Contribution of Urban Agriculture to the Livelihood of Urban Dwellers in Ilorin West Local Government Area of Kwara State, Nigeria

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ABSTRACT

The study focused on the contribution of urban agriculture to the livelihood of 107 respondents in Kwara State of Nigeria. The study employed structured questionnaire to collect relevant data for the study while descriptive statistics such as frequency distribution and percentage were employed to analyses the objectives. Most respondents (82.9%), were one time or the other in a married state and they had formal education (80.4%) while many of the lot (58.9%) had superior education ranging from OND to Ph.D level. These farmers were either retired government workers or those trying to argument their family income or trying to be food sufficient. Most of the respondents (77.4%) had a farm size of less than or equal to 3 hectares showing that most the urban farmers were smallholders which might be as a result of stiff completion for land resource. Most of the respondents had a relatively large family size of 6 and above members. Most respondents used family labor (59.8%). Respondents in the study area also made use of the cooperatives and daily contributions for loanable funds, while few respondents utilized the formal sector. .Urban agriculture accounted for 84.4% of the Livelihood outcomes of the respondents. While non-farming activities contributed 17.6%.Most of the respondents (31.8%) participated in non-farming activities to generate extra income while their major constraints were shortage of land both in term of access and tenure (34.1%), limited access to resource and agricultural inputs (29.3%), and prohibitive urban policies and regulation (23.2%).

KEYWORDS; *Poverty throes, Urban agriculture, Rigors of farming, Non-farming, Married state*

1.0 INTRODUCTION

Background of the study

Concept of Urban Agriculture

Definition: Urban agriculture can be defined as the production of food (for example, vegetables, fruits, meat, eggs, milk, fish and non-food items such as fuel, herbs, ornamental plants, tree seedlings, flowers) within the urban area and its periphery; for home consumption and/or for the urban market, and related small scale processing and marketing activities (Hovorka, *et al;* 2009). Urban agriculture is defined as the production of crop and livestock within cities (Zezza and Tascioti, 2012). .Urban agriculture takes place on private, leased or rented land in peri- urban and urban backyards, rooftops, on vacant public lands such as industrial parks, school grounds, roadsides, in prison and other institutions, in ponds, lakes and rivers; (Salau and Attah 2012). Mougeot (2005), described urban agriculture as industry located within (intra-urban) or on the fringes (peri-urban) of a town, city or a metropolis which grows and raises a diversity of food and non-food products using largely human and material resources, products and services largely to that urban areas.

Essence of Urban Agriculture

Available evidence indicates that urban agriculture is a worldwide activity; studies also suggest that 40% and 50% of the urban dwellers in Africa and Latin America respectively are involved in some sort of agricultural activity (Zezza and Tasciotti, 2010). Hence urban agriculture has become a contemporary issue, gaining prominence especially in developing economics because it has been discovered to be a viable poverty intervention strategy for the urban poor, since it contributes significantly to the socio-economic development of cities throughout the world (Salau and Attah, 2012). Urban agriculture has a high potential for improving the urban environment by using organic waste-solid wastes and waste water as inputs by improving the micro-climate and by preventing erosion and flooding through replanting bare lands. It also conserves energy and food, because there are fewer foods loses during transport and handling and greater energy savings due to the smaller need for storage, processing and packaging. Urban agriculture has also developed as a means of reducing seasonal gaps in fresh foods for urban dwellers. Food availability is particularly important for fresh foods (horticulture, fruits, eggs, milk and poultry) which can be in the street, in markets or in local stores but also produced for home consumption for example, green leaves. Also, staple foods such as maize, cocoyam and sweet potato are produced in many towns for home consumption (Foeken, 2006). Evidence presented from the city of Kano in northern Nigeria suggests that urban agriculture is providing farmers with food and employment (Lynch *et al*, 2002). In Nigeria, rapid urbanization is accompanied by increasing urban poverty, food insecurity and malnutrition. As a result, in many cities the number of people involved in Urban Agriculture tends to increase with ongoing urbanization rather than decreasing, as had been previously assumed. Another factor is the growing urban demand for perishable products, including vegetables, meat, milk, and eggs, coupled with the comparative advantage of producing close to the markets; and the availability of productive resources including urban organic wastes, wastewater and vacant public lands (Hovorka *et al*, 2009).

Benefits

However, the benefits of urban agriculture are many (Salau and Attah, 2012). These include provision of adequate food, employment, supplementing income, and production of important nutrition not normally available to low-income households. Moreover, households involved in an urban agriculture may have direct access to comparatively cheaper food, and a wide variety of nutritious foods such as vegetables and animal products like eggs, milk and meat. This is more nutritious compared to a situation where the supply of these comes from long distances and take time arriving with subsequent loss of valuable micronutrients (Kekana, 2006). Studies further indicate that farming in urban environments benefits poor households through direct savings on food purchases, income generation through the sale of produce and provision of a varied range of nutritious products. Nevertheless, the greatest proportion of urban agriculture is undertaken as a survival strategy by individual households generally, in backyards to augment household real income (Idowu *et al*, 2012). In a study of 15 countries in Africa (including Nigeria), Asia, Latin America and Eastern Europe, Zezza and Tasciotti (2010) established that there exist a positive association between urban agriculture and indicators of dietary adequacy. They found that households that engaged in urban agriculture were more likely to consume more calories, enjoy a more diverse diet, and have greater access to a greater number of calories from basic staples, fruits and vegetables. Zezza and Tasciotti (2010) established that there exist a positive association between urban agriculture and indicators of dietary adequacy. They found that households that engaged in urban agriculture were more likely to consume more calories, enjoy a more diverse diet, and have greater access to a greater number of calories from basic staples, fruits and vegetables. In spite of the importance of urban agriculture, Urban Agriculture has, for centuries, served as a vital input in the livelihood strategies of urban households in the developing countries. As a response to the economic crises exacerbated by the structural adjustment programs and increasing migration, urban agriculture has expanded rapidly within the last few decades (Bryld, 2003). Even so, urban agriculture is a vital element in the survival strategy of the household members who can generate extra income through the utilization of the potentials of urban cultivation (Zeeuw et al., 2000).

Livelihood Strategies

According to Eldis (2012), livelihood strategies consist of activities that people choose to carry out in order to achieve their goals or means of support. These include productive activities, investment approaches and reproductive choices. The choice of strategies is a dynamic procedure in which people combine activities to meet their varying needs. For instance, in farming households, activities are not necessarily limited to agriculture but also include non-farm activities for them to diversify their income to meet household requirements. Migration, whether periodic or permanent, is one common livelihood strategy. And even in agriculture, strategies may include intensification that is more output per unit area of land through capital investment of increases in labour. Another strategy in agriculture is extensification that is more land to be used for cultivation. A main influence on people's choice of livelihood strategies is their access to assets and the policies, institutions and processes that impact on their ability to use these assets to attain positive livelihood outcomes. People are often forced to compete for scarce resources:

fundamental to livelihoods approaches is the principle that development support intended to improve the livelihood strategies of some should not be a burden to others.

Livelihood outcomes

These are the results or consequences of livelihood strategies that a person applies. According to Ruedin (2007) if people's livelihood goals are achieved they then become outcomes. These include improved food security, more income, increased wellbeing, reduced vulnerability and more ecological use of natural resources.

Objectives of the Study

The general objective of the study is to examine the contributions of urban agriculture to the livelihood of urban dwellers in the study area, while the specific objectives are to;

- describe the socio-economic characteristics of urban farmers in Kwara State.
- identify the types of agricultural activities being carried out in urban areas in the State.
- examine the various household components of the livelihood of the respondent.
- determine the percentage contribution of urban agriculture to household income of the respondent, and to;
- identify the constraints facing urban farmers in the study area.

(2) MATERIAL AND METHODS

The study Area

The study was undertaken in Ilorin West Local Government Area of Kwara State.

The state is situated in the North central zone of Nigeria. The Local Government Area (LGA)

Secretariat is situated in Warrah,. Its headquarters is in the town of Oja Oba. It has an area of

105 km² and a population of 364,666 at the 2006 census. The postal code of the area is 240. Ilorin West Local Government Area of Kwara state is located in Oja-Oba and the local government area consists of the towns and villages like Adewole, Baboko, Ajikobi, Badari, Ogidi, Ojuekun, Oko-Erin, Warrah, Ngeri, Oloje, Ubandawaki, Egbejila and Oshin. There are 12 wards in Ilorin West Local Government Area. · Adewole · Ajikobi · Baboko · Badari · Balogun Alanamu Central · Magaji Ngeri · Ogidi · Ojuekun/zarumi
However, attention was paid to peri-urban centers combining areas near core urban centers like Ogidi, Warrah, Egbejila, Oshin, Bala and Ogele where agricultural activities were visible.

The Population of the Study

The population of the study was the conglomeration of urban farmers in Ilorin west Local Government Area of Kwara State.

Sampling Techniques and sample size

Six activity areas were purposively selected because of the concentration of urban farmers in these locations. They were Ogidi, Warrah, Egbejila, Oshin, Bala and Ogele. Seventeen (17) farmers were randomly selected from each of 5 major locations; Ogidi, Warrah, Oshin, Bala and Ogele while 22 farmers were selected in Egbejila where we had more farmers doing business along Egbejila river. A sample of 107 farmers was randomly picked for the study. Structured questionnaire was served to the literate respondents while personal interviews were done with the illiterate respondents. The questionnaire sought information on socioeconomic characteristics of the farmers, income from crop, livestock activities and non-agricultural activities like the income from both formal and informal employment, income from self-employed and/or owned business that were not agricultural based. Primary data were collected for the research.

Analytical Techniques

Method of data analysis

The analytical techniques employed were mainly descriptive statistics such as the frequency distribution tables and percentages to show the pproportions of each component to the livelihood of respondents in the study area.

(3) RESULTS AND DISCUSSION

Socio-economic Characteristics of Respondents

Sex of the Respondents

The result in table 1 indicates that 64.5% of the respondents that were interviewed were males while 35.5% were females. This implies that the most of the farmers in the study area were males.

Table 1: Distribution of Respondents by Sex.

Sex	Frequency	Percentage
Male	69	64.5
Female	38	35.5
Total	107	100

Religion of the Respondents

The result in table 2 shows that 18.7% of the respondents were Christians while 81.3% were Muslims. This implies that the most of the farmers in the study area were Muslims. Urban Agriculture encompassed the two most practiced religions in Nigeria despite the fact that Islamic religion is mostly practiced in Ilorin area.

Table 2: Distribution of Respondents by Religion

Religion	Frequency	Percentage
Christian	20	18.7
Muslim	87	81.3
Total	107	100.0

Age of the Respondents

Table 3 shows that 3.7% of respondents fell within the age range of 21-25 years while 7.5% were in the age range of 26-30 years and 15.9% were within the age range of 31- 40 years. Forty three percent (43.0 %) of the respondents were in the age range of 41-50 years and 29.9% were in the range of 51-60 years of age. This means that most of the respondents in the study area were within the age range of 41-50 years, indicating that most of the respondents were in their active age economically. This is the time they have the most agile, physical and mental abilities to cope with the rigors of farming.

Table 3: Distribution of Respondents by Age.

Age range (years)	Frequency	Percentage
21-25	4	3.7
26-30	8	7.5
31-40	17	15.9
41-50	46	43.0
51-60	32	29.9
Total	107	100

Marital status of the respondents

Table 4 below shows that most 69.5% of the respondents were married, 17.1% were singles while 11.0% were widowed and 2.4% were divorced. This implies that most respondents (82.9%) were one time or the other in a married state.

Table 4: Distribution of Respondents by Marital status

Marital status	Frequency	Percentage
Single	20	17.1
Married	60	69.5
Widowed	18	11.0
Divorced	9	2.4
Total	107	100

Household Size of the Respondents

The result from table 5 indicates that 42.5% of the respondents had household size between 6-10 members, while 30.6% had household size between 11-15 members, 22. 1% had household size

between 1-5 members and 4.8% had household size of 16 and above. Most of the respondents had a relatively large family size of 6 and above members. Large families are usually associated with poverty and problem of food security. Jacobi *et al*; 2000 assert that increasing farming activities in the city is linked to economic decline and increasing poverty in urban centers.

Table 5: Distribution of Respondents by Household size

Household size	Frequency	Percentage
1-5	20	22.1
6-10	52	42.5
11-15	28	30.6
16 and above	7	4.8
Total	107	100

Educational Level of the Respondents

The result from table 6 shows that 19.6% of the respondents had non-formal education, 22.4% had only primary education, 21.5% had secondary education, 17.8% had either OND or HND, 9.3% had either First degree or Second degree while 9.4% had Ph.D. The result shows that most of the respondents had formal education (80.4%) while many of the lot (58.9%) had superior education ranging from OND to Ph.D level. These farmers were either retired government workers or those trying to argument their family income or trying to be food sufficient. This is also supported by Zeeuw et al., 2000, even so, urban agriculture is a vital element in the survival strategy of the household members who can generate extra income through the utilization of the potentials of urban cultivation and for those working against food insecurity, the importance of urban agriculture in the development of livelihood outcomes of many city dwellers can thus not be over emphasized. Its contribution to household food security through direct supplementation of household food is well known (Obubie *et al*, 2006).

Table 6: Distribution of Respondents by Educational Level

Educational Level	Frequency	Percentage
Non Formal	21	19.6
Primary	24	22.4
Secondary	23	21.5
OND/HND	19	17.8
First/second degree	10	9.3
Ph.D	10	9.4
Total	107	100

Organization membership of the Respondents

The result from table 7 shows that 89.7% of the respondents belonged to organization while 10.3% did not belong to any organization.

Table 7: Distribution of Respondents by Organization membership

Organization	Frequency	Percentage
Yes	6	89.7
No	11	10.3
Total	107	100

Farm Size of the Respondents

Table 8 reveals that 71.8% of the respondents had a farm size of less than 2 hectares while, 5.6% had a farm size of between 2-3 hectares and 22.6% had a farm size of greater than 3 hectares. The implication of this was that all the urban farmers were smallholders which might be as a result of stiff completion for land resource.

Table 8: Distribution of Respondent by Farm Size

Farm Size	Frequency	Percentage
<2	70	71.8
2-3	6	5.6
>3	24	22.6
Total	107	100

Mode of Land acquisition of the Respondents

This result in table 9 reveals that 10.3% of the respondents rented Land, 18.7% purchased Land while 30.8% acquired their land through leasing and 40. 2% acquired land through inheritance. Inheritance still dominated the spectrum of land acquisition in Nigeria despite the Land Decree Act of 1978 which vested all the land in the state on the governor.

Table 9: Distribution of Respondents by Mode of Land Acquisition

Mode of Land Acquisition	Frequency	Percentage
Rent	11	10.3
Purchase	20	18.7
Lease	33	30.8
Inheritance	43	40.2
Total	107	100

Labor use of the respondents

The result from table 10 shows that 43.9% of the respondents used family labour while 40.2% of the respondents used hired labour and 15.9% of the respondents used both labour. Most respondents used family labor (59.8%).Family labor becomes a veritable source of labor especially in large families trying to mitigate poverty throes.

Table 10: Distribution of Respondents by labor use

Labor	Frequency	Percentage
Family	47	43.9
Hired	43	40.2
Both	17	15.9
Total	107	100

Initial Start-up Capital of the Respondents

This result from table 11 reveals that 64.5% of the respondents acquired their initial start-up capital through savings, 4.7% acquired their initial start-up capital through bank loan, and 30.8% utilized the cooperative societies. Most families nowadays in the study area depend on daily contributions whereby they get themselves attached to deferent daily contribution vendors or agents; hence these agents are usually available when small loans are needed. Respondents in the study area also made use of the cooperatives, an act that is becoming part and parcel of the people's culture. Another notable feature is that few respondents utilized the formal sector. It also shows that the cooperative societies are a strong and veritable source of getting start-up money for business formation in the study area as well as in the Southern and Central Nigeria.

Table 11: Distribution of Respondents by Initial Start-up Capital

Initial Start-up Capital	Frequency	Percentage
Savings	69	64.5
Bank loan	5	4.7
Cooperative	33	30.8
Total	107	100

Livelihood of the Respondents

Contribution of urban agriculture of the Respondents

Livelihoods are counted in terms of benefits derived from cash, kind or services from employment and remuneration through various assets and entitlements. In the study area, Total Livelihood is made up of cash made from Urban agriculture which is a combination of crop production activities and livestock activities together with Non-farming activities..

Crop production activities of the respondents

Table 12 below shows the contribution of Crop production activities to the livelihood of the respondents in the study area. This result shows that cassava (42.09%).Maize (38.01%) and yam (11.80) were the major contributors.to the livelihood of the respondents. Other crops like the potatoes, cashew and cowpea were supportive. Many respondents took interest in urban agriculture because of the market that is very near them. They claimed that buyers were usually available at the boundary of their farms;

Table 12: Distribution of Respondents by Crop production activities

Crop production activities	Contribution	Percentage
Yam	15531500	11.80
Cashew	2342000	1.78
Maize	50054500	38.01
Cassava	55418500	42.09
Cowpea	2465000	1.87
Potato	4105000	3.14
Rice	160000	0.12
Vegetable	1445000	1.10
Others	155000	0.12
Total crop production	131676500	100.0

Distribution of Respondents by Livestock production activities.

Table 13 below indicates the contribution of urban agriculture through Livestock production activities. This implies that Goat (41.41%), Sheep (36.90%) and Cow (14.21%) were the major livestock kept by the respondents while Rabbits and Snails were supplementary.

Table 13: Distribution of Respondents by Livestock production activities

Livestock production activities	Contribution	Percentage
Goat	15738000	41.41
Rabbit	901000	2.37
Snail	1790000	4.71
Sheep	14023000	36.90
Cow	5400000	14.21
Others	150000	0.40
Total Livestock Activities	38002000	100.0

Non farming activities of the Respondents

The non-farming activities of the respondents were shown in Table 14 below. These are activities that provide cash or remuneration gotten outside the agricultural operational zones like farms, pens etc. The major non-farming contributors to the livelihood of the respondents in the study area were Printing (5.09%), Accounting (10.94%), Lecturing (11.79%), Trading (53.87%) and Transportation (2.37%). Traders, especially spare parts dealers were active together with lecturers from tertiary institutions who had substantive reward from urban agriculture. They created enough time to supervise their workers on the farm because of frequent breaks in the educational sector of the country.

Table 14; Distribution of Respondents by Non-farming activities

Non-farming activities	Contribution	Percentage
Tailoring	1644000	4.52
Printing	1848000	5.09
Accounting	3960000	10.94
Mechanic	420000	1.17
Lecturing	4284000	11.79
Shoe making	344000	0.94
Hair dressing	504000	1.38
Health care services	268000	0.73
Decoration work	300000	0.84
Veterinary	1950000	5.37
Trading	19560000	53.87
Catering services	252000	0.69
Transportation	840000	2.31
Security agency	132000	0.36
Total Non-farming Activities	36306000	100.0

Reasons for combining Farming with non-farming activities by the respondents

The reason for participation in non-farming activities by the respondents is presented by table 15 below. Most of the respondents (31.8%) participated in non-farming activities to generate extra income. Moustier (2001), noted that urban vegetable production is one way of obtaining stable source of income for less qualified workers with limited initial capital for investment. Other major reasons for participating in non-farming activities included to sustain standard of living and ensuring that participants were able to meet their obligations to their families (21.5%) and to invest in farm production (26.2%) which they claimed was having a ready-made market since customers made themselves available to purchase farm products at the boundary of urban farmers' farms.

Table 15: Distribution of Respondents by Reason for non-farming activities

Reason for non-farming	Frequency	Percentage
To generate extra income	34	31.8
To sustain standard of living	23	21.5
To invest in farm production	28	26.2
To engage surplus labor in Agric	8	7.5
Source of income during agricultural off-season	10	9.3
To provide a means of coping and surviving when farming fails	4	3.7

Total	107	100.0

Constraints faced by the Respondents

The result in table 16 shows that 34.1% of the respondents were affected by shortage of land both in term of access and tenure, 29.3% of the respondents were affected by limited access to resource and agricultural inputs, 23.2% of the respondents were affected by prohibitive urban policies and regulation, 4.8% of the respondents were affected by lack of support activities, 4.8% of the respondents were affected by harassment of local/state government tax and environment authorities while 1.2% of the respondents were affected by theft of crops or animals from farmers household and 2.6% of the respondents were affected by high cost of providing security for farm.

Table 16: Distribution of Respondents by Constraints faced

Constraints faced	Frequency	Percentage
Shortage of land both in term of access and tenure activities	34	34.1
Prohibitive urban policies	23	23.2
Limited access to resources	28	29.3
Lack of support activities	8	4.8
Harassment of government tax and environmental authorities	8	4.8
Theft of crops or animal	2	1.2
High cost of providing security for farm	4	2.6
Total	107	100

Livelihood outcomes of the Respondents

Table 17 below indicates that urban agriculture accounted for 84.4% while non-fFarming activities contributed 17.6% of the Livelihood outcomes of the respondents. This shows that Farming activities through urban agriculture provided higher contribution to the Livelihood of the respondents in the study area and non-farming activities provided the lower contribution to the Livelihood outcomes of the respondents in the study area.

Table 17: Distribution of the Respondents by Livelihood outcome

Livestock activities	Contribution(outcome)	Percentage
Total farming activities	169678500	82.38
Total non-farming activities	36306000	17.62
Total livelihood Activities	205984500	100.0

(4) Policy focus

Urban Agriculture seems alien to the Nigerian agricultural planners hence it is not included in their policy framework. Nigerian policy makers and government have deliberately neglected this veritable sector and have failed to give it official recognition and attention, but merely tolerate it as a response of the poor towards adverse socio-economic conditions facing them (Lynch *et al*, 2002).However, Zezza *et al* (2008) and Dessus et al (2008) noted that events from the recent world food price crisis have rendered the importance of understanding and confronting the causes of food insecurity of the urban poor even more apparent. Tax administrators harass urban farmers, thus an urban agricultural friendly approach needs to be evolved

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