

Utilization of Agricultural Information by Dry Season Women Farmers in Lafia Local Government Area of Nasarawa State, Nigeria

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Abstract

The paper focused on the Utilization of Agricultural Information by dry-season women farmers in the Lafia Local Government Area of Nasarawa State. Four research questions guided the study. A descriptive Survey design was adopted for the study. The population of the study consisted of One hundred women purposively sampled in ten villages. One hundred questionnaires(100 were distributed, 97 representing 97%, were retrieved and used for the study. The findings of the study revealed that husbands, mass media and cooperatives were the major sources of agricultural Information. The respondents utilized agricultural Information principally through NADP, mass media and extension agents. The constraints faced by dry season women farmers in accessing and utilizing agricultural Information included) a need for proper awareness of dry season farming from agricultural extension services, irregular power supply that prevent them from listening to news and other agricultural programmes and lack of improved seedlings. Based on the findings, among the recommendations made were that information centres should be established in rural communities in the area studied to provide the needed information to women on dry season farming and Agricultural information extension agencies should take into cognizance the agricultural information needs of dry season women farmers in the aspects of pesticide, fertilizer and improved farm implements.

Keywords: *Agricultural Information, Dry season, women farmers, Lafia Local Government Area*

Introduction

Information means the communication of knowledge or fact about an event. Therefore, information is a vehicle for the growth of every sector. According to Amidu, Galadima and Suleiman (2021), Information is knowledge gained through experience, interaction and observation, which is expected to be used by farmers. Agbamu (2006) opined that Information is the first and indispensable step of the adoption process. The characteristics of Information

include relevance, timelessness, accuracy, cost effectiveness, reliability, usability, exhaustiveness, and aggregation level. Adereti, Fapojuwu and Onasanya (2006) see Information as data that have been put into a meaningful and useful context which is communicated to a recipient who uses it to make decisions.

Agricultural Information is agricultural-related data of any form, be it textual, numerical, factual or graphics, which is transformed into meaningful and useful contexts for effective agriculture and farming activities that will help farmers in decision-making Amidu, Galadima and Suleiman (2021). Agriculture is a major source of livelihood in Nigeria. Therefore, agricultural productivity could be enhanced by using relevant, reliable and useful Information and knowledge. Indeed, agricultural Information and knowledge are crucial to farmers, who need both for their development (Hassan et al., 2012). However, Siyao (2012), citing Masuki *et al.* (2010), revealed that agricultural Information is a key component in improving small-scale agricultural production and linking increased production to remunerative markets, thus leading to improved livelihoods and national economics.

Women immensely contributed to stabilizing the nation's food security. Women are active players in the development of agriculture. United Nations estimate puts women's domestic food production at 80% in Africa, 60% in Asia and the Pacific and 40% in Latin America (FAO. 1998). In Nigeria, women are seen as significant wage earners in the family. They are involved in arable farming, fishing, herding, and commerce such as pottery, cloth making and craft work. Ekesionye & Okolo (2012) Asserted that women contribute significantly to economic empowerment and play a key role in all spheres of society

Looking at the present global food crises and the gap between demand and supply, there is a need to increase agricultural productivity through intensive dry season farming. In essence, all efforts made by women in boosting agricultural development through dry season farming depend largely upon the accurate and reliable Agricultural Information available to them; therefore, the study seeks to investigate the utilization of agricultural Information by dry season women farmers in Lafia Local Government of Nasarawa State Nigeria.

Problem Statement

The role of women farmers in Dry season farming is aimed at ensuring food security and income generation at the family level. This can be guaranteed if they access the right agricultural Information. However, there are indications that women need to gain adequate knowledge of the appropriate channel to access and use agricultural Information for dry season farming. Furthermore, women farmers who need help accessing agricultural Information are likely to have poor agricultural outputs. Therefore, the agricultural information-seeking behaviour of women farmers needs to be enhanced through appropriate Information. This has triggered the need to investigate agricultural information utilisation by Dry season-women farmers in the Lafia Local Government area of Nasarawa State, Nigeria.

Objectives of the Study

- I. To discover the socio-economic characteristics of dry season women farmers in Lafia Local Government area of Nasarawa State Nigeria.

- II. To identify the major agricultural information sources available to dry season women farmers in the Lafia Local Government area of Nasarawa State, Nigeria.
- III. To examine the extent to which women used agricultural Information for dry season farming in Lafia Local Government area of Nasarawa State, Nigeria.
- IV. To determine the constraints faced by dry season women farmers in accessing and utilizing agricultural Information in the Lafia Local Government area of Nasarawa State, Nigeria.

Literature Review

A sea of Literature abounds on dry-season woman farmers' utilization of agricultural information. Relevant literature reviewed in this study covered characteristics of dry season woman farmers, sources of agricultural Information, utilization of agricultural Information and constraints to utilization of agricultural Information by dry season woman farmers. Egunjobi (1991) has asserted that women participate actively in all aspects of the food production chain. Also, Mgbada (2002) and Rahman (2004) reported that women provide about 60-80% of agricultural labour, constituting about 80% in Nigeria. However, there are indications that females were more engaged in farming than males in Imo state does not indicate ownership of land by females since ownership of land remains in the hands of men in Igbo culture (Palmer, 1991).

A major revolution in developing countries over the past decade is the telecommunications revolution, characterized by the Internet and mobile phones. These information and communication technologies (ICTs) provide alternative channels through which farmers can access Information on agriculture and related areas (Sanga et al., 2013). Smallholder farmers, such as women farmers, can use these technologies to access Information on market prices so that they can take their produce to where they are more likely to obtain the best price (Mittal, Gandhi, Tripath, 2010; Magesa et al., 2014). ICTs can benefit dry-season women farmers in many ways, for example, by substituting phone calls for long-distance travel, which is time-consuming and takes a lot of energy and money.

Other sources of agricultural Information are extension agents, husbands, Agro input dealers, mass media, and neighbours in the area are also important in the diffusion of agricultural innovations. Particularly, interpersonal communication networks among women farmers are important and reported in many studies to have a significant influence on farmers' adoption decisions. Mass media also play a great role in the provision of Information in the shortest possible time over a large area. Yahaya (2002) explained that trends in Nigeria's agricultural development scenario show that mass media have tremendous potential. Some studies reported the positive and significant relationship of mass media with the adoption of agricultural technologies.

There is no doubt that woman farmers have contributed significantly to agricultural development. Therefore, Adetimehin, Okunlola and Owolabi (2018) conducted a study on the Utilization of agricultural Information and knowledge for improved production by rice farmers in Ondo State, Nigeria. The study's objective is to examine the utilization of agricultural Information and knowledge for improved production by rice farmers in Ondo State, Nigeria. Utilization of Agricultural Information Sources and Adoption of Animal and Crop Technologies among Farming Households in Imo State, Nigeria by Uwandu, Thomas and Okoro (2018)

revealed that the majority (55.2%) of the respondents were female. This could be expected as Egunjobi (1991) has asserted that women participate actively in all aspects of the food production chain. Also, Mgbada (2002) and Rahman (2004) reported that women provide about 60-80% of agricultural labour and constitute about 80% of food production in Nigeria. Another study was conducted by Dauda Chado and Igbashal (2009), their study on agricultural information sources utilized by farmers in Benue State, Nigeria. The findings revealed that most of the farmers depend on extension agents for agricultural Information, which was attributed to the cosmopolitan nature of the study area where tertiary institutions are located and the potential application of technology by farmers to improve agriculture. Printed materials, such as local newspapers, newsletters, posters and fliers, constitute alternative sources of agricultural Information for female farmers (Sanga et al., 2014). However, this still needs to be solved, given that many female farmers in Tanzania and other East African countries are unable to read and write, particularly in English (Wyche and Steinfield, 2015). All these issues are constraints to women farmers in Lafia in gaining access to agricultural Information.

Methodology

A survey design was adopted in the study. It covered ten (10) villages in an autonomous community in Lafia Local Government Area, namely: Adogi, Agyaragu, Akurba, Akunza, Alakio, Assakio, Awuma, Bukan Allu, Bukan Kwato, Kwandere, and Madagwa Villages. The instrument used for data collection was the questionnaire. The population for the study consists of 100 dry-season women farmers in the study area purposively selected for the study. Out of the 100 copies of a questionnaire distributed, 97 were filled and returned, representing a 97% response rate. The statistical tools used to analyze the study's objectives were descriptive statistics. The descriptive statistic is expressed in mean scores, frequency and percentages.

Results and Discussion of Findings

Socio-economic Characteristics of the Respondents in the Study Area

The results of the socio-economic characteristics are presented in the Table 1

Table 1: Socio-economic Characteristics of the respondents in the study area

Characteristics	Frequency	Percentage (%)
Age (Years)		
20-29	25	25.8
30-39	29	29.9
40-49	38	39.1
50-59	5	5.1
60 and above	-	-
Marital Status		
Single	15	15.5
Married	50	51.5
Widowed	25	25.8
Divorced	7	7.2
Educational Level		
No formal education	29	29.9

Primary/Adult education	36	37.1
Secondary education	25	25.8
Tertiary education	7	7.2
Income Level		
High	25	25.8
Average	52	53.6
Low	20	20.6
Farm Size		
Large Hectare	35	36.0
Medium Hectare	55	56.7
Small Hectare	7	7.2
Religion		
Christianity	63	64.9
Islam	34	35.1
Traditional religion		00.00

Source: Field survey, 2021.

The variables examine include age, marital status, literacy level, farm size, income level and religion are shown in Table 1. The women within the age bracket of 40 - 49 years constituted the highest percentage (39.1%), followed by those between 30-39 (29.9%). The respondents between 20 - 29 years had the lowest percentage (25.8%). The number of respondents within the age bracket of 60 years and above (0.8%) was also relatively small. The result in Table 1 showed that the majority of the dry-season women farmers in the study area are between the age of 40-49, which shows that at this age, the respondents are actively aged to utilize agricultural Information of all kinds for the dry season. On marital status, the finding showed 51.5% were married. The result of the study also shows that 37.1%, 25.8% and 7.2% of the respondents had one form of education or the other that enabled them, respondents to read, writes or listen to agricultural information programme. While 29.9% had no formal education, about 53.6% of the respondents were within the average income, while 25.8 and 20.6% were in the higher and low income, respectively. If the judiciously used agricultural Information, it will significantly boost the income of the dry-season women farmers in the study area. The farm size (hectare) distribution of the respondents showed that 56.7% had medium size farms. The result revealed that women need to expand their farm operations to harness more opportunities for good agricultural products (crops) in the study area regarding religious affiliation. The majority of the respondents were Christians, with 64.9%, while 35.1% were Muslims. This indicates that both religions promote the use of agricultural Information by the dry-season women farmers in the area studied.

Sources of Agricultural Information to the Respondents

Table 2: Sources of agricultural Information N = 97.

Sources	Frequency	Percentage (%)
Extension agent	77.2	
Husband	30	30.9
Mass media	25	25.8
Fellow women	15	15.5
Cooperatives	20	20.6
Agro input dealers	0	0.0
ADP	0	0.0

Source: Field Survey, 2021. Multiple responses

Sources of agricultural Information available to the respondents as indicated in Table 2 revealed. The majority of the respondents sourced agricultural Information through their husbands (30.9%), mass media (25.8), fellow women (15.5%), cooperatives (20.6%) and extension agents (7.2%), respectively. The result, to some extent, agrees with the findings of Yahaya (2001) and Rajah (1990), who find that women farmers usually get agricultural Information on improved technologies from their husbands, cooperatives and mass media. On the other hand, the low percentage of women farmers having extension agents as their sources of agricultural Information agrees with the findings of Matarmi (1991) and Osuman (1997), who observed that male farmers have more access to agricultural Information through extension agents than the female farmers.

Respondents 'use of agricultural information sources

Table 3: Respondents' use of Agricultural Information Sources

Information sources	Utilization of Agricultural Information Source	
	Mean	SD
NADP	3.91*	0.36
Mass media	3.80*	0.36
Extension agents	3.70*	0.51
Research institutes	3.25*	0.55
Family members	3.22*	0.95
Farmer's cooperatives	3.03*	0.44
Fellow women	2.99*	0.30
Agro input dealers	2.32	0.35
Trade fair	2.23	0.59

Source: Field Survey 2021. *Used (mean $\geq$ 2.5)

Results in Table 3 showed the respondents' use of agricultural information sources. NADP (mean=3.91) ranked first as the most utilized source of agricultural Information in the study area. It could be inferred from these findings that NADP is effective in carrying out its mandates in the

study area which include technology transfer to dry season women farmers, distributing modern dry season farming inputs, land development, etc., and as a result, farming households in the study area resort to them frequently to source for agricultural Information on latest innovations. The second most utilized information source was mass media (mean=3.80), while the least utilized information sources were Agro input dealers (mean=2.32) and trade fairs (mean=2.23), ranked tenth and eleventh, respectively.

Table 4: Constraints to effective utilization of agricultural Information by women farmers in dry season farming

Items	Frequency	Percentage (%)
Lack of proper awareness on dry season farming from agricultural extension services	116	91.3
An irregular power supply prevents people from listening to the news and other agricultural programs	93	73.2
Lack of improved seedling	90	68.7
Inadequate funds to procure radio/television	-	-
Non-existence of community library services	81	63.8
How to operate computers and other ICTs	77	60.6
Language barrier	-	-
Poor road network	15	11.8
High cost of Internet services	6	4.7

Source: Field Survey 2021.

From the findings table 4, 116 (91.3%) of the respondents rated the lack of proper awareness on dry-season farming from agricultural extension services, as a challenge to the effective utilization of agricultural Information by dry-season women farmers. 93(73.2%) of the respondents indicated irregular power supply as the challenge, 90(68.9%) indicated lack of improved seedlings, 77(60.6%) rated lack of access to computers and other ICTs as a challenge, while 81(63.8%) indicated non-existence of community library service, 15(11.8%) indicated poor road network and 06(4.7%) indicate the high cost of internet services as constraints to effective use of agricultural Information.

Challenges affecting the effective utilization of agricultural Information, as revealed in the study, include improper awareness of agricultural extension services, an irregular power supply that prevents people from listening to agricultural programme broadcast via video, lack of access to computers and other ICTs facilities as well as the non-existence of community library services. The challenges mentioned above hinder agricultural production by dry season women farmers in Lafia autonomous community.

Conclusion

The study showed that the majority of dry-season women farmers in the study area have high agricultural information needs generally, but particularly in the areas of insecticide, fertilizer and improved farm implements. The major sources of agricultural Information available to the respondents were their husbands, mass media, farmer's cooperatives and fellow women.

Based on the personal characteristics of the respondents, the findings revealed that most of them were within the active age bracket. Also, most of them were married. They also had formal education at the primary level. Their income level was also high. Furthermore, they had medium farm sizes and were adherents of Islam and Christianity.

They need Information on pest control or fertilizer sale points. Their agricultural information needs are centred on the cost of goods and services and information on where they can get agricultural goods wholesale. The major constraints faced by dry-season women farmers in accessing and utilization of agricultural Information included poor awareness on dry season farming and irregular power supply, which hampered them from listening to agricultural news and programmes.

Recommendations

Based on the conclusion of this study, the following recommendations are being made best on the findings of this study.

1. Government, donor agencies, spirited individuals and NGOs should invest on improving NADP to be the major source of agricultural information, particularly in areas of pesticide, fertilizer and improved farm implements and endeavour to step up their services in these areas of need.
2. For women farmers to effectively utilized agricultural Information with ease, there is a need for the establishment of information centres in all rural communities in the state. Such information centres could provide the dry season women farmers with the desired agricultural Information in a format that would be understandable to them, taking into cognizance the prevailing cultural differences and level of illiteracy.
3. Agricultural extension agencies should take note of the information needs of women farmers, particularly in areas of pesticide, fertilizer and improved farm implements and endeavour to step up their services in areas of need. Also, women farmers should acquire additional education to enhance their chances of adopting innovations in dry-season farming.
4. Finally, considering the critical roles played by women in agricultural production, they should be given all the needed support by the government in the formulation of agricultural policies that are Gender friendly and sensitive.

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