



ASSESSMENT OF ACCESS AND USAGE OF MASS MEDIA AMONG RICE FARMERS IN TARABA STATE, NIGERIA

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ABSTRACT

The study examined access and usage of mass media among rice farmers in Gassol Local Government Area of Taraba State, Nigeria. It also identified the constraints to the usage of mass media tools among the farmers in the study area. Purposive random sampling methods were used to generate data from 138 respondents. Data collected were analyzed using descriptive statistics. The results indicated that the major mass media used by respondents were radio (86.2%), television (48.6%), Internet (48.6%), posters (46.4%), and leaflets (39.1%). The agricultural information medially accessed by the respondents from the mass media were credit facilities, marketing information, pests and diseases, fertilizer application, improved seeds, and improved storage facilities. The farmers identified a high need for agricultural information relating to credit, marketing, pests and diseases, fertilizer, improved seeds, and storage facilities. The high cost of mass media facilities, inadequate electricity, lack of local content, low level of education, lack of awareness of mass media use, and the inability of the farmers to access information from mass media were the major constraints faced by the respondents. The study recommended subsidizing the cost of media facilities, increasing access to electricity supply, creating awareness and skill of the farmers to take advantage provided by mass media tools for their farming benefits, and increasing the usage of other mass media outlets were made to enable the respondents to have full access/use of mass media to improve rice production.

Keywords: Access, Gassol, Mass media, Rice farmers, Usage.

INTRODUCTION

Information is critical in agricultural production and is often regarded as an important factor required in all aspects of agricultural production (Akinwale, 2020). Access to timely information is needed in each step of the agricultural process, be it production, harvesting, distribution, processing, storage and marketing. Agricultural information dissemination has been found to increase farmers' access to agricultural knowledge and ideas which assist them in decisions making regarding farming activities. (Damba *et al.*, 2020).

Farmers need information that enhances productivity and enables them to meet the market target, increase profit and take decisions in good time. (Norton & Alwang, 2020). Effective dissemination of agricultural information and knowledge by extension workers to women farmers increases income levels, thereby enhancing their quality of life. An empirical study revealed a significant relationship between information dissemination for farmers and agricultural productivity (Funom & Soyemi, 2020). Similarly, the availability and utilization of agricultural information improve the socio-economic well-being of farmers (Funom & Soyemi, 2020). Information access improves farmers' quality of life as the livelihood of millions of farmers is supported by good information for food production (Damba *et al.*, 2020). They also, described mass media facilities as a collection of media technologies that are used



for collecting, storing, editing, and passing on information in various forms to the ones who access it (rice farmers).

Mass media consist of both print and electronic media. The print media include circulars posters, leaflets, bulletins, newspapers, journals, etc. while the electronic media consist of Television, Radio, Internet, Video, and Telephone. To this end, mass media remains an important and necessary tool that can act as a vehicle for agricultural technology transfer. Mass media simply means the physical means by which one transfers knowledge and skills to listeners (Rice farmers).

Rice is a widely grown crop in most African countries with high demand for consumption. It's also a staple food in the region which constitutes a bigger portion of people's diet. More so, a few African countries enjoy self-sufficiency in rice cultivation. Rice consumption surpasses production and a substantial amount of the crop is imported to sustain local demand at the expense of hard-earned foreign currency reserve.

However, in Nigeria, most of the agricultural activities are left in the hands of small-scale farmers who play a vital role in feeding the nation. Ultimately, they are often constrained in their ways to access marketing information, new technology and skills, new inputs, emerging value chains, and other opportunities (Food and Agriculture Organization, 2013). Mass media usage in Nigeria has significantly improved in recent years but despite that rice producers in Taraba State and in particular, Gassol Local Government has limited access and utilization of agricultural information at their disposal. This could be due to some factors encountered in the dissemination process. Upon this background, this study is poised to assess Mass Media Use Among Rice Farmers in Gassol Local Government Area of Taraba State, Nigeria.

MATERIALS AND METHODS

The Study Area

The research was carried out in the Gassol Local Government Area of Taraba State. It is located between latitude 7°32'N to 8°40'N and longitude 10°25'E to 11° 15'E. Gassol Local Government Area has a landmass of 5982km² and a population of 244,749 (125,293 males and 119,456 females) (NPC, 2006) with a projected population of 379,972 as of 2021 using a 3% growth rate. The study area consists of two administrative districts, namely Gassol and Mutumbiyu. About three-quarters of the population are crop farmers, while others are cattle herders and fishermen. Besides that, most of the inhabitants do enjoy the presence of state-owned media outlets such as Taraba State Broadcasting Service (TSBS), Taraba Television (TTV), and other satellite stations perhaps, due to its proximity to the state capital. Important crops cultivated in the area include rice (*Oryza Sativa L*), groundnut (*Arachis hypogea*), maize (*Zea mays*), yam (*Dioscorea spp*), cassava (*Manihot esculenta*), millet (*Panicum spp*), guinea corn (*Sorghum bicolor*), cowpea (*Vigna unguiculata*) and tomatoes (*Lycopersicon esculentum*) among others, etc. Most of the farmers cultivate small plots of land. Farming activities usually start around March with the clearing of lands. The soil in the area consists of rich sandy loam soil. The annual rainfall is between 1000mm to 2200mm, the climate is tropical in nature with temperatures of between 15°C to 25°C throughout the year. The major tribes in the local government area are Fulani, Jukun, Tiv, Hausa, Wurkum, Jenjo, Kuteb, and Mumuye among others.

Sampling Procedure

The population of the study comprises 267 registered rice farmers in the local government area that were sourced from Taraba State Agricultural Development Programme (TADP) office in the state. Two districts make up the local government area; namely Gassol



and Mutum biyu. Three wards from each of the districts were purposely selected due to their prominence in rice production. Gassol, Sendirde, and Wuriyo were selected from the Gassol district while Mutum biyu A, Mutum biyu B, and Tutare were also selected from the Mutum biyu district. Therefore, six wards out of the twelve wards in the local government were used for the study.

A sample size of 160 rice farmers was drawn from the population using the Yamane Taro formula as adopted by Kawu (2016) as presented below;

$$n = \frac{N}{1 + Ne^2}$$

where;

n = sample size

N = population of the study (267)

e = Random sampling error

$$n = \frac{267}{1 + 267(0.05)^2} \frac{267}{1.6675} = 160$$

The random sampling method was therefore used in the administration of the questionnaires to the respondents in proportionate to the numbers of farmers in each of the wards. A total number of 138 were correctly filled and returned questionnaires were therefore, used for the analysis of the results. The sample selection and questionnaire distribution schedule are hereby presented in Table 1.

Table 1: Selection of respondents and distribution of a questionnaire

District	Ward	Number of registered farmers	Number selected	No. returned
Gassol	Gassol	50	30	27
	Sendirde	41	25	18
	Wuriyo	44	26	24
Mutu-Biyu	Mutum-Biyu A	51	30	30
	Mutum-Biyu B	43	26	17
	Tutare	38	23	22
Total	6	267	160	138

Source: TADP, 2019

Methods of Data Collection

Primary data were used for the study and were collected with the use of a questionnaire to be administered to the respondents. Data collected include; agricultural information accessible from mass media, information needs, and constraints in the use of mass media among the respondents in the study area. Data was collected in March for the 2020/2021 cropping season. **Method of Data Analysis**

The data obtained were analyzed using descriptive statistics, such as mean, frequency count, percentages, and ranks. It is expressed as;

$$Y = \frac{FRX100}{N}$$

where;

Y = The parameter (Variable) to be examined

FR = Frequency of response



N = sample size

RESULTS AND DISCUSSION

Mass Media Used by the Farmers in the Study Area

The result in Table 2 disclosed the mass media used by the respondents in the study area. Radio (84.8%) was ranked first and is being used by most of the farmers in the study area. This is followed by television (49.3%), internet (45.7%), and posters (44.9%). Others were newspaper (30.4%), leaflet (24.6%), bulletins (22.5%), tape recorder (21.7%), magazine (8%) and CD Rom (6.5%). This shows that radio, television, and the internets were the major media used by the majority of the respondents in the study area which could be attributed to the widest coverage these media offer to their audience in terms of dissemination of research and agricultural information to the farmers. Demba *et al.* (2020) reported that mass media did not have the same importance of use; as such the major ones used accord high integrity to farmers than other groups of individuals in the study area. Similarly, the finding is in line with the study of Akinwale (2020) who reported that Radio, Television, Mobile phone, Farm posters, and Farm leaflets were the mass media forms/ channels mostly used by rice farmers in Nigeria.

Table 2: Distribution of the Respondents Based on the Mass Media Used

Mass media Used	Used	Not used	Rank
Newspaper	42(30.4)	96(69.6)	5 th
Magazine	11(8)	127(92)	9 th
Internet	63(45.7)	75(54.3)	3 rd
Tape recorder	30(21.7)	108(78.3)	8 th
Radio	117(84.8)	21(15.2)	1 st
Television	68(49.3)	70(50.7)	2 nd
CD Rom	9(6.5)	129(93.5)	10 th
Posters	62(44.9)	76(55.1)	4 th
Leaflets	34(24.6)	104(77.5)	6 th
Bulletins	31(22.5)	107(77.5)	7 th

Nte: Percentages in parenthesis

Source: Field survey, 2019

Agricultural Information Accessible to the Farmers from the Mass Media

The agricultural information accessible by the respondents was analyzed using a 3-point scale of high (3), medium (2), and low (1) where a mean range of 1-1.49 is regarded as low access, 1.50-2.49 is regarded as medium access and 2.5-3.0 is regarded as high access. From Table 3, weather forecast (1.46) was the only agricultural information that was lowly accessed by the respondents whereas; credit facilities (mean = 2.10), market information (mean = 1.96), pests and diseases (mean = 2.31), fertilizer application (mean = 2.25), improved seed (2.24), and storage (1.91) were medially accessed by the respondents in the study area. This could be explained by the fact that most small-scale farmers in Nigeria and Taraba, in particular, are not fully accessing agricultural information due to some constraints associated with rural areas. This is in consonance with the study of Daudu *et al.* (2009) who pointed out that some of the problems encountered by farmers in Nigeria in accessing agricultural information include; financial problems, the inadequacy of facilities, and incomplete or irrelevant information. Furthermore, some Farmers access their agricultural information through sources other than the mass media such as existing NGOs in the area and or interpersonal contacts as rightly



posited by Daudu et al. (2009) that friends, relatives, and neighbors are regularly available and accessible to the farmers to gain the agricultural information they need.

Table 3: Agricultural Information Access from mass media

Information type	High access	Medium access	Low access	TS	Mean	Remark
Credit facilities	138	120	32	290	2.10	Medium
Weather forecast	51	60	91	202	1.46	Low
Market information	99	134	38	271	1.96	Medium
Pests and diseases	177	126	16	319	2.31	Medium
Fertilizer application	186	98	27	311	2.25	Medium
Improved seeds	183	98	28	309	2.24	Medium
Storage	102	120	41	263	1.91	Medium

Source: Field Survey, 2019

Farmers' Information Needs

The agricultural information needs of the respondents from mass media from Table 4 was further analyzed using a 3-point scale of low need (mean=1-1.49), medium need (mean = 1.5-2.49), and high need (mean = 2.5-3.00). From the Table, information relating to credit facility (mean = 2.75), market information (mean = 2.68), pests and diseases (mean = 2.80), fertilizer application (mean = 2.78), improved seeds (mean = 2.73), and storage (mean = 2.56) were in high need among the respondents in the study area whereas; weather forecast (mean = 1.46) was medically needed by the respondents. This shows that more information relating to modern farm production is in high demand by the farmers thus, there is a need to make sure that information is made readily available to farmers prior to farm production to facilitate the planning of farm work. These findings agree with that of Okwu and Umoru (2009) that found similar needs among women farmers in Benue State.

Table 4: Agricultural Information Needs from the mass Media

Information type	High need	Medium need	Low need	TS	Mean	Remark
Credit facilities	327	46	6	379	2.75	High need
Weather forecast	27	140	59	226	1.62	Medium need
Market information	291	76	3	370	2.68	High need
Pests and diseases	339	44	3	386	2.80	High need
Fertilizer application	330	50	3	383	2.78	High need
Improved seeds	318	52	6	376	2.73	High need
Storage	276	62	15	353	2.56	High need

Source: Field Survey, 2019

Mass Media use challenges for the Respondents

The constraints to the use of media to access agricultural information from Table 5 are analyzed using a 3-point scale of very severe (3), severe (2), and not severe (1); where a mean of 1-1.49 is rated not severe, 1.5-2.49 is rated severe, and 2.5-3.0 is rated very severe. The results indicated that lack of local content (mean = 2.04), lack of time out of a busy schedule (mean = 2.31), low level of education (mean=2.11), lack of awareness of mass media use (mean = 2.28), and don't know how to get information from the mass media (mean = 2.13) were severe constraints to the use of mass media among the respondents. However, the high cost of mass media (mean = 2.77) and lack of electricity (2.78) were the two very severe constraints



to the use of mass media in the study area. This could be attributed to the fact that some if not all the mass media requires some certain cost before they can be accessed as well as the lack of electricity supply in the country that has crippled most economic activities in the country. This collaborates with the findings of Gueye (2009) who reported that the high cost of information creation gadgets, high level of poverty among farmers, inadequate mass media stations, and lack of alternative sources of power to electricity are major problems affecting the usage of mass media channels for agricultural information in Nigeria.

Table 5: Mass Media use challenges of the Respondents

Constraints	Very severe	Severe	Not severe	TS	Mean	Remark
Lack of local content	156	80	46	282	2.04	Severe
Lack of time out of busy schedule	156	154	9	319	2.31	Severe
Low level of education	165	86	40	291	2.11	Severe
High cost of mass media facilities	324	58	0	382	2.77	Very severe
Lack of electricity	360	16	8	384	2.78	Very severe
Lack of awareness on mass media use	186	104	24	314	2.28	Severe
Don't know how to get information from the mass media	150	112	32	294	2.13	Severe

Source: Field Survey, 2019

CONCLUSION AND RECOMMENDATIONS

The study, therefore, concluded that mass media can be cheap and readily available to reach out to farmers with new innovations in the study area if the high cost of mass media facilities can be subsidized by the authorities as well as make provision for steady power supply at low cost. Notwithstanding, mass media such as radio, television, the Internet, posters, leaflets, and newspaper were the most important media facilities accessed and used by the farmers in search of vital information relating to their farming activities. It is, therefore, recommended that:

1. There is the need to subsidize the cost of mass media facilities in the study area to enable the farmers who are mostly poor to have access to agricultural information. This can be made possible through subsidizing the cost of media access such as newspapers, and charges on tariff charges by network providers, as well as, data for accessing information from the internet.
2. Mass media facilities such as television, radio, and the Internet among others depend heavily on electricity for their functioning. To make them readily available to the farmers at all times, there is the need to increase the supply of constant electricity to the farmers in the study area.
3. There is also the need to create more awareness to the farmers on the use of mass media so that the willingness for farmers to access information from mass media can be improved.
4. The study revealed that radio, television, the internets, posters, leaflets, and newspapers were the major mass media accessed and used by the farmers thus, there is the needs to increase the usage of other mass media outlets so that large numbers of farmers can be reached.



REFERENCES

- Akinwale, J. (2020). Analysis of Utilization of Mobile Phones in Agricultural Information Dissemination Among Maize Farmers in Ondo State, Nigeria. *Researchgate.Net*, 15(2), 39–49.
- Food and Agriculture Organization (2013). *Information and communication technologies for sustainable agriculture: Indicators from Asia and Pacific*. Retrieved from www.fao.org/3/i3557e/i3557e.pdf
- Funom, B. C. & Soyemi, O. (2020). Agricultural Information Dissemination to Soybean Farmers in Niger State, Nigeria. *Information Impact: Journal of Information and Knowledge Management*, 10(2), 56. <https://doi.org/10.4314/ijjkm.v10i2.4>
- Gueye, E. F. (2009). The role of networks in information dissemination to family poultry farmers. *World's Poultry Science Journal*, 65(01), 115-124. Available at: http://www.journals.cambridge.org/abstract_S0043933909000099.
- Norton, G. W. & Alwang, J. (2020). Changes in Agricultural Extension and Implications for Farmer Adoption of New Practices. *Applied Economic Perspectives and Policy*, 42(1), 8–20. <https://doi.org/10.1002/aepp.13008>.