

**ANALYSIS OF FACTORS AFFECTING WOMEN'S PARTICIPATION IN WOMEN-IN-
AGRICULTURE (WIA) PROGRAMME OF ABIA STATE AGRICULTURAL DEVELOPMENT
PROGRAMME IN UMUAHIA ZONE**

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ABSTRACT

The efforts of women in agricultural development have been acknowledged. This study investigated the factors affecting women's participation in Agricultural Development Programme of Abia State in Umuahia Zone. Both descriptive (frequency and percentage) and multiple regression analysis were used in the analysis of the data generated. The result of the study showed that Socio-economic characteristics of the women farmers had no significant relationship on their extent of participation except age. Three major factors or problem had serious effect on the women farmer extent of participation in the (WIA) Programme. Among which were Age, Education and Membership of Co-operative societies. The study recommended the recruitment of more female extension staff, education for rural women and the setting up of effective monitoring team by government to ensure compliance and supply of incentives. These will enhance the extent of participation of women in the WIA Programme and ultimately boost Agricultural Production in Abia State in particular and Nigeria at large.

Keywords: *Women-in-Agriculture, Participation, Agricultural Development Programme, Umuahia Zone*

INTRODUCTION

Since political independence for most African countries, the developing societies are still poor, under-developed, over populated and malnourished (Akpan, 2005). The efforts of women in agricultural development have been acknowledged.

Studies have affirmed the central role of women in agricultural production. One need no statistical evidence to believe that much of the traditional farming is done by women living in rural area. Akpabio (2005) says that women in Nigeria supply much labour for production, processing and distribution, particularly of food crops. Oko (2005) traced the agricultural activities of women in Eastern Nigeria to the pre-colonial era, he agreed with findings that they constitute the major source of labour derived from their number. Reports revealed that women farmers play vital role in food production, processing and marketing in Nigeria. They provide about 60-80% of agricultural labour force and contribute to household well being through their income generalizing activities. Their contribution to agricultural business and other sphere of community development attracted inadequate recognition, Okarimia et al (1999). Women are to a large extent the backbone of African rural-economy (Adekanya, 1995) and they play specific roles in the production and processing of food. They form half of the worlds population and do two-third of the world's work (Akpabio, 2005). Having seen that women's effort cannot be neglected" the World Bank funded two consultancies in Nigeria to determine the extent of the participation of women in agriculture and recommend strategies for concretizing their findings in the form of project activities in 1986. (Nonyelu, 1995).

The work of the two consultants together with the activities of the home-economic Division of the Federal Department of Agriculture (FDA) gave birth to the first ever National workshop on women-in-Agriculture (WIA) programme in September 1989 at Lagos state Nigeria. Here strategies and plans were mapped out for the implementation of this programme in Nigeria. Nonyelu (1995). He went further to say that WIA activities are to be actually centered on production of crops, livestock, fisheries and agro-forestry products while lesser emphasis (30%) will be placed on post-harvest activities. Before the period, the Home Economics Division of the FDA got the National council of Agriculture (NCA Maidugiri) in 1989 to approve and redirect the establishment of WIA units in all the ADPS The World Bank played a very effective and supporting

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role in making sure that the programme took off and succeeded through the recruitment of female agriculturists in Lagos to provide technical support to the ADPS. In 1991, the women-in-Agriculture programme was established in Federal Ministry of Agriculture.

The women-in-Agriculture programme was initiated because it realized that the technical recommendations for agricultural activities decided upon and performed solely by women were inadequate (Oko, 2005)

The WIA programme was also to identify gender specific technologies and appropriate technologies to reduce the drudgery associated with rural women's duty. The programme has to link women to sources of credit and other agricultural inputs such as improved cuttings, seedlings, pesticides, fertilizer, land and training families in the states.

The aim of WIA programme was essentially to assist the state technically to improve the agricultural productivity of women farmers (Nonyelu, 1995). These to a large extent limit the women's effort in their bid to increase food production for the teeming population. WIA major mandates are to integrate women into agricultural development so as to alleviate the agricultural production problems and constraints facing women farmers through selection and formation of women contact groups, establishment of skill plots in women farmers group and organizing field days on women activities (Nonyelu, 1995).

Objectives of study

The broad objective of the study is to determine the factors that affect women's participation in women-in-Agriculture (WIA) programme of Abia State ADP in Umuahia zone. The specific objectives were to;

- (1) identify the socio-economic characteristics of the women
- (2) Identify the agricultural development programme available to women in the area.
- (3) determine the factors that militate against women participation in Agricultural development programme.

Hypotheses

Ho: there is no significant relationship between women participation in agricultural development programme and women level of awareness of the programme.

ii. there is no significant relationship between women's participation in Agricultural development programme and women's level of education.

iii. there is no significant relationship between women participation in agricultural development programmes and women's level of contact with extension agents.

Ha: There is a relationship between women's participation in agricultural development and women's level of contact with extension agents.

METHODOLOGY

The study was carried out under Umuahia Agricultural zone of Abia State ADP, Nigeria. Abia State lies between longitudes 7° and 8 E and longitudes 4° 45' and 6° 17'N in the eastern part of Nigeria (Okarimja et al, 1999),

The major arable crops grown in this state are yams, cassava, swam p rice, maize, cocoyams, plantain, -banana and vegetables (Telfairia, Okra, pepper etc) and tree crops which include oil palm, coconut, citrus, rubber, mango and Guava. Other faming activities include sheep and Goat rearing, poultry keeping and off farming activities such as processing and utilization among others.

Abia State Agricultural Development Programme (ADP) is a state wide programme which has women-in-Agriculture (WIA) programme as a sub programme in the three zones that make up the Abia State ADP.

These zones are Umuahia, Aba and Ohafia, Umuahia is the headquarter of Abia State ADP.

Umuahia Agricultural zone of the Aba ADP has seven(7) blocks under it. These seven Blocks were chosen for the study with a focus on the department in-charge of women-in-Agriculture. Therefore the sampling were based on the basis of Blocks. The seven Blocks are Umuahia urban block Ohuhu South Block, Ohuhu North Block, Ibeku Block, Ikwuano South Block, Ikwuano North Block and Okoro-Ubakala Block. The blocks generally have about twenty(20) registered women groups that are functional but ten (10) women farmers were selected randomly from the ten groups, and this form the frame from which a sample of one hundred and twenty (120) women farmers were randomly selected for the study. One set up structured questionnaire were used for collecting information from women farmers(WIA) information were obtained with respect to determining the personal and

socio-economic characteristics of the respondent, the extent of participation of women in WIA programme of Abia ADP in the zones, identifying the major factors that hinder the women participation in ways of improving their participation in the programme. Data were also collected from already existing information concerning women in agriculture. Such information were gotten from journals, periodicals, Textbooks, past research works and ADP resources unit. Objective (i) and (ii) were analyzed using descriptive statistics such as tables, frequencies, percentages and averages (mean) while multiple regression analysis was used to analyze objective (iii)

Model specification

Four functional forms were to analyse factors militating against women participation in agricultural development programme they include linear, exponential semi-log and double log.

The function are implicitly stated as follows:

$$Y = F(X_1, X_2, X_3, X_4, X_5, X_6, X_7, e_i)$$

Where X_1 = Household size

X_2 = membership of cooperative society

X_3 = Educational level

X_4 = Farming experience

X_5 = Age

X_6 = Level of awareness

X_7 = Extension contact

E = Error from.

RESULTS AND DISCUSSION

Socio-economic characteristics of women:

The result shows the socio-economic characteristics of women in table I. It revealed that majority of the women (38.33%) were within the age range of 41 and 50 years. This is an indication that the women in Agricultural development programme in the study area were mostly middle aged farmers. This also imply that the respondents can benefit from interventions meant to promote sustainable agricultural development (Ekumankama, 2000). However, the low percentage (10.84%) of the younger women farmers obtained in the study is in agreement with Ebii (2004), who opened that there is dwindling interest and participation of teenagers and adolescents in agricultural programmes. 95.83% of the women farmers in the area were married while 1.67% were single. This implies that the married class are more involved in Agricultural. Development programme because of the need to supplement the family's means of livelihood (Adegboye et al, 2008)

The table showed that 27.5% of the respondents had household size of between 1 and 4 persons, 40.00% of them had between 5 and 9 persons. However, 10.00% of the women had family size of 15 members and above. This has implication in the provision of labour for the farm.

The table revealed that 17.5% of the women involved in agricultural programmes, had no formal education while 30.83 of them were literate at secondary level. In summary, 82.5% of the respondents had formal education. According to (Onwujiarri and et al 2008), being educated increases the rate of awareness and adoption of superior management practices. With education, the age-long conservation attitudes of farmers are easily broken (Ebi, 2000) Entries from the table revealed that 36.7% of the respondents earned N1000 and N20,000 while 10.8% of the earned income of N80,000 and above. This is in conformation with van den and Hawkins (1996 who pointed out that women farmers are characterized by low level of income and value of farm assets. For farm size, the table showed that 88.33% of the respondent had farmlands of less than 3 hectare. This is a clear indication that the respondent are mostly subsistence and resource poor farmers. This result merely confirmed the observation of Onumadu (2009) that women farmers generally have small holdings. In farm experience 89 percent of the women famers had between 10 to 20 years of farming experience which help them in making rational choice and decision to impact positively on the effective management and organization of their farms and families. 5 women farmers representing 4.2 percent had less than 5 years farming experience because most of them are young married able-bodied women. Others are retired civil servants that engage in farming few year ago and had 10 percent farming experience. The women group farmers about 5.8% of them had above twenty years farming experience and are aged. Table below shows that majority of the women group (75.0%) were full-time farmers that had contact with their block extension agents and also belonged to different cooperative groups. About 12.5 percent of the women are engaged in petty trading. However, 8.3 and 4.2 percent of women engaged in processing/palm kernel cracking/shelling industry respectively.

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These groups diversify their sources of income and food more especially after daily work and on weekends. The most important source of agricultural information to the women farmers is through Agricultural agents (75.0%) who usually are resident in the area and also keep the women abreast of new agricultural technologies. The second important source of agricultural information (16.7%) is through the farmer multi-purpose co-operative societies. The result indicated that 3.3 percent of the respondents claimed they become aware of agricultural information through radio/television, though radio is always found 'in every household even in remote rural areas. About 4.2 percent of the women farmers become aware of the new technology through friends/neighbours/relations. About 0.8 percent of the women indicated they read about new technologies through bulletin and hand bills. This finding is in accordance with numerous studies which have shown that in co-operative farms. Extension Agents have remain the chief source of agricultural information to farmers (Murphy 1993)

Majority of the respondents have not had any contact with extension agent in the last twelve months, from the foregoing analysis, it can be concluded that the respondents were not receiving as much extension supports as necessary. This does not augur well for innovation adoption and transfer. The low percentage (24.2%) of farmers visited by the extension agents appear to indicate that the extension are not playing their roles in promoting agriculture among the women farmers

Table I Socio-Economic characteristics of women

	Variable	Frequency	Percentage
A	Age (years)		
	20-30	13	10.84
	31-40	34	20.33
	41-50	46	38.33
	51-60	18	15.00
	60 and above	9	7.50
	Total	120	100.00
B	Marital status		
	Single	2	1.67
	Married	115	95.83
	Widow	3	2.5
	Total	120	100.00
C	House hold size		
	1-4	33	27.5
	5-9	48	40.00
	10-14	27	22.5
	15 and above	12	10.00
	Total	120	100.00
D	Educational level attained		
	No formal education	21	17.5
	Primary education	31	25.83
	Secondary education	37	30.83
	Tertiary education	31	25.83
	Total	120	100.00
E	Income level (N)		
	1000-20,000	44	36.7
	21,000-40,000	23	19.2
	41,000-60,000	18	15.3
	61,000-80,000	22	18.3
	81 and above	13	10.8
	Total	120	100.00
F	Farm size (ha)		
	3	106	88.3
	3-5	9	7.50
	6-9	5	4.17

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	Total	120	100.00
G	Farming experience (years)		
	5	5	4.2
	5-9	12	10.00
	10-20	96	89.00
	Above 20	7	5.5
	Total	120	100.00
H	Primary occupation		
	Farming	90	75.0
	Petty trading	15	12.5
	Food processing	10	8.3
	Civil servant	5	4.2
	Total	120	100.00
I	Source of information		
	Friends/neighbours/relations	5	4.2
	Agric Extension Agents	90	75.0
	Co-operative societies	20	16.7
	Radio/television	4	3.3
	News/Bulletin/Handbills	1	0.8
	Total	120	100.00
J	No of extension contact	Frequency	Percentage
	No visited	91	75.8
	1-3	15	12.5
	1-4	8	6.67
	6-7	6	5
	Total	120	100.00

Source: Field survey 2011

Agricultural development programme available to women in the area:

The distribution of respondents according to various agricultural development programme available to them is shown in table 2 the table revealed that majority (76.67%) identified women in agriculture (WIA) as the most predominant Agricultural development programme available in the area. The predominance of WIA programme might be attributed to the impact and achievement made over the years .in the lives of the women farmers.

However, the low percentage of other programme identified could be attributed to lack of awareness and impact of such agricultural development programme in the study area.

Table-2: Distribution of Respondents according to Agricultural development Programme available in the area.

Variable	Frequency	Percentage
Women in Agriculture	92	76.67
Better Life	15	12.50
Poverty alleviation programme	11	9.16
Farming world	2	1.67
Total	120	100

Source: Field survey 2011

Level of Participation in Agricultural Development Programme:

Table 3 indicated that 60 percent of the women farmers were involved in crucial farm decision in their respective agricultural development programme as they supply most of the labour force needed and maintain the running of the farm. Twenty-five (25.0) percent of the respondents claimed that they had attended meetings and workshop at the local government council. Male farmers indicated that 13.3 percent of the women farmers had attended agricultural extension conferences. Their presences were not felt. Only 1.7 percent of the respondents indicated they have participated in Agricultural group projects basically on their capacities; as stated by Adekanya (1995) that women enjoy participatory approach to production and processing for sustainable development.

Table:3 Distribution of respondents according to level of participation in agricultural development programme.

Variable	Frequency	Percentage
Farm decisions	72	60.00
Agricultural Extension	30	25.0
meeting/workshop	W	13.3
Agricultural conference	1	1.7
Agricultural' group project		
Total	120	100

Source: Field Survey 2011.

Factors Militating Against Women Participation in Agricultural Development Programme-The multiple regression analysis on the factors militating against women participation in agricultural development programme in Umuahia zone is represented in table 4. For all the four functional forms tried, exponential form was chosen as the lead equation based on the high value of adjusted R² (0.925), more significant co-efficient and expected signs. The result revealed that the co-efficient of educational level was positive and also had a significant effect on the extent of participation in Agricultural development programme at 1% level of probability while Age and membership of cooperative society were positive and significant at 5% probability level. The positive effect of age on level of women participation in ADP is contrary to apori expectation. This implies that level of participation increases with age. This may be as a result of the total age proportion of the respondent (women who participated in the agricultural development programme). This findings is in contrast with Agu'(1994) that the younger the women farmers, the more involve they are in Agricultural development programme Also the positive effect of education level on the level of participation of ADP is expected. This implies that the extent of women farmers participation in Agricultural development programmes increases with educational level. In other words, the high level of education among the respondent would likely make them responsive to many agricultural extension programmes and policy. Furthermore, membership of co-operative/farmers association possessed a positive value. This implies that the higher the number of social/farmers organizations belonged to by the women farmers, the higher their level of participation in women in agricultural programme. This could be attributed to the fact that constant interaction and contact with fellow members help farmers to become aware of some/innovation and Agricultural development, programme available to them, Hence encouraging participation. Muphy (1993) stated that farmers communicate most frequently and participate effectively with those who are most similar to them. However, household size and farming experience had a positive influence on the level of women participation in ADP but were not significant, likewise' extension contact and level of awareness which were negative.

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Table 4: factors militating against women participation in agricultural development programme.

Variables	Linear	+ Exponential	Double Log	Semi-Log
Constant	-242.478 (-1.445)	2.791 (5.362)	343.354 (1.58)	2.791 (5.362)
Household size(X1)	9.30965 (0.275)	1.2666-6 (1.207)	0.000 (-0.387)	1.2665-6 (1-207)
Cooperative Society (X2)	211.609 (4.122)	0.492*** (3.086)	257.529 (3895)***	0.492 (1.086)
Education level (X3)	-0.022 (-0.865)	0.000*** ' (6.315)	-0.089** (-2.784)	0.000*** • (-6.315)
Farming Experience (X4)	-0.061 (-1.136)	0.000 (1.288)	-0.143 (-1.060)	0.000 (1.288)
Age (X5)	142.333 (2.350)	0.432** (2.699)	132.354 (1 697)*	0.432*** (2.299)
Level of Awareness (X6)	57.692 (0.602)	1.150* (1.870)	212.242 (1.723)*	1.150 (0870)
Extension contact (X7)	-1.108 (-0.353)	-0.011 (-1.092)	-6.905* (-1 706)	-0.011 (-1.092) •
R ²	0.858	0.925	0.604	0.866
adjusted R ²	0.858	0.915	0.558	0.849
F-Ratio	93.559***	112.972***	202.245***	62.972***

Source: computation from Field survey Data, 2011

+ Lead equation

*** ** *¹ indicates variable that are statistically significant at 1.0%, 5.0% and 10% levels respectively.

Values in parenthesis are t-ratios.

Improving Women Participation in Agricultural Development Programme.

The distribution of the respondents according to ways of improving their participation in ADP is shown in table 5. As shown in the table, majority of the respondents (29.2%) were on the opinion that all the strategies listed should be employed. However 242% of the respondent suggested that Government should provide incentive to farmers. This implies that before scheduling any programme for women, government should be ready to provide incentives and their busy schedule should be put into consideration:

Table 5 Distribution of Respondents based on their opinion on the best way to achieve women's participation in Agricultural Development Programme.

Participation strategies	Frequency	Percentage
Making programmes	15	12.5
Provision of incentive	29	24.2
Making programme timely	21	17.5
Make participation compulsory	20	16.7
All of the above	35	29.2
Total	120	100

Source: Field Survey, 2011.

CONCLUSION

The WIA programme started in 1989 with many new technologies such as cocoyam production and processing, soyabean processing and utilization amongst others aimed at increasing agricultural production of the women through selection and formation of women contact groups, establishment of skill plots on women group farms and organization of field days on women activities. Analysis of this study showed the factors affecting the extent of women's participation in the WIA programme* The factors that had serious effect on the extent of participation of women in the WIA programme were Education, Age and membership of cooperative society which were statistically significant.

RECOMMENDATIONS

Enhancing the extent of participation of women farmers in WIA programme will help to improve the lots of the women, their families as well as boost food and agricultural production in the slate. Base on the findings of this study, the following recommendation were made:

1. There is need for the ADP to ensure that older women and perhaps more experienced farmers are retained as members of registered women groups. This is because age was found to show positive and significant relationship with women farmers extent of participation in WIA programme."
2. ADP should recruit more female extension workers for easy and better extension services to women farmers.
3. Women should be encouraged to form co-operative societies so that they can obtain loans and other credit facilities
4. Government should set up a monitoring team to ensure that incentives like fertilizers, chemicals, improved species reach the local farmers (rural women who are the target group) on time.
5. Rural women should be more educated on WIA programme.

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