



Research Paper

## Socio-Economic Influence Of Hiv/Aids On Women Participation In Agriculture In Ekiti State.

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**ABSTRACT:-** The study examines the influence of HIV/AIDs on the performance of women in agriculture. The study focused mainly on Ilejemeje local government of Ekiti State. Primary data from the major nature of the source of information for the study and this is gotten through the use of well structured questionnaires. The questionnaires are distributed to the target respondents which are women of the local government. However, the questionnaire method is also accompanied with a thorough interview method which guided the women in completing some technical aspect of the questionnaires. Both descriptive and statistical analyses are used in the analysis. Percentages and ratio analysis shows that the involvement of the women in agriculture in the area is purely on the peasant level. And their socio economic characteristics indicate they lack some important basic needs of life. Findings from the study reveal that attitude toward sex, decision making autonomy; awareness of risk in sexual behavior, marital status and awareness of the existence of HIV/AIDs are important factors that determine the vulnerability of the women to HIV/AIDs. Again the regression result also shows that there is a strong linkage between sexual behaviour of the women and their performance in agriculture. It is recommended that awareness campaign and sensitization program is necessary for minimizing the vulnerability of women to HIV/AIDs. Also if the contribution of women to agriculture is to be improved effort should be made to improve infrastructural facilities as well as agric incentives in the areas.

**Keywords:-** HIV/AIDs, Women, Agriculture, Socio-economic characteristics

### I. INTRODUCTION

Research has shown that on the average in African societies women put in 70% of all the time spent on food processing, 50% on food storage, 90% on obtaining water supply and 80% obtaining fuel supply (World Bank 2003). African women undertake 60-80% of the workload in agriculture, making up more than 40% of the estimated labour force in the sector and grow about 95% of the food supply in the world. Research in Nigeria also shows that about 90% of the Nigerian famers who actually feed the nation are small scale famers and about 55% of them are women who bear the triple work burden of breeder, feeder and producer (Tanko, 1995)

Local level studies in many countries show that most of all food crops are left for women while men raise cash crop, cattle or migrate for labour wage. Edith and Jean (1980) observed that shortage of male labour in most Igbo communities of Nigeria was due to increased migrations as this led to increased number of women labour in agricultural activities in addition to performing their light operation. The number of non-sex specific farm operations has been on the increase and women's labour presently dominates men's labour in many of these operations. (Edith and Jean, 1980).

Ekejiuba (1981) started that all available historical and anthropological evidence agree that able-bodies females, young, adult and old have been principal actors in pre and post harvest food processes as producers, processors, preservers and traders of food crops. They constitute over half the total population in any given society. Therefore, African women form an indispensable part of human resources for development especially in agricultural activities. It has been argued that without their contribution, the economies of African countries cannot witnessed necessarily growth going by the present low levels which are consistently being queried by African countries. (Economies).

However, women have numerous constraints that hinder their productivity. These include poverty, illiteracy, poor access to health services and inaccessibility ability to productive resources e.g. Land, credit, appropriate technologies and farm inputs. Other sources of constraints which limits the realization of their full potential include unveil ability of markets, agricultural extension, sociocultural, psychological, legal and health problems, (Mijindadi, 1992). Thus Nigeria women have been identified by studies to lack empowerment in meeting the identified above problems (Okeke, 1995).

Furthermore, the lack of empowerment shows in the heaviness of burdens carried by the average Nigerian woman in the area of farming, family nutrition, pretty trading, traditional cloth making. (Weaving, dyeing and sewing), among others (Carten, 1983). It is an record that HIV/AIDS prevalence has affected women and children mostly in Africa.

Also, it has been aigned that women provides about 70% of the labour used in agricultural activities. Therefore, any constraints on limiting women's labour affect agricultural development. Hence, the scope of the study is to examine the linkage between HIV/AIDS pandemics among women in Nigeria and agricultural development.

Approximately 170,000 people died from aids in 2007 alone (UNIADs, 2008). With AIDS claiming so many people's lives, Nigeria's life expectancy has dedined. In 1991 the average life was 53-8years for women and 52-years for men (WHO, 2008). Despite being the largest oil producer in Africa and the 12th largest in the world, Nigeria is ranked 158 out of 177 on the United Nations Development Programme (UNDP), Human Poverty Index (UNDP, 2007/2008). This poor economic position has meant that Nigeria is faced with huge challenges in fighting its HIV/AIDs epidemic.

HIV/AIDS is not just biological event; it has important social economic consequence as ell. HIV/AIDS is a major social and health problem. It also threatens the country's productivity and economy. HIV/AIDS has impacted on the deferent sectors of the Nigerian economy, namely, agriculture, education, wealth creation, commerce and industry and exacter bating poverty.

The HIV/AIDS Emergency Action plan (HEAP) policy has categorized the impact of the HIV/AIDS pandemic into three namely; Orphans, Labour forces and food security. The HEAP policy document noted that the pandemic has impacted on the high man-power intensive sectors of the economy which includes the agricultural, educational and health sectors as well as the rural economy (Federal Government of Nigeria (FGN). The HIV and AIDS crisis has worsened the subordinate status of women and girls. In Nigeria, the epidemic disproportionate impact on women and girls has given rise to a starling new reality; the feminization of the epidemics, rooted in their economic dependency, stigmatization and the denial of their rights.

With respect to gender, women are particularly affected by the epidemic in Nigeria. In 2006 UNAIDS estimated that women accounted for 61-5% of all adult aged 15 and above living with HIV (UNAIDS) (Undated). A 2007 study showed that the younger married girls lacked knowledge on reproductive health, which includes HIV/AIDS. They also tend to lack the power and education needed to insist upon the use of a condom during sex coupled with the high probability that the husband will be significantly polder than the girl and therefore is more likely to have more sexual partners in the past, young women are more vulnerable to HIV infection Council, Inc, 2007).

The HIOV/AIDS pandemic remains one of the greatest health challenges facing the world today. In Africa, HIV is predominant among people for they constitute large percentage of the society.

Although the socio-economic impact of HIV/AIDS have been identified to be rooted in loss of family assets, reduced family income as well as decreased labour force and increased drop-out of children from schools, among others, there is paucity of data to validate these scenario in Nigeria.

### **Research Questions**

- [i] What are the levels of HIV/AIDS pandemic in Ekiti State with Special attention to women?
- [ii] What is the Contribution of women labour to agricultural development in the State?
- [iii] Is there any Significant linkages between HIV Pandemic in agriculture?
- [iv] What are the factors influencing HIV/AIDS rate in Ekiti State.

### **Objectives**

- [i] To examine the level of HIV/AIDS Pandemic with special attention among Women in agriculture in Ekiti State
- [ii] To assess contribution of women's labour to agricultural development in Ekiti State
- [iii] To determine correlation between HIV/AIDS Pandemic and agricultural activities
- [iv] To investigate factors that determines HIV/AIDS rates in Ekiti State.

### **HYPOTHESIS.**

Ho: AIV/AIDS Pandemic has no effect on women's labour in agriculture.

Hi: HIV/AIDS Pandemic has effect on women's labour in agriculture.

Ho: The contribution of women's labour to agricultural development is not assessable in Ekiti State.

Hi: The contribution of women's labour to agricultural development is assessable in Ekiti State

Ho: There is no correlation between HIV/AIDS pandemic and agricultural activities.

Hi: There is correlation between HIV/AIDS pandemic and agricultural activities

Ho: The determined factors of HIV/AIDS rates have no impact in Ekiti State.

Hi: The determined factors of HIV/AIDS rates have impact in Ekiti State.

## **II. LITERATURE REVIEW**

Agriculture is the single most important sector in Nigeria, providing livelihood for at least 55% of the economically active population. In particular, about 84% of economically active women are engaged by the agricultural sector, while the remaining 16% is shared by all other sectors (FAO Statistics, 2000). A significant part of the agricultural population in Nigeria dwells in rural communities, which are among the least privileged and bear the greatest burden of AIDS impact. The impact of HIV/AIDS on food security includes loss of labor (e.g. rural men, women and children), the inability to cultivate traditional crops due to illness, lack of access to land, loss of farming skills, more households headed by children and consequential adoption of less-productive farming strategies.

Since its discovery over two decades ago, HIV/AIDS has become a pandemic on a global scale. The pandemic has assumed an ominous place as the primary infectious cause of mortality in the developing world (Semba & Bloem, 2001). Of the 2.9 million HIV-related deaths in 2003, 2.2 million were from sub-Saharan Africa (UNAIDS, 2004). Alarmingly, the sub-Saharan African region contains only 10 percent of the world's population, but accounts for 60 percent of the worldwide HIV/AIDS cases (25 million HIV/AIDS cases out of a worldwide total of 39 million) (UNAIDS Africa Fact Sheet, 2004). Several countries in sub-Saharan Africa report an HIV/AIDS infection prevalence rate among the adult population to be 30 percent or greater and there are over twelve million children in this region that have suffered the loss of at least one parent due to HIV/AIDS. While the HIV/AIDS pandemic is a global concern, there is ample evidence for heightened alarm and extraordinary efforts to be directed at the African continent, especially in the West Africa where the pandemic is beginning to take hold.

For example, Nigeria is reported to have the third highest prevalence rate of any country in the world with a five percent population prevalence rate (over 3.3 million people living with HIV/AIDS). Also, while Nigeria's national prevalence rate may not seem particularly alarming when compared to some other African countries, regional prevalence rates of pregnant women in the North-central area of the country average 7 percent, with Benue and Cross River reporting rates of 9.3 and 12 percent respectively. This highlights the fact that low national prevalence rates can obscure a more desperate reality. In Ekiti State, the prevalence rate is 7%.

Poverty and food insecurity among in most local government areas in Ekiti State encourages sexual practices that fuel the spread of HIV/AIDS. This chapter examines the impact of HIV/AIDS in Africa from the perspective of the agricultural economy. The review concentrates on both the actual and potential impact of the disease on agricultural production and highlights the role and comparative advantage of the Consultative Group on International Agricultural Research Centres (CGIAR) to mitigate the impacts of HIV/AIDS on agriculture.

Globally, women have title to only 1% of the world's land; yet paradoxically, women produce over half of the world's food and provide significant unpaid agricultural labour for other crops. In developing countries, women are over represented in agriculture, producing up to 80% of all foodstuffs in Africa.

Research has shown that on the average in Nigeria that "about 95% of the Nigerian farmers who actually feed the nation are small scale farmers and about 55% of them are women who bear the triple work burden of breeder, feeder and producer

### **Conceptual Framework**

The great majority of the populations in the country's most affected by HIV/AIDS live in rural areas. In many African countries like Nigeria, farming and other rural occupations provide a livelihood for more than 70 per cent of the population. Hence, it is to be expected that the HIV/AIDS epidemic will cause serious damage to the agriculture sector in those countries, especially in countries that rely heavily on manpower for production. The present chapter explores the issues related to the impact of HIV/AIDS on women in agriculture. HIV/AIDS can affect agriculture in many ways:

- 1) Absenteeism caused by HIV-related ill-nesses and the loss of labour from AIDS-related deaths may lead to the reduction of the area of land under cultivation and to declining yields resulting in reduced food production and food in-security.
- 2) The loss of labour may also lead to de-clines in crop variety and to changes in cropping systems, particularly a change from more labour-intensive systems to less intensive systems. Livestock production may become less intensive and weeding and pruning may be curtailed. A shift away from labour-intensive crops may result in a less varied and less nutritious diet.

- 3) The reduction in labour supply through the loss of workers to HIV/AIDS at crucial periods of planting and harvesting.

Consequently, the important impacts of the HIV/AIDS epidemic on agriculture are food insecurity caused by the reduction of production, and loss of income from household members employed in the sector. The HIV/AIDS epidemic may also affect the traditional coping mechanisms that are often found in rural areas. Traditionally, local residents have joined together to offer assistance to those in need during periods of shock or crisis. Indeed, community-based initiatives have become one of the outstanding features of the epidemic and a key coping mechanism for mitigating the impact of HIV/AIDS (UNAIDS, 2002).

### **III. METHODOLOGY**

This section focuses on the method of research adopted for the purpose of explaining linkage between agriculture and HIV/AIDS among women farmers in Nigeria: Evidence from Women's farmers in Ekiti State. The study defines vulnerability in terms of upstream factors, that is whether and through what pathways poverty puts people at greater risk of being exposed to the virus. Data requirements include agricultural commercialization (cash crop versus food crop production), land tenure, access to credit, and access to extension services. Also, household survival strategies that women employ to counter constraints in agricultural production such as opportunities for wage employment, membership in cooperatives, and women's organizations.

Data also take accounts on women's decision-making autonomy this has a direct linkage with household food security. There is consensus in the HIV/AIDS literature that power imbalances in the household are a major factor driving women's vulnerability to this disease. Women's decision-making autonomy and HIV/AIDS. Regarding household food security, people who are food insecure are less likely to act on their knowledge about HIV to prevent infection. Greater household food insecurity may thus increase women's vulnerability to HIV/AIDS. decision-making autonomy and household food security explains variability in women's vulnerability to HIV/AIDS after controlling for individual-level factors such as age, education and occupation; third, to understand if the effects of agricultural consumption regimes explain the variability in women's vulnerability to HIV/AIDS over and above women's decision-making autonomy and household food security after controlling for individual-level factors. Power imbalances in the household may influence women's vulnerability to risk.

#### **Apriori Expectations**

In terms of specific hypotheses for the study the following relationships are expected

- (i) We expect that women with low levels of household decision making autonomy will be more vulnerable to HIV/AIDS risky behaviour.
- (ii) We expect that women living in districts characterized by larger land holding sizes will be less vulnerable to HIV/AIDS.
- (iii) We expect that women's tenure security will negatively impact women's vulnerability to HIV/AIDS.
- (iv) We expect that access to wage employment will decrease women's vulnerability to HIV/AIDS
- (v) We expect that commercialization (cash crop versus food crop production) will increase women's vulnerability to HIV/AIDS.

#### **Dependent Variables**

Although more direct indicators of HIV risk exist, such as multiple sexual partnerships, in this analysis, I measure women's vulnerability to HIV/AIDS risk using proxy variables. The choice of proxy variables is based on the limitation of using data on self-reported sexual and other behaviours. There is evidence that women tend to underreport and men tend to exaggerate their premarital and extramarital activity. This study thus uses proxy measures as indicators of women's vulnerability to HIV risk.

The first indicator of vulnerability to HIV/AIDS risky behavior includes a measure of *attitudes toward sex*. This measure is an attitudinal variable for which a respondent was asked to indicate if they were justified to refuse sex if she knew her partner had other sexual partners. Evidence from the literature suggests that women have fewer sexual partners than men, and women with little control over the sexual activities of their partners are vulnerable to infection. The inability of a woman to protect herself, even when she is aware of her partner's risky behaviour assesses vulnerability to risk that derives from a woman's economic dependency on men. This variable is used to assess the extent to which economic dependency may prevent or reduce the efficacy of a woman to protect herself from risky sexual behavior, thus increasing her vulnerability to HIV infection. Given that this indicator assesses risk in terms of woman's partner having other women, this outcome is. limited to married women in non-polygamous relationships.

The second indicator is *perception of risk*. Studies have found a positive association between perceived risk and risky sexual behavior for both men and women. Using data from WHO/GPA survey, Cleland (1995) and Ingham and Holmes (1991) found a positive relationship between perceptions of risk and risky sexual behavior. However, Background characteristics reveal that the most common reasons to explain the perception of AIDS risk as low or nil is that they have just one partner or are not having sex. The most common reasons women provide to explain moderate or high perception of AIDS risk is that their partners have other partners, and having sex with more than one partner. The data also showed that condom use was generally low even for women who indicated having no or small risk. *Perception of risk* thus measures an individual's vulnerability to engage in risky sexual behavior, which may be based on a woman's own sexual behavior; or her inability to protect herself even when she is aware of her partner's risky behavior. The question included four categories of self-assessed risk: no risk, small risk, moderate risk and great risk. For this analysis, based on the distribution, respondents who indicate no risk and small risk were combined into one category, and those indicating moderate and great risk were combined into another category. A dummy variable was created with no or small risk as the reference category

### **Independent variables**

Main Independent Variables: *Women's decision autonomy* is measured using measures of decision-making autonomy. Five questions about who makes the decisions in the household were used in the data. The questions asked in response to "Who in your family usually has the final say on the following decision?" were: 1) your own health; 2) large household purchases; 3) daily household purchases; 4) visits to family and friends; 5) What food should be cooked each day. For each of the questions the women were given the following response options: 1) respondent alone; 2) respondent and husband/ partner; 3) respondent and other; 4) husband/partner alone; 5) someone else. Since cooking is generally regarded as one of women's essential responsibilities within the household, this type of decision-making was excluded from the analysis.

*Household Food Security*: Dietary diversity is used here Dietary diversity is an important indicator of household food security because: it has been associated with caloric energy availability- often used as a measure of household food security- (Hoddinott and Yohannes 2002); linked to nutrient adequacy (Hatloy et al. 1998; Onyango et al. 1998; Smith et al. 1987); linked to children nutritional outcomes and anthropometric measures such as height-for-age (HAZ), weight-for-age (WAZ), and weight-for-height (WHZ) (Taren and Chen 1993; Allen et al. 1991; Onyango et al. 1998).

### **Control Variables**

The study includes several socio-demographic factors as controls since they are related to vulnerability to HIV/AIDS risky behavior. *Women's characteristics* include two continuous variables *women's age* in years and *women's education* in single years; and two categorical variables marital status, women's occupation. The *marital status* variable consists of three categories, never married, married or cohabiting, divorced/widowed/separated, and is measured using a set of dummy variables with never married as the reference category. The *women's occupation* variable initially consisted of nine categories: 1) unemployed, 2) professional technical or managerial, 3) clerical, 4) sales, 5) agricultural self-employed, 6) agricultural employee, 7) household and domestic, services, 8) skilled manual, and 9) unskilled manual. For purposes of this analysis, the variable categories 5 and 6 were combined into a new category, "working in agriculture" and categories 3 and 4 were combined into a new category, "semi-professional." Few women were in skilled manual jobs so for modeling skilled manual, unskilled manual, household and domestic services were combined into a new category "manual labour."

### **Estimating Technique**

Data were subjected to descriptive and statistical analyses. Percentages, frequency distribution, mean standard deviation are major descriptive analysis used. Again, bar charts are also used to represents the results of all the statistics in the descriptive analysis. The statistical analysis used ranges from regression analysis to ANOVA and correlation analysis. Basically, the regression analysis is to determine those factors that influence agricultural performance of the women. Income from agriculture (income status) is used as a proxy for agricultural performance and it is the dependent variable in the model. The regression model is specified thus:

### **Model Specification**

Income status=f(land size, land deed ownership ,education level, marital status, age).  
From the regression analysis various tests are carried which include, t test, R square, F test and test of overall significance of the model.

**Sources of Data.**

All the data needed for the study are primary in nature. They extracted through questionnaires from the target respondents which are women in the Obafemi- Owode local government of Ekiti State. Only few data were collected from the Ekiti State Agency for control of AIDs.

**IV. RESULT AND DISCUSSION**

This section of the study presents that empirical result and interpretation of the results are also made. However, basic inferences are also drawn from the findings. The method of analysis employed in this study makes use of primary data. The primary data are analysed using both descriptive statistics, percentage/ratio and regression analysis. The analysis begins with the bio-data and socio economic aspect of the respondents.

**4.1 Bio-Data and socio economic analysis of the respondents.**

Note that our major focus is the women vulnerability of HIV/AIDs and its effect on involvement of women in agriculture. The focus is Ekiti State with special reference to Ilejemeje local government. The two towns examined are Imosan and owode. The analysis of the respondents in these areas are shown on tables 1 and 2

**Table 1: Distribution of Sample size and collection;**

Local Government	Town	Questionnaire Distributed	Questionnaire Returned
<b>Obafemi-owode</b>	Owode	40	30
	Imosan	40	26

**Table 2: Towns percentage distribution Towns**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Owode	30	53.6	53.6	53.6
	Imosan	26	46.4	46.4	100.0
	Total	56	100.0	100.0	

Analysis on Table 1 revealed that 40 questionnaire were distributed across the towns to give a total of 80. Fifty-six questionnaires were returned (to give a 70.0% response rate) and were used for subsequent analysis. The 24 questionnaires that were not used comprises of unreturned questionnaire, missing information in the questionnaire and incomplete data in the questionnaire.

Marital status analysis is shown on table 3

<b>Marital Status</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	7	12.5	12.5	12.5
	Married	49	87.5	87.5	100.0
	Total	56	100.0	100.0	

Out of the 56 women sampled 49 of them are married while only 7 are single. The percentage of married is about 87.5%. This is a very good coverage as we are more interested in the married.

**Education level of the respondents**

<b>Table: 4 Educational level</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary education	14	25.0	25.0	25.0
	Secondary education	28	50.0	50.0	75.0
	Post-secondary education	7	12.5	12.5	87.5
	University	7	12.5	12.5	100.0
	Total	56	100.0	100.0	

The analysis on table 4 shows that majority of the women sampled have average education up to secondary school level. Very few attended post secondary schools or university. This shows the tendency of beign involved in agriculture.

**Age group of the respondents**

		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	21-30	14	25.0	25.0	25.0
	31-40	21	37.5	37.5	62.5
	41-50	14	25.0	25.0	87.5
	51-60	7	12.5	12.5	100.0
	Total	56	100.0	100.0	

The result of table 5 shows that the lageset percentage of the sampled women are in their youthfull ages that is 21-30, 31-40 and 41-50. They account for about 87.5% of the population of women sampled. This is the active age in women where their vulnerability to HIV/AIDS is very high.

**Income level of the respondents**

		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	Low income	28	50.0	50.0	50.0
	Middle income	21	37.5	37.5	87.5
	High income	7	12.5	12.5	100.0
	Total	56	100.0	100.0	

It is very clear from the table above that most of the sampled women belong to the low income group. This is a major characteristic of women involved in agriculture in Nigeria. Very few belong to high income level. Both the middle and low income occupy about 87% of the total population of the sampled women.

**4.2 Analysis of women involvement in Agriculture**

The natures of occupation of the respondents are divided into two namely: major and minor occupations tagged occupation 1 and occupation2 respectively.

		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	Farming	56	100.0	100.0	100.0

**Table 4.21** shows that all the 56 women sampled all engage in agriculture as their primary job. The implication is that women in the sampled area are predominantly farmers.

		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	Not employed	7	12.5	12.5	12.5
	Manual labour	35	62.5	62.5	75.0
	Paid employment	14	25.0	25.0	100.0
	Total	56	100.0	100.0	

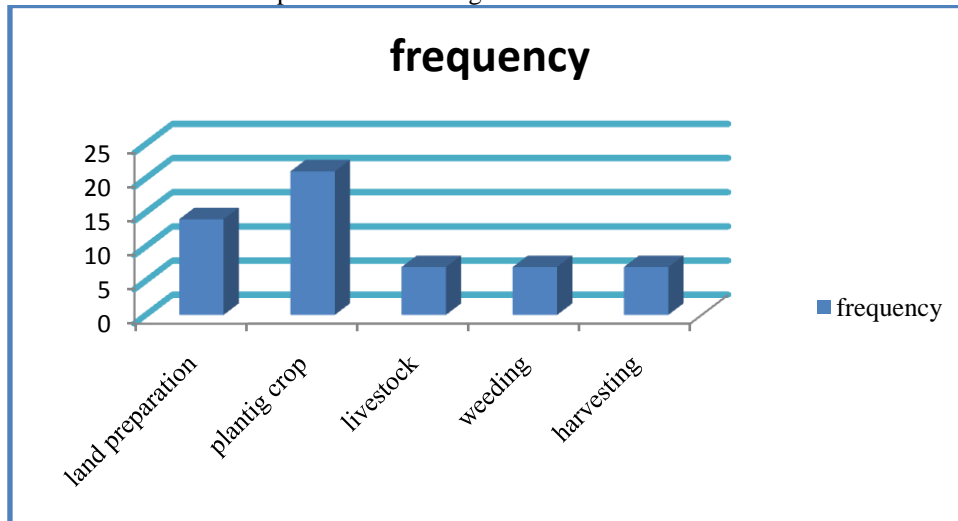
The table above shows that the secondary job engae in by the women are also predominantly manual labour while some are even not employed apart from farming which is their major occupation. The result further shows that about 75% of the women are either not employed or engage in some other manual labour to augment their income from agriculture. Few get paid from other jobs which are mostly menial jobs

**Type of farming practiced**

		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	Land preparation	14	25.0	25.0	25.0
	Planting of crops	21	37.5	37.5	62.5
	Feeding livestock	7	12.5	12.5	75.0

Weeding	7	12.5	12.5	87.5
Harvesting	7	12.5	12.5	100.0
Total	56	100.0	100.0	

The analysis on table 4.23 is further presented in the figure 1



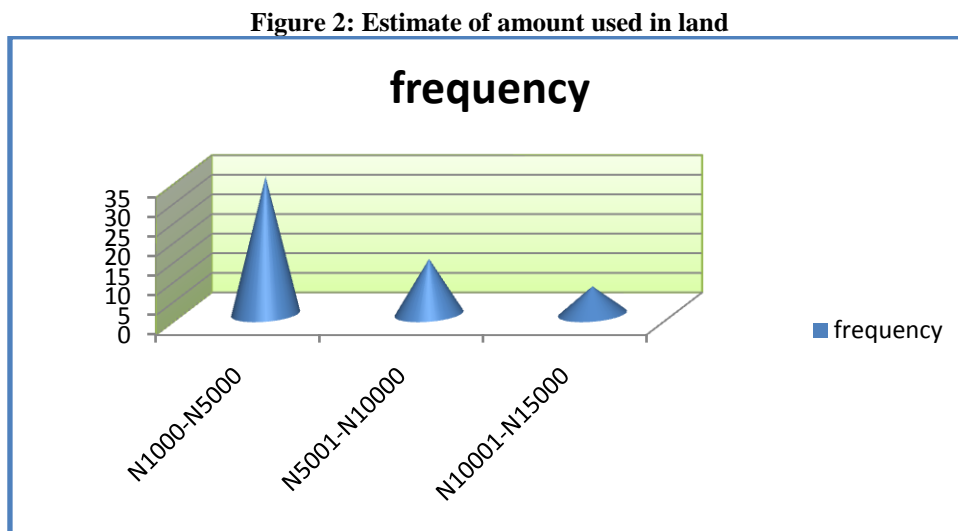
Both table 4.23 and figure one show that the nature of agriculture practice by the women sampled is more of planting crops. Other types such as land preparation, weeding and harvesting can still be described asa appendages of crop farming. Therefore, we can conclude that the involvement of women in agriculture in the sampled area is more of crop farming which is done at the very subsistence level going by the previous analysis.

**Usage of land in agriculture**

The monetary value of the land used by the women in agriculture is also examined. The result is presented in table 4.24

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	N1000-N5000	35	62.5	62.5	62.5
	N5001-N10,000	14	25.0	25.0	87.5
	N10,001-N15,000	7	12.5	12.5	100.0
	Total	56	100.0	100.0	

The result is also presented in figure 2





The analysis on both table 4,24 and figure 2 show further justify our position earlier that the women involvement in agriculture are prely at the subsistence level. This is clear in the land usage shown. The largest percentage of the women spends as low as between N1000 to N5000 on land usage. This further corroborate the low level of income earlier observed

**Possession of land tenure right**

To aid their usage of land for agriculture purpose we try to examine the percentage of the women that have possession of land true land tenure system .

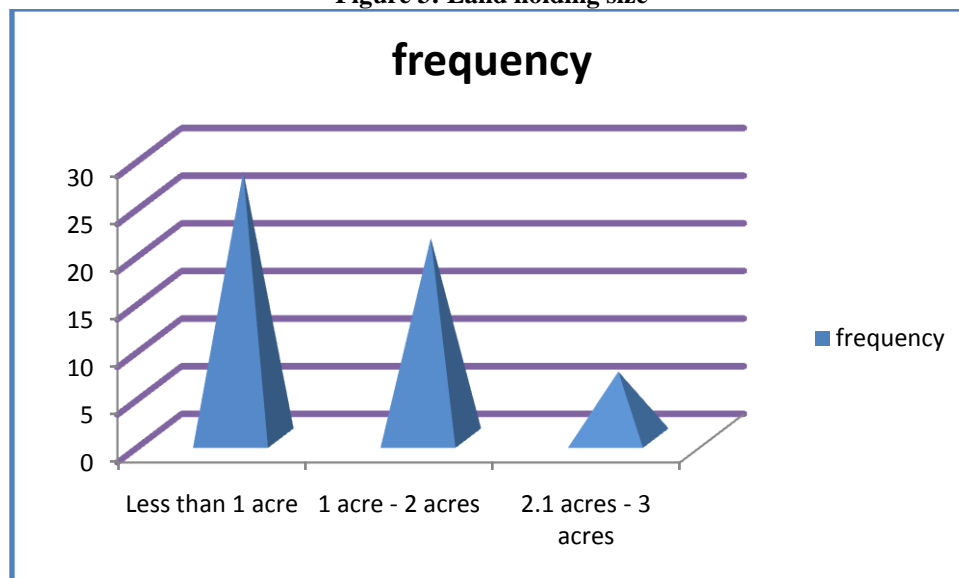
<b>Table 4.25: Do you have land tenure right</b>					
		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	Yes	14	25.0	25.0	25.0
	No	42	75.0	75.0	100.0
	Total	56	100.0	100.0	

The table indicates that the reason the women pay for land use for agricultur purpose is because majority of them do not have land tenure right. Table 4.25 shows that about 75% of the women do not possess land tenure right.

**Size of land use by the women in agriculture**

<b>Table 4.26: Land holding size</b>					
		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	Less than 1 acre	28	50.0	50.0	50.0
	1 acre - 2 acres	21	37.5	37.5	87.5
	2.1 acres - 3 acres	7	12.5	12.5	100.0
	Total	56	100.0	100.0	

**Figure 3: Land holding size**



Both figure 3 and table 4.26 corroborates the position that involvement of women in the agriculture has been at the subsistence level. This is shown through the little amount of land use for agricultural purposes.

**Nature of crops planted**

Since it has been shown that the women predominantly involve in planting of crop the nature of the crops are show in table 4.27.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Food crops	28	50.0	50.0	50.0
	Cash crops	7	12.5	12.5	62.5
	Food and cash crops	21	37.5	37.5	100.0
	Total	56	100.0	100.0	

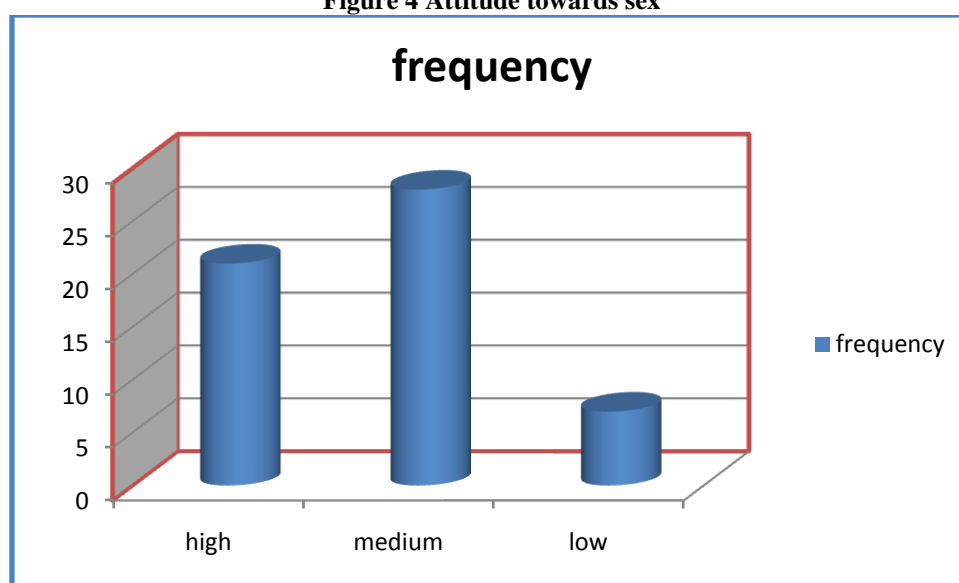
The table shows that about 50% of the women plan food crops only while only very few plant cash crop. This is the reason why they are not involved in commercialized or mechanised type of farming. However, about 37% do mix the two that is both cash and food crops

#### **4.3 Analysis of HIV/AIDs pandemic among the women this measure using vulnerability rate Attitude towards sex**

The women attitude toward sex is a major way of assessing their vulnerability to contacting HIV/AIDs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High	21	37.5	37.5	37.5
	Medium	28	50.0	50.0	87.5
	Low	7	12.5	12.5	100.0
	Total	56	100.0	100.0	

**Figure 4 Attitude towards sex**



Both figure 4 and table 4.31 show that the women attitude to wards sex is relatively high about 87% of them show both medium and high attitude towards sex. This may increase their risk of contacting HIV/AIDs

#### **Decision making autonomy**

The decision making autonomy examines who takes major decisions at home. This decision includes sex and other issues relating to it.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	12.5	12.5	12.5
	No	28	50.0	50.0	62.5
	Partial	21	37.5	37.5	100.0
	Total	56	100.0	100.0	

The analysis from the table is an indication that many of the women do not take the final decisions on issues relating to number of times and the frequency in the times they have sex with their husband at home. This again raises their vulnerability to contacting HIV/AIDS especially if their husband have more than one sex partner.

**Awareness of risk in HIV/AIDS**

The awareness of the sex risk and its related effects were also examined.

<b>Table 4.34: Understanding of sexual risk perception and risky behavior</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low	35	62.5	62.5	62.5
	Moderate	21	37.5	37.5	100.0
	Total	56	100.0	100.0	

The implication of the result on the table 4.34 is that majority of the women are nonchalant of the risk involve in having sex indiscriminately. This is another indicator of the vulnerability of the women to HIV/AIDS

<b>Table 4.35 HIV/AIDS awareness</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	56	100.0	100.0	100.0

Table 4.35 indicates that the knowledge of the existence of HIV/AIDS is very common among the women. However, this knowledge is expected to reduce their vulnerability of contacting HIV/AIDS.

**4.4 Regression analysis to examine the impact of women involvement in agriculture on their income**  
**The result is shown in tables 4.41, 4.42 and 4.43**

<b>Table 4.41 Model Summary<sup>b</sup></b>										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin - Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.810 <sub>a</sub>	.656	.622	.43202	.656	19.066	5	50	.000	1.779

a. Predictors: (Constant), Land holding size, Do you have title deeds, Educational level, Marital Status, Age

b. Dependent Variable: Income Status

<b>Table 4.42 Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.999	.783		-5.107	.000
	Age	.171	.021	2.060	8.217	.000
	Marital Status	-1.819	.403	-.864	-4.516	.000
	Educational level	.118	.075	.157	1.573	.122
	Do you have title deeds	-.522	.181	-.325	-2.886	.006
	Land holding size	1.912	.238	1.912	8.034	.000

a. Dependent Variable: Income Status

<b>Table 4.43 ANOVA</b>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	17.793	5	3.559	19.066	.000 <sup>a</sup>
	Residual	9.332	50	.187		
	Total	27.125	55			

a. Predictors: (Constant), Land holding size, Do you have title deeds, Educational level, Marital Status, Age

b. Dependent Variable: Income Status

The three tables explain the relationship between income from agriculture and some of its determining factors

The result shows that age of the women has a direct relationship with the income from agriculture and the relationship is very significant at 5% level. It means the higher the age the higher the income and vice versa. The marital status of the women shows a negative relationship with the income. This is also significant at 5% level. The education level of the women shows a positive relationship that is the higher the level of education the higher the income from agriculture. Possession of title has an inverse relationship with the income gained from agriculture and it is also significant. Finally the land holding size of the women shows a positive and significant relationship with their level of income from agriculture. This shows that the more the land they have the higher the level of income they have. Again, the correlation coefficient is 0.81. This shows that the factors determining agriculture has a very high correlation with income from agriculture

The R square of the result 0.65. This indicates that all the determinant factor explains about 65% variation in the income of the women from agriculture. This is further justified form the ANOVA table which indicates that the F statistics is statistically significant at 5% level. Hence we can conclude that all this factors have significant impact on income from agriculture

### **Brief Summary of findings**

The findings have shown that the pandemic of HIV/AIDs have the tendency to be very high in Ekiti State. This is shown from the vulnerability rate analyzed previously. The result shows that the women are likely to be very vulnerable to contacting HIV/AIDs.

The study have also shown that the contribution of the women to agriculture in Ekiti State might not be all that significant since they are paticipating majorly at the subsistence level. Important factors determining vulnerability of HIV/AIDS have also shown that these identified factors appears to have very significant impact on the HIV/AIDS

Finally these identified factor have also been shown to have significant impact on agriculture . The regression result confirmed that tese factors jointly have significant impact on the income the women realize from agriculture

## **V. CONCLUSIONS AND RECOMMENDATIONS**

### **Conclusions**

Based on the findings from this research work it is very clear that attitude toward sex, decision making autonomy, awareness of risk in sexual beahiour, marital status and awareness of the existence of HIV/AIDs are important factors that determine the vulnerability of the women to HIV/AIDs. All these aforementioned variables demonstrate strong inidicies that linked them with vulnerability of the women to HIV/AIDs.

Again, we can also conclude from the study that the involvement of women in the study area has been purely at the subsistence or peasant level going by the following incicators namely; land holding size, nature of crop, nature of farming activities predominantly involve in and the size of income realize from farming activities. The women sampled predominantly involve themselves in planting of food crops very little plant cash crop. The land size used for agricultural purposes is also very small and many of them do not have land deed ownership meaning that the small land they use for agricultural purpose attract monetary value.

In addition, it is also conclusive from the study that there is a strong linkage between sexual behavioe of the women and their performance in agriculture. Marital status is a particular indicator of the vulnerability of the women to HIV/AIDs and the analysis from the study have shown that it has a significant impact on income received by the women from agriculture which is a proxy for agricultural performance. Finally, we can also conclude that ownership of land deed, land size and age all have significant impact on income received from agriculture. Education level is shown to have positive impact but the impact is not statistically significant.

### **Recommendations**

Based on the findings from the study it is recommended that:

- (i) **Aggressive awareness of the women about risk in sexual behaviour:** The concerned authorities in the country, state and local government level shoul embark on aggressive awareness campaign that will sensitize women especially in the rural areas about risk that are involve in sexual activities since our study reaveled that what they only know is HIV/AIDs and nothing else.
- (ii) **Provision of credit facilities:** Lack of income to expand their agricultural activities has been one of the major challenges of the women. The local government can form a women cooperative society in various communities manily for women that are practicing agricultutre this will improve their involvement in farming and they will have lesser time for sexual activities that can make them more vulnerable to HIV/AIDs.

- (iii) **Provision of mechanized farming incentive:** the study have shown that the involvement of women in agriculture has been on subsistence level. This might be as a result of non availability of modern and mechanized farming incentives. To improve the productivity of the women in agriculture effort should be made by the government at various levels to make available farming incentives ranging from good seedlings, farm implements and fertilizers.
- (iv) **HIV/AIDs counseling for the spouses of the women:** the sensitization on HIV/AIDs should not be limited to the women alone. The study have shown that the women are relatively sensitive to sex. This is measured in terms of number of times they have sex with their husband. Again the decision making autonomy shows that their husband takes major decision relating to sex. Therefore there is the need to sensitize the men too on the pattern of behavior required to minimize their vulnerability to HIV/AIDs.

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