

An Assessment of Urban Women Participation in Vegetable Production in OVIA North East Local Government Area of EDO State, Nigeria

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Abstract: *In assessing women participation in vegetable production, a total of 100 respondents were sampled using questionnaire. Data were analyzed with frequency counts, percentages, means and hypothesis was tested using chi-square. More (44.0%) of the women were between 30- 39 years, majority 91.0% were married, 53.0% have family sizes of 4-6 persons. Source of agricultural information was fellow farmers (mean=2.24). Badroad networking (mean=3.89) constrained women farmers. Analysis of results indicate that age ($\chi^2=245.329$; $p<0.05$), have significant association with their level of participation in vegetable production. Technology on preservation of vegetable be introduced to vegetable farmers by extension personnel is recommended.*

I. Introduction

There is no gain saying that at levels of national governments, especially in the less developed countries (LDC's) like Nigeria, greater attention had been paid to food and nutrition issues in the past two decades. The necessity of this attentions is based on the critical roles that adequate food and nutrition plays in the development process and in supporting world peace and stability (Ojo, 1991).

The creation of "sustainable cities" and the identification of ways to provide food, shelter and basic services to the city residents is a challenge to many authorities around the world (IFPRI, 1998, Haddad et al, 1998 and Maxwell et al, 1998). Around the world, urban agriculture is part of a survival strategy for the urban poor. Its contribution to food security appears to be substantial in many developing world cities. Urban Agriculture refers to agricultural practices within the around cities which compete for resources - land, water, energy, labour that could also satisfy other requirement of urban population. Interest in urban agriculture is relatively new and few case studies in Africa have been conducted. Involvement in urban agriculture has been introduced as a strategy used by the poorer urban population to cope with crises (Jacobi, 1998). Lado (1990) suggested that the little research into urban agriculture may be possibly due to the seasonal nature of this form of land use compared to more visible and permanent forms of urban land use.

Generally, the importance of vegetables in human diet can be hanged on their nutritional values. Vegetables being a major source of plant protein has been found to contain most of the nutrients needed by man for good health. They have a number of valuable attributes. Which make them constitute good food that is essential for a balanced diet. Most of these varieties of vegetables are grown for leaf, stem and on-shoot which is used as herb for medicinal purposes. Vegetables such as water leaf, green leaf and fluted pumpkin contain many valuable supplements such as calcium, iron, carotene, ascorbic acid and protein which are very important in building up the body, a shortage of these nutrients may cause serious illness (Tyndall, 1967). As people realized the importance of these vegetable aside their palatability they tend to improve the production of these vegetable (i.e. when they know about this nutritional and medicinal value).

Despite the importance of vegetable in Nigerian diet and the fact that local supply of some vegetables fall short of the requirement, in most cases vegetable are accorded less attention when compared to other food crops such as root, tuber grains and fruits (Olayide, 1976). Considering the various agricultural development strategies adapted by Nigerian Government, the movement of significant proportion of younger, more productive persons of the rural population to the cities, has not helped the situation of food insufficiency. In Oyo State of Nigeria women are involved in the harvesting, collecting, processing and sale of forest products including banana, plantain, vegetable where by the women also cultivate, process distribute and retail all food items grown by them (Afua, 1991). Women are key player in the production of vegetables, as they are mostly involved in indigenous vegetables such as amaranthus, bitter leaf, fluted pumpkin, soko, ewedu leaf etc; Schippers (2000). Yet it has been observed by Southern African Development Committee (S ADC) Countries that women usually lack the savings needed to put down the equity payment requirement to get a loan. Also married women have no independent access to land or physical infrastructure that could be used as collateral for a loan. Even those married women who

have knowledge, ability and time to engage in large scale business activities face difficulties in obtaining loans without permission from their husbands or fathers (Baudi and deBruijen, 1993). In West Africa, married women in Nigeria also suffer from similar laws that limit their access to productive resources such as land. At best, they have only temporary tenancy rights to use a part their husband's land (FAO, 1997).

The question now is what are the personal characteristics of women vegetable producers in the study area? Also, what are the sources of their agricultural information? What factor influence the involvement of women in vegetable production in the study area? Is their availability of inputs in the production of vegetable? What are the problems women encounter in the production of vegetable?

Objective of the Study

The main purpose of the study was to assess women's participation in vegetable production in Ovia North East Local Government Area of Edo State. The specific objectives of the study are to:

1. examine the socio-economic characteristics of women vegetable farmers in the study area
2. identify the types of vegetable produced by the respondents
3. identify the reasons of involvement of women in vegetable production
4. assess the source of agricultural information to women involved in vegetable production in the study area.
5. assess the problems encountered by women in the production of vegetable in the study area.

Hypothesis

There is no significant association between women farmers' socio-economic characteristics and their involvement in vegetable production.

II. Methodology

The study was conducted in Ovia North East Local Government Area of Edo State. The area consist of 13 agro- ecological communities with headquarters at Okada. The major occupations of the people in the area farming, hunting, trading and fishing. Two (2) Agro-ecological communities (Uhen and Oluku) in the urban area of the local government were randomly selected for the study. Fifty (50) women vegetable farmers were sampled from each of the communities making a total of 100 respondents for the study.

The research instrument which had a reliability of 0.87 using test-retest method and Pearson correlation was validated by judgment of experts from the field of agricultural extension and rural sociology. The instrument solicited question on personal characteristics, source of agricultural information, problems encounter in vegetable production, level of participation. A snowballing sampling technique was used in sampling the respondent due to the fact that vegetable farmers are not located in the same area. Snowballing sampling technique is a specialized sampling which involve person to person to person contact to build up the sample of the group to be studied. The data that was used to accomplish the objective of the study was collected from primary and secondary data sources. The primary data was collected with the aid of copies of structured questionnaire complemented by interview schedule. The data obtained from this study was analyzed using simple descriptive statistics such as frequency counts, percentages, means and standard deviation, was used to test the hypotheses of the study.

Respondents' source of information was measured in a 3 point Likert-scale of always coded 3, sometimes coded 2, and never coded 1. A mean score of 2.0 and above was taken to mean that the source of information was regular. Constraints faced by women in vegetable production was measured in a 5 point Likert scale of strongly agree coded 5, agree coded 4, undecided coded 3, disagree coded 2, strongly disagree coded 1. A mean score of 3.0 above was taken to mean that the constraint was serious.

III. Results and Discussion

Socio-Economic Characteristic of Respondents

Result in Table 1 revealed that most (44.0%) of the respondents were between 30-39 years. It means that the women are young, and in their active age which suggest their active participation in vegetable production. The findings agree with Ekong (2000), who noted that most farmers are below fifty years of age. Most (91.0%), and (53.0%) were married and had family size of 4-6 persons respectively. Majority (91.0%) of the women were educated, if the baseline of literacy is to be primary school, with most (42.0%) haven acquired secondary education. Their major primary occupation was farming (56.0%) the modal farming experience of the respondents was 6-10 years (36.0%). This reveals that the respondents are not new in vegetable farming and the constraints encountered, showed that most (60.0%) of the respondent were using hired labour, this means they are involved in economic production. Result also show that mixed farming is practiced as only certain area of available land was given to vegetable production

Table 1:Distribution of Respondents by Socio-Economic Characteristics

Variables	Frequency	Percentage
Age (years): <20	1	1.0
20-29	12	12.0
30-39	44	44.0
40-49	30	30.0
>50	13	13.0
Total	100	100.0
Marital Status: .Single	7	7.0
Married	91	91.0
Divorce	-	-
Widowed	2	2.0
Total	100	100.0
Family Size: <3	13	13.0
4-6	53	53.0
7-9	29	29.0
> 10	5	5.0
Total	100	100.0
Education Qualification: No formal education	9	9.0
Primary Education	33	33.0
Secondary Education	42	42.0
Tertiary Education	16	16.0
Total	100	100.0
Farming Experience (Years): 1 –5	25	25.0
6 – 10	36	36.0
11-15	16	16.0
16 - 20	10	10.0
>20	13	13.0
Total	100	100.0
Hectares of Land Available to Respondent: <1	12	12.0
1 – 2	17	17.0
2 – 3	25	25.0
3 – 4	26	26.0
4 – 5	11	11.0
>5	9	9.0
Total	100	100.0
Percentage of Land given to Vegetable: 10	9	9.0
11 - 20	16	16.0
21 - 30	46	46.0
31 - 40	11	11.0
>41	18	18.0
Total	100	100.0
System of Farm Practice: Mono Cropping	71	71.0
Mixed Cropping	29	29.0
Total	100	100.0
Types of Labour Used: Farming Labour	10	10.0
Hired Labour	60	60.0
Group labour	3	3.0
Family and Hired Labour	25	25.0
Hired and Group Labour	2	2.0
Family and Group Labour	-	-
Total	100	100.0

Sources: Field Survey Data

Types of Vegetable Produce by Respondents

Table 2 shows that women produces more of pumpkin leaf (43.0%), green leaf (53.0%), bitter leaf (30.0%), This finding reveal that the major vegetable grown by women are pumpkin leaf, green leaf and bitter leaf (mainly leaf vegetables) this could be attributed to the fact that leafy vegetables are in high demand. The result on Table 2 also revealed that women are involved in production of more than one type of vegetable.

Table 2: Distribution of Respondent by Types of Vegetable Produced

Type	Frequency*	Percentage
Pumpkin	43	43.0
Water Leaf	20	20.0
Bitter Leaf	30	30.0
Ewedi Leaf	21	21.0
Scent Leaf	24	24.0
Utazi Leaf	10	10.0
Lagos Spinach	10	10.0
Egg Plant	5	5.0

Source: Field Survey * Multiple Responses

Respondents Source of Agricultural Information

Respondents sources of information, findings from Table 3 indicate that the women get information from their fellow farmers (means = 2.24), friends (mean = 2.18). Radio (mean = 2.13). The result reveals that extension agents (1.55) do not actually disseminate proven agricultural technology information to the women.

Table 3: Distribution of Respondents by Sources of Agricultural Information

Source of Information	Mean	Standard Deviation
Farmers	2.24	0.740
Friends	2.18	0.744
Radio	2.13	0.630
TV	1.96	0.585
News Paper	1.65	0.744
Book	1.57	0.769
Extension Agent	1.55	0.716
News Letter	1.43	0.769
Bulletins	1.37	0.787

Source: Field Survey Data

Respondents Reasons of Involvement in Vegetable Production

Table 4 show that majority (72.0%) of respondent go into vegetable production because of income and others (28.0%) because of the nutritional value. This supports the finding of Khan (2001) that most poverty studies tends to be linked to farming and FAO (2000) that vegetables are important means of improving the nutritive level of families.

Table: 4 Distribution of Respondent by Reasons of Involvement in Vegetable Production

Reason	Frequency	Percentage
Income	72	72.0
Nutritional Value	28	28.0
Disease Prevention/Cure	-	-
Less Labour	-	-
Utilize Land	-	-
Total	100	100.0

Source: Field Survey

Constraints faced by Respondents in Vegetable Production

Table 5 shows that the major constrains faced by women in the production of vegetable were bad road networking (mean = 3.89), followed by high cost of transportation (mean = 3.88), lack of credit faculties (mean = 3.83), Weed infestation (mean - 3.80), poor sales (mean = 3.76), perishability (mean - 3.75), inadequate storage facilities (mean = 3.67), pest attack (mean = 3.49), polluted water (mean = 3.49), lack of space (mean = 3.30), poor harvest (mean = 3.24), inadequate labour (mean = 3.22), poor soil fertility (mean = 3.17), lack of technical advice (mean = 3.14), these were the problems considered serious by the respondent as their means were above 3.0.

Table 5: Constraint Faced in Vegetable Production by Respondents

Constraint	Mean	Standard Deviation
Bad Road Networking	3.89	1.413
High Cost of Transportation	3.88	1.274
Lack of Credit Facilities	3.83	1.215
Weed Infestation	3.80	1.172
Poor Sales or Low Prices	3.76	1.084
	1.0	1.084
Perishability	3.75	1.410
Inadequate Storage Facilities	3.67	1.288
Pests Attack	3.62	1.162
Disease Infestation	3.49	1.150
Mis-Use of Insecticides and Polluted Water	3.49	1.124
Lack of Space or Land	3.30	1.360
Poor Harvest	3.24	1.327
Inadequate Labour	3.22	1.011
Poor Soil Fertility	3.17	1.240
Lack of Technical Advice	3.14	1.400
Market Taxes	2.97	1.132
Non Availability of Planting Materials	2.96	1.363
Lack of Water Supply	2.87	1.383

Source: Field Survey Data; mean = 3.0

Hypothesis

Ho,: The hypothesis is that "there is no significant association between women's socio-economic characteristics and their involvement in vegetable production" was tested using chi-square and the result presented in Table 6 reveal that there is a significant association between Age, land size and percentage of land given to vegetable and reasons of women involvement in vegetable production ($\chi^2 = 245.329, 364.713, 293.619$: $p < 0.05$) respectively.

Table 6: Relationship between Respondents Socio -Economic Characteristic and Involvement Vegetable Production

Vegetable	Chi-square	p-level
Age	245.239	0.025*
Marital Status	114.011	0.196
Family Size	210.088	0.3.7(1
Education Qualification	168.465	0.1.86
Primary Occupation	386.587	0.135
Farming Experience	243.164	0.692
Size of Land	364.713	0.012*
Percentage of Land given to Vegetable	293.619	0.048*
System of Farming Practiced	114.799	0.182
Type of Labour Used	284.042	0.102
* Significant at 5%		

IV. Conclusion

Women in the study area actively participate in vegetable production, they hardly have contact with agricultural extension agents, and rely mainly on themselves and other farmers for knowledge. They produce vegetables for only economic and nutritional values. The major problems they encounter are bad road network, transportation, lack of credit facilities, weed infection, low prices for their products, perishability of products, pest attack and diseases infestations.

V. Recommendations

Based on findings, the following are recommended.

1. The Agricultural Development Programme (ADP) in Edo State, should involve women in vegetable production as part of urban agricultural practices in their list of clientele so that proven agricultural technologies can reach these women farmers.
2. Technologies on weed and disease control, soil fertility, preservation and storage of vegetable should be

introduced to women farmers in the area.

3. The Local Government Authorities should create and maintain good roads to assist the farmers in conveying their inputs to their farms and produce out of farm sites that are located away from the major roads.
4. Women should be educated by extension agent on the medicinal value of vegetable as this will broaden their understanding and scope of vegetable varieties produced.

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