

# CONSTRAINTS TO WOMEN'S PRODUCTION OF FOOD CROPS: IMPLICATIONS FOR SUSTAINABLE FOOD SECURITY IN NIGERIA

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## Abstract

Sustainable food security demands that constraints to increased food production be eliminated. Women who play a dominant role in food crop production will increase their capacity if constraints to the crop production are eliminated. This study thus aimed at identifying existing constraints that limit women's productivity in agriculture. The study was carried out in Umunkwo, Isiala-Mbano Local Government Area, of Imo state. Stratified random sampling was used to select 480 respondents. Data collected using questionnaires were analyzed using descriptive statistics and chi-square test. Results show that gender disparity associated with land tenure system limits the size of land available to women for agricultural production. The small farm size in turn limits the level of technology adopted by women which in turn reduces productivity. It was recommended among others the liberation and effective implementation of the 1990 Land Use Act as amended in 2010 to provide adequate land for female farmers.

## Introduction

Sustainable food production is the first pillar of food security in every region of the developing world. In Nigeria and perhaps most of African countries, women are greater in number. Many of them work as farmers, farm workers/laborers and natural resource managers. Consequently, they contribute substantially to national agricultural output, maintenance of the environment and household food security (IFPRI, 1995:1). In Eastern part of Nigeria also, women constitute a great force to reckon with in the production of food crops such as

cassava, maize, legumes, cocoyam and vegetables.

Women's role in agriculture and the economy as a whole has often been under-estimated. Policies targeted at improving the health and nutritional status of women and children have had minimal success probably due to concentration of efforts on women reproductive roles and neglecting their physical production capacities. The realization of this missing gap underscored the importance of the world conference on women in Nairobi-Kenya in 1985 and the forth world conference on women in Beijing, China in September 1995 both

of which assessed women's contribution to human development (IFPRI, 1995:5).

Loutfi (1983) argued that an overall attack on poverty cannot be successful if women do not constitute the central element. Reducing rural poverty in a given agrarian community requires increasing agricultural output, productivity and income using available local resources and skills, which the faculty of women is an important part of. Mkpado and Arene (2003:14) have argued that current gender studies in agriculture are important because the roles of males and females change as they are influenced by dynamic social system, which differ from one place to another. For instance, laws governing women's rights to land differ widely in various parts of the world. Africa land tenure has not been wrongly accused of total neglect of women's right/title to land can better be understood as an arrangement which gives title to families or possible family heads. Since women are married and they enjoy the same land tenure status with their husbands, gender studies should indicate the extent of liberalization of male dominance in the tenure system.

Over a decade ago, extensive literature on gender buttresses the issue that rural women have less access to credit inputs such as seeds, fertilizers and labor as well as extension services than their male counter parts (Ikeme, 1990:120; Dey, 1985; Ejifu, 1999:50). Current studies are required to show

the present trend. This will give an insight to evaluation of the policies, programmes and projects geared toward improving the lives of rural women. It will also indicate the pressing needs for improvement of lives of rural populace.

This study focuses on presenting recent empirical findings of constraints to women production of food crops in Imo state using the following research questions: (1) what factors are militating against women in food crop production? (2). what is the relationship between access to inputs and women's productivity in food crop production?

### **Theoretical Framework**

Harmonized theories from different disciplines provide sound theories and knowledge which stimulate inter-disciplinary research. The Marxian theories of conflict and class (1967), functional theory of stratification as articulated by Kingsley Davis and Wilbert Moore (1945), and feminist theory of Alice Rossi (1974) are used in explaining this study. The Marxian theory illustrates that man's survival depends on his capacity to produce food, other needed materials and social relationship with other men and on the process to achieve this conflict and class struggle arose. The functional theory stresses that; sustainable development will exist if development approaches do not unduly interfere with harmony, among the

various structures of the society, while feminist theory which is a generalized, wide-ranging system of ideas about social life and human experience developed from woman-centered perspective to show the situations and experiences of women in society. The framework for this study is based on Feminist theory which saw the marginalization of women as 'other' in a male-created culture. In this explanation, the world people inhabit has been developed out of a culture created by men and assuming the male as subject, that is, as the consciousness from which the world is viewed and defined. Also is the Marxian theory of conflict and class. From a social conflict point of view, gender involves not just differences in behavior but disparities in power. Conventional gender patterns historically benefited men while subjecting women to prejudice and discrimination as a way of relegation. Woman as an individual will increase her welfare by acquisition of many assets and free markets but an individual as a composite of a system cannot enjoy life in isolation without the system. Thus, conflict theorists claim, conventional ideas about gender promote not cohesion but tension and struggle, as men seek to protect their privileges while women challenge the status quo.

It suffices to say that any cross-section of a society (system) depicts at least the interaction between individual and the society which sustainability (development) depends on the

system's predisposition to fairness. Therefore, a survey of the problems faced by women in production of food crops in Imo state will illustrate the constraints to women's welfare in the agrarian society. But the improvement on the equilibrium (equity) will depend on the society's (system's) view of the issues involved in total elimination of the constraints based on functions.

### **Methodology**

***Study Design & Area:*** The study used the cross-sectional survey research design which does not only cover a broad area of observation at a single point in time but it also allows the usage of a selected sample to describe or analyze a large population at a given point in time (Horton & Hunt, 1984:28). The study was conducted in Umunkwo of Isiala Mbano Local Government Area (LGA) in Imo State, Nigeria. Umunkwo is divided into four zones namely Nneato, Umuago, Ndi-owerri, and Umuenyi. Each of these zones consists of six villages. The 24 villages of Umunkwo have a total population of 48,640 people (NPC, 2006) and are projected to about 56,220 in 2013.

### ***Study Population and Sample Size.***

The study population is all persons of both sexes (married women and men) in Umunkwo in Isiala Mbano LGA of Imo State. This sub-population constitutes about 52% of the rural population of Imo State of Nigeria. Umunkwo is made up of men,

women and children who are mainly farmers, businessmen and women, artisans, students, and very few civil and public servants. There are a significant number of the indigenes in the community, of which, the traditional beliefs and values of the people permeate and often times dictates events in the community. Therefore the 52% of the total population of about 56,220 people is 29,234. This sub-population was chosen for this study because they are intellectually matured enough to appreciate the issues raised in the study. A sample size of 480 respondents was taken for this study. This sample consisted of 240 females and 240 males. This sample size was enough to support our plan of analysis.

#### ***Sampling Procedure***

Both purposive and stratified random sampling techniques were used. Purposive sampling was used to select Umunkwo because of its population. Stratified random sampling technique was used to select equal number of males and females from the six villages of each of the four zones. It involved the selection of 15 men and

15 women from each of the six villages constituting 4 zones respectively. This gave a total of 480 respondents. The community was divided into villages in which 30 respondents were selected through simple random sampling. Also, the villages were stratified into odd and even numbers using Expanded Programs on Immunization (EPI) house numbering. With simple random sampling, 15 households were selected from the 'even' number houses, of which, 2 respondents (a man and a woman) were selected. However, failure to get the required number of respondents from a particular household required the researcher to go to another household until the required number was got.

#### ***Data Collection And Analysis***

Data were collected using questionnaires and were analyzed using descriptive statistics and chi-square tests.

### **Results and Discussion**

#### ***Socio-demographic variables:***

**Table 1: Illustration Of Socio-Demographic Characteristics Of Respondents**

Sex	No. Of respondents	Percentages
Male	240	50
Female	240	50
Total	480	100
<b>Age range</b>		
30-34	36	7.5
35-39	114	23.75
40-44	144	30
45-above	186	38.75

<b>Educational Qualification</b>		
No formal education	126	26.25
Primary school uncompleted	174	36.25
Primary school completed	66	13.75
Secondary school uncompleted	18	3.75
Secondary school completed	54	11.25
NCE/Diploma	30	6.25
HND/Degree	12	2.50
<b>TOTAL</b>	<b>480</b>	<b>100</b>

**Source:** Computed from field data 2006

For the purpose of this research, items such as sex, age and educational status were considered.

**SEX:** The stratified random sampling ensured equal number of males and females as illustrated in table 1. The table shows that 50% of the respondents were male while 50% were female. This helps to avoid gender biased reports.

Also the table shows that 7.5% of the respondents are between the ages of 30-34 while 23.75% are within the ages of 35-39 years. Also respondents within the ages of 40-44 years and 45 years and above were 30% and 38.75% respectively. However, the reason behind not having

respondents below 30 years was because it was assumed that married respondents of that age may not have been highly involved in agricultural productions like the latter.

Again the table shows that 26% has no formal education while only 9% has a form of tertiary education. 11% of the respondents completed their secondary school education, while 3.75% did not complete their secondary education. The table also shows that 13.75% of the respondents had their primary education complete while 36.25% did not complete their primary education.

### **Constraints Women Face In Agriculture**

**Table 2: Constraints Women Face In Crop Production**

<b>Constraints</b>	<b>No. of Respondents</b>	<b>Percentages</b>
Lack of access to adequate land	246	51.25
Bad network of roads	24	05.00
Poor markets(marketing structure)	36	07.50
Inadequate credit/loan	144	30.00
Limited labor supply	30	6.25
<b>Total</b>	<b>480</b>	<b>100</b>

**Source:** computed from field data 2006

Table 2 shows the major problems women face in agriculture especially food crop production which include lack of access to adequate land (51.25%), bad road network (5%), poor markets (7.50%), credit/loans

(30.00%) and inadequate labor supply (6.25%).

### Major Food Crop Grown By Women In The Area

**Table 3: Major Food Crops Grown By Women**

Crops Category	No. Of respondents	Percentages
Crop A	339	70.62
Crop B	141	29.38
Total	480	100

Source: computed from field data 2006

KEY: A= yam, cassava, maize, cocoyam and vegetable

B=cassava, maize, cocoyam, and vegetable

In table 3 above, crops were categorized into group A and B. The table shows that 70.62% of the respondents agreed that major food crops produced by women in Imo state are yam, cassava, maize, cocoyam and vegetable, while 29.38% agreed only on cassava, maize cocoyam, and

vegetables. However, a cursory look at the table shows that women are involved in all the crops categories mentioned.

Gender

Disparity

**Table 4: Response of Respondents on Issue of Gender Disparity.**

Response	No. Of respondents	Percentages
Yes	399	83.13
Indifference	42	8.75
No	39	8.12
Total	480	100

Source: computed from field data.

Majority (83.13%) of the respondents are of the opinion that

gender disparity still exists, while 8.12% and 8.75% said 'NO' and

indifference respectively. Increased effort should be made to achieve gender equality in Nigeria.

### Is Education Limiting Women Production?

**Table 5: Educational level of Respondents by level of Production.**

Level of education	Profit Commensurate	Profit non-commensurate	Total
High	114 (23.75)	66 (13.75)	180 (37.5)
Middle	90 (18.75)	84 (17.5)	174 (36.25)
Low	75 (15.63)	51 (10.63)	126 (26.25)
Total	279	201	480 (100)

Values in parenthesis are expected percentages.

Here the level of education was recoded into high (secondary and above), middle (primary), and low (primary school uncompleted to no formal education) Chi square technique was used to answer this question.  $X^2$  Calculated = 1.68.  $X^2$  Tabulated = 5.99 at 2 degrees of freedom and 0.05 level of significance. The result shows that level of education has not prevented women from their food production. There is no significant relationship between education and food production. This could be seen as a result of indigenous

knowledge used in agricultural production and marketing. Besides agricultural extension services are free for anyone that cares for it. It is important to note that larger scale of operation will require more education than the experiences of small-scale farmers in rural areas.

**Is Access to many Hectares of Land a Determinant of Technology use by Women? Chi Square Test was used to answer the question.**

**Table 6: Respondents access to land by level of technology**

Hectares of land	Technology adoption by women		
	High	Low	Total
½	48 (32.5)	102 (17.5)	150
1-2	243 (64.35)	54 (34.65)	297
2-4	21 (7.15)	12 (3.85)	33
Total	312	168	480

Values in parenthesis are expected percentages.

Also, chi square( $X^2$ ) test was used at 2 degrees of freedom and, level of significance at 0.05.  $X^2$  Calculated =36.22.  $X^2$  Tabulated=5.99. The result shows that access to larger hectares of land is a determinant of level of technology to be adopted by a woman. Land therefore has continued to be a constraint to adoption of technologies for higher productivity. This shows

that there is a relationship between land and technology adoption.

### Access to Land and Gender Disparity

Does gender disparity still exist with respect to access to large hectares of land?

**Table 7: A cross-tabulation of Respondents' access to land by gender.**

Hectare of land	Access to land caused by gender disparity			Total
	Yes	Indifference	No	
½	120 (41.56)	6 (1.25)	24 (7.19)	150
1-2	264 (82.29)	6 (2.48)	27 (14.23)	297
3-4	15 (9.14)	0 (0.28)	18 (1.58)	33
<b>Total</b>	<b>399</b>	<b>12</b>	<b>69</b>	<b>480</b>

*Values in parenthesis are expected percentages.*

Using Chi Square ( $X^2$ ) test to test this at 0.05 level of significance,  $X^2$  Calculated= 17.52.  $X^2$  Tabulated= 9.48. The result shows that access to large hectares of land is dependent on gender factors. Land tenure system should be made to be more sensitive and responsive to needs of females in the economy. This shows that there is a significant relationship between access to land and gender.

### Discussions and Implications for Sustainable Food Security in Developing Economies

The purpose of this study is to find out the constraints women faced in agricultural production since they contribute substantially to national

agricultural output and household food security. It has been demonstrated that increased agricultural output can be achieved by reducing limitations to feminine gender's access to land or possibly remove the gender disparity. Economic empowerment of women will increase the productivity of women and as well raise the gross national product. This is because women's involvement in agriculture is vital not only in terms of labour input, but also in terms of their decision-making when it comes to farming (Ejifu, 1999). Women make up to 50% of the population and they are in position to give priority to those humanistic problems of development such as food, health and environment. This will increase the level of



technology adoption which will result in higher productivity. Result also show that limited education of farmers is not a major factor limiting higher output because much of agrarian activities are guided by indigenous knowledge, besides the long years of farming experiences provides good apprenticeship training for rural farmers particularly women. However imbalance of access to education between the sexes is as serious a problem as "lopsidedness in the distribution of educational facilities across the country" (Akpan, 1996). It is important to note that activities of agricultural extension programmes help to compensate for lack of the formal education.

### **Recommendations**

- \* Government should further liberalize the land tenure system to provide large hectares of land to needy women. This can be done through full implementation of the Land Use Act of 1990.
- \* Agricultural Extension Program (ADP) should be encouraged to intensify its efforts in educating rural farmers on how to use improved technologies.

- \* Full participation of women in money-yielding venture should be encouraged. For example in agriculture and commerce which is regarded as familiar grounds for women, formation of Women-only- Cooperative Societies should be encouraged. It is through these Cooperative Societies that women can obtain land for agricultural and non agricultural projects.
- \* Similarly, more credit/loans should be made available to women farmers from financial institutions for income generating projects in agriculture. This can help in purchase of needed inputs such as seeds, fertilizers, herbicides, and insecticides.
- \* Women groups should be granted easy access to other resources such as credit facilities and extension services which would improve their income and performance. This will in turn give rise to sustainable food security and development in Nigeria.

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