

MEDIA FACTORS ASSOCIATED WITH FARMERS' UTILIZATION OF AGRICULTURAL TRANSFORMATION AGENDA INFORMATION IN OGUN STATE, NIGERIA

Oyekunle, O. 

Agricultural Media Resources and Extension Centre,
Federal University of Agriculture, Abeokuta, Nigeria
lekbidoeye@yahoo.com

Lawal-Adebowale, O. A.

Department of Agricultural Extension and Rural Development,
Federal University of Agriculture, Abeokuta, Nigeria

Bolarinwa, K. K.

Department of Agricultural Administration, Federal University of Agriculture, Abeokuta, Nigeria

Amusat, A. S.

Institute of Agricultural Research and Training (I.A.R & T.), Moor Plantation, Ibadan, Nigeria

Momoh, O. O.

Agricultural Media Resources and Extension Centre,
Federal University of Agriculture, Abeokuta, Nigeria

Abstract

This study assessed the media factors associated with farmers' utilization of Agricultural Transformation Agenda (ATA) information in Ogun State, Nigeria. Multistage sampling procedure was used to select 330 registered ATA farmers, in the study area. Primary data were collected with the aid of interview guide. Data were analyzed using frequency counts, percentages, Pearson Product Moment Correlation (PPMC and, Chi-square statistics. Results showed that the mean age of the farmers was 36years, 76.1% were male, 76.6% had 2 - 4

hectares of farm land and 92.42% owned mobile phones. ATA information sources/channels available to the farmers are radio, television, mobile phones, internet, newspapers, flyers/leaflets, trainings/workshops and farmers' associations. Most (93.03%) of the farmers accessed ATA information through radio, 90.1% through mobile phones, 66.4% through flyers and 55.15% through television. Results further showed that 10.0%, 35.0% and 55.0% of the farmers respectively had low, medium and high level of ATA information utilization. Correlation analysis revealed that age ($r = 0.37$), years of farming ($r = 0.54$) and farm size ($r = 0.71$) were significantly related to utilization of ATA information ($p < 0.05$). Chi-Square analysis also showed a significant relationship between utilization of ATA information and sex ($X^2=89.65$, $p<0.05$) and education ($X^2=33.56$, $p<0.05$). Correlation result further showed a significant relationship between availability of information channels and utilization of ATA information (radio: $r=0.46$, television $r=0.13$, mobile phones $r=0.74$, flyers $r=0.30$ and farmers' associations $r=0.06$, $p<0.05$). The study concluded that sex, education, age, years of farming and farm size played significant roles in farmers' utilization of ATA information. It was recommended that adequate information should be made available and accessible to the farmers and that farm broadcasts should address the felt needs of the farmers in ATA agricultural activities.

Keywords: Media, information, Utilization, effective communication, transformation agenda

INTRODUCTION

Information flow and accessibility are crucial to transformation and development of agriculture and rural economies in today's world. Technical information provides the farmers with insight and capacity to guide their farming activities positively. According to Ajayi and Nwoko (1995), conscious utilization of information and effective and efficient deployment of information is increasingly becoming the basis for creativity, productivity, and profitability. However, for any true agricultural progress, farmers must know, understand and act on the available information. Accessibility to accurate and reliable information as well as farmers' perception of value of the available information determines how far they progress in their farm business. Quality agricultural information makes all the difference to a household's revenue and food security in rural Nigeria, and many other developing countries (CTA 2009).

A major task in agricultural development is the transfer of information technologies to farmers. Therefore, meaningful sustainable agricultural and rural development in Nigeria depends not only on the mobilization of participants in the development process but also on how accessible and well utilized the agricultural information made available to them.

According to Salau and Saingbe (2008), the farmers are constrained to obtain information from various sources of information. A key process in information dissemination depends on effective communication which determines the efficiency of technology generated and disseminated (Oladele, 1999). Hence, the communication of technology and economic information in the face of global food crisis is a veritable tool for agricultural and rural development.

In an attempt to deploy communication tools and strategies for improvement of farmer's productivity in Nigeria, the Federal Government of Nigeria launched the Agricultural Transformation Agenda (ATA) in 2011. The Agenda Programme which comprise other schemes such as Growth Enhancement Support Scheme (GESS), Nigeria Incentive-Based Risk-Sharing System for Agricultural Lending (NIRSAL), Marketing Corporation and Staple Crops Processing Zones functions by reaching to the small scale farmers with input-based information through communication media such as radio and television broadcasts and mobile phones.

Despite all these, performance in the agricultural sector is still low. According to literature, only about 5% of Nigerian dailies' news is agricultural, and this may not sufficiently complement the dissemination of information from other sources (Olowu, 1990). Low performance of agricultural centres has also been traced to the concentration of information centres in urban areas, non-integration of extension and research, non-usage of local language by print media and shortage of extension agents (Canagarajah, Ngwafon and Okunmadewa, 2000). However, prospects for sustainable agricultural production in Nigeria are high given locally available resources. One way to increase agricultural production in Nigeria is through proper information dissemination, management and utilization. Therefore, there is a need to determine the extent to which farmers' access and utilize information from the ATA information dissemination channels.

It is against this background that the study provided answers to the following research questions: do the socio economic characteristics of the farmers have any effect on their utilization of information on ATA? which media/ICT sets do farmers own? what are the various Agricultural Transformation Agenda channels/information sources available to the famers? which of the information sources/channels do the farmers have access to? which is the farmers' preferred source of information on ATA? what type of information on ATA do the farmers receive from the channels? to what extent do the farmers utilize the information received on ATA?

Objectives of the Study

The broad objective of the study is to assess the media factors associated with farmers' utilization of Agricultural Transformation Agenda information in Ogun state, Nigeria while the

specific objectives are to: describe the farmers' socio-economic characteristics, determine farmers' ownership of media/ICT sets, identify the channels/sources of information available to the farmers, ascertain farmers' access to information channels/sources, identify the type of information farmers received from the channels and determine the extent to which the farmers found the ATA information relevant/satisfactory (utilization).

Hypotheses of the Study

H0₁: There is no significant relationship between the socio-economic characteristics of the farmers' utilization of information on Agricultural Transformation Agenda.

H0₂ There is no significant relationship between availability of information channels and farmers' utilization of information on Agricultural Transformation Agenda. .

METHODOLOGY

The study was carried out in Ogun state, Nigeria which is located in the southwest zone of the country with a total land area of 16,409.26 square kilometres and an estimated population of 3,751,140 people (2006 census). It is bounded on the West by Benin Republic, on the South by Lagos state and the Atlantic Ocean, on the East by Ondo state and on the North by Oyo and Osun states. It is situated between the latitude 6.2⁰N and 7.8⁰E and 5.0⁰E. The state was created on 3rd of February in 1976. Ogun State indigenes largely consist of the Yoruba ethnic group, comprising mainly the Egbas, Yewa, Awori, Egun, Ijebu and Remo. The two dominant religions in the state are Christianity and Islam. A small proportion of the people still practice traditional religion. The people of Ogun state engage in one form of economic activity or another as a means of livelihood. These include trading, farming, tie and dye production, civil service, pottery and other professional and technical occupation. Farming is the dominant economic activity of people of Ogun state. They engage in both crops and livestock production.

The geological landscape of the state comprises extensive fertile soil suitable for agriculture, and savannah land in the north western part of the state, suitable for cattle rearing. The state is blessed with conducive climate that supports cultivation of variety of crops such as yam, cassava, maize, plantain, vegetables and fruits. The main cash crops produced in the state are cocoa, cashew, kola nut, oil palm, rubber, coffee and palm kernel which are part of the seedlings subsidized by the government and redeemed by farmers in the GESS program. The state is known to have a various Agricultural Extension Programme implemented in four agricultural zones: Abeokuta, Ilaro, Ijebu Ode and Ikenne. Each zone comprises of blocks, each block is divided into circles or cells and farmers within these areas are anchored by a Village Extension Agent (VEA) who oversees their agricultural activities. The population of the study

comprised of all ATA registered farmers in Ogun State while the sampling frame consists of registered farmers within the cells/villages from the OGADEP zonal structure (Ilaro, Ijebu Ode, Abeokuta, Ikenne). Multi-stage sampling technique was used. The sample selection procedure was based on the OGADEP zonal field structure/ward allocation of Ogun state. The selection was in these stages: Zones-Blocks-Ward Allocation (redemption centres)-Farmers.

First stage: Two (2) out of the four (4) zones were selected. The selection of these zones was purposive, predicated on the observed high rate of agricultural activities and high number of ATA registered farmers in the zones. Second stage: These zones consist of six (6) blocks each. All blocks in the two (2) zones were used to have a relevant capture of the population; having a total of twelve (12) blocks. Third Stage: Cells/villages within the blocks were used. Eighteen (18) redemption centers' situated in Cells/villages were used for collection of inputs. Fourth stage: From the list of farmers within the cell, a sample size equation was used to sample out the number of farmers used for this study. Fifth stage: Twenty (20) farmers were randomly selected from each of the selected wards for the study. However, only 330 research instruments were used for analysis as twenty-seven (27) were not properly filled and missing giving a return rate of 92.4%. The population of study comprised of all farmers, and data were obtained with the aid of a well-structured interview schedule. Additional relevant information was obtained from previous relevant studies carried out by other researchers, libraries, in-house publications of agricultural organizations, Universities among others.

The instrument was subjected to face validity and was reviewed by experts in agricultural communication. The reliability test for the instrument was conducted at an interval of two weeks using test-retest method. The research instruments were administered to a few randomly selected respondents who were not included in the actual study population. Based on the outcome of facial scrutiny of the responses, ambiguous and redundant items were removed in order to ensure standardization of the instrument.

Variables such as sex, marital status, religion, education and level of employment were measured at nominal level while age of the farmers, farm size and years of farming were measured at interval level. Ownership of media sets was also measured at nominal level by identifying the specific electronic sets/gadgets owned by the farmers. Information channels available to the farmers and their preferred channel of information were measured by asking the farmers to choose from a list of information channels. Level of utilization of information by respondents was based on 3 point Likert scale of frequently, occasionally and never, which was collated based on total score obtained by each respondent. These were then classified into three categories (low, medium and high levels).

Descriptive statistics were used to describe the socio-economic characteristics of the farmers while inferential statistics such as the Chi-Square and the Pearson Product Moment Correlation (PPMC) were used to test the study hypotheses.

ANALYSIS AND DISCUSSION OF FINDINGS

Socio-Economic Characteristics of Respondents

Results in Table 1 reveal that 21.8% of farmer's were within the age range of 46years and above with a mean of 36 years. This implies that majority of the farmers were still active. This is in line with Akinbile and Odebode (2002) submission that the population within the age group of 16-55 years constitute the active farmers workforce in Nigeria. This shows that the farmers still have the ability and capability for farming. Table 1 shows that 76.1% of respondents were male, while 23.9% were female. This result agrees with the findings of Matarmi (1991) and Osuman (1997) who observed that male farmers are the major workforce in the Nigerian agriculture.

Results in Table 1 further showed that 43.9% of the respondents attended secondary school, while 30.9% had primary school education and 5.5% were graduates of tertiary institutions. This shows that majority of the farmers were able to read and write. The basic objective of any form of education is to impact knowledge which would influence a change in attitude, skills, or knowledge.

Majority (68.2%) of the farmers were married, 24.2% were single, and 2.1% were divorced, while 5.5% were widowed. This reveals the existence of strong family/marriage ties among rural dwellers. According to Akinbile (2007), that marriage confers responsibility, there is the need to increase their productivity levels by improving their access to inputs, through such platforms like the e-wallet. Also, 51.5% of the sampled farmers had between 11 and 15 years of farming experience, 34.8% had 6 to 10 years, 3.3% had farming experience of 5years and below, while 10.3% had experience of 16years and above. This implies that farmers in the study area are well experienced and competent to handle agricultural activities. This is in line with the findings of Ige (2011), who disclosed that the longer a person consistently practice or carry out a task, the better the level of competency to successfully and skilfully handle the task.

As presented in Table 1, majority (76.6%) of the respondents had 2-5 hectares of farmland, while 21.8% had less than 1 hectare, and 1.5% had up to 6-9 hectares. This reveals that farmers were small scale farmers with the size of their farm. The study also revealed that 58.2% of farmers are full-time farmers while 41.8% are part- time farmers. This shows that farmers in the study area comprises of those who take farming as a major source of living and farmers who combine other activities alongside farming as a source of living.

Table 1: Distribution of respondents according to their socio-economic characteristics (n=330)

Variable	Frequency	Percentage	Mean
Age (years)			
≤ 25	32	9.7	36 years
26 – 30	36	10.9	
31 – 35	53	16.1	
36 – 40	55	16.7	
41 – 45	82	24.8	
≥46	72	21.8	
Sex			
Male	251	76.1	
Female	79	23.9	
Religion			
Christian	210	63.7	
Muslim	120	36.4	
Education level			
No formal education	65	19.7	
Primary education	102	30.9	
Secondary education	145	43.9	
Tertiary education	18	5.5	
Marital status			
Single	80	24.2	
Married	225	68.2	
Divorced	7	2.1	
Widowed	18	5.5	
Farming experience (years)			
≤ 5	11	3.3	11 years
6 – 10	115	34.8	
11 – 15	170	51.5	
≥16	34	10.3	
Farm size (Hectares)			
≤1	72	21.8	2.6 hectares
2 – 4	253	76.6	
≥5	5	1.5	
Level of employment (farming)			
Full- time	192	58.2	
Part – time	138	41.8	

Ownership of media/ICT sets by the rural farmers

Table 2 reveals that 95.15% of the respondents owned radio sets, 92.42% owned mobile phones while 61.51% owned television sets. This observation suggests that farmers in the study area own one form of media/ICT set or the other as a means of information. While ownership of radio set by rural farmers has been a long tradition, increased ownership of television sets and mobile phones is a new development which could be linked with revolution and rural penetration of ICT. This development could thus facilitate information flow within and beyond the rural setting. In addition, mobile phone acquisition is underscored by its ability to facilitate social media interaction.

Table 2: Distribution of respondents based on ownership of media/ICT sets (n=330)

Media/ICT	Frequency	%
Television	203	61.51
Mobile phone (SMS)	305	92.42
Radio	314	95.15

* Multiple responses

ATA Information sources/channels available to the farmers

As shown in Table 3, majority (96.96%) affirmed radio as the major available source of information, mobile phone (94.54%) and farmers' associations (85.8%). Other available sources of information are television, internet, newspapers, flyers/leaflets as well as trainings and workshops. This observation suggests that the surveyed rural farmers relied on multiple media for agricultural information. However, radio, mobile phone and television set remain outstanding source of information. This could have been underscored by easy access to these channels of communication and possibly because the media are suitable for receiving oral messages than having to read printed materials.

Table 3: Information sources/channels available to the farmers (n=330)

Availability of information		
Channel/ Source	Frequency	Percentage
Internet	48	14.5
Television	200	60.60
Mobile phone (SMS)	312	94.54
Radio	320	96.96
Newspaper	44	13.3

Flyers/leaflet	258	78.2
Trainings and Workshops	220	66.66
Farmers association	283	85.8

* Multiple responses

Farmers' means of accessing ATA information

Table 4 shows that 90.1% of the farmers' accessed information via their mobile phone, 93.03% accessed via radio, 55.15% accessed via television and 66.4% had access via flyers while 26.06% accessed information through trainings and workshops. It could be inferred from the result that farmers had access to ATA information mostly through these media/ICT channels. This confirms the finding of NSSO, (2005); MITTAL et al., (2010); SARAVANA, (2011) that most farmers have access to a variety of information source, which they regularly access for agricultural information.

Table 4: Farmers' means of accessing ATA information

Source/Channel	Frequency	Percentage
Internet	3	0.9
Television	182	55.15
Newspaper	36	10.9
Mobile phone	297	90.1
Radio	307	93.03
Farmers association	136	41.21
Trainings/Workshops	86	26.06
Flyers/leaflet	219	66.4

*Multiple responses

Information received from the ATA information dissemination channels

Table 5 reveals the type of information farmers received through the dissemination channels. Ninety one point five one percent (91.51%) of the farmers received information on improved cultural farm practices, 88.5% on general agriculture/ATA activities, (67.3%) on meetings, (73.6%) on redemption centres (77.9%) one-wallet transaction and 60.0% on postharvest activities. They revealed that they received information on the various activities through radio, television, farmers association while they got information inform of SMS on redemption centres, e-wallet transaction and meetings. Information needs are growing rapidly with the introduction of modern technology, hybrid seeds and changing climatic conditions. Thus, farmers often find that

their traditional knowledge, experience and guesswork to make decisions for day-to-day activities are not very effective in changing circumstances.

Table 5: Distribution of farmers based on information received from the information channels

Information	Frequency	%
Meetings	222	67.3
Post-harvest activities	198	60.0
Input redemption centres	243	73.6
Agriculture news/ ATA activities	292	88.5
Improved cultural farm practices	302	91.51
E- Wallet transaction	257	77.9

*Multiple responses

Regularity of Farmers' utilization of ATA information

Results in Table 6 show that 95.5%, 72.25% and 64.42% farmers indicated that they made use of the information received from radio, television and flyers respectively in their farming activities. Also 98.2% indicated that they use information from mobile phone to know the input they are to collect and location of redemption centre. In ATA programs, the mobile phone is a major dissemination channel used in reaching out to farmers directly as one of the aims of the government is to eradicate middlemen, so that farmers receive agricultural inputs through the e-wallet. The GESS used the e-wallet platform, as farmers who registered their phone numbers could transact and collect inputs. To confirm effectiveness of mobile phone for dissemination of information Myhr and Nordstrom (2006) reported that mobile phones empower stakeholders through bargaining power and increased market opportunities.

Table 6: Regularity of Farmers' utilization of ATA information

Dissemination system	Frequently	Occasionally	Never
Radio	233(70.6%)	82 (24.84%)	3(0.9%)
Television	162 (49.1%)	76 (23.03%)	45 (13.6%)
Posters, flyers	56(16.9%)	157 (47.57%)	84 (25.5%)
Newspaper	-	25(7.6%)	305 (92.4%)
Mobile Phone (SMS)	253 (76.7%)	71 (21.5%)	6 (1.8%)
Contact (face-to-face)	67 (20.3%)	85 (25.8%)	178 (53.9%)
Internet	-	13 (3.9%)	317 (96.1%)

* Figures in parenthesis are percentages

Level of farmers' utilization of ATA information

Table 7 shows the level of farmers' utilization of the ATA information during the Growth Enhancement Support Scheme. Utilization level was based on 3 point likert scale of frequently, occasionally and never, which was collated based on total score obtained by each respondent. They were classified into three categories (low, medium and high levels). It reveals that about 10% of farmers' within the study population utilization of ATA information is low ($Y^* \leq 32$) This could imply that this set of farmers only registered but believed the scheme was only a propaganda, thereby ignored information. Thirty-five percent (35%) of farmers utilization of ATA information was categorized as medium (if $32 \leq Y^* \leq 116$). Mostly those that did not receive messages on their phone due to lapses of the system not fully capturing their data, receive information occasionally due to erratic power supply and late or non-delivery of messages. These constraints hindered farmers to readily and easily utilize ATA information. Fifty five percent (55%) of farmers' within the study population utilization is categorized as high ($Y^* \geq 116$). These are the farmers who frequently received and made use of ATA information on their farming activities. This reveals that 214 farmers had high utilization 84 farmers had medium utilization while 32 farmers had low utilization of the ATA information.

Table 7: Level Utilization

Utilization level	Score	Percent	Cumm
Low	32	10	10
Medium	116	35	45
High	182	55	100
Total	330	100	

$Y_i = 1$ if $Y^* \leq \kappa_1$ if $Y^* \leq 32 = \text{Low}$

$Y_i = 2$ if $\kappa_1 \leq Y^* \leq \kappa_2$ if $32 \leq Y^* \leq 116 = \text{Medium}$

$Y_i = 3$ if $Y^* \geq \kappa_2$ if $Y^* \geq 116 = \text{High}$

Testing of hypotheses

Hypothesis one

There is no significant relationship between the socio-economic characteristics of the farmers and utilization of Agricultural Transformation Agenda information.

Result reveals that significant relationship exists between selected socio-economic characteristics of the farmers such as sex ($\chi^2 = 89.64$, $P < 0.05$), education ($\chi^2 = 33.559$, $P < 0.05$) and utilization of ATA information. Also results of correlation test using PPMC reveal

that age ($r = 0.373$, $P < 0.01$), farmers experience ($r = 0.542$, $P < 0.01$) and farm size ($r = 0.714$, $P < 0.01$) were also positively related to information utilization. The implication of sex being significantly related to utilization of information could mean that a particular gender utilized ATA information than the other gender. Age is seen to be associated with information utilization as the study revealed that farmers in the study area are within their active age. As they advance in age, their usage of ICTs increases and thus utilization of information but there is likely to be a decline in usage as respondent gets older from their active age, this will call for a cultural change (Porcari, 2010). Also years of farming is associated with utilization of information as it is natural that as one grows in a profession, the quest to utilize relevant information to improve productivity is paramount. The farming experience of farmers to a large extent affects their information know-how as well as the use of various media/ICT extension methods and utilization of information (Ani, 2006). This also conforms to Rehman (2010) argument that socio-economic variables may influence the utilization of agricultural information of the farmers.

Table 8: Chi-Square analysis result of the relationship between the socio-economic characteristics of the farmers' and utilization of Agricultural Transformation Agenda information

Variables	χ^2	df	P-value	Remark
Sex	89.65	2	0.01	Significant
Religion	18.48	2	0.62	Not- Significant
Education	33.56	6	0.03	Significant
Marital status	21.85	8	0.16	Not- Significant
Level of employment	58.66	2	0.74	Not- Significant

Table 9: PPMC analysis result of the relationship between the socio-economic characteristics of the farmers' and utilization of Agricultural Transformation Agenda information

Variables	r	P-value	Decision
Age	0.37	0.01	Significant
Years of farming	0.54	0.01	Significant
Farm size	0.71	0.01	Significant

* P- value ≤ 0.05 : Significant (S) P- value > 0.05 : Not Significant (NS)

Hypothesis two

There is no significant relationship between availability of information channels and utilization of Agricultural Transformation Agenda information.

Study revealed that the availability of information through the various channels is significantly related to the utilization of ATA information. It shows that the availability of information through some of the ATA channels; Television($r = 0.133$, $P < 0.01$), radio ($r = 0.464$, $P < 0.01$), mobile phone ($r = 0.741$, $P < 0.01$), flyer/leaflet($r = 0.302$, $P < 0.01$), farmers association ($r = 0.054$, $P < 0.01$) all exhibited positive and significant relationships with utilization of the ATA information. Information was available through various channels but study shows that the channels influenced farmers' utilization of information. Radio and television served as media channels to achieve awareness of various activities of the programme alongside fliers. Also information regarding the inputs farmers registered for, redemption centres (where they are to pick up the inputs) and e-wallet transaction were made available to farmers through their mobile phones. NSSO, 2005; MITTAL et al., 2010; SARAVANA, 2011 reported that information is available to farmers through variety of information channels (Television, radio, newspapers, other farmers, government agricultural extension services, relatives), which they regularly source for agricultural use.

Table 10: Relationship between availability of information channels and utilization of Agricultural Transformation Agenda information

ATA Channels	r	P-value	Decision
Television	0.133**	0.01	Significant
Farmers' association	0.064*	0.01	Significant
Newspaper	0.186	0.43	Not Significant
Flyers/leaflets	0.302**	0.01	Significant
Internet	0.108	0.06	Not Significant
Mobile phone (SMS)	0.741**	0.01	Significant
Radio	0.464**	0.01	Significant

**Correlation is Significant at the 0.01 level (2-tailed)

CONCLUSION AND RECOMMENDATIONS

The study examined the media factors associated with farmers' utilization of Agricultural Transformation Agenda information in Ogun State. It was concluded that majority of the farmers in the study area own one form of media/ICT set or the other to access to ATA information on various channels, with radio as their major available source of information. While ownership of radio set by rural farmers has been a long tradition, increased ownership of television sets and mobile phones is a new development which could be linked with revolution and rural penetration of ICT. This development could thus facilitate information flow within and beyond the rural

setting. In addition, mobile phone acquisition is underscored by its ability to facilitate social media interaction. This observation suggests that the surveyed rural farmers relied on multiple media for agricultural information. However, radio, mobile phone and television set remain outstanding source of information. This could have been underscored by easy access to these channels of communication and possibly because the media are suitable for receiving oral messages than having to read printed materials. Farmers' age, sex, education, farm size and years of farming played significant roles in their utilization of ATA information.

Based on the findings of this study, it is recommended that:

1. Farmers should be sensitized and encouraged to benefit more from ATA information presented on the multimedia channels. Such sensitization will prepare the minds of the farmers to appreciate the media information and convince them to make practical use of such information in their agricultural activities.
2. More training should be regularly organized for the farmers for more effective utilization of ATA information. Such trainings should be trainees centre and be practical and participatory enough to make the knowledge gained by the farmers from the trainings more permanent in them.
3. Information channels should be made more accessible to the farmers. This will expand their information horizons and expose them to more useful information on the ATA programme.
4. Since majority of the farmers prefer radio as their main source of information, radio broadcasts should be made simple and understandable to the farmers and such broadcasts should address the felt needs of the farmers in the Agricultural Transformation Agenda Programme. Farmers' audience should be well analysed to determine the appropriate information that will be in their best interest.
5. Efforts should be intensified in the area of print media, such as the production of flyers, extension guides, handbills and posters for literate farmers and to complement the electronic/broadcast media of information with a view of achieving more farmers' utilization of ATA information.

REFERENCES

- Ajayi, W.O. and S.G. Nwoko, (1995). Information Support for a Cocoa Revolution in Nigeria. In: Adegeye, A. and W.O. Ajayi, (eds.), *Cocoa Revolution in Nigeria*, pp: 81–86. Ibadan ARG
- Akinbile, L.A.&Odebo, S.O.(2002) Determinants of farmers use of sustainable conservation practices in Osun State, Nigeria. Challenges of organic farming and sustainable land use in the tropics and subtropics <http://www.tropentag.de/2002/abstracts/links/akinbile-nfaxzey7.pdf>.
- Akinbile, L.A.(2007) Social Impact of Limestone Exploitation in Yewa North Local Government Area of Ogun State, Nigeria. *Pakistan Journal of Social Science* 1, pp. 107-111.
- Ani, A.O.(2006). Potential of oasis for sustainable agricultural production in Yobe State, Nigeria, *International Journal of Agricultural and Bio-logical Sciences*, 43 (1): 1—5

- Banmeke, T.O.A. and M.T. Ajayi, (2008). Farmer's Perception of the Agricultural Information and Rural Development 1: 22-29
- Canagarajah, S., J. Ngwafon and F. Okunmadewa, 2000. Nigeria's poverty: Past, present and Future
- CTA, (2009). Brief Report: Top Scheme for Women and ICT, p: 4. Spore Magazine, No 139
- Ige, T. S. (2011). On-farm participatory Assessment of improved long cayenne pepper by farmers in Ogun state Nigeria (Unpublished M.Agric Thesis) Department of Agricultural Extension and Rural Development, University of Agriculture, Abeokuta.
- Kinsella, J., S. Wilson, F. de Jong and H. Renting (2000). Pluriactivity as a livelihood strategy in Irish farm households and its role in rural development. *Sociologia Ruralis* 40 (4) pp.481-496
- Lawal-Adebawale, O. A. (2002). Assessment of Rainfall Distribution Pattern and its implications for planning Agricultural Programmes in Ogun State. An Unpublished M. Agric Dissertation, University of Agriculture, Abeokuta. 138pp
- Matanmi, B.M.(1991). "How Agricultural Extension can Benefit Rural Women involved in Agriculture" NOMA, ABU, Zaria, Nig.
- Mittal, S., S. Gandhi and G. Tripathi(2010): Socio-economic Impact of Mobile Phone on Indian Agriculture. ICRIER Working Paper no. 246. International Council for Research on International Economic Relations, New Delhi.
- Myhr, J. and Nordstrøm, L., (2006). Livelihood changes enabled by mobile phones: the case of Tanzanian fishermen. Uppsala University, Department of Business
- Nigeria. Federal Ministry of Agriculture (2011). Federal Ministry of Agriculture. Bulletin no.3. Abuja, Government Printer.
- NSSO(National Sample Survey Organisation 2005): Situation Assessment Survey of Farmers. Government of India, New Delhi.
- Oladele, O. I.(1999). Extension communication methods for reaching small-ruminant Farmers in South Western Nigeria in: Proceedings of the 26th Annual Nigerian Society of Animal production Conference, Kwara Hotels, Ilorin.
- Olowu, T.A., (1990). Reportage of Agricultural News in Nigerian Newspapers. *Journalism Quarterly*, 67: 195-200.
- Osuman, GI (1997). The Education of Women in Developing Countries. Osuman and Co., Makurdi, Nig. pp. 55-64
- Porcari, E.(2010). Why communication and knowledge sharing in our Megaprograms? Available from: <http://ictkm.cgiar.org/2010/08/21/why-communication-and-knowledgesharing-in-our-megaprograms/> [Accessed 25/11/2010].
- Rehman, F. (2010). Development of a strategy to enhance the role of print media in the dissemination of agricultural information among farmers' in the Punjab, Pakistan. Available at: <http://pr.hec.gov.pk/Thesis/845S.pdf>
- Salau, E. S., Bello, D., & Alanji, J. E.(2014). Access and Use of Resources by Women Agro-Processors in Central Agricultural Zone of Nasarawa State, Nigeria. *Journal of Agricultural Extension*, 17(2), 139-148.
- Saravanan, R. (2011): A Report on Tribal Farmers Personal and Socio-Economic Information, Communication Pattern and Information Needs Assessment. In: e-Agrikiosk Publication No. 1.