whether the training they had received was useful. The researcher sought to identify whether there is a need for further training initiatives to be undertaken to equip agricultural researchers with information literacy related skills.

By determining the usefulness of training received, centers would be evaluating their training programs to see where they may need to improve or devise better way to make the training effective. Training received was useful. About 34(94.4%) respondents confirmed that training was useful. The respondents were also asked if they thought that such training would have been useful. Views solicited from respondents those who had not received training on information literacy. The aim was to determine what the perceived impact they assume training would have on their information literacy skill on information seeking strategies. Similarly, Gebru et al., reported that training was one of the information sources for smallholder farmers [11]. Based on these results, it can be suggested that all respondents believed that the impact of training would be positive towards information access and utilization. Similarly, Teshome, found that participation in training was statically significant [20].

### **Place Where Respondents Get Information Sources**

The respondents were asked about the place where they get the required information sources. The majority of respondents 27(42.9%) use work place to get information they need, followed by center library and other offices. The results agreed with the findings of Teshome, which reported that work place and internet café were the major place of internet use and access [20]. This implies that respondents seek needed information with their maximum effort because of information sources' provision problem as a result of low availability and accessibility of information sources in the two research centers. During focus group discussion, the group participants stated that they gather needed information using personal techniques like personal observation, experimentation, evaluation, monitoring, perceptions and survey from beneficiaries of technologies either it is improved seed, inorganic fertilizer or organic fertilizers based on the demonstrated activities.

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Table 2. Place where the respondents get information

| Place          | N  | %    |
|----------------|----|------|
| At work        | 27 | 42.9 |
| Center library | 23 | 36.5 |
| Other offices  | 13 | 20.6 |

Source: Field survey, 2016

**Frequency to Visit Center Library**

The result in table 7 depicts frequency of researchers' visit to library. Libraries located at respective centers were visited daily (19%), once a week (34.9%), occasionally (33.3%) and never visited (4.8%). There were several reasons why respondents visited library; namely, for finding literature, using internet, writing report, writing research proposal and analyzing data on their research work. This is in line with the findings of Pareek & Rana, which indicated that researchers visited libraries frequently to develop and implement research proposal, to study and borrow reading materials [16]. Similarly, Singh & Satija, confirmed that majority of teachers visited library to borrow or return books [18]. Frequently used library materials enable research gaps to be identified for further investigation [9]. Similarly, Singh & Kumar, found that library was the second preferred sources of information [19]. There were some respondents who never visited library because of less comfortable to them and majority of respondents use internet services. Overall library visitation was relatively low as the library was poorly facilitated (particularly at Mechara Research Center). The centers should have to update the facilities the researchers need for information access and utilization so as to satisfy their information needs for the research activities they carry out. In addition, library materials need to be up to date and provide required information for users in order to enable research gap identification for further investigation.

Table 3. Frequency with which respondents visit library

| Frequency of visit | N  | %    |
|--------------------|----|------|
| Daily              | 12 | 19.0 |
| once a week        | 22 | 34.9 |
| Monthly            | 5  | 7.9  |
| Occasionally       | 21 | 33.3 |
| Never              | 3  | 4.8  |

Source: Field survey, 2016

This implies that the libraries in the two centers need to be improved and provide relevant sources. Describing the importance of library visit, Athukorala et al., brought forward that libraries are often viewed as information market place [6].



**Level of Satisfaction to the Existing Information Services**

The respondents were asked about their satisfaction with the existing information services at the center level. The results show that 31.7% satisfied, almost half (50.8%) of respondents had somehow (partially) satisfied on existing information services at center. While 17.5% were not satisfied as the existing information services were perceived to be less effective and efficient. This is in agreement with the findings of Athukorala et al., which indicated that majority of the sample surveyed were not satisfied with the library's professional information [6]. Thus, this further support the point that existing information services and systems at center used by respondents were in one way or the other met and satisfied their information needs and improvement need to be made to fully satisfy the users' need. This is in line with the findings of Kumar, which indicated that only few scientists are fully satisfied with the resources and services of the library that ultimately has to be improved [12].

Table 4. Satisfaction of the respondent with the existing information services

| satisfaction of respondents     | N  | %    |
|---------------------------------|----|------|
| Yes (satisfactory)              | 20 | 31.7 |
| Somehow (somewhat satisfactory) | 32 | 50.8 |
| No (Not satisfactory)           | 11 | 17.5 |

Source: Field survey, 2016

**CONCLUSION AND RECOMMENDATION**

Information is a crucial asset for researchers. Without access to up-to-date information, researchers cannot do their job properly. Researchers need access to information within their institute and ideally from their offices. Access to adequate, relevant and reliable agricultural information is an essential factor towards building a strong and virile agricultural foundation. Work place is the main for researchers to obtain information. Based on the findings of the study, the existing information services were perceived to be less effective which need to be modified to improve the access and use of information for users.

**REFERENCES**

- [1].Adio, E. O., Abu, Y., Yusuf, S. K., & Nansoh, S. (2016). Use of agricultural information sources and services by farmers for improve productivity in Kwara State. *Library Philosophy and Practice*, 2016(1).
- [2]. Adokiye, G. (2020). Availability , Access and Utilization of Icts and Its Tools Among Poultry Farmers in Yenagoa , Bayelsa State , Nigeria. *Animal Research International*, 17(3), 3836–3844. [www.zoo-unn.org](http://www.zoo-unn.org)
- [3]. Akuku, B., Makini, F., Wasilwa, L., & Kamau, G. (2014). Use of ICT tools to improve dissemination of rice information in Kenya : a case of the Kenya Rice Knowledge Bank (

- KRKB)". Page | 1 ISSN 2223-7062 Proceedings and Report of the 7th UbuntuNet Alliance Annual Conference, 2014, Pp 5-12, 1-7.
- [4]. Angello, C. 2010. The awareness and use of electronic information sources among livestock researchers in Tanzania. *Journal of information literacy*, 4(2): pp 622 <http://ojs.lboro.ac.uk/ojs/index.php/JIL/article/view/PRA-V4-I2-2010-1>.
- [5]. Angello, C. (2017). Access and Use of E-Resources By Livestock Researchers in Selected Livestock Research Institutes in Tanzania. *Https://Www.Researchgate.Net/Publication/317619818*, June. <https://doi.org/10.13140/RG.2.2.20207.02724>
- [6]. Athukorala, A. W. V, Campus, S. P., & Lanka, S. (2021). Information seeking behavior among public library users: Understanding nature of information searching. *Journal of Advanced Research in Social Sciences and Humanities*, 6(2), 42-50. <https://doi.org/10.26500/jarssh-06-2021-0202>
- [7]. Azeez, K. K. (2022). Analysis of information needs of beekeepers in Oyo State , Nigeria. *Journal of Agricultural Research, Development, Extension, and Technology*, 4(1), 18-36 (2022).
- [8]. Das, D. (2012). Sources of agricultural information among rural women: a village level study in Assam. *International Journal of Economic Research*, Sept-Oct, 1-12.
- [9]. Felicia, U. I. (2015). Information needs, library resources and services available to post graduate students in the Institute of African Studies, University of Ibadan, Nigeria. *International Journal of Library and Information Science*, 7(4), 77-85. <https://doi.org/10.5897/ijlis2014.0450>
- [10]. Folaranmi, S., Yusuf, G., Masika, P., & Ighodaro, D. I. (2013). Agricultural Information Needs of Rural Women Farmers in Nkonkobe Municipality : The Extension Challenge Agricultural Information Needs of Rural Women Farmers in Nkonkobe Municipality : The Extension Challenge. *Journal of Agricultural Science; Vol. 5, No. 5; 2013 ISSN 1916-9752 E-ISSN 1916-9760, May 2014*. <https://doi.org/10.5539/jas.v5n5p107>
- [11]. Gebru, B., Yared, M., & Gebremichael, N. (2017). Sources of information and information seeking behavior of smallholder farmers of Tanqa Abergelle Wereda, central zone of Tigray, Ethiopia. *Journal of Agricultural Extension and Rural Development*, 9(4), 47-52. <https://doi.org/10.5897/jaerd2016.0850>
- [12]. Kumar, D. (2010). An analytical study of information seeking-behaviour among agricultural scientists in Sardar Vallabhbhai Patel University of Agriculture and Technology. *..International Journal of Library and Information Science Vol. 2(8), Pp. 164-168, November 2010 Available Online Http://Www.Academicjournals.Org/Ijlis ISSN2141 – 2537 ©2010 Academic Journals*, 2(November), 164-168.
- [13]. Lecoutere, E., Spielman, D. J., & Campenhout, B. Van. (2023). Empowering women through targeting information or role models: Evidence from an experiment in agricultural extension in Uganda. *World Development*, 167, 106240. <https://doi.org/10.1016/j.worlddev.2023.106240>
- [14]. Lemma, T., Sehai, E., & Hoekstra, D. (2011). *Knowledge centers in the Pilot Learning*



*Woradas of Improving Productivity and Market Success Project: Utilization, relevance.*  
<https://hdl.handle.net/10568/16897>

- [15].Lwoga, E. T., Stilwell, C., & Ngulube, P. (2011). Access and use of agricultural information and knowledge in Tanzania. *Library Review*, 60(5), 383–395. <https://doi.org/10.1108/00242531111135263>
- [16].Pareek, A. K., & Rana, M. S. (2013). Study of information seeking behavior and library use pattern of researchers in the Banasthali university. *Library Philosophy and Practice*, 2013, 1–10.
- [17].Sarkhel, J. K., & Khan, M. M. (2015). Information Needs and Information Seeking Behavior of Faculty Members of Agricultural Universities in Bangladesh: a Study. *The International Journal of Social Science*, 24(1), 23–36.
- [18].Singh, K. P., & Satija, M. P. (2007). Information seeking behaviour of agricultural scientists with particular reference to their information seeking strategies. *Annals of Library and Information Studies Vol. 54, December 2007, Pp. 213-220, 54(ii)*.
- [19].Singh, N. and, & Kumar, D. (2013). Information Access and Utilization by Faculty of Guru Angad Dev Veterinary and Animal Sciences University (GADVASU) in Electronic Era. *International Research: Journal of Library & Information Science* |, 3(2), 226. [www.gadvasu.in](http://www.gadvasu.in)
- [20].Teshome, A. (2015). Information seeking behavior of Academic staffs of Asosa University, Ethiopia. *Haramaya University, May*.
- [21].Yusuf, S. F. G., Masika, P., & Ighodaro, D. I. (2013). Agricultural Information Needs of Rural Women Farmers in Nkonkobe Municipality: The Extension Challenge. *Journal of Agricultural Science*, 5(5). <https://doi.org/10.5539/jas.v5n5p107>