

THE POTENTIALS OF URBAN GARDENING FOR POVERTY REDUCTION AND ACQUISITION OF ENTREPRENEURIAL SKILLS: A CASE STUDY OF ENUGU METROPOLIS, NIGERIA



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Abstract

In Nigeria, internal migration from rural to urban or the reverse is not regulated and has a far reaching implications on economic sustainability. This study investigated the contribution of urban gardening to poverty reduction and acquisition of entrepreneurial skills in Enugu metropolis, Nigeria. Specifically, garden locations were used for the study. Simple random sampling technique was used to get fifty respondents of small holder farmers. Data was collected with questionnaire and structured interviews. Frequency and percentage methods were used to analyze data. The study identified nine garden locations, types of garden productions, increase in smallholder farmers' income, increase in household purchasing power, acquisition of entrepreneurial knowledge and skills, self-employment etc. There is huge potentials in using urban gardening for poverty reduction and acquisition of entrepreneurial skills. The paper recommended that there must be serious effort in improving access to land by legally allocating specific areas (river banks) for garden product production in Enugu metropolis.

One of the major developing problem facing the world today is the growing phenomenon of poverty and unemployment. It is estimated that over 2.1 billion people are living in abject poverty and over one million people cannot meet the basic needs (UNDP, 2002) of life. In Nigeria, about ninety-eight million survive on less than N600.00 equivalent to 1.5 dollar per day with resultant effect of malnutrition. In rural area one-third of the dweller are poor, that some tend to migrate to the city in search of greener pasture (Okafor, 2008). This is one of the reasons why most cities are densely populated. Today, life in Nigeria cities is not a bed of roses due to high cost of living. Many families get involved in many activities to see if their basic needs could be met at household level. Enugu metropolis is not exempted in this issue. Many of the dwellers

engage in a wide range of socio-economic activities to address the economic hardship they are experiencing. Family income (salary/wage) is small with low financial purchasing power at household level. The monetary value has declined in absolute terms due to inflation and ongoing recession in Nigeria.

Based on the above information some Enugu city dwellers have opted to urban gardening business which irrigation was basic during the dry season. Garden product production has come to stay because it seems as if the business thrives in the area. According to RUAF (2007) success of urban gardening in cities could be as an adaptive response of households to improve on food security and acquire skills, to diversify their livelihood options under conditions of persistent economic uncertainty, unemployment and declining household purchasing power. According to Mkwambisi, Fraser and Dongill (2011), urban farming has been found to be socio-economic survival strategy for poor urban dwellers, to provide food, employment and engaging in activities of mental interactions with their environment instead of idleness since an idle mind is a devil's workshop. However, urban garden product production enhances dormant resources in urban ecosystem which had been lying waste, to contribute to livelihood strategy for better life. Apart from provision of informal employment and contributing to food security World Bank (2001), it enhances income diversification through sales of surplus produce or savings on food expenditures and broadly promotes urban food supply system at least in potentially environmental sustainability (Yenng, 1987).

Besides these roles, it has not been given attention as a vital weapon for poverty reduction strategy and a catalyst for entrepreneurship development in Enugu State, Nigeria. Studies in Enugu have no empirical evidence relating the contribution of urban gardening to poverty reduction. Therefore, this study intends to fill the identified gap by examining the potentials of urban gardening for poverty reduction and entrepreneurial skill acquisition, using Enugu metropolis as a case study. The study answered the following questions:

1. To what extent do engaging in urban gardening reduce your poverty level.
2. To what extent do urban gardening make you acquire entrepreneurial skills.

Method

The descriptive survey design was used in the study. Enugu urban was chosen because of its density population with different socio-economic classes of people. It is a busy city where cultural, political and socio-economic activities thrive. The dwellers are energetic and could actively be involved in genuine activities to make a sustainable living. Respondents include only smallholder farmers of garden within Enugu metropolis. A survey of nine locations was based on unit population. Simple random technique was used to select the study respondents. A total of fifty (50) respondents were involved in the study.

A questionnaire titled "the potentials of urban gardening" was validated by experts in Botany and Agricultural science, and was used for data collection. The

questionnaire consisted of the checklist type of questions which elicited information on the socio-economic aspects. Structured interview was used to elicit information on their daily farm records i.e. type of garden activity and products.

The reliability coefficient of the instrument was determined using the Spearman Brown Prophecy (correlation) which yielded $r = 0.83$. This was considered suitable for the study Arsham (2004). The questionnaire and structured interview were administered by the researcher and the researcher's assistants who were trained for one day. The questionnaire were given and collected from the respondents on the same day. A total of 50 questionnaires were given and the same number were collected and used for analysis. Data were analyzed using frequencies and percentages to answer the research questions and the structured interview. A higher percentage (50% and above) respond of 50% and above was accepted while an item with percentage 50% below is considered to be rejected response, 50 was set as the basis for accepting a response option.

Results

Table 1: Locations, Type of Garden Production and the Number of Smallholder Farmers

Locations	Type of garden production	Number of Smallholder farmers	Percentage (%)
Aguabor	Leafy vegetables and economic trees	28	12.96
Abakpa	Leafy vegetables economic trees	31	14.35
Another level	Leafy vegetables economic trees	37	17.13
Emene	Leafy vegetables, ornamental plants	15	6.94
Ebeano Tunnel	Ornamental plants leafy vegetables economic trees	24	11.11
Artisan	Leafy vegetables, ornamental plants and economic trees	20	9.25
Iva-Valley	Ornamental plants, leafy vegetables and economic trees	39	18.06
Ugwuodogwu	Leafy vegetables and economic trees	22	10.18
		216	

Table 1 summarizes types of garden productions, number of smallholder farmers and their percentage found in different locations of the area. The result from the table indicated that Iva-Valley had the greater number of smallholder farmers (18.05%), followed by another level (17.12%), Abakpa (14.35%), Aguabor (12.96%) and Ebeano Tunnel (11.11%). This variation could be attributed to presence of river or stream for steady and adequate water supply and the remains of eroded area that created good space for cultivation along the river bank. The river Iva-Valley with its source from

Milikin Hill, stretches down through Aguabor (the river Iyi-ocha) to Emene provides steady supply of water for irrigation during the dry season. On the other hand, the Nike Lake has an outlet which boasts the smallholder farmers' settlement for cultivation in another level location. Even Ebeano tunnel has small stream that feed cultivation and encourage garden production in that area. It was observed that each of the location has either a river or stream that has significant support to garden product production in Enugu metropolis. Findings from the table 1 showed that three types of garden product productions were in operation namely, leafy vegetable, ornamental plant and economic tree. However, there was a combination of two productions in each location. No location depended on a single type of production. This nature of combination could be as a result of the demand from the consumers and increase in household purchasing power.

Type of Product and Occurrence in Smallholder Farms

Table 2: Type of Products and Occurrence in Smallholder Farms (%)

Local/Common Names	Type of garden products (Binomial names)	Frequency	Percentage (%)
Ugu	T.occidentalis	63	6.14
Water leaf	S.pinach spp	79	7.69
Green/inine	Amaranthus spp	68	6.62
Nchuanwa (scent leaf)	Occimm basilicum	71	6.92
Onugbu/bitter leaf	Vernoncia amygdalina	66	6.43
Utazi	Gongronema latifolium	26	2.53
Uziza	Piper guineenase	13	1.26
Curri		48	4.68
Pepper/ose	Lapsicum spp	15	1.46
Okra	Esculenthsus	17	1.65
Tomato		12	1.17
Ginger	Zingiber offiunale	14	1.36
Others		34	3.02
Masquerade tree		41	3.99
Step tree		42	4.09
Ixora		52	5.07
Ficus		37	3.61
Rose		29	2.83
Queen		16	1.56
Pride of Babados		44	4.29
Yellow plant		40	3.89
	Moringa olifera	31	3.02
Orange	Citrus spp	24	2.34
	C. nucifera	15	1.46
Palm tree		16	1.56
Ukpaka	P. macrophylla	5	0.48
Ube	Dacryode edulis	37	3.61
Kola nut		32	3.12
Breadfruit		18	1.75
Ogbono	Irvingia gabonensis	17	1.65
Mango		7	0.68

Table 2 summarized different varieties of garden products grown by the smallholder farmers in the study area. The result in the table showed that spinnachs (7.69) were grown by majority of smallholder farmers, followed by occimum spp (6.92), amaranthus spp (6.62), V. amygdalina (6.43), T.occidentalis (6.14) and curri (4.68). This could be due to steady daily demand of these leafy vegetable which consumers use as food nutrient supplement. Thus majority of smallholder farmers engaged in leafy vegetable production as their main garden product production at a percentage of 50.93. However, there was a clear indication in the proportion of respondents where a relatively larger number of smallholder farmers engaged in the production of ornamental plants. Obviously, it seems that there is market for ornamental plant production in Enugu city which requested for such significant smallholder farmers (23.33) involved. Very few (19.68) engaged in economic tree production. Moreover, such variations in production types; leafy vegetable, 50.93 ornamental, plants 23.3 and economic tress 19.68 could be due to demand, profitability, growth rate, space, genetic and environmental factors. Farmers prefer to engage in products with high profit due to quick turnover, demand, fast sprouting and growth. The leafy vegetables are of such trait and could withstand weekly harvest for sale. They sprout and grow faster compared to ornamental and economic plants that experience slow sprouting or none, and most importantly require heavy rainfall for growth.

Research Question 1: To what extent do engaging in urban gardening reduce your poverty level?

The data answering this research question are contained in table 3.

Table 3: Effect of Income Yield from Urban Gardening on Smallholder Farmer's Household Needs

S/N	ITEMS	F	Percentage (%)
1	Increased household income	41	82
2	Increased household purchasing power	38	76
3	Increased food availability	30	60
4	Increased food accessibility	35	70
5	Acquired different food nutrients	25	50
6	Provide children educational needs	34	68
7	Pay hospital and other household bills	26	52

Data in table 3 show that majority of the respondents 41 (82%) agreed that income from urban gardening increase their household income 38 (76%) agree that it increase household purchasing power, 30 (60%) agreed that it increase food availability, 35 (70%) 25 (50%) agreed that it help to acquire different food nutrients, 34 (68%) agreed that it help provide children educational needs and 26 (52%) agreed that it help pay hospital and other household bills.

Research Question 2: To what extent do urban gardening make you to acquire entrepreneurial skills?

The data answering this research question are obtained in table 4.

Table 4: Effect of Urban Gardening on Entrepreneurial Skill Acquisition

S/N	items	F	Percentage (%)
1	believed in self-worth	39	78
2	acquired gardening knowledge	37	74
3	acquired gardening skills	32	64
4	made one self-employed	42	84
5	created business	28	56
6	managed garden affairs	31	62
7	planned and implemented garden activities	30	60

The data in table 4 show that majority of the respondents agreed that 42(84%): 39(78%): 37(74%), urban gardening made one self-employed, believed in self-worth and acquired gardening knowledge respectively. Further, the data reveal that 32(62%) agreed that they have acquired garden skills, 28(56%) agreed that they create business, 31(62%) agreed that they managed garden affairs and 30(60%) agreed that they planned and implemented garden activities.

Discussion

The result of the analysis of the first research question revealed that the effect of urban gardening on household needs is significantly high. All the analyzed items have percentages of 50 and above. It is an indication of positive effect on smallholder farmers' poverty level. Probably, the significant effect in all the items could be due to the significant increase in income generated from the sales of garden products as a result of fast growth species of some of the crops grown, high yield, increasing demand of the products and availability of market. Actually, products like leafy vegetables should not search for market in a densely populated city as Enugu metropolis since leafy vegetables are of daily usage. This means that urban gardening contributes to poverty reduction in Enugu metropolis. Thus, the findings are consistent with Hazell (2005) and Fan & Chan (2005) that income generated from garden product sales have high degree of providing household needs, jobs and alleviating poverty.

Income is crucial in household issues because it determines the purchasing power at household level. The ability of household to meet up the basic necessity of life depends on income. The greater the income, the greater the purchasing power of household.

On its contribution to acquisition of entrepreneurial skills, table 4 indicated two hundred and sixteen(216) smallholder farmers who engaged themselves in gardening. These farmers created job for themselves. Entrepreneurship is all about job creation,

being long-life self-employed, not only making money but self-improvement and others too. Those farmers did not search nor wait for government to provide white-job for them, but device means of making genuine money to improve their standard of living. This means that they have acquired great entrepreneurial skills to make a living by themselves. This finding is in line with World Bank (2001), Alan (2012).

Conclusion

Based on the findings of this study, it can be concluded that urban gardening has great roles to play in poverty reduction and creation of job among urban dwellers in Enugu metropolis. It generates income that increase household purchasing power. Further, there is great increase in the improvement of food security in terms of food availability, accessibility and ability to acquire different classes of food nutrients. However, there was job creation in terms of self-employment, employment of others, generation and diversification of income.

Recommendation

Gardening is one of the long-life entrepreneurship but to make it a sustainable activity, it is recommended that relevant authorities (Enugu State government) should make deliberate effort in improving access to land, especially along the river banks. Legal allocation of land to these smallholder farmers is vital for long life sustainability of entrepreneurship in urban gardening. Settlement along the stream or river banks should be legally avoided. Government should reduce prices of agricultural inputs and improve on extension services.

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