

Urban Agriculture as a Strategy for Poverty Reduction among Households in Metropolis of Benue State, Nigeria

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Abstract

The study was carried out to assess urban agriculture as a strategy for poverty reduction among households in metropolis of Benue State, Nigeria. Data were collected from a sample of one hundred (100) respondents using questionnaire. Frequency, percentage and mean score were used for data analysis. Findings indicate that 55.0% of the respondents were males, married (84.0%), literate (98.0%) and having a household size of 1-5 persons (54.0%). About 46.0% of the respondents engaged in cultivation of leafy vegetable, 22.0% cultivated cassava, among others. A greater percentage (56.0%) of the respondents kept poultry, 23.0% kept goat, among others. Results also show the reasons for engaging in urban agriculture which include assurance of household food security (M = 2.69), improving labour market opportunities (M = 2.67), helps to be economically stronger (M = 2.62), increase in price of food and other commodities (M = 2.62), consolidation of land ownership (M = 2.53), utilization of available land (M = 2.48), increase in family responsibilities (M = 2.47), generate additional income (M = 2.38), among others. The study recommends that urban farmers should be encouraged to form cooperative societies to enable them have easy access to credit facilities for greater productivity. It also emphasized the need for farm inputs such as fertilizer to be subsidized in order to encourage the farmers to use it in planting different crops to guard against crop failure and ensure household food security.

Keywords: Urban agriculture; Poverty reduction; Strategy; Households; Nigeria

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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. In recent times, urban agriculture seems to have gained importance especially in developing economies basically because it has been discovered to be a viable intervention strategy for the urban poor to earn extra income and therefore reduces their reliance on cash income for food by growing their own food (Egbuna, 2001).

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Urban agriculture refers to the practice of farming in a city environment. Urban farming is conceptualized to have mitigating effects on household poverty. Urban households that practice farming tend to spend less on food, which has been found to take about 70 percent of poor household's expenditure (Omonona, 2001). It is possible that households may produce more than the food required for home consumption and the excess is offered for sale in the market.

The role of urban agriculture in the food supply of cities and towns as a complement to rural agriculture is becoming an important issue in a globalizing world economy. Factors affecting this rise in urban agriculture include increasing levels of urban poverty, agricultural policies, economic transition, disasters and policy initiatives on urban agriculture (Egbuna, 2001). The farmers save by consuming foods produced at home and earn extra income by selling produce. Urban agriculture provides access to food and helps prevent malnutrition (Drakakis-Smith, 1992). It provides a source of income and high-quality food at a low cost (UNDP, 1996). The participation of middle-income households in urban food production has been a notable finding of research undertaken in Nigeria (Gefu, 1992), Mozambique (Sheldon, 1991) and South Africa (May and Rogerson, 1995). Part-time farming in urban Nigeria represents a survival strategy for many urban wage earners to supplement declining real wages in the wake of economic recession and crisis. Economic recession and crisis in Nigeria fostered the development of multiple means of livelihoods which made many public servants to become part-time urban cultivators.

According to UNDP (1996), the most widely accepted estimate, about 200 million urban dwellers participate in urban farming. Spore (2012), reiterated that an estimated 800 million people are engaged in UA worldwide; of these, 200 million are market producers employing 150 million people full time. Similarly, it is one of the several tools for making productive use of open spaces in urban areas, treating and/or recovering urban solid and liquid wastes, saving or generating income, employment and managing fresh water resources more effectively.

The high rate of urbanization, weakened purchasing power, high incidence of poverty, retrenchments in public and private sector and high unemployment rate have curtailed the capacity of both the urban poor and middle class to purchase all the food they need. This is given the fact that most households in Nigeria spend an average of 50-80 percent of their income on food (Adejobi, 2004).

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, Makurdi policy makers and government have deliberately neglected a veritable sector and have not made concerted efforts to acknowledge it and channel attention to it. It therefore becomes pertinent to carry out this study to answer the following questions. What are the socio-economic characteristics of the respondents? What are types of crops grown by the respondents? And what are reasons for engaging in urban agriculture?

Specifically, the study sought to:

1. Describe the socio-economic characteristics of the respondents;
2. Identify types of crops grown/livestock kept by the respondents; and
3. Ascertain reasons for engaging in urban agriculture.

Methodology

The survey was conducted in Benue state, Nigeria. Benue state is one of the 36 states of Nigeria located in North Central Nigeria. The state is made up of three (3) geo-political zones, namely; Zone A (Eastern zone), Zone B (Northern zone) and Zone C (Central zone). It has twenty-three (23) local government areas. Benue state has an area of 2,882 km² with a population of 4,253,641 people (National Population Census (NPC), 2006). It shares boundaries with five other States namely; Nasarawa to the north, Taraba to the east, Cross-River to the south, Enugu to the south-west and Kogi State to the west. The state also shares a common boundary with the Republic of Cameroon on the south-east. Farming is the major occupation of the people living in rural areas of the state. The inhabitants of the state living in cities engage in non-farm occupations such as civil service, teaching, petty trading, commercial driving, etc. and are also involved in urban agriculture for poverty reduction. They grow crops like yam, cassava, maize, sweet potato, tomato and leafy vegetables. Livestock such as goat, poultry, pig, etc are kept by the inhabitants.

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Two geo-political zones, namely; Zones B (Northern zone) and Zone C (Central zone) were used for the study. One (1) local government area was selected from each of the zones. These include Gboko and Otukpo for Zones B and C respectively. In each of the local government areas selected, one (1) major city namely; Gboko and Otukpo were chosen purposively for the study because they are also major cities in the local government areas. Fifty (50) heads of households who are involved in urban agriculture were selected purposively for the study, giving a total of one hundred (100) respondents used for the study. Questionnaire was used to collect data for the study. The questionnaire consists of three sections, namely; A-C. Section A focused on socio-economic characteristics of the respondents. Section B centered on types of crops grown/livestock kept by the respondents while section C addressed reasons for engaging in urban agriculture. Data were analyzed using frequency, percentage and mean score.

Results and Discussion

Socio-economic characteristics of the respondents

Sex: Data in Table 1 show that 55.0% of the respondents were males while 45.0% were females. This implies that urban agriculture is practiced mostly by men in the study area. This could enable them to be economically stronger and ensure household food security. The findings disagree with Asadu, Egbujor, Chah and Ifejika (2013) who stated that women are more involved in urban agriculture than male in their study area.

Age (years): A greater percentage (48.0%) of the respondents was within the age of 31-40 years, 36.0% were aged above 40 years, among others (Table 1). This shows that the respondents were still young, energetic and in their productive years hence greater involvement in urban agriculture.

Married status: Majority (84.0%) of the respondents were married while 16.0% were single (Table 1). It implies that most of the respondents were married, have members of their families which make them to get more responsibilities. Having family members could also serve as source of labour used in urban agriculture.

Level of education: Results indicate that 49.0% of the respondents had tertiary education, 44.0% had secondary education, among others [Table 1]. The findings show that majority of the respondents were literate, having one form of education or the other. This could enable them to adopt innovations that will improve their productivity in farming activities. This agrees with Agwu (2004) who noted that education has a positive relationship with adoption.

Farming experience (years): Table 1 show that 48.0% of the respondents had a farming experience of between 6-10 years, 42.0% had 1-5 years of farming experience, among others. This implies that the respondents have been farming for a period of time.

Household size (numbers): Entries in Table 1 show that 54.0% of the respondents had a household size of 1-5 persons, 41.0% had 6-10 persons in their households while 5.0% had a household size of above 10 persons. This indicates that the respondents had fairly large household which can serve as source of labour used in urban agriculture.

Farm size (hectares): Results indicate that 63.0% of the respondents had a farm size of <1 hectare, 23.0% had a farm size of 1-3 hectares while 14.0% had above 3 hectares. This implies that the respondents farm at a subsistence level.

Primary occupation: Data in Table 1 show that 50.0% of the respondents were civil service, 39.0% were teachers while 11.0% were petty traders. This indicates that the respondents had non-farm occupation as their primary occupation.

Estimated annual farm income: Table 1 show that 56.0% of the respondents obtained above ₦150, 000, about 37.0% obtained ₦100,001-₦150,000, among others. This implies that the respondents got reasonable amount of money from sale of farm produce which enables them to be economically empowered.

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Socio-economic characteristics	Frequency	Percentage
Sex		
Male	55	55.0
Female	45	45.0
Age (years)		
< 20	3	3.0
21-30	13	13.0
31-40	48	48.0
Above 40	36	36.0
Marital status		
Single	16	16.0
Married	84	84.0
Level of education		
Non-formal education	2	2.0
Primary education	5	5.0
Secondary education	44	44.0
Tertiary education	49	49.0
Farming experience (years)		
1-5	42	42.0
6-10	48	48.0
Above 10	10	10.0
Household size (numbers)		
1-5	54	54.0
6-10	41	41.0
Above 10	5	5.0
Farm size (hectares)		
<1	63	63.0
1-3	23	23.0
Above 3	14	14.0
Primary occupation		
Civil service	50	50.0
Teaching	39	39.0
Petty trading	11	11.0
Estimated annual farm income (Naira)		
<50,000	3	3.0
50,001-100,000	4	4.0
100,001-150,000	37	37.0
Above 150,000	56	56.0

Table 1: Distribution of socio-economic characteristics of the respondents ($n = 100$).

Types of crops grown/livestock kept

A greater percentage (46.0%) of the respondents engaged in cultivation of leafy vegetable, 22.0% cultivated cassava, 21.0% planted sweet potato, 18.0% cultivated tomato, among others [Table 2]. This implies that the respondents engaged in planting different types of crops (mixed cropping) in order to ensure household food security. This finding is in line with Salau and Attah (2012) who reported that urban farmers in Nassarawa State, Nigeria grow mainly vegetable and sweet potato. The finding is also supported by Asadu, Egbujor, Chah and Ifejika (2013) who stated that mixed cropping is practiced by urban farmers in Imo state, Nigeria which is not surprising since land is often scarce in urban areas. They make use of any available space by planting different varieties of crops in a particular farm land.

Results in Table 2 also reveal that 56.0% of the respondents kept poultry, 23.0% kept goat, among others. It implies that the respondents were involved in mixed farming which helps them to be economically stronger to take care of their families. The findings agree with a study carried out by Salau and Attah (2012) which stated that urban farmers in Nassarawa state were involved in mixed farming.

Variables	Frequency	Percentage
Crops grown*		
Yam	3	3.0
Cassava	22	22.0
Maize	14	14.0
Sweet potato	21	21.0
Tomato	18	18.0
Leafy vegetable	46	46.0
Livestock kept*		
Goat	23	23.0
Poultry	56	56.0
Pig	15	15.0
Rabbit	12	12.0

*Multiple responses

Table 2: Distribution of respondents according to types of crops grown/livestock kept (n = 100).

Reasons for engaging in urban agriculture

Results in Table 3 represent reasons for engaging in urban agriculture. These include assurance of household food security (M = 2.69), improving labour market opportunities (M = 2.67), helps to be economically stronger (M = 2.62), increase in price of food and other commodities (M = 2.62), consolidation of land ownership (M = 2.53), utilization of available land (M = 2.48), increase in family responsibilities (M = 2.47), generate additional income (M = 2.38), obtain food for household consumption (M = 2.35), among others. The findings are in line with a study carried out in Zimbabwe by Gondo, Madigele, Mogomotsi, Tokwe, Jeremiah and Chirefu (2017) which stated that urban agriculture is useful in enhancing food security because it ensures availability of food at least all the times during economic hardship.

Reasons	Mean score
Consolidation of land ownership	2.53
Obtain food for household consumption	2.35
Generate additional income	2.38
Utilization of available land	2.48
Proximity to urban markets	2.26
Reduction of poverty and vulnerability	2.23
Improved transport facilities	1.91
Access to physical infrastructure	1.80
Improving labour market opportunities	2.67
Population pressure on natural resources	2.28
Increase in family responsibilities	2.47
Access to market information	2.25
Acquisition of money for investment in non-farm activities	2.26
Helps to be economically stronger	2.62
Increase in price of food and other commodities	2.62
Assurance of household food security	2.69

Table 3: Distribution of respondents according to reasons for engaging in urban agriculture.

Conclusion and Recommendations

The survey show that most of the respondents were males, married, had formal education in school with non-farm occupation being their primary occupation. The respondents engaged in growing of crops as well as rearing of livestock in order to be economically stronger to meet family responsibilities. Assurance of household food security, improving labour market opportunities, helps to be economically stronger, increase in price of food and other commodities, consolidation of land ownership, utilization of available land, increase in family responsibilities, generate additional income, obtain food for household consumption, among others were reasons indicated by the respondents for engaging in urban agriculture. Urban farmers should be encouraged to form cooperative societies to enable them have easy access to credit facilities for greater productivity. Farm inputs such as fertilizer should be subsidized in order to encourage the farmers to plant different crops to guard against crop failure and ensure household food security.

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