

ISSN 1819-1894

Asian Journal of  
**Agricultural**  
Research

## **Attitudinal Disposition of Urban Dwellers Towards Participation in Urban Agriculture in Oyo State, Nigeria: Implication for Sustainable Food Production**

O.A. Olaniyi

Department of Agricultural Extension and Rural Development, Ladoke Akintola University of Technology, P.M.B 4000, Ogbomoso, Oyo State, Nigeria

### **ABSTRACT**

Urban Agriculture (UA) is gaining prominence in the developing countries especially in Nigeria because it is an important source of food supply in urban food systems and income options for households. The study assessed the attitude of urban dwellers toward participation in urban agriculture in Oyo state. Simple random sampling technique was used in the selection of three local government areas in Oyo state. These are: Ogbomoso North, Atiba and Oluyole local government areas. Systematic sampling technique was used in the selection of two hundred and forty (240) respondents from the selected local government areas. Data collection was done through the use of questionnaire. Frequency counts, percentages, mean, standard deviation, Pearson product moment correlation and Analysis of Variance (ANOVA) were employed in analyzing the data. The result showed that majority (89.2%) of the respondents fell into either neutral or favourable attitudinal zone. The respondent's areas of participation in UA include crop and livestock production such as maize production, vegetable production, poultry production and fish farming. The result of correlation analysis revealed that age ( $r = 0.129$ ,  $p < 0.05$  and years of formal education ( $r = -0.222$ ,  $p < 0.05$ ) were significantly related with attitude towards participation in urban agriculture. Also, there was significant differences in attitude ( $F = 10.05$ ,  $p < 0.05$ ) of the respondents towards participation in urban agriculture across the selected local government areas. The study therefore, recommended among others that urban extension activities should be encouraged in reaching out to urban dwellers in order to enhance sustainable food production in the study area.

**Key words:** Agriculture, attitude, food production, participation, urban, Nigeria

### **INTRODUCTION**

Urban Agriculture (UA) has become a contemporary issue, gaining prominence especially in developing economies because it has been discovered to be a viable poverty intervention strategy for the urban poor. The presence and potentials of UA in Nigeria especially in the big cities is not in doubt. Urban agriculture is being practiced in almost all metropolitan areas in both developing and developed countries. It takes place on smaller tract of land and open spaces that are idle or unsuitable for urban development and it contributes significantly to the socioeconomic development of cities throughout the world (Akpabio *et al.*, 2007). Urban agriculture can simply be defined as the growing of plants and the raising of animals within and around cities (RUAF, 2008). FAO (2007) defined UA as the growing of plants and the raising of animals for food and other uses within and around cities and towns, and related activities such as the production and delivery of inputs, processing and marketing of products. Smit *et al.* (1996) claimed that an estimated 800

million people are engaged in UA worldwide; of these, 200 million are market producers, employing 150 million people full time. Despite limited support and heavy losses, UA is generating produce valued in the tens of millions of US Dollars, year in year out, in major Least Developed Countries (LDC's) urban centres (Mougeot, 2000). Also, Garrett (2000) had projected that by 2020 the number of people living in developing countries will grow from 4.9 to 6.8 billion, 90% of this expansion will be in cities and towns accounting for more than half the population of Africa and Asia. As these events unfold, West Africa will not be left out, for example Nigerian population in 2000 was 111.6 million while the urban population was 49.1 million. In 2006 Nigerian population has hit 140 million. By 2020 her population is projected to be 168.2 million while urban population will be 97.9 million. If no action is taken, rapid rate of urbanization combined with lack of economic growth in the rural areas, will exacerbate unemployment, poverty and urban food insecurity problems over the next two decades (Adeyemo and Kuhlmann, 2009). Also, the menace of rural urban migration has increased the food demand in the urban areas. However, despite the glaring facts on the presence and potentials of UA in Nigeria, especially in the big cities like Abuja, Lagos, Kano and Ibadan, policy makers and government have deliberately neglected this veritable sector and have not made concerted efforts to acknowledge it and channel attention to it. The most striking feature of urban agriculture which distinguishes it from rural agriculture, is that it is integrated into the urban economic and ecological system: urban agriculture is embedded in and interacting with the urban ecosystem. Such linkages include the use of urban residents as labourers, use of typical urban resources (like organic waste as compost and urban wastewater for irrigation), direct links with urban consumers, direct impacts on urban ecology (positive and negative), being part of the urban food system, competing for land with other urban functions, being influenced by urban policies and plans etc., Urban agriculture is not a relic of the past that will fade away (urban agriculture increases when the city grows) nor brought to the city by rural immigrants that will lose their rural habits over time. Cofie (2008) mentioned some of the challenges associated with the practice of urban agriculture. These are; urban farmers are poorly organised, are more dispersed and have a strong variation in social background; increasing demand for land by estate developers for housing and commercial facilities which thus reduces access to lands for farming activities, farming within the cities is also associated with health risks through the use of untreated wastewater for crop irrigation. Financial assistance (from banks and financial institutions) is difficult to obtain due to insufficient collateral and the long term nature of agriculture, especially livestock rearing.

Recent literature search revealed that inspite of increasing research on urban agriculture in Nigeria, most of the empirical studies of Nigerian urban agriculture have concentrated majorly on the resource use efficiency in UA and has failed to address the attitude of urban dwellers towards participation in UA. The question now is: What is the attitudinal disposition of urban dwellers towards participation in UA?

The general objective of the study was to determine the attitude of urban dwellers towards participation in urban agricultural activities in Oyo state.

Specific objectives of the study are to:

- Identify the personal characteristics of the respondents in the study area
- Ascertain the agricultural enterprises engaged in by the urban dwellers in the study area
- Identify various sources of information available to urban dwellers in receiving agricultural information

- Determine the respondents' level of participation in urban agricultural activities in the study area
- Ascertain the attitude of urban dwellers towards participation in urban agriculture

Based on the objectives of the study the following hypotheses were set in a null form:

- There is no significant relationship between selected personal characteristics of the respondents and attitude toward participation in UA
- There is no significant relationship between level participation in urban farming activities and attitude towards participation in UA
- There is no significant difference in attitude of the respondents towards participation in UA across the study area

## **MATERIALS AND METHODS**

The study was carried out in Oyo state. Oyo state is predominantly agrarian with about 70% rural population. The land covers a vast area of 32,249.10 km<sup>2</sup> out of which 27,107.93 km is cultivable Oyo State Agricultural Development Programme (OYSADEP, 2001). It is bordered on the west by Benin-Republic, on the north by Kwara State and on the south and east by Ogun and Osun states, respectively. Oyo State has 33 local government areas, all which have been grouped into four zones for administrative conveniences. These zones are Ibadan/Ibarapa, Ogbomoso, Oyo and Saki. The main occupation of majority of the people in the study area is farming as is typical of any rural area in Sub-Saharan Africa (SSA) (OYSADEP, 2001). The major crops grown in the study area include maize, yam, cassava, cocoyam, vegetables (such as okra, melon, tomatoes, pepper), plantain, banana, cocoa, oil palm and rubber. Some of the inhabitants also engage in other income generating activities like trading, processing, marketing of agricultural produce and handicraft.

Multistage sampling technique was adopted in the study. First stage involved random selection of 10% of total local government areas of the State. The selected local government areas are: Ogbomoso North, Atiba and Oluyole local government areas. The second stage involves purposive selection of metropolitan wards in each local government area based on their urban nature. Ogbomoso North local government area has 10 wards, Atiba local government area has 10 wards and Oluyole local government area has 12 wards. A total of sixteen wards were randomly selected (5, 5 and 6 wards, respectively). Finally, systematic sampling was employed in the selection of fifteen household heads from each ward making a total of 240 urban dwellers as sample size. Data collection was done through the use of questionnaires and interview schedule. Frequency counts, percentages, mean, standard deviation, Pearson product moment correlation and Analysis of Variance (ANOVA) were employed in analyzing the data.

**Measurement of variables:** The independent variables of the study include personal characteristics of the respondents were measured thus:

**Age:** Age of the respondents was measured by asking them to provide their actual age in years. The literate respondents were asked to give their date of birth from which their age was estimated.

**Sex:** Male was scored 1, female was scored 2.

**Educational level:** This was measured by asking the respondents to indicate the number of actual years spent in schooling measured at interval level. For every year spent in school was scored 1 and no formal education was scored 0.

**Marital status:** Marital status was determined by asking respondents to indicate the most appropriate option that reflect their marital status; married, single, divorced or widowed/widower and separated single was scored 1, married was scored 2, divorced was scored 3, widow/widowed; 4 and separate was scored 5, respectively measured at nominal level.

**Religion:** Individual respondents were asked to indicate their religion as Christianity which was scored 1, Islam 2 and traditionalist was scored 3. All were measured at nominal level.

**Household size:** The respondents were asked to state the actual number of people living together and eating from the same pot.

**Occupation:** The respondents were asked to indicate their primary occupation.

**Type of agricultural enterprise:** The respondents were asked to list all types of crops grown on their farms and livestock raised. This was measured at nominal level.

**Level of participation in urban agriculture:** This was measured on a 4-point scale of never = 0, rarely = 1, occasionally = 2 and always = 3. There were 27 items on this scale. Hence, the minimum and maximum participation score for each respondent was 0 and 81, respectively. The mean participation score and standard deviation were used to categorise the respondents into low, moderate and high levels of participation in UA.

The dependent variable is the attitude towards participation in urban agriculture.

**Attitude towards urban agriculture:** This was measured on 5 points Likert-type scale of Strongly Agreed (SA) = 5, Agreed (A) = 4, Undecided (U) = 3, Disagreed (DA) = 2 and Strongly Disagreed (SD) = 1. Respondents were asked to respond to 20 attitudinal statements in order to obtain attitudinal score for each respondent. The maximum score was 100, while the minimum score was 20. Based on the individual respondents mean score, they were categorised into favourable, neutral and unfavourable dispositions towards participation in urban agriculture based on the mean attitudinal score.

## RESULTS AND DISCUSSION

**Personal characteristics of the respondents:** From Table 1, more than one-quarter (27.9%) of the respondents were within the age of 40 to 49 years, 20.4% are within the age category of 30 to 39 years while 21.7% of them were within the age category of less than 30 years and about one third (30.0%) of the sampled urban dwellers were within the age of 50 to 60 and above years. The mean age of the respondents was 41.1 years. This indicates that the respondents are in their active years. This finding is in line with Ogunlade *et al.* (2007) that people of this age category are considered to be young, able bodied who can still contribute immensely to the productive enterprise.

**Gender:** The result shows that majority (60.0%) of the sampled urban dwellers were males while the remaining (40.0%) were females.

Table 1: Frequency distribution of the respondents according to personal characteristics

Variable	Frequency	Percentage	Mean
<b>Age (years)</b>			
<30	52	21.7	$\bar{X} = 41.1$
30-39	49	20.4	
40-49	67	27.9	
50-59	48	20.0	
60 and above	24	10.0	
<b>Gender</b>			
Male	144	60.0	
Female	96	40.0	
<b>Marital status</b>			
Single	54	22.5	
Married	167	69.6	
Widowed	7	2.9	
Separated	12	5.0	
<b>Religion</b>			
Christian	153	63.8	
Islam	81	33.8	
Traditional	6	2.6	
<b>Years of education</b>			
0	3	1.3	$\bar{X} = 13.9$
1-6	31	12.9	
7-12	63	26.3	
13 and above	143	59.5	
<b>Primary occupation</b>			
White color Job	110	45.8	
Trading	27	11.3	
Farming	60	25.0	
Artisan/tailoring	17	7.1	
Student	26	10.8	
<b>Household size</b>			
1-4	67	27.9	$\bar{X} = 5.9$
5-8	143	59.6	
9 and above	30	12.5	

Source: Field survey, 2010

**Marital status:** More than half of the (69.6%) of the respondents were married, 22.5% were single and 7.9% of the respondents were either widowed or separated. This implies that majority of the urban dwellers are married who are considered to be responsible. This is expected to affect the attitude of the respondents.

**Religion:** The result of the analysis revealed that majority (63.8%) of the respondents are Christians, 33.8% were Muslim and 2.6% of the sampled urban dwellers were traditionalists. This implies that the sampled urban dwellers belong to different religious groups hence, could have different beliefs which could affect their attitude.

**Years of education:** The result shows that high percentage (98.7%) of the respondents were literate who had between 1 and more than 13 years of formal education. More than half (59.5%)

Table 2: Frequency distribution of respondents according to types of agricultural enterprises participated in the study area

Agricultural enterprises	Frequency	Percentage
<b>Crops</b>		
Vegetable	95*	41.3
Yam	45	18.8
Cassava	56	23.3
Potatoes	17	7.1
Maize	96	40.0
Cowpea	7	2.9
No response	40	16.7
<b>Livestock</b>		
Poultry	112*	46.7
Rabbitary	15	6.3
Piggery	19	7.9
Snairy	19	1.7
Grass cutter	4	20.8
Fishery	50	16.7
Goat/sheep	40	11.7
No response	28	

Source: Field Survey, 2010, \*Multiple responses

of the respondents had above secondary education, 26.3% had secondary education while 12.9% had primary education and 1.3% of the urban dwellers had no formal education. This implies that there is high level of literacy among urban dwellers and it would immensely influence their attitude towards participation in urban agriculture. This finding follows the assertion of Oladeebo and Ambe-Lamidi (2007) that educated farmers are prone to be highly innovative.

**Occupation:** Another section in Table 1 revealed that the sampled urban dwellers engaged in different occupations. Close to half (45.8%) of the respondents were into white collar jobs as primary occupation, 25.0% were into farming, 11.3% were traders, 10.8% were students and 7.1% of the respondents are artisans in various fields.

**Household size:** The results shows that majority (59.6%) of the respondents had between 5 and 8 members, 27.9% had between 1 and 4 members and 12.5% of the respondents had between 9 and above members. The mean household size of the respondents was 5.9. This is considered to be large. This has implication on the level of dependants and level of poverty in the household. This finding follows the observation of Dennery (1995) who asserted that the larger the household size the more mouth to be fed, the more time is devoted for food production especially among relatively poor households.

**Type of agricultural enterprises engaged in by the respondents:** The result of data analysis in Table 2 revealed the various agricultural enterprises the urban dwellers participated in the most prominent crops planted by the respondents are: vegetable (41.3%) and maize (40.0%). Also, the most prominent livestock raised by the sampled urban dwellers include, poultry production (46.7%) and fish production (20.8%). This shows that the urban dwellers participated in all categories of agricultural enterprises both crops and livestock.

Table 3: Frequency distribution of respondents by sources of agricultural information for urban agriculture

Sources of information	Frequency	Percentage
Television	109*	45.4
Radio	126	52.5
Newspaper	81	33.3
Extension agent	65	27.1
Research institute	85	35.4
Friends/neighbour	154	64.2

Source: Field survey, 2010, \*Multiple response

Table 4: Frequency distribution of respondents according to level of participation in urban farming activities

Participation score (points)	Frequency	Percentage
0-14	72	30.0
15-28	50	20.8
29-42	77	32.1
43-56	41	17.1

Source: Field survey, 2010,  $\bar{X}$ : 25.2 points, SD: 16.5

**Sources of information available to urban dwellers:** Table 3 shows that majority (64.2%) of the sampled urban dwellers access information on urban agriculture from friend/neighbour, radio (52.5%) and television (45.4%). Other sources of information available to urban dwellers include: research institute (35.4%); newspapers (33.3%) and extensions agents (27.1%). The finding shows that the prominent information sources available to urban dwellers in accessing agricultural information on urban agriculture include friends/neighbour as well as radio. This indicates that interpersonal and mass media channels are very useful in dissemination of agricultural information to urban dwellers. The finding of this study is in line with Olaniyi (2010) who reported that a combination of interpersonal and mass media channels are used by active farmers in sourcing for agricultural information in Southwest Nigeria.

**Level of participation in urban agriculture:** From Table 4, it was revealed that 32.1% of the sampled urban dwellers had participation score between 29 and 41 points, 30.0% had between 0 and 14 points, while 20.8% of the respondents had between 15 and 28 points and 17.1% of the sampled respondents had between 43 and 56 points. The mean participation score in urban farming activities was 25.2 points.

Furthermore, mean participation score was used to categorise the respondents into three levels of participation (low, moderate and high). It was revealed that majority (80.8%) of the respondents were between low and moderate levels of participation in UA and the remaining (19.2%) of the respondents belong to high level of participation. The mean (25.2), median (26.0) and mode (25.0) participation scores were almost normally distributed. This categorisation of the respondents into various levels of participation could be a reflection of their attitude toward urban agriculture Table 5.

**Attitudinal disposition towards participation in urban agriculture:** Table 6 revealed the disposition of urban dwellers towards participation in urban agriculture in the study area. It was revealed that the disposition of the respondents to the additional statements was in favour of the statements that urban agriculture is a means of generating income (WMS = 4.42); urban



Table 5: Frequency distribution of respondents according to categorisation of level of participation in urban agriculture

Participation score	Category	Frequency	Percentage
$< \bar{X}$ (25.2 points)	Low category	102	42.5
$\bar{X} + 1SD$ (25.2 to 41.7 points)	Moderate	92	38.3
$> \bar{X} + 1SD$ (41.7 points and above)	High	46	19.2
Total		240	100.0

Source: Field survey, 2010,  $\bar{X}$ : 25.2, Mode: 25.0, Median: 26.00

Table 6: Frequency distribution of respondents according to attitude towards participation in urban agriculture

Attitudinal statement	WMS	SD	Rank
Urban agriculture is a means of self employment	4.31	0.958	2 <sup>nd</sup>
Urban agriculture is a means of generating income	4.42	0.744	1 <sup>st</sup>
There is dignity in urban agriculture	3.97	0.838	5 <sup>th</sup>
Urban dwellers should be mobilized and encourage to engage in urban agriculture	4.15	0.752	4 <sup>th</sup>
Participation in urban agriculture enhances production of food as close as possible to the source of consumption	4.23	0.739	3 <sup>rd</sup>
Urban agriculture should be for those that have no jobs	2.33	1.266	16 <sup>th</sup>
Eradication of poverty and malnutrition can be achieved by engaging in urban agriculture	3.94	1.071	6 <sup>th</sup>
Urban poor should practice agriculture to ensure economic empowerment	3.75	0.923	8 <sup>th</sup>
The advantage of urban agriculture outweighs its disadvantages	3.76	0.971	7 <sup>th</sup>
Engaging in urban agriculture will affect my major occupation	2.53	1.146	14 <sup>th</sup>
Urban agriculture has no effect on my income	2.99	1.346	11 <sup>th</sup>
Participation in urban agriculture makes me feel inferior to my colleagues	3.01	1.408	10 <sup>th</sup>
Urban agriculture is labour intensive	3.11	1.152	9 <sup>th</sup>
I don't need access to credit facilities before I can engage in urban agriculture	2.74	1.242	12 <sup>th</sup>
Our custom does not support urban agriculture	2.19	1.187	18 <sup>th</sup>
Urban agriculture is meant for urban poor only	2.01	1.141	19 <sup>th</sup>
Most products grown in rural areas cannot be grown in urban centers	2.48	1.031	15 <sup>th</sup>
Urban agriculture is time wasting	2.23	1.158	17 <sup>th</sup>
Urban agriculture could affect the environment negatively	2.56	1.163	13 <sup>th</sup>
Urban dwellers should neglect urban agriculture	1.90	1.066	20 <sup>th</sup>

Source: Field survey, 2010, WMS: Weighted mean score, SD: Standard deviation

agriculture is a means of self employment (WMS = 4.31) and participation in urban agriculture enhance food production as close as possible to the source of consumption (WMS = 4.23). These were ranked first, second and third, respectively. The unfavourable disposition towards participation in urban agriculture was revealed in the attitudinal statements such as our custom is not in support of practicing urban agriculture (WMS = 2.19); urban agriculture is meant for urban poor only (WMS = 2.01) and urban dwellers should neglect urban agriculture (1.90). These were ranked least Table 6. This finding implies that the respondents had different attitudinal disposition towards participation in urban agriculture.

The grand mean attitude score was 62.6 points. This was used to categorise the respondents into three different attitudinal zones. These are favourable, neutral and unfavourable. Table 7 shows that majority (89.2%) of the respondents were between favourable and neutral zones of attitudinal disposition towards participation in urban agriculture and the remaining (10.8%) are unfavourably disposed to participation in UA. From this finding it could be deduced that the respondents exhibited different dispositions towards participation in urban agriculture. This could probably be attributed to individuals' interest in participating in urban farming activities.

Table 7: Distribution of respondents according to categorisation of respondents according to attitudinal disposition towards urban agriculture

Attitudinal score	Category	Frequency	Percentage
$< \bar{X}$ (<62.60 points)	Unfavourable	26	10.8
$\bar{X}$ +1SD (62.60 to 68.25 points)	Neutral	110	45.9
$> \bar{X}$ +1SD (68.25 points and above)	Favourable	104	43.3
Total		240	100.0

Source: Field survey, 2010,  $\bar{X}$ : 62.60, SD: 5.65

Table 8: Summary of correlation analysis establishing relationship between selected independent variables

Variable	r	p- value	Remark
Age	0.129*	0.045	Significant
Years of formal education	-0.222**	0.001	Significant
Household size	0.026	0.684	Not significant
Participation	-0.142*	0.028	Significant

Source: Field survey, 2010, \* Correlation significant at 5% , \*\* Correlation significant at 1%

### Testing of hypotheses

**Hypothesis 1:** There is no significant relationship between selected personal characteristics of urban dwellers and attitude towards participation in urban agriculture.

The result of Pearson product moment correlation (r) reported in Table 8 revealed that age ( $r = 0.129$ ;  $p = 0.05$ ) had positive and significant relationship with attitude towards participation in urban agriculture. This finding indicates that the more the urban dweller advances in age, the more favourable they are towards participation in urban agriculture. This shows that the older urban dwellers are favourably disposed towards participation in urban agriculture. This may probably be attributed to their adulthood responsibility and their perception of the importance of urban agriculture to their survival. This finding tallies with that of Olaniyi *et al.* (2008) that positive and significant relationship exist between age and attitude towards participation in cassava processing activities among children in Oyo state, Nigeria.

Conversely there exist a negative but significant relationship between years of formal education ( $r = -0.222$ ;  $p = 0.05$ ) and attitude of urban dwellers towards participation in urban agriculture. This implies that the less the number of years of formal education, the more favourable they are towards participation in urban agriculture. This could be attributed to the belief that agriculture is meant for illiterate or those with low level of education. Whereas, there exist positive but non-significant relationship between household size ( $r = 0.026$ ;  $p < 0.05$ ) and attitude towards participation in urban agriculture. This indicates that household size does not influence attitude towards participation in urban agriculture.

**Hypothesis 2:** There is no significant relationship between level of participation in urban farming activities and attitude towards participation in urban agriculture.

The result of the analysis revealed that there was negative and significant relationship between level of participation in urban farming activities ( $r = -0.142$ ;  $p = 0.05$ ) and attitude of urban dwellers towards participation in urban agriculture.

This implies that the less the level of participation in urban farming activities, the more favourably disposed are the respondents towards participation in urban agriculture. This finding could be as a result of the tedious nature of farming activities and individuals' interests involved in agricultural production or could be that those participate in UA are doing it just for the sake of no choice.

Table 9: Summary of analysis of variance (ANOVA) showing differences in attitude of urban dwellers towards participation in urban agriculture

Source of variation	Sum of squares	df	Mean square	F-value	Sig.	Remark
Between LGA	595.95	2	297.98	10.05	0.000	Significant
With LGA	7025.84	237	29.65			
Total	7621.79	239				

Source: Field survey, 2010

Table 10: Summary of Duncan's multiple range test showing differences in Mean attitude scores of respondents in selected local government areas

Local government areas	N	Subset of alpha = 0.05	
		1	2
Ogbomoso North	75	60.33 <sup>b</sup>	
Oluyole	90		63.19 <sup>a</sup>
Atiba	75		64.15 <sup>a</sup>

Source: Field survey, 2010, Mean along the score row with different superscripts differs significantly at 0.05

**Hypothesis 3:** There is no significant difference in attitude of urban dwellers towards participation in urban agriculture across the study area.

The result of analysis of variance (ANOVA) reported in Table 9 revealed that significant difference exists in attitude ( $F = 10.05$ ;  $p = 0.05$ ) of the respondents across the selected local government areas. This implies that the respondents' attitude differs significantly from each other across the study area.

However, the follow up statistical test in Table 10 using Duncan Multiple Range Test revealed that urban dwellers in Atiba and Oluyole Local Government areas do not differ in attitude towards participation in urban agriculture but the respondents from these two local government areas are statistically different in attitude towards participation in UA from those selected from Ogbomoso North local government area. This finding shows that urban dweller in Atiba and Oluyole local government areas are more favourably disposed towards participation in UA.

**CONCLUSION AND RECOMMENDATION**

The study ascertained the attitude of urban dwellers towards participation in urban agriculture in Oyo state, Nigeria. The study concluded that majority of the respondents had low and moderate level of participation in urban agriculture in the study area. Also majority (89.2%) of the respondents had favourable and neutral attitudinal disposition towards participation in UA. Age, years of formal education, level of participation in UA significantly influenced attitude of the respondents towards participation in UA. A combination of mass media and interpersonal channels of communication were identified as sources of information on urban agriculture in the study area. Based on the findings of the study the following recommendations were suggested.

There is need for enlightenment programmes that would be targeted at urban dwellers on importance of participation in urban agriculture in the study area.

The identified sources of information for receiving agricultural information should be concentrated upon by the extension institutions in disseminating information on urban agriculture especially radio.

The extension agency in the study area should encourage urban extension activities in reaching out to urban dwellers that are participating in UA in order to enhance sustainable food production.

## REFERENCES

- Adeyemo, R. and F. Kuhlmann, 2009. Resource use efficiency in Urban Agriculture in Southwestern Nigeria. *Tropicultura*, 27: 49-53.
- Akpabio, I.A., D.P. Okon, A.O. Angba and C.L. Aboh, 2007. Avian influenza scare and poultry egg production in Uyo Urban, Nigeria. *Int. J. Poult. Sci.*, 6: 298-301.
- Cofie, O., 2008. Emerging issues in Urban and peri-Urban agriculture (UPA) in West Africa: Brief Note. International Water Management Institute Publication, pp: 6. [http://ruaf.iwmi.org/Data/Sites/4/PDFs/UPA%20paper%20for%20REFILS\\_Cofie.pdf](http://ruaf.iwmi.org/Data/Sites/4/PDFs/UPA%20paper%20for%20REFILS_Cofie.pdf)
- Dennery, P.R., 1995. Inside urban agriculture: An exploration of food producer. M.Sc. Thesis, Wageningen Agricultural University.
- FAO, 2007. Profitability and sustainability of urban and peri-urban agriculture. *Agricultural Management, Marketing and Finance Occasional Paper 19*, pp: 5-24, <ftp://ftp.fao.org/docrep/fao/010/a1471e/a1471e00.pdf>
- Garret, J.L., 2000. Promoting Sustainable Development in Less Favoured Areas. In: *Achieving Urban Food and Nutrition Security in the Developing World 2020: Focus 3*, Garret, J.L. and M.T. Ruel (Eds.). International Food Research Institute, Washington DC., USA.
- Mougeot, L.J.A., 2000. Urban Agriculture: Definition, Presence, Potentials and Risks. In: *Growing cities, Growing Food, Urban Agriculture On the Policy Agenda*, Bakker, M., S. Dubbeling, U. Guendel, S. Koschella and H. de Zeeuw (Eds). DSE, Feldafing, pp: 1-42.
- OYSADEP, 2001. A report of village listing survey in Oyo State. Department of Planning, Monitoring and Evaluation, Oyo State Agricultural Development Programme, pp: 1-15.
- Ogunlade, I., C.G. Omokanye and A.A. Adeniji, 2007. An assessment of farmers' interest in university of Ilorin poultry research result. *Int. J. Poult. Sci.*, 6: 283-288.
- Oladebo, J.O. and A.I. Ambe-Lamidi, 2007. Profitability, input elasticities and economic efficiency of poultry production among youth farmers in Osun state, Nigeria. *Int. J. Poult. Sci.*, 6: 994-998.
- Olaniyi, O.A., J.G. Adewale and A.R. Ayoade, 2008. Attitudinal disposition of children's participation in cassava processing activities in Oyo state. *Int. J. Agric. Econ. Rural Dev.*, 1: 42-47.
- Olaniyi, O.A., 2010. Assessment of utilisation of agricultural information on selected arable crops among rural youth in Oyo and Osun states, Nigeria. Ph.D. Thesis, Department of Agricultural Extension and Rural Development, Ladoke Akintola University of Technology, Ogbomoso, Nigeria.
- RUAF Foundation, 2008. What is urban agriculture? Resources Centres on Urban Agriculture and Food Security. <http://www.ruaf.org>
- Smit, J., A. Ratta and J. Nasr, 1996. *Urban Agriculture: Food, Jobs and Sustainable Cities*. United Nations Development Programme, New York, USA., Pages: 302.