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A Case Study on Farmers' Literacy in Agriculture Information in Lunglei District, Mizoram

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ABSTRACT

Many farmers in Lunglei District depend on agriculture for their living, therefore urban residents also depend on agricultural produce. Due to the development of technology, farmers today have easy access to a variety of information that they can use in their farming. However, they still need to know where to turn for reliable data that they can use. The present study adopted a quantitative research method for accessing the information on literacy awareness among 150 agricultural farmers in selected 30 villages in Lunglei District, Mizoram during 2020-2023. The majority of the farmers claimed to be information literate, the findings show that farmers lacked information literacy abilities. Farmers rely heavily on the information they learn from other people, have poor reading abilities, and are unable to search for the information they require. The use of media has been discovered to be the most effective platform for farmers to acquire information and farmers primarily seek information to determine whether forecasts are accurate. The result suggested that farmers must be instructed on how to improve their information literacy abilities by Government officials and library professionals.

INTRODUCTION

Lunglei is located in the heart of Mizoram. According to the 2011 census, the entire area is 4536 square kilometres, and there are 1, 61, 428 people living there, of whom 78, 537 are women and 82, 891 men. The literacy rate is 88.86 per cent. Approximately 65–70 per cent of the population works in agriculture, making it the most common industry. Lunglei is separated into three R.D. Blocks: Lunglei, Bunghmun, and Lungsen; two major sub-districts: Tlabung SDO (S) and Lunglei SDO (S). The administrative hub of the district is located in Lunglei town.

In Mizoram, 60 per cent of the workforce is employed in agriculture (Government of Mizoram, 2012). Just 5 per cent of the land is used for crops. About 7 per cent of the total area used for agriculture is irrigated. The hillslopes are used for the production of paddy and maize. The state also grows vegetables, potatoes, carrots, sugarcane, chillies, ginger, tobacco, pineapple, and potatoes. Because of its temperate and semi-tropical temperatures, as well as its tropic and temperate zones, Mizoram's agro-climate is ideal for a variety of crops. The primary industry of the Mizo people is agriculture, and Mizoram receives rainfall that is evenly divided between 1900 and 3000 mm (Government of Mizoram, 2012). Approximately 70 per cent of the whole population works in agriculture. Jhum cultivation is an antiquated tradition carried out by people living in rural locations. Agricultural farmers in Mizoram practiced two types of farming: jhum cultivation, which involved clearing and burning a section of the forest for agricultural purposes, and terrace farming, which involved building terraces on the hillsides to stop dirt and water from pouring off the mountain. To make use of the used land again in the future, they left it for years. The Mizo people mostly engage in agriculture, without the benefit of official agricultural education. Instead, they acquire knowledge

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about farming through ancestral wisdom and the guidance of fellow farmers. The population was less, the soil conditions were ideal for cultivating plantations, they exerted significant effort, and each home achieved a sufficient food yield to sustain them until the year 1953 (Lianthanga, 1999).

As a result of the advancement of information and communication technologies, agricultural farmers increasingly depend less on their traditional expertise alone. Conversely, they have modified their approach to obtaining information and have mastered the utilization of media, technology, computers, and electronic devices to enhance their expertise and agricultural methods. It is imperative for farmers to possess knowledge of the sources and methods of acquiring information that will aid them in enhancing their agricultural techniques and preserving the environment. Farmers generally seek information about seed procurement, fertilization, pest and weed control, marketing strategies, weather prediction, and related matters. An individual with a higher level of expertise in their agricultural methods is anticipated to yield a better output compared to an individual with a lower level of comprehension.

METHODOLOGY

Based on the 2011 census data, the villages in Lunglei District have approximately 34,726 individuals engaged in cultivation. A sample of five farmers was randomly chosen from selected 30 villages, resulting in a total of 150 questionnaires. The study relies on primary data obtained from farmers in 30 villages in Lunglei District. The data was collected through the distribution of questionnaires and conducting interviews. All 150 questionnaires distributed were completed, achieving a 100 per cent response rate. The Lunglei District comprises a total of 47 villages, of which 30 villages were chosen for the study. To accomplish this objective, the scholar visited the respondent at their residence and agricultural property to gain a comprehensive understanding of the actual circumstances. The village library and books inside the Government Department were also inspected to assess the available information and the resources supplied to the farmers.

The farmer's level of information literacy was examined by their proficiency in locating, evaluating, using, and disseminating received or found information. In addition, their familiarity with key government initiatives such as KVK, PM-KISAN, RKVYS, National Food Safety Security Mission, Soil Health Card (NMSA), and their utilization of public libraries for accessing essential information was also assessed. Farmers seek information to support their agricultural activities, utilizing various methods of obtaining information suited to their specific needs. This includes accessing information on weather forecasts, seeds, farm machinery, fertilizers, market prices, agricultural loans, government schemes, pests and pesticides, plant diseases and their control, as well as soil and water management. In addition, farmers were queried about the instruments they utilized to acquire information, such as books, computers, televisions, mobile phones, and radios. Farmers were also asked about internet connectivity, electricity availability, literacy levels, transit accessibility, availability of book references, language hurdles, and the use of the internet and media for information retrieval.

The location, origin, and means of retrieving information differ among individuals and communities. To determine the main source, individuals were queried about their reliance on experts, government officials, community leaders, banks, suppliers, fellow farmers, family members, social media platforms, the internet, books, newspapers, and posters/brochures.

RESULTS

Information literacy awareness among farmers

The data shown in Table 1 indicates that 58.66 per cent of the total, were aware of where their essential information is located, conversely, 41.33 per cent of the total, lacked knowledge of how to search for information. Out of the total respondents, 68 (45.33%) could assess the information they received, while 66 per cent lacked this skill. Out of the respondents, 30.66 per cent were able to effectively utilize the information they received, while 69.33 per cent lacked the knowledge to do so. Additionally, 48 (32%) respondents were capable of disseminating the information they received, whereas 102 (68%) of the farmers were unable to share the information with others. The question was posed to the farmers as to whether or not they were aware of the Government program that is being carried out by the Department. It was found that 127 of the respondents, which is equivalent to 84.66 per cent, are familiar with KVK, whereas 23 of the respondents, which is equivalent to 15.33 per cent, were not familiar with KVK. A total of 88 (86.66%) of the farmers were aware of the PM-KISAN scheme, which is a plan that transfers money to the registered bank account of farmers. On the other hand, 62 (41.33%) of the farmers were not familiar with the scheme. Among the total number of farmers, 126 were unfamiliar with the RKVYS plan this represents 84 per cent of the total number of farmers. 127 farmers are unaware of the National Food Safety Security Mission, which accounts for 84.66% of the total, whereas 23 farmers were aware of it, which accounts for 15.33% of the whole. There were a total of 25 which is 16.66 per cent of farmers were not familiar with the Soil Health Card, whereas 125 (83.33%) of farmers were not familiar with the card. For the objective of determining whether or not the respondents were aware of libraries that are open to

Table 1. Information literacy awareness among farmers

Familiarity	Knowledge level (N=150)	
	Yes (%)	No (%)
Information literacy awareness among farmers		
Locate information	58.66	41.33
Evaluate information	45.33	54.66
Utilize information	30.66	69.33
Disseminate information	32.00	68.00
Familiarity with the Government Scheme		
KVK	84.66	15.33
PM-KISAN	86.66	41.33
RKVYS	16.00	84.00
National Food Safety Security Mission	15.33	84.66
Soil Health Card (NMSA)	16.66	83.33
Awareness of Public Library	76.66	23.33

the general public to gain access to books and information, the question was posed to the respondents. It reveals that the majority of farmers, which brings the total number of farmers to 115 (76.66%), were aware of the presence of public libraries.

Source of information for agricultural farmers

According to the data presented in Table 2, the majority of farmers, representing 51.33 per cent, obtain information from their fellow farmers. Following closely after are 70 farmers which is 46.33 per cent of the total respondents, who claim to acquire knowledge from their family. A significant number of farmers, which amounts to 67 (44.66%) of the total, rely on authorities from the Government to get important information. Moreover, 48 of the respondents which was 32 per cent, were provided with knowledge by an expert. Additionally, 42 (28%) of the farmers used social media platforms such as WhatsApp and Facebook as their primary source of information. Finally, 30 (20%) of the farmers also used the Internet to obtain the information they required. This information was likewise obtained by 26 (17.33%) of the respondents who were interested in agriculture goods suppliers. 21 (14%) of the respondents relied on books as their primary source of knowledge, 21 (14%) relied on community leaders as their primary source of information, 9 (6%) of the respondents used the newspaper, 9 (6%) of the respondents used posters or brochures, and 5 (33%) of the respondents obtained information from the bank. 87 (58%) of the respondents used mobile phones as their primary tool for accessing information, 65 (43.33%) of the respondents effectively used television as a tool for getting information, a total of 45 (30%) of the respondents used books as a tool for accessing information, 28 (18.66%) of the respondents used radio as a tool for accessing information, and eventually, 1 (0.66) of the respondents used computer as a tool for accessing information. 28 of the respondents which is 18.66 per cent, did not make use of any of the tools that were indicated to get information.

Table 2. Source of information for agricultural farmers

Source of information for agricultural farmers	Total (N=150)
Source	
Expert	48(32%)
Govt Officials	67(44.66%)
Community Leader	21(14%)
Bank	5(3.33%)
Suppliers	26(17.33%)
Fellow Farmers	77(51.33%)
Family	70(46.66%)
Social Media	42(28%)
Internet	30(20%)
Books	21(14%)
Newspaper	9(6%)
Poster/Brochures	9(6%)
Tools	
Book	45(30%)
Computer	1(0.66%)
Television	65(43.33%)
Mobile phone	87(58%)
Radio	28(18.66%)
None of the above	28(18.66%)

Reason for finding information

As can be seen in Table 3, a total of 61 of the respondents, which accounts for 40.66 per cent of the total, searched the weather predictions on the internet through the utilization of social media. In addition, information about seeds was searched for by 56 (37.44%) of the respondents, followed by information on pests and pesticides by 47 (31.33%) of the respondents seeking information about these topics. 34 (22.66%) of the respondents searched for information about plant diseases and control, 31 (20.66%) of the farmers searched for information about the market price of plants and vegetables, 28 (18.66%) of the respondents searched for information about fertilizer, 25 (16.66%) of the respondents say that they search for information about farm machinery, and 23 (15.33%) of the farmers search for information about soil and water management. Out of the total number of respondents, it was discovered that 4 (2.66%) of them had engaged in the least amount of information gathering regarding agricultural loans. In addition, 35 (23.33%) of the people who participated in the survey claimed that they had never even considered looking for information regarding agricultural loans.

Table 3. Reason for finding information

Purpose	Total (N=150)
To check the weather forecast	61(40.66%)
Information about seed	56(37.33%)
Farm machinery	25(16.66%)
Fertilizer	28(18.66%)
Market Price	31(20.66%)
Agriculture loan	4(2.66%)
Govt. Scheme	13(8.66%)
Pest and Pesticides	47(31.33%)
Plant Diseases and Control	34(22.66%)
Soil and Water Management	23(15.33%)
None of the above	35(23.33%)

Problem while accessing information

In accordance with the data shown in Table 4, the most prevalent challenge encountered by 89 farmers (59.33%) is the language barrier. This is followed by 64 farmers (42.66%) who had difficulties in obtaining transportation to travel and confer with the Department office and an additional expert. A problem with access to books is experienced by 62 (41.33%) of the farmers, a problem with accessing information due to illiteracy is experienced by 46 (30.66%) of the respondents, a problem with poor internet connectivity is experienced by 36 (24%) of the farmers, and a problem with a shortage of electricity is experienced by 20 (13.33%) of the farmers. The increasing prevalence of internet use has an impact on the lives of all individuals since it makes it less difficult to acquire information. Nevertheless, to make effective use of the internet, we need to possess the knowledge and skills that are required. Farmers still require information for farming to run their operations, despite the fact that they are questioned about whether or not they have any difficulties utilizing the

Table 4. Problem While Accessing Information

Problems While Accessing Information	Total (N=150)
Problem	
Poor internet connection	36(24%)
Lack of electricity	20(13.33%)
Low level of literacy	46(30.66%)
Poor transportation	64(42.66%)
Lack of book reference	62(41.33%)
Language barrier	89(59.33%)
Problem with Internet Usage	
Having problem	95(63.33%)
Not Having Problem	55(36.66%)
Problem with Media Usage	
Having problem	54(36%)
Not Having Problem	96(64%)

internet. Although 95 (63.33%) of respondents have difficulties using the internet, there are 55 (36.66%) of respondents who do not know how to use the internet. This indicates that the majority of respondents have difficulty using the internet. It is reported that farmers make effective use of several platforms, including social media, radio, television, and newspapers. Farmers also make use of these channels in a conventional manner. To disseminate information to a more extensive audience, the media is among the most important platforms at present. When asked whether or not farmers were experiencing difficulties when using social media to acquire information, it was discovered that 96 (64%) of the farmers who responded were aware of how to use mass media, whereas 54 (36%) of the farmers did not know how to use mass media. This was in response to the question of whether or not farmers were encountering difficulties when using social media to gain information.

DISCUSSION

The results obtained were valuable confirmation of the earlier studies in the field where frequency of using information sources like contact farmers, extension personnel, radio, television and scientists of agricultural university was much higher than other sources used for gaining informations regarding agricultural technology (Bhagat et al., 2004). Distinct differences in the utilization pattern of different types of information sources viz., print media, electronic media, traditional media and other information sources were identified by Raina et al., (2011). The personal sources domination was reported in the agricultural information system in the technologically and developmentally backward district along with the dearth of extension personnel and their poor linkages with farmers and amongst themselves (Nain et al., 2015), whereas suitably designed entrepreneurial information packages

were perceived effective in terms of content, presentation and illustrations by potential entrepreneurs as well as the experts in the subject and have the potential to motivate the farmers (Nain et al., 2019). Dissemination of general information on agricultural activities were found to be different among various information sources, whereas, small and marginal farmers had poorer access than medium and large farmers, particularly in case of extension officials (Niranjan et al., 2023). As such the present results are in line with previous studies.

CONCLUSION

Although most farmers claimed to be information literate, the data collected from 150 farmers in 30 villages in the Lunglei District indicates that farmers were not proficient in information literacy. They struggle with reading, are unable to conduct necessary searches, and mainly rely on the knowledge they received from other farmers, families, and agricultural experts. Many farmers assert that they need an expert to visit their farm to ascertain their specific needs and that the advice they obtain from experts is not necessarily applicable to their farm. It has been found that farmers can obtain information most effectively through the media. Library professionals and Government officials must provide instruction to farmers on how to enhance their information literacy through use of different media platforms and oral communication.

REFERENCES

Ab Rahman, A. H., Abdullah, A., Selvadurai, S., Zakaria, S. Z. S., Lyndon, N., & Abidin, K. (2021). Social media literacy among oil palm smallholders in east Malaysia and association with oil palm integration practices. *Sustainability, 13*(24), 13802.

Abubakar, B. Z., Ango, A. K., & Buhari, U. (2009). The roles of mass media in disseminating agricultural information to farmers in Birnin Kebbi local government area 0f Kebbi state: a case study of state Fadama ii development project. *Journal of Agricultural Extension*, *13*(2), 42-54. 10.4314/jae.v13i2.53894

Adhikary, M, M. (2015). *Communication in Extension Education*. Daya Publishing House.

Adomi, E. E., Ogbomo, M. O., & Inoni, O. E. (2003). Gender factor in crop farmers' access to agricultural information in rural areas of Delta State, Nigeria. *Library Review*, *52*(8), 388-393.

Agriculture Mizoram. (n.d.). Agriculture Department. Agriculture - Home (agriculturemizoram.nic.in)

Agwu, A. (2009). Sources of agricultural information used by arable crop farmers in Isale Osun farm settlement, Osogbo Local Government Area of Osun State. *Journal of Agricultural Extension, 13*(1), 24-34. https://www.ajol.info/index.php/jae/article/view/53872

Ajani, & Agwu. (2012). Information communication technology needs of small-scale farmers in Anambra State, Nigeria. *Journal of Agricultural & Food Information, 13*(2), 144-156.

Babu, S. C., & Glendenning, C. J. (2019). Information needs of farmers: a systemic study based on farmer surveys. In Agricultural Extension Reforms in South Asia. 101-139. *Academic Press*. https://doi.org/10.1016/B978-0-12-818752-4.00006-0.

Bagchi, K. K. (Ed.) (2008). *Agriculture development in North-East India*. Abhijeet Publications.

Banmeke, T. O. A., & Ajayi, M. T. (2007). Agricultural information utilization pattern among women farmers in South-Western Nigeria. *Journal of Agriculture and Social Research (JASR)*, *7*(2), 58-65.

Bhagat, G. R., Nain, M. S., & Nanda, R. (2004). Information sources for agricultural technology. *Indian Journal of Extension Education*, *40*(1&2), 111-112.

Case, D. O. (2002). Looking for information: A survey of research on information seeking needs, and behaviour. Academic Press.

De Silva, L. N., Goonetillake, J. S., Wikramanayake, G. N., & Ginige,

A. (2013). Farmer response towards the initial agriculture information dissemination mobile prototype. In: *Computational science and its applications–ICCSA 2013: 13th International Conference, Ho Chi Minh City, Vietnam, June 24-27, 2013, Proceedings, Part I 13* (pp. 264-278). Springer Berlin Heidelberg.https://link.springer.com/chapter/10.1007/978-3-642-39637-3_22

Department of Agriculture and Cooperation, Ministry of Agriculture. (n.d.) Horticulture Mission for North East and Himalayan States (HMNEH). HORTICULTURE MISSION FOR NORTH EAST AND HIMALAYAN STATES (tmnehs.gov.in)

Ghosh, B. N. (2005). Tribal farmers and new agricultural technology. Akansha Publishing House.

Government of Mizoram (2012). Economic Survey Mizoram 2012-2013. https://planning.mizoram.gov.in/uploads/economic_survey_2012-13/Agriculture%20and%20Allied/Agriculture%20(Crop%20Husbandry).pdf#:~:text=Agriculture%20occupies%20a%20very%20important%20place%20in%20the,seeds%20that%20has%20seasonal%20advantage%20over%20other%20crops

Government of Mizoram (2012). Mizoram State Action Plan on Climate Change (2012-2017). https://forest.mizoram.gov.in/uploads/attachments/eaca54828e34ef7b4472fd5c985fd31b/pages-202-sapc-mizoram-2012-17.pdf

Joshi, D., & Dhaliwal, R. K. (2019). Utilization of social media by farming community: A case from Punjab state. *Indian Journal of Extension Education*, *55*(1), 47-52.

Kumar, D., & Devi, J. (2020). Farmers' perspective on agricultural information literacy: A case study of Jind District, India. *Library Philosophy and Practice (e-journal). 3836*. https://digitalcommons.unl.edu/libphilprac/3836

Lianthanga, C. (1999). Hmanlaimizo nun. Zorin Compugraphics. Aizawl, Mizoram.

Mahajan, V. S. (1992). *Studies in Indian agriculture and rural development.* Deep & Deep Publications.

Mashroofa, M. M., & Senevirathne, W. (2014). Influence of information literacy skills in accessing agricultural information: with special reference to paddy farmers of Ampara district, Sri Lanka. https://library.ifla.org/id/eprint/1003/1/140-mashroofa-en.pdf

Moruf, H. A. (2020). Agricultural information literacy skills and information use by farmers in two senatorial District of Osun State, Nigeria. *ATBU Journal of Science, Technology and Education*, *8*(3), 69-76.

Mwalukasa, N. (2013). Agricultural information sources used for climate change adaptation in Tanzania. *Library Review*. 62 (4/5), 266-292. https://doi.org/10.1108/LR-12-2011-0096

Nain, M. S., Singh, R., Mishra, J. R., & Sharma, J. P. (2015). Utilization and linkage with agricultural information sources: a study of Palwal district of Haryana state. *Journal of Community Mobilization and Sustainable Development, 10*(2), 152-156.

Nain, M. S., Singh, R., Sharma, J. P., & Mishra, J. R. (2019) Filling the information gap through Developing and Validating Entrepreneurial Technical Information Packages (ETIPs) for Potential Agricultural Entrepreneurs. *Journal of Community Mobilization and Sustainable Development, 14*(1), 44-48.

Niranjan, S., Singh, D. R., Kumar, N. R., Jha, G. K., Venkatesh, P., Nain, M. S., & Krishnakumare, B. (2023). Do information networks enhance adoption of sustainable agricultural practices? Evidence from northern dry zone of Karnataka, India, *Indian Journal of Extension Education 59*(1), 86-91 http://doi.org/10.48165/IJEE.2023.59118

Obidike, N. A. (2011). Rural farmers' problems accessing agricultural information: A case study of Nsukka local government area of Enugu State, Nigeria. *Library Philosophy and Practice (e-journal). 660*. https://digitalcommons.unl.edu/libphilprac/660/.

Population Census. (2011). Mizoram Population | Sex Ratio | Literacy.

Prakash, O. (2019). *ICT and social media for skill development in agriculture.* Today and Tomorrow's Printers and Publishers.

Raina, V., Nain, M. S., Hansra, B. S., & Singh, D. (2011). Marketing behaviour and information sources utilization pattern of flower growers. *Journal of Community Mobilization and Sustainable Development, 6*(2), 180-184.

Rathakrishnan, T. (2009). *Traditional agricultural practices: applications & technical implementations.* New India Publishing Agency.

Saravanan, R., Kathiresan, C., & Devi, T. R. (2011). *Information & communication technology for agriculture & rural development.* New India Publishing Agency.

Saurath, V. (2003). *Rural development: major issues in agricultural management*. Dominant publishers and distributors.

Shokeen, A. (2022). Agricultural information literacy among the farmers: A case study of Ambala district, India. *Journal of Indian Library Association*, *57*(2), 172-180.

Zatluanga. (1997). Mizo Chanchin. Royal Press. Aizawl, Mizoram.