

An Assessment on the Information Needs and Seeking Behaviours of Rural Farmers in Jos North Local Government Area of Plateau State, Nigeria

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ABSTRACT

This study investigated assessment on the information needs and seeking behaviours of farmers in Jos North Local Government Area of Plateau State. There were four primary goals for the study and four related research topics that helped direct the investigation. Descriptive survey methodology was utilized in this research, with a questionnaire serving as the primary data collector. There were 2,000 farmers in the population, and 190 of them were randomly selected to be in the sample. The information was gathered with the use of a well-structured questionnaire. Farmers in Jos North Local Government Area face challenges like a language barrier, insufficient extension services/workers, and an inaccessible agricultural information infrastructure, among others, according to the study's findings. Farmers previously relied on word of mouth, cooperative societies, family, and friends for agricultural advice. It was determined that the agricultural information resources available to farmers in the Jos North LGA of Plateau State are uninspiring. There is a lack of language support, extension worker services, financial support, public awareness, and current information that prevents farmers in the Jos North LGA from making informed decisions. Many suggestions were made, including that politicians at all three levels of government keep their word, that rural areas establish adult education programs, that agricultural agents, such as extension workers, be made available in all rural areas, and that the government hire and send extension workers to the countryside to help them produce higher-quality crops.

Key words: Information Seeking Behaviour, Information Needs, Rural Farmers, Agriculture, Jos North

INTRODUCTION

Agriculture is crucial to the economy in many developing countries, and sustainability in the agricultural sector must address poverty reduction, food security, and consistent revenue production for a constantly rising population (Kabir et al., 2014). Farmers must practice prudent pesticide use, integrated pest management, adequate irrigation, and plant and animal health to ensure environmental, economic, and social sustainability (Kabir et al., 2014).

Knowledge-intensive agriculture is growing in emerging countries. Global, regional, local, and national researchers are producing fresh data. Farmers need reliable, timely, and relevant information to compete as agriculture systems become increasingly complex. Farmers need relevant, useful information in a format they prefer.

Farmers must seek information to implement better production technology to increase agricultural production. Farmers can hide their technical, marketing, social, and legal knowledge gaps using agricultural information. It involves passive reception of print and electronic media ads and face-to-face interactions (Yahaya, 2003).

Information is rich. Today's contests require accurate, usable, and timely information on new goods, processes, patents, standards, and research. Information aids in daily life. Modern life depends on information (Bankapur & Bhavanishankar, 2018). Kumari et al. (2017) say effective living requires information. Information needs can save lives. Information has shaped human society. It changed how people think and act. Bankapur and Bhavanishankar (2018) state that all people use information to make decisions and achieve beneficial outcomes. According to Ranganathan's law, timely information is crucial. Humans produce and consume information. Telecommunications, television, telemetrics, computers, publishing firms, radio, satellite communication, and others now centre on information. Agriculture, industry, R&D, bureaucracy, journalism, and entertainment professionals seek knowledge. They gather, process, store, distribute, and use data for various purposes. Information is what drives human growth. Information affects everyone in society.

Information is crucial for agricultural production and marketing. Information is the collecting, storage, processing, and transmission of fresh data, photos, facts, messages, thoughts, and comments needed to understand and react appropriately to personal, environmental, national, and international conditions and make suitable decisions. Accuracy, timeliness, and relevance underpin quality information. Timeliness and accuracy are related. People, officials, and professionals need information (Bentley et al., 2007).

Information is expected in most human endeavours and progress. Information needs are identified to enlighten and educate people. Without understanding information-seeking behaviour—how people explain, seek, assess, choose, and use information—this process cannot operate (Idiako-Ochei et al., 2016).

According to Idiako-Ochei et al. (2016), knowing information demands and information-seeking behaviour of diverse professional groups helps plan, implement, and operate information systems and services in work settings. Farmers need knowledge to boost farm operations and increase yields. Information-seeking behaviour includes personal reasons, the type of information sought, and how and where needed information is sought (Pettigrew in Idiako-Ochei et al., 2016).

The "agricultural cycle" or "agricultural value chain" can categorize information needs (de Silva & Ratnadiwakara, 2008; Ali & Kumar, 2011). Both systems help farmers make decisions during the cropping season, including inputs, production planning, cultivation, harvesting, packaging and storing, transportation, and selling. Information on sustainable natural resource management, off-farm income creation, and policy consequences are also needed (Babu et al., 2012; Swanson, 2008). In information needs assessment, a farmer may identify an important information need based on their requirements and interests, but "unfelt" or unrecognized needs will not be addressed (Carter & Batte, 1993).

Understanding information-seeking behaviour of individuals and organizations requires understanding information-seeking barriers. Farmers and house managers need specific cognition and information. In a changing world, farmers must manage and adapt their farms. Fine-tuning or embracing new products, technology, or procedures does this. The farmer must decide which innovation or suite of innovations will help the farm company the most (Kavithaa et al., 2014). This procedure often affects the farmer's company, according to Kaine (2004). To avoid 'doing it wrong,' a farmer will spend time gathering information, weighing options, and choosing the best choice before making a major decision. Complex decision-making involves this (Kavithaa et al., 2014). This study is needed because these farmers meet those needs so well.

Without sufficient communication, especially to farmers, new agricultural sector developments may lead to low production and food insecurity, which could risk the nation's survival. Farmers not seeking knowledge may lead to poor production, food instability, and incapacity to feed the population.

Information minimizes uncertainty and broadens problem-solving perspectives, making it essential for sustainable development. People seek aid when they know where to go. Lack of information may prevent

them from accessing government programs or international aid. Information diffusion can end poverty and hunger. Farmers in rural areas need to know what their counterparts in advanced countries are doing to enhance their farming methods and mechanisms, which can help boost their crop and production.

In spite of the relevance of information to farmers and the survival of a nation, the researcher's pre-observation indicates that most of the farmers have no access to the relevant information that will help in their decision making and to accept new innovation in farming. This could be attributed to poor information seeking behaviour of the farmers. It is in view of the above, that the researcher tends to investigate the information needs and seeking behaviour of farmers in Jos North Local Government Area of Plateau State, Nigeria.

The aim of this study is to ascertain the information needs and seeking behaviour of the farmers with the view of improving the access to information that will help to improve crop production. The objectives of the study include;

1. To discover the information seeking behaviours of farmers in Jos North L.G.A
2. To find out the information needs of the farmers in Jos North LGA.
3. To examine the challenges the farmers in Jos North LGA faced in meeting their information need.

METHODOLOGY

Descriptive survey methodology was used for this study. Farmers living in Jos North LGA, Plateau State, make up the study's population. Two thousand farmers in Jos North Local Government Area were included in the research. The sample population for the study was drawn from the membership roster of the Jos North Local Government Area Branch of the Farmers Association of Nigeria (FAN). For this study, 190 farmers from the Jos North LGA served as the sample population.

Researchers employed a multi-stage sampling method to choose our final pool of 190 respondents. Initially, the Jos North LGA was chosen on purpose due to its central location in the state. Lamingo, Fudawa, Tudun Wada, Furaka, Jos Jarawa, Jenta Apata, Angwan-Rogo, Gangare, Naraguta A, and Naraguta B were all selected in Stage 2 by a purposive method. A total of 190 people were surveyed, with samples of 19 taken from each of the designated wards.

A questionnaire was employed to gather information. The Statistical Package for the Social Sciences (SPSS) was used for the analysis of both quantitative and qualitative data. The results of the analysis were displayed in the form of frequency tables and percentages.

Data Analysis

Information seeking behaviours of farmers in Jos North L.G.A

Table 1: Search for agricultural information

Response	Frequency	Percentage (%)
Yes	155	83.8
No	30	16.2
Total	185	100

The result from table above shows that 155 (83.8%) of the respondents agreed that they used to search for agricultural information, while 30 (16.2%) disagreed.

Table 2: Types of information needs for farmers

Items	Very relevant	Relevant	Not relevant	Not very relevant
Modern farming information technologies	100(54.1%)	45(24.3%)	30(16.2%)	10(5.4%)
Nutritional and reproductive management	140(75.7%)	25(13.5%)	15(8.1%)	5(2.7%)
Milking operations and systems	25(13.5%)	30(16.2%)	80(43.2%)	50(27%)
Animal waste management	160(86.5%)	15(8.1%)	5(2.7%)	5(2.7%)
Diseases and pests' control	140(75.7%)	38(20.5%)	7 (3.8%)	0 (0%)
Weather conditions	125(67.6%)	40(21.6%)	15(8.1%)	5(2.7%)
Business information	110(59.5%)	40(21.6%)	25(13.5%)	10(5.4%)
Government policies and plans	65(35.1%)	50(27.0%)	55(29.7%)	15(8.1%)
Market trends	90(48.6%)	70(37.8%)	10(5.4%)	15(8.1%)
Credit facilities	138(74.6%)	30(16.2%)	7(3.8%)	10(5.4%)

The analysis in Table 1 inquired about the types of information farmers require. 100 (54.1%) of respondents answered that modern farming information technologies are extremely relevant, 45 (24.3%) indicated that they are relevant, and 30 (16.2%) and 10 (5.4%) indicated that they are not relevant or not very relevant, respectively. On the topic of nutritional and reproductive management, 75.7% of respondents deemed it extremely relevant, 13.5% deemed it relevant, 8.1% deemed it not relevant, and 2.7% deemed it not very relevant. 80 (43.2%) and 50 (27%) of respondents agreed that milking operations and systems are not relevant or not very significant, while 30 (16.2%) and 25 (13.5%) disagreed that milking operations and systems are relevant or extremely relevant. Meanwhile, 160 (86.5 percent) and 15 (8.1 percent) of farmers agreed that knowledge on animal waste management is very relevant and relevant, while 5 (2.7 percent) said that it is not very relevant and not relevant. Regarding the control of diseases and pests, 140 (75.7%), 38 (20.5%), and 7 (3.8%) respondents indicated very relevant, relevant, and not relevant, respectively. Regarding weather conditions, 125 (66.6%) and 40 (21.6%) of respondents indicated extremely relevant and relevant information, respectively, while 15 (8.1%) and 5 (2.7%) indicated not very relevant and irrelevant information, respectively. On the side of business information, the majority of respondents indicated pertinent information. 110 (59.5%) and 40 (21.6%) respondents indicated very relevant and relevant, while 25 (13%) and 10 (5.4%) respondents indicated not very relevant and not relevant, respectively. Regarding government programs and plans, 65 (35,1%), 55 (29,7%), and 50 (27%) of respondents rated them as very relevant, not very relevant, and relevant, respectively, whereas 15 (8,1%) rated them as not very relevant. In the case of market trends, the majority of respondents, 90 (48.6 percent) and 70 (37.8 percent), selected very relevant and relevant, whereas 15 (8.1 percent) and 10 (5.4 percent) selected not very relevant and not relevant to their information needs, respectively. Lastly, 138 (74.6%) and 30 (16.2%) respondents answered that information on credit facilities is extremely relevant and relevant to their information needs, while 10 (5.4%) and 7 (3.8%) respondents indicated that the information is not very relevant or irrelevant.

Table 3: Sources of information on agricultural information

Items	Frequency	Percentage (%)
Extension officer	10	5.4
Library services	10	5.4
Books	30	16.2
Newspapers/magazines	40	21.6
Radio	175	94.6
Television	150	81.1
Mobile phone calls/SMS	45	24.3

Internet	122	65.9
Cooperative society	178	96.2
Other farmers	185	100
Family members	165	89.2
Village elders	20	10.8
Personal experience	164	88.6
Others	123	66.5

The above table solicited agricultural information sources. The analysis reveals that the majority of farmers obtain agricultural information from other farmers 185 (100%), cooperative societies 178 (96.2%), radio 175 (94.6%), family members 165 (89.2%), personal experience 164 (88.6%), television 150 (81.1%), others 123 (66.5%), and the internet 122 (65.9%) respectively, whereas only a small percentage obtain agricultural information from mobile phone calls/SMS 45 (24.3%) and newspapers/magazines 40 (21.6%).

The information needs of the farmers in Jos North LGA.

Table 4: Preferred source of information

Items	MP	P	LP	NP
Personal experience	165(89.2%)	15(8.1%)	5(2.7%)	0(0%)
Neighbours/friends	125(67.6%)	35(18.9%)	20(10.8%)	5(2.7%)
Agriculture extension officers	35(18.9%)	25(13.5%)	105(56.8%)	20(10.8%)
Radio/Television	130(70.3%)	35(18.9%)	20(10.8%)	0 (0%)
Brochures/leaflets	70(37.8%)	30(16.2%)	43(23.2%)	42(22.7%)
Farmer groups/Associations	158(85.4%)	17(9.2%)	10(5.4%)	0(0%)
Books	30(16.2%)	10(5.4%)	40(21.6%)	105(56.8%)
Cell phones	5(2.7%)	10(5.4%)	50(27%)	120(64.9%)
Village leaders	10(5.4%)	5(2.7%)	30(16.2%)	140(75.7%)
Internet	50(27%)	40(21.6%)	60(32.4%)	35(18.9%)
Library and information centre	20(10.8%)	42(22.7%)	34(18.4%)	89(48.1%)
Newspapers and magazines	40(21.6%)	20(10.8%)	45(24.3%)	80(43.2%)

The analysis in the table above pertains to the most preferred source of information on agriculture; the results indicate that 165 (89.2%) and 15 (8.1%) respondents indicated personal experience as their most preferred and preferred source of information, respectively, while 5 (2.7%) respondents indicated personal experience as their least preferred source. For neighbours/friends, 125 (66.6%) and 35 (18.9%) indicated preferred and most preferred, while 20 (10.8%) and 5 (2.7%) indicated least preferred and not preferred. Among agriculture extension officers, 105 (56.8%) indicated least preferred and 35 (18.9%) indicated most preferred, while 25 (13.5%) and 20 (10.8%) indicated liked and not preferred, respectively. 130 (70.3%) and 35 (18.9%) indicated radio/television as their most preferred and favourite source of agricultural information, respectively, while 20 (10.8%) answered least preferred. On brochures/leaflets, 70 (37.8%) and 30 (16.2%) of respondents selected most preferred and preferred, whereas 43 (23.2%) and 42 (22.7%) selected least preferred and not preferred.

Regarding farmer groups/associations, 158 (85.4%), 17 (9.2%), and 10 (5.4%) of respondents indicated most favoured, preferred, and least preferred, respectively. For books, 105 (56.8%) and 40 (21.6%) of respondents selected not preferred and least preferred, while 30 (16.2%) and 10 (5.4%) selected preferred and most preferred. Meanwhile, for cell phones, 120 (64.9%) and 50 (27%), respectively, indicated not

preferred and least preferred, while 10 (5.4%) and 5 (2.7%) indicated preferred and most preferred. 140 (75.7%) and 30 (16.2%) village elders indicated not preferred and least preferred, respectively, while 10 (5.4%) and 5 (2.7%) indicated preferred and most preferred, respectively. For internet, the majority of respondents, 60 (32.4%) and 50 (27%), selected least preferred and not preferred, whereas 40 (21.6%) and 35 (18.9%) selected preferred and not preferred, respectively. For information from libraries and information centres, 89 (48.1%) and 42 (22.7%) respondents indicated least preferred and preferred, whereas 34 (18.4%) and 20 (10.8%) respondents indicated least preferred and most preferred. The majority of respondents, 80 (43.2%) and 45 (24.3%), ranked newspapers and magazines as least preferred and not preferred, while 40 (21.6%) and 20 (10.8%) ranked them as most desired and preferred, respectively.

Table 5: Frequency of Access to Information through Agricultural Extension Offices.

Response	Frequency	Percentage (%)
Daily	0	0
Weekly	5	2.7
Monthly	10	5.4
Yearly	20	10.8
Never	150	81.1
Total	185	100

Table 5 solicited for information on how often farmer’s access information through agricultural extension officers. The analysis shows that 150 (81.1%) of the respondents indicated never, 20 (10.8%) indicated yearly, 10 (5.4%) indicated monthly, while 5 (2.7%) indicated weekly and none indicated daily.

Table 6: Perception of Farmers on Information Searching Practices.

Items	SA	A	D	SD
It is important to search for information	120(64.9%)	40(21.6%)	15(8.1%)	10(5.4%)
I need assistance in searching for information	60 (32.4%)	50(27%)	35(18.9%)	40(21.6%)
It takes time to search for information	50(27%)	30(16.2%)	65(35.1%)	40(21.6%)
Much effort is needed to search for information	70(37.8%)	30(16.2%)	55(29.7%)	30(16.2%)
I get confused by the information available	15(8.1%)	10(5.4%)	90(48.6%)	70(37.8%)
I don’t know which information to rely on	20(10.8%)	30(16.2%)	65(35.1%)	70(37.8%)
I use different sources of information for comparison	57(30.8%)	62(33.5%)	40(21.6%)	23(12.4%)
I don’t know information required	5(2.7%)	10(5.4%)	75(40.5%)	95(51.4%)

The study of the table above reveals that 120 (64.9%) of the respondents indicated strong agreement, 40 (34%) indicated agreement, and 15 (8.1%) and 10 (5.4%) indicated disagreement and strong disagreement to the statement that it is necessary to look for information. 60 (32.4%) and 50 (27%) of respondents highly agreed and agreed, respectively, that they require support to look for agricultural information, whereas 40 (21.6%) and 35 (18.9%) of respondents strongly disagreed and disagreed. For the reason that it takes time to look for agricultural information, 35.1% and 21.6% of respondents disagreed and strongly disagreed, while 27.1% and 16.2% of respondents agreed and strongly agreed, respectively. Similarly, 70 (37.8%) and 30 (16.2%) indicated strong agreement and agreement, whereas 55 (14.8%) and 30 (16.2%) indicated disagreement and strong disagreement, respectively, to the statement. 90 (48.6%) and 70 (37.8%) of respondents opposed and strongly disagreed with the statement that they become confused by the available

information, while 15 (8.1%) and 10 (5.4%) agreed and strongly agreed, respectively. 70 (37.8%) and 65 (35.1%) of respondents indicated strong disagreement and disagreement, whereas 30 (16.2%) and 20 (10.8%) indicated agreement and strong agreement, respectively, with the statement. 62 (33.5%) and 57 (30.8%) respondents answered agreement and strong agreement, while 40 (21.6%) and 23 (12.4%) respondents indicated disagreement and strong disagreement with this statement. 95 (51.4%) and 75 (40.5%) of respondents strongly disagreed and disagreed with the assertion that they lack required information, while 10 (5.4 %) and 5 (2.7%) agreed and strongly agreed with the statement, respectively.

Table 7: Frequency of Use of Devices to Access and Use of Agricultural Information.

Device	Once yearly	Weekly	Monthly	Never
Radio/Television	10(5.4%)	55 (29.7%)	5 (2.7%)	115(62.2%)
Mobile phones	66(35.7%)	20(10.8%)	10(5.4%)	89(48.1%)
Computer/laptops/tablets/internet	90(48.6%)	30(16.2%)	20(10.8%)	45(24.3%)
CDs/DVDs/Flash disks	20(10.8%)	0(%)	0(%)	165(89.2%)

According to the data presented above, the majority of respondents (115, or 62.2%) never use radio/television to receive agricultural information, whilst 55 (29.7%) do so weekly, 10 (5.4%) do it once, and 5 (5.7%) do so monthly. The majority of respondents, 89 (48.1 percent), never use mobile phones to get agricultural information, while 66 (35.7%) use mobile phones once a year, 20 (10.8%) said weekly, and 10 (5.4%) indicated monthly. Majority of respondents 90 (48.6%) used computers/laptops/tablets/internet once a year to access agricultural information, while 45 (24.2%) never used such devices. Thirty (16.2%) and twenty (10.8%) used the device weekly and monthly to access agricultural information. Lastly, 165 (89.2%) of respondents never use CDs/DVDs/flash disks to access agricultural information, while 20 (10.8%) do so once per year.

The challenges the farmers in Jos north LGA faced in meeting their information need

Table 8: Challenges of Accessing Agricultural Information

Challenges	Frequency	Percentage (%)
Lack of awareness of the available information sources	180	97.3
Lack of information services	173	93.5
Lack of up-to-date information	164	88.6
Inaccessibility of information	181	97.8
Lack of relevant information materials	185	100
Inadequate extension services	185	100
Inadequate funds	185	100
Language barrier	182	98.4
Poor knowledge-sharing culture	169	91.4
Time	160	86.5

The analysis on challenges shows that, majority 185 (100%) of the respondents agreed that lack of relevant information materials, inadequate extension services and inadequate funds are challenges faced by farmers, while 182 (98.4%), 181 (97.8%) and 180 (97.3%) indicated language barriers, inaccessibility of information and lack of awareness of the available information sources respectively as the challenges, 173 (93.5%) and 169 (91.4%) indicated lack of information services and poor knowledge-sharing culture, 164 (88.6%) and 160 (86.5%) indicated lack of up-to-date information and time barriers are problems faced by the farmers.

DISCUSSION OF RESULTS

The findings discussion only covered the key research objective and questions that guided the investigation. Majority 85.2 percent needed agricultural information. Thuo (2018) found that all groups need information to make daily decisions. Idiegbeyan-Ose & Theresa (2009) found that information helps farmers decide on production, management, marketing, and crop varieties.

Most farmers disagreed that information services are readily available. Thuo (2018) found that farmers had limited access to agricultural information services. Most respondents disagreed to never receive information from agricultural extension officers. This finding supports Akeweta et al. (2018), who argued that extension officers are unavailable, and Anugwa & Agwu (2018).

Farmer information needs, modern farming technologies, milking operation & systems, animal waste management, diseases and pests' control, business information, government policies & plans, market trends, and credit facilities have the highest frequency/percentage, with most falling within relevant and very relevant. The information applies to all farmers except one. Soyhu (2016) and Patrick (2016) stated that giving farmers knowledge will boost their productivity and efficiency.

Most sought agriculture knowledge. Thuo (2018) found that this helps farmers find information from relatives and neighbours due to a dearth of agricultural extension personnel. Idiako-Ochei et al. (2016) proposed that farmers seek information on crops, production technology, fertilizers, chemicals, marketing, and enhanced varieties.

Most farmers learned about agriculture from other farmers, cooperative societies, family, and personal experience. Emmanuel (2012), Thuo (2018) mentions other dairy farmers, farmers associations, utilised family members, and cooperative societies.

The majority chose personal experience and farmers groups, followed by family/parents, neighbours/friends, agricultural extension officers, radio, brochures, and television. Leaflets, cell phones, library and information centres, newspapers/magazines, books, village leaders, and internet were least favoured. Farmers prefer radio, friends/family, and TV, according to Akeweta et al. (2018).

Most respondents said agricultural extension officers never met their information needs. According to Thuo (2018), farmers rarely have access to agricultural extension services, making information access difficult. Gakuru et al. (2009) found that while farmers are increasing, agricultural extension workers are declining, highlighting the need to close the gap.

Most farmers said seeking for information is crucial, they need help, it takes a lot of time, and they compare different sources. While they disagreed that searching for information takes time, they are confused by the material accessible and don't know the needed information. Farming experience, age, and education affect farmers' information seeking tendencies, according to the research. Soylu (2016) suggests that farmers' information demands can boost their professional productivity and motivation.

Most farmers never use radio, TV, or cell phones for agricultural information. According to Emmanuel (2012), radios are rarely utilized for agricultural programs and farmers never use computers, laptops, tablets, CDs, DVDs, or flash drives to obtain information. The study contradicts Mburu (2013), who found that 95% of respondents chose radio over other ICT media. Thuo (2018) found that most respondents never utilized computers, laptops, tablets, CDs, DVDs, or flash drives to obtain agricultural information.

Farmers face language barriers, inadequate extension services/workers, inaccessibility of information, inadequate funds, lack of relevant information materials, lack of awareness of available information sources,

lack of information services, lack of up-to-date information, poor knowledge sharing culture, and time constraints. This supported Patrick (2016)'s observation that rural libraries lack standards.

CONCLUSION AND RECOMMENDATIONS

The study's findings led the authors to draw the following conclusions about farmers' access to agricultural information in Jos North LGA of Plateau State: farmers only rely on their own experiences, friends, families, cooperatives, and other means to get information for agricultural production, which has negative effects on farmers' information seeking behaviour. Farmers in Jos North LGA of Plateau State will continue to struggle with low yields because they do not have access to the proper information because of language hurdles, a lack of services from extension workers, a lack of funding, a lack of awareness, and an absence of current information. The following suggestions are made in light of the results:

1. To ensure that rural farmers have access to knowledge on agricultural techniques in digital, electronic, and printed formats, the Ministry of Education should arrange for adult classes to be held in rural regions.
2. The government should hire and send extension agents out into the countryside to educate farmers on the best methods for farming and provide them with resources like loans and non-governmental organization (NGO) aid.
3. At the very least once a week, the management of television and broadcasting houses should air agricultural programs in local languages. Farmers would benefit greatly from access to up-to-date, high-quality resources in their native languages that detail the best methods in agriculture and; the Ministry of Agriculture should provide farmers with translated versions of agricultural programs in their native tongues.

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