WOMEN PARTICIPATION IN AGRICULTURE: THE ROLE AND IMPACT OF AGRICULTURAL DEVELOPMENT PROJECT (ADP) IN KOGI STATE

BY

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DECLARATION

I, BILKISU ABODA MUSA (M. Sc/SOC-SCIE/49320/2005-06), hereby declare that: this thesis titled, "Women Participation in Agriculture: The Role and Impact of Agricultural Development Project (ADP) in Kogi State, Nigeria" is a record of my own research work and it has not been submitted in any form to any other institution for award of any degree or diploma. All quotations and sources have been duly acknowledged and referenced.

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CERTIFICATION

This project report titled **"Women Participation in Agriculture: The Role and Impact of Agricultural Development Project (ADP) in Kogi State, Nigeria"** meets the requirements of the regulations governing the award of Master of Science Degree of Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This thesis is dedicated to my wonderful children: Asiya and Abdulmalik, whose generation holds ‘great expectations’.

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ABSTRACT

The study assessed Women Participation in Agriculture: The Role and Impact of Kogi State Agricultural Development Project (KADP) with five objectives: to examine social demographic characteristics of women farmers in Kogi State; to evaluate the extent of Women participation in agricultural production in Kogi State; to identify constraints that women face in their participation in agriculture in Kogi State; to investigate the impact of KADP on women participation in agriculture since its inception; and to proffer other policy options that can enhance the role of KADP in mainstreaming women participation in agriculture in Kogi State. Modernization theory was used as the basis for the analysis of the study. The theory identified some social variables, which contribute to social progress and development of certain societies and explain the importance of assistance to some social sects towards development in modern trajectory. Questionnaire, in-depth interviews and focus group discussions were employed for data collection necessary for the study in which 250 women farmers were purposively sampled. Descriptive statistics was used to analyze the data collected in addition to chi square statistics used to evaluate the significance of the responses. The study found that farming undertakings to be the activities of the youth and the adults. The study also found that KADP has been making positive impact in mainstreaming women into agriculture in the study area through its programmes: formation of women farmers group and Women in Agriculture. However, poor access to farm machinery and market are the main problems being faced by the sampled women in the study area. The study therefore concluded that sampled women were significantly participating in agriculture in the study area and recommended the establishment of contract/out-growing farming system in order to ensure consistent and steady farm output prices and machinery supply.

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ABBREVIATIONS

ADF:	African Development Fund
ADP:	Agricultural Development Project
ADPEC:	Agricultural Development Project Executive Committee
AIDS:	Acquired Immune Deficiency Syndrome
AIP:	Aslong Irrigation Project
AusAID:	Australia Aid
CTA:	Agriculture and Rural Cooperation
EC:	European Commission
FAO:	Food and Agriculture Organization
FRN:	Federal Republic of Nigeria
GDP:	Gross Domestic Product
HIV:	Homo Immune Virus
IEG:	Independent Evaluation Group
IMF:	International Monetary Fund
KADP:	Kogi State Agricultural Development Project
LCDs:	Less Developed Countries
LGAs:	Local Government Areas
MDGs:	Millennium Development Goals
NGOs:	Non Governmental Organizations
ODI:	Overseas Development Institute
ODM:	Overseas development Ministry
PMU:	Project management Unit
SADP:	State Agricultural Development Project
SAP:	Structural Adjustment Programme

UN: United Nations

UNDP: United Nations Development Programme

US$: United States Dollar

USAID: United States Agency for Internal Development

WAD: Women and Development

WCARRD: World Conference on Agrarian Reform and Rural Development

WID: Women in Development

GAD: Gender and Development

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Women play important roles in agriculture, undertaking a wide range of activities relating to food production, processing and marketing; and beyond farming, they are involved in land and water management: most often they are collectors of water, firewood and fodder. They have access to a store of local knowledge on the medicinal use of plants; they have been in the forefront of soil conservation programmes; and it is women who perform most of the household labour devoted to animals (Commonwealth, 2005).

Women participation in agricultural production therefore cut across various subsectors: planting, weeding, harvesting, processing, and marketing as well as tending livestock (Soubh, 2006). This necessitates their integration into planning, policies, and programmes for effective and sustainable development of a nation (FAO, 2003). Hence, the role of women in agricultural production in the developing nations, including Nigeria, can never be overemphasized (Damisa and Yohanna, 2007; and Kishor, Gupta, Yadav, and Singh, 1999).

Although, rural out-migration has constituted one of the greatest challenges hindering agricultural development in developing countries, surveys showed that, in general, women in Africa have a strong desire to participate in their community affairs and contribute to its development (African Development Fund – ADF, 2003) provided that: there is government effective and timely support/subsidization to agricultural sector; employment opportunities in the local area, including part-time jobs; the possibility of gaining work experience and vocational qualifications; local facilities for education and training; business services supportive to women's projects and enterprises; public transport services compatible with working hours; local childcare facilities and social

services for the elderly and the sick; and supportive public and professional organizations.

One of the rationales for improving women participation in agriculture is that when a woman is educated, her children tend to be better fed and healthier. As a woman earns income, she is more likely than the man to spend it on improving the well-being of the family. This scenario can build women self-esteem and lead to a more participatory role in both public and family decision making (FAO, 2011).

The full use of productive potential of human resources (male and female) cannot be realized in developing nations if women do not have access to adequate resources, productivity enhancing inputs and services; and policies such as price incentives cannot be fully successful in stimulating agricultural production if the institutional arrangements prevent women producers from getting the benefits.

As such, the role of agriculture has been re-appraised and re-valued on its contribution to industrialization and its importance for harmonious development, political, and economic stability with emphasis on women participation in agricultural activities. As agricultural resources have become increasingly responsive to market forces and increasingly integrated in the network of industrial interdependencies mainly shaped by technological advancement, vertical integration, marketing and consumer preferences (FAO, 2003b). The International Development Community (IDC) has thus recognized agriculture as engine of growth and poverty reduction in countries where it is the main occupation of the larger proportion of the people. And as agriculture sector is becoming more technologically sophisticated, commercially oriented and globally integrated; the developing countries have to fully utilize their human resources in order to take advantage of the global opportunities for all agricultural producers, including improving women participation in agriculture (FAO, 2011).

Overseas Development Institute – ODI (2002) identified some reasons for believing that agriculture is the engine of poverty reduction: when agriculture prospers, farmers and farm labourers benefit, and so do those with jobs upstream and downstream from farming; the wider economy also benefits, from increased spending, likelihood of greater tax revenue, more investment in infrastructure, and a stronger foreign exchange position. It was also found that the impact of agricultural growth on poverty reduction is one and half times the impact of growth in other sectors (ODI, 2002).

The historical evidences prove that agricultural sector has the potentials to be the industrial and economic springboard from which a country's development can take off as its activities are usually concentrated in the less-developed rural areas where women represent the highest vulnerable groups with a critical need for (rural) transformation, redistribution, poverty alleviation and socio-economic development (Stewart, 2000; Eicher and Witt, 1964; Oluwasanmi, 1966; and Jones and Woolf, 1969).

The Nigerian experience during the first decade of independence could reasonably be described as an agricultural economy because agriculture served as the engine of growth of the overall economy (Ogen, 2003). From the standpoint of occupational distribution and contribution to the GDP, agriculture was the leading sector. During this period Nigeria was the world's second largest producer of cocoa, largest exporter of palm kernel and largest producer and exporter of palm oil. Nigeria was also a leading exporter of other major commodities such as cotton, groundnut, rubber and hides and skins (Alkali, 1997). The agricultural sector contributed over 60% of the GDP in the 1960s and despite the reliance of Nigerian peasant farmers on traditional tools and indigenous farming methods, these farmers produced 70% of Nigeria's exports and 95% of its food needs (Lawal, 1997).

However, ever since the oil boom of 1970s resulting in the neglect of the agriculture sector, Nigeria has been witnessing extreme poverty and the insufficiency of basic food items as the sector now accounts for less than 30% of Nigeria's GDP (Olagbaju and Falola, 1996).

This scenario of agriculture losing its position in the economy led to the introduction of Agricultural development Projects (ADPs) in the late 1970s by the Nigerian government. The ADPs were designed in response to a fall in agricultural productivity, and hence a concern to sustain domestic food supplies, as labour had moved out of agriculture into more remunerative activities. The ADPs are to provide agricultural investment and services, rural roads, village water supplies, and mainstreaming of women into agricultural activities. The government's adoption of the ADP concept put the smallholder farm participation at the centre of the agricultural development strategy (Independent Evaluation Group – IEG, 2009).

As a result of this initiation by the Federal Government of Nigeria, various states constituted their State Agricultural Development Projects (SADPs) and Kogi Agricultural Development Project (KADP) came into being by the Edict No. 12 of Kogi State Government on December 19, 1991 and took off with personnel and assets it inherited from Kwara State and Benue State, the two States from which it was created in August 27, 1991 in order to harness the agricultural potentials of Kogi State and to facilitate rapid rural development, (KADP, 1995).

It is on this background that this thesis is set to evaluate women participation in Agriculture: the role and impact of Kogi State Agricultural Development Project (KADP).

1.2 Statement of the Problem

Women as farmers, workers, and entrepreneurs face more constraints than men in accessing productive resources, markets and services – a "gender gap" – which hinder their effective participation in socio – economic (including agriculture) and political activities thereby reducing their contributions to the attainment of broader societal goals (FAO, 2011).

There are empirical evidences – that increased equality in access to economic assets – has shown a significant raise in the productivity of female producers. This in turn helps improve household welfare through better bargaining power. These evidences concluded that increasing women's control over economic assets have strong and immediate effects on the welfare of the next generation and on the level and pace at which physical and human capital are accumulated. The evidences also demonstrated that although there are forms of structural discrimination against women in relation to access to credit networks; women borrowers have lower risk of default as a result of lower prevalence of corruption and bribes among women groups leading to higher repayment rates (World Bank 2004; Whitehead, 2003; Blackden and Bhanu, 1999; World Bank 2002e, 2001a; Bamberger, *et al*. 2002).

In order to transform agriculture sector, the Nigerian government undertook a study in the year 2000 on the "Nigeria Rural Agricultural Sector Strategy", which resulted in 2001 into a new Rural Development Strategy as a means of effectively operationalizing the agricultural policy with the main principles of policy intervention; policy consistency; improved participation through programmes and supports; intervention sustainability; and enhancing greater equity among all participants so as to reduce poverty; improve food security; and increase provision of rural infrastructural facilities (African Development Fund, 2003).

As a result of this study, a new Agricultural Policy was adopted by the government of Nigeria in October 2001 replacing the one enacted in 1989 aimed at: re-organizing the institutional framework for government intervention in the sector through its organizations (ADPs); creating a conducive macro-economic environment to stimulate greater private sector investment in agriculture; rationalizing the roles of different tiers of government; actualizing and implementing integrated rural development through mainstreaming women in development; increased budgetary allocation to enhance production and productivity; increased fiscal incentives to agriculture and reviewing trade

relations; and promoting increased use of machinery and inputs through favourable tariff policy (African Development Fund, 2003).

Agricultural Projects and agricultural new policies were added to "the Community Based Agriculture and Rural Development Support" in collaboration with international donors such as the World Bank, United Nations, UNDP, IMF, e.t.c so as to effectively and efficiently put rural development on the sustainable course.

KADP was established to actualize national policy objectives as well as to make Kogi State "food sustenance" and raise living standard of the rural populace through increased income from higher agricultural productivity; to ensure sustainable rural development with special reference to women.

Despite the activities of KADP, women farmers in the state still face some challenges such as lack of land, financial assistance inconsistence markets for their produce, bad road network for easy transportation of farm produce, lack of fertilizer and chemicals for their crops. Therefore, there is need to evaluate the role and impact of KADP in promoting women participation in agriculture in the State since its inception; and it is this that induce the write up of this thesis.

1.3 Research Questions

From the above statement of the problem, the following questions are imperative:

1. What is the extent of women participation in agricultural production in Kogi State?

2. What are the constraints being faced by Women in their participation in agriculture in Kogi State?

3. To what extent has Kogi Agricultural Development Project impacted on women participation in agriculture since inception?

4. What other policy options can enhance Kogi Agricultural Development Project to perform its role in mainstreaming women participation in agriculture in Kogi State?

1.4 Objectives of the Study

The main objective of this study is to analyze women participation in agriculture: the role and impact of Kogi Agricultural Development Project (KADP); while specific objectives include:

1. To examine socio-demographic characteristics of women farmers in Kogi State
2. To evaluate the extent of Women participation in agricultural production in Kogi State
3. To identify constraints that women face in their participation in agriculture in Kogi State
4. To investigate the impact of KADP on women participation in agriculture since its inception
5. To proffer other policy options that can enhance the role of KADP in mainstreaming Women participation in agriculture in Kogi State

1.5 Justification of the Study

One of the justifications of this study is that it will provide evidence that women play an important role through their participation in agriculture in various countries and if similar policy intervention is pursued by the Nigerian government and the government of Kogi State in particular, agriculture sector could be revived with little efforts as compared to previous ones by providing the need for considering women in State's developmental policies for meaningful sustainable progress to be achieved in socio – economic and political sectors of Kogi State.

The study will also prove that one of the reasons responsible for the underperformance of agricultural sector in many developing countries including Nigeria is due to women (given their roles as farmers, labourers, and entrepreneurs) exclusion from participating in agriculture through policy interventions with focus that the benefit received by the head of the family (man) will as well spread to female members of the family.

The study will enable women to understand their role in fostering agricultural development through their effective participation, particularly in Kogi State and evaluates structural constraints that may hinder their participation in agriculture sector as well as present clear picture on the role and impact of KADP on gender issues in the State.

In addition, it will contribute to the existing literature on the role of women participation in agriculture and the impact the ADPs played on fostering integrated rural development in Nigeria.

1.6 Scope and Limitation of the Study

The activities of the women farmers in Kogi State were evaluated with respect to the impact of KADP on their role in rural development of the State. Given the objectives of

this research study, three local government areas (LGAs): Lokoja, Okene, and Ankpa LGAs; each from one senatorial zone, were selected for the analysis of the study. Samples were drawn from these LGAs based on the senatorial division of the State: Kogi East, Kogi Central, and Kogi North and from each senatorial zone; one LGA was purposively selected.

Kogi State lies in the north central geo-political zone, located between longitudes 5 18 E to 7 45 E and latitudes 6 30N to 80 42 N. Kogi state is characterized by low and high lands. In low land areas are extensive plains, alluvial and swampy features and these occur along the Niger and Benue valleys. Areas of high elevation are found in most parts of the state. The scope of the thesis covered between 1993 to 2010

One of the limitations of the study is financing which limit the scope into three selected LGAs. Time frame within which the study is to be completed is another limitation of the study.

However, data collected from the field with the instrument is effectively analyzed through descriptive method from which conclusion and recommendations are drawn.

CHAPTER TWO

LIETRATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

This section is sub-divided into conceptual framework, theoretical and empirical literature in order to vividly understand the subject under discourse of the study.

2.2 Review of Related Literature

Garba (2004) observed that the processes through which men and women participate in activities generate inequalities. These socio – political and economic costs are significant and these inequalities need to be addressed for meaningful transformation of human society. But the role played by Women in agriculture and in rural societies is fundamental to agricultural development in sub-Saharan Africa. The Technical Centre for Agriculture and rural cooperation (CTA, 1993) reported that women in Africa make up more than one-third of the work force.

Edward, Noah, and Charles (2008) in their study of urban women's participation in the construction industry: an analysis of experience from Zimbabwe through the use of purposive method of data collection from four urban cities, analyzed with desvriptive statistics, aimed at evaluating the impact of urban women's participation in the construction business on income generation, gender roles and responsibilities, family and societal perceptions in Zimbabwe. Their study found that women's businesses in construction were profitable and constituted an important source of family income but constrained by limited access to finance, lack of suitable equipment, high cost of inputs,

and training in business and marketing skills in addition to women social roles' burden. The conclusion and recommendations of the study are geared towards the for re-orientation of the national credit policy to incorporates specific needs of women in the construction industry and to explore other strategies that reduce gender burden on women.

From Mahabub and Manik (2004), nature and impact of women's participation in economic activities in rural Bangladesh – insights from household surveys found that women working hours in economic activities were low due to their substantial involvement in non-economic household works as only 6% of the women worked for more than six hours a day in economic activities: livestock rearing and homestead gardening and cottage industries, which are significantly higher than that of men while men have allocated more time to non-agricultural activities in which earnings are higher as a result influence women's participation in agricultural activities and recommended that the women empowerment and their economic participation in the labor force are extremely depended on their education and outward mobility in an established liberal society.

A study by Smith-Sreen and Smith-Sreen (1991), through interviews conducted with women dairy farmers in Bihar, Nadu and Gujarat in India found dairying as an important development programme for alleviating rural poverty. From their findings, income is viewed by Women as only one of many factors identified in their assessment of the value of owning dairy cattle. Dung provides much needed fertilizer for farmland and income derived from dairying is regular as opposed to seasonal from other agricultural sources. Also, the nutritional status of the family improved from the constant supply of milk, while the sale of calves provide important economic asset in improving women

socio-economic status in the society – ability to assist others. The elevated women engaged in encouraging other women to apply for loans to acquire animals to develop self reliance and self confidence so that they could become capital sufficient. The study recommended the need for training women in animal health care, nutrition, and bookkeeping in order to improve their dairy management efficiency.

Illo (1988) in his book titled *Women's Roles and Gender Differences in* Development: *Cases for Planners in Asia* which studies the impact of large scale development projects on women citing the case of Aslong Irrigation Project (AIP) that aimed to increase food production, employment, and the standard of living for the people in the region observed that over 90% of the initial participants were male but when the designation and theme changed to "household", women's participation increased substantially. He revealed that during the progress of the project, women were found to be facing double burden of domestic duties with increased agricultural labour which prevented them from participating in the evaluation process due to time constraints.

Agbalajobi (2010) in his study of women's participation and political process in Nigeria: problems and prospects, using qualitative method with the aim of examining the theoretical perspective of the discrimination and inequality suffered by women thereby limiting their participation in socio-economic and political activities. The study observed that the Nigerian women constitute about half of the population of the country and play vital roles as mother, farmers, producer, time manager, community organizer and social and political activists; and postulated that the society has not given recognition to women's roles due to cultural stereotype, abuse of religion, traditional practices and patriarchal societal structures and as a result have become the target of violence of diverse forms. The study found Patriarchy, Virility deficiency – women's conception of

politics, Lack of economic incentives (Financial backing), Discriminatory customs and laws, and Lack of affirmative action quota as factors responsible for women's low participation in issues. As a result, it is concluded that women participation in issues in Nigeria over the years is very low engendering the consciousness of even development. It thus recommended women empowerment programmes and support of international organizations as ways to involve women in activities and to ensure the achievement of sustainable development drive of Nigeria.

Kishor, *et al.* (1999) in their study of the Role of Rural Women in Decision-Making Process in Agriculture in Chikum and Igabi Local Government Areas of Kaduna State through the use of double stage random sampling technique with the application of simple descriptive statistics and the ordered probit methods of analyses discovered that the socio-economic characteristics of women farmers significantly affect their decision making in agriculture. The study also discovered three categories of women farmers as primary farmers (involved in the production aspect), secondary farmers (involved in the processing), and tertiary farmers (involved in rendering services: marketing, conveying, etc). They concluded that women farmers are heavily involved in agriculture in Nigeria and the level of their participation in farm management decision making are quite low attributable to their age, education, land tenancy, and the wealth status. Majority of the women interviewed were however found not to be formally educated and are of the low income group. Their study thus recommended policy interventions to enhance women access to basic farm inputs including finance in order to boost their participation in agriculture and its various decision making processes.

While UN report of 1986 stated that four of ten agricultural workers in the world are women; women are responsible for more than half of the world's food production;

and produce about 60 to 80% of basic foodstuff in Africa; Fresco (1998) postulated that African women farmers account for 70% of agricultural work force, 80% of food production (statistics falling within the range of UN estimate of 60% – 80%), over 90% of basic foodstuff processing, and undertake about 60% - 90% of the marketing.

Ogunbameru and Pandey (1992); Mijindadi (1993); Buckland and Haleegoah (1996); Ironkwe and Ekwe (1998); and Yahaya (2002) reported that in Nigeria women are responsible for about 60% – 80% of agricultural food production as well as significant participation in poultry, sheep and goat rearing including pork; and constitute about 60% of farming population.

According to Fabiyi, *et al*. (2007) in their study of the Role of Women in Agricultural Development and their Constraints: A Case Study of Biliri Local Government Area of Gombe State through the use of simple random sampling technique in selecting six villages from the LGA and 60 women farmers by using Interview scheduled to obtain information from the women on their socio-economic characteristics, farm activities, farm production and their constraints. Descriptive statistics was used to analyze the data collected. The result revealed that the social demographic of women cut across all sphere of human endeavour in which majority (72%) of the respondents were small-scale farmers having 0.1 – 3.0 hectares of farmland for cultivation of food crops. Many of these women acquired land for farming from their husbands and relations (freehold), while others hired land for farming. The respondents sources of income for farming were through cooperative society (33%) and previous farm output (23%) only few (13%) were able to secure Bank loan, while others borrowed money from friends.

It was also found that women were involved in all farm activities from land clearing to harvesting, processing and marketing of produce. They plant different crops,

rear animals and keep poultry. The women farmers' constraints include mainly lack of land for farming, credit facilities, costly and late input delivery. The study concluded that women farmers have contributed immensely, to food production, processing and preservation of foods and recommended that serious attention should be paid to the constraints faced by Women farmers because they are the backbone of agricultural development and food security in Nigeria (Fabiyi, *et al*., 2007).

Saito and Spurling (1993), has reported that Women do not have adequate access to agricultural information and innovations. Kolapo (1991) and Folorunsho (1991) emphasized that lack of separate land for women and inadequate contact with extension agents are serious constraints faced by women farmers. Famoriyo (1979) revealed that inability of women to own land prevent them from exercising or improving their expertise in crop production and animal husbandry because of rigidity of land tenure system in many parts of Nigeria. As a result, majority of them use low yielding and unimproved planting materials, primitive and labour intensive farm implements, and traditional farming practices, which have adversely affected agricultural production.

Thelma, Alamgir, and Manik (2004), changing women's roles in homestead management: mainstreaming women in rural agriculture and development of Bangladesh; used qualitative and descriptive statistics for data collection and analysis observed that the dominant view perceived women as mere housewives which should be replaced by the recognition that their roles in production and their contributions to family income are crucial for improving the livelihoods of the household. The study concluded that women empowered through equal access as men in training and extension programs such as seed management and other improved methods of rice cultivation influenced agricultural production with about 10% more than as men. They recommended commitment to

gender equality, additional technical/expertise in favour of women; and strong monitoring and evaluation mechanism be devised in order to ensure that targeted women benefit from various development efforts.

Chayal, Dhaka, and Suwalka (2010) in their study of the analysis of role performed by women in agriculture in India found that there is greater involvement of women in various agricultural operations. They concluded that policy intervention could enhance women participation in actual farm work to as high as 70%. In addition, they found landholding, age, and family income greatly influence women participation in agriculture and recommended for effective policy intervention in order to boost women socio – economic structure.

Also, Butt, *et al*. (2010) conducted a study on the role of rural women in agricultural development and their constraints: a case study in Depalpur, Okara-Pakistan; found women playing crucial role in food security and stability of rural areas due to keeping crop production, livestock production as well as cottage industry alive. They also found women having incomplete access to farm input/resources, agricultural extension education services, and newest technical knowledge and information sources. They recommended that serious attention be given to eliminating constraints faced by women because they hold the backbone of agricultural development and food security in many part of the world.

From the above reviews, the role and contribution of women participation in agriculture have been analyzed as well as their participation in other activities such like economic activities, politics, and administration but few research have considered the role of government intervention policies. This thesis is set to fill this gap by investigation the role and impact of KADP on women participation in agriculture in Kogi State.

2.3 Conceptual framework

Concepts such as gender equality, empowerment, and participation are distinguished in relation to agricultural activities so as to give succinct insight into the meaning of women participation in agriculture, the main theme of the study.

2.3.1 Gender Equality

Gender equality is generally used to describe a situation: a society at a given time can be considered more or less gender equal. It is common to distinguish between two dimensions of equality: Equality in outcomes and equality in opportunities. Equality in outcomes means that women and men enjoy the same standard of living, degree of autonomy, status and other socially valued goods Roemer (1998). Equality in opportunities means that men and women have equal access to agricultural inputs, education, borrowing, election to legislative assemblies, labour market careers etc. Terms such as a "level playing field" are often used to describe a situation with equal opportunities.

2.3.2 Women Participation

The concept of participation relates to who takes part in a set of society's activities and how they do it. The list of activities considered could be agricultural sector, formal sector employment, general and local elections, legislative work, household work, etc. As a consequence, participation can be seen as a measure of equality – both in opportunities (for example, participation in paid work) and outcomes (for example, participation in the use of public services). It is important to notice, however, that women's participation does not imply equality between men and women. The fact that women participate in paid work does not imply that women receive or control the income which they generate. Hence, it is possible to have situations where women participate but do not achieve equality. On the other hand, it is hard to imagine that equality can exist without a minimum of participation in socio – economic and political processes (Duflo, 2005; Narayan, 2002; and Akerkar, 2001).

2.3.3 Empowerment of women

A key factor in the concept of women empowerment is that gender empowerment relates to the ability of women to manage their lives. While empowerment has been described as both a state and a process in the literature (World Bank Institute, 2007); Duflo (2005) and Kabeer (2005) viewed empowerment to involve an improvement in women's ability to manage their own lives obtained through increased access to key resources and activities. The understanding of women's empowerment gives a direct link between empowerment and equality of opportunities. The process of empowering women will improve their access to agricultural inputs, education, access to formal sector employment, access to entrepreneurship, access to finance, control over fertility etc which entails an expansion of women's opportunities in the direction of equal opportunities in comparison with men.

2.3.4 Global Account of Women Participation in Agriculture and Agricultural Practices

(a) Women in Agriculture

Women work in agriculture as farmers on their own account, as unpaid workers on family farms and as paid or unpaid labourers on other farms and agricultural enterprises (Ahmed and Maitra, 2010). Women are involved in both crop and livestock production at subsistence and commercial levels. They produce food and cash crops and manage mixed agricultural operations often involving crops, livestock and fish farming and are considered as part of the agricultural labour force (FAO, 2011). Also, FAO (2011) found that women comprise an average of 43% of the agricultural labour force of developing countries. The female share of the agricultural labour force ranges from about 20% in Latin America to almost 50% in Eastern and Southeastern Asia and sub-Saharan Africa.

Women in sub-Saharan Africa have relatively high overall labour-force participation rates and the highest average agricultural labour-force participation rates in the world. Cultural norms in the region have long encouraged women to be economically self-reliant and traditionally give women substantial responsibility for agricultural production in their own right. Regional data for sub-Saharan Africa conceal wide differences among countries. The share of women in the agricultural labour force ranges from 36% in Côte d'Ivoire and the Niger to over 60% in Lesotho, Mozambique and Sierra Leone. A number of countries have seen substantial increases in the female share of the agricultural labour force in recent decades due to a number of reasons, including conflict, HIV/AIDS and migration. Also, the female share of the agricultural labour force

in the Near East and North Africa appears to have risen substantially, from 30% in 1980 to almost 45%. Some of the highest and fastest-growing rates of female agricultural labour force participation in the region are found in Jordan, the Libyan Arab Jamahiriya and the Syrian Arab Republic (Alene, *et al*., 2008).

Women in Eastern and Southeastern Asia also make very substantial contributions to the agricultural labour force, almost as high on average as in sub-Saharan Africa. The regional average is dominated by China, where the female share of the agricultural labour force has increased slightly since 1980 to almost 48%. The share of women in the agricultural labour force in most other countries in the region has remained fairly steady at between 40% and 50%, although it is substantially lower and declining in some countries such as Malaysia and the Philippines. The Southern Asian average is dominated by India, where the share of women in the agricultural labour force has remained steady at just over 30% (FAO, 2011).

The countries of Latin America have high overall female labour-force participation rates, but much lower participation in agriculture than those in other developing country regions. This pattern reflects relatively high female education levels, economic growth and diversification, and cultural norms that support female migration to service jobs in urban areas. Just over 20% of the agricultural labour force in Latin America was female in 2010, slightly higher than in 1980. The South American countries of the Plurinational State of Bolivia, Brazil, Colombia, Ecuador and Peru dominate both the average and the rising trend, while many countries in Central America and the Caribbean have seen declining shares of women in the agricultural labour force (FAO, 2011).

(b) Women in Modern Contract Farming

One noteworthy feature of modern agricultural value chains is the growth of contract farming or out-grower schemes for high-value produce through which large scale agro-processing firms seek to ensure a steady supply of quality produce. Such schemes can help small-scale farmers and livestock producers overcome the technical barriers and transaction costs involved in meeting the increasingly stringent demands of urban consumers in domestic and international markets (Maertens and Swinnen, 2009).

Evidence shows, however, that female farmers are largely excluded from modern contract-farming arrangements because they lack secure control over land, family labour and other resources required to guarantee delivery of a reliable flow of produce. Evidence also revealed that women comprise fewer than 10% of the farmers involved in small-holder contract-farming schemes in the Kenyan fresh fruit and vegetable export sector (Dolan, 2001), and only 1 of a sample of 59 farmers contracted in Senegal to produce French beans for the export sector was a woman (Maertens and Swinnen, 2009).

While men control the contracts, however, much of the farm work done on contracted plots is performed by women as family labourers. For example, in 70 percent of the cases of sugar contract-farming in South Africa, the principal farmer on the sugarcane plots is a woman (Porter and Philips – Horward, 1997). Women work longer hours than men in vegetable contract-farming schemes controlled by male farmers in the Indian Punjab (Singh, 2003). In a large contract-farming scheme involving thousands of farmers in China, women – while excluded from signing contracts themselves – perform the bulk of the work related to contract farming (Eaton and Shepherd, 2001). Women may not be well compensated as unpaid family labour in contract-farming schemes unless there is policy intervention (Maertens and Swinnen, 2009).

(c) Women and Pastoral Farming

Within pastoralist and mixed farming systems, livestock play an important role in supporting women and in improving their financial situation and women are heavily engaged in the sector. An estimated two-thirds of poor livestock keepers, totaling approximately 400 million people, are women (Thornton *et al*., 2002). They share responsibility with men and children for the care of animals, and particular species and types of activity are more associated with women than men. For example, women often have a prominent role in managing poultry (FAO, 1998; Guèye, 2000; Tung, 2005) and dairy animals (Okali and Mims, 1998; Tangka, Jabbar and Shapiro, 2000) and in caring for other animals that are housed and fed within the homestead. When tasks are divided, men are more likely to be involved in constructing housing and the herding of grazing animals, and in marketing products if women's mobility is constrained. The influence of women is strong in the use of eggs, milk and poultry meat for home consumption and they often have control over marketing these products and the income derived from them. Perhaps for this reason, poultry and small-scale dairy projects have been popular investments for development projects that aim to improve the lot of rural women (FAO, 2011).

In some countries, small-scale pig production is also dominated by women. Female-headed households are as successful as male-headed households in generating income from their animals, although they tend to own smaller numbers of animals, probably because of labour constraints. Livestock ownership is particularly attractive to women in societies where access to land is restricted to men (Bravo-Baumann, 2000). Pastoralist and small-scale mixed-farming systems continue to be important in meeting the needs of rural consumers, the demands of growing urban populations are increasingly

supplied with meat, milk and eggs from intensive commercial systems. This has implications for the engagement of women in the livestock sector because of the different roles, responsibilities and access to resources that are evident within different scales of production system and at different points on the production and marketing chain (FAO, 2011).

According to FAO (2011), the role of women in meeting these changing demands may diminish, for two reasons. The first is that when livestock enterprises scale up, the control over decisions and income, and sometimes the entire enterprise, often shifts to men, though not a universal phenomenon as is the case with Vietnam but it is common and can be explained by women's limited access to land and credit. The second important factor is that all smallholders face challenges when the livestock sector intensifies and concentrates and many go out of business (Rola *et al*., 2006).

(d) Women in Fishery and Aquaculture

In 2008, nearly 45 million people worldwide were directly engaged, full time or part time, in the fishery primary sector. In addition, an estimated 135 million people are employed in the secondary sector, including postharvest activities. Information from 86 countries indicates that in 2008, 5.4 million women worked as fishers and fish farmers in the primary sector which represents 12% (FAO, 2011).

Women have rarely engaged in commercial offshore and long-distance capture fisheries because of the vigorous work involved but also because of their domestic responsibilities and/or social norms. They are more commonly occupied in subsistence and commercial fishing from small boats and canoes in coastal or inland waters. Women also contribute as entrepreneurs and provide labour before, during and after the catch in

both artisanal and commercial fisheries as in West Africa, the so called "Fish Mamas" play a major role: they usually own capital and are directly and vigorously involved in the coordination of the fisheries chain, from production to the sale of fish (FAO, 2011).

Studies of women in aquaculture, especially in Asia where aquaculture has a long tradition, indicate that the contribution of women in labour is often greater than men's Women are reported to constitute 33% of the rural aquaculture workforce in China, 42% in Indonesia and 80% in Vietnam (Kusabe and Kelker, 2001).

The most significant role played by women in both artisanal and industrial fisheries is at the processing and marketing stages, where they are very active in all regions. In some countries, women have become significant entrepreneurs in fish processing; in fact, most fish processing is performed by women, either in their own household-level industries or as wage labourers in the large scale processing industry (FAO, 2011).

(e) Women in Forestry

Women contribute to both the formal and informal forestry sectors in many significant ways. They play roles in agro-forestry, watershed management, tree improvement, and forest protection and conservation. Forests also often represent an important source of employment for women, especially in rural areas. From nurseries to plantations, and from logging to wood processing, women make up a notable proportion of the labour force in forest industries throughout the world. However, although women contribute substantially to the forestry sector, their roles are not fully recognized and documented, their wages are not equal to those of men and their working conditions tend to be poor (World Bank, FAO and IFAD, 2009).

The Global Forest Resources Assessment 2010 reports that the forestry sector worldwide employed approximately 11 million people in 2005; however, sex disaggregated data on the number of women employed by the sector are not available on a comprehensive basis (FAO, 2010). Evidence from developing countries suggests that women are often employed in menial jobs in sawmills, plantation nurseries and logging camps (World Bank, FAO and IFAD, 2009). Studies conducted by FAO in Africa and Europe indicate that women do not hold senior or policy-making positions in the sector. Rather, they are primarily employed in administrative and support roles, with professional women foresters tending to have specialist roles (research) or first-line junior management positions (FAO, 2006a, 2007). The studies indicate that even though women are still underrepresented in the industry, examples of good practice are emerging, especially in Europe (FAO, 2006a). This shows that concerted and sustained commitment and planning at senior organizational levels can result in quantifiable improvements in the number of professional women foresters employed and the level of seniority they can attain.

2.3.5 The Role of Agriculture in Rural Development

According to Canadian International Development Agency (2003), agriculture can make significant contributions to attaining the MDGs. It is the sector from which most of the rural poor in developing countries derive their income, and both rural and urban people obtain most of their food, which is produced largely by women. By so doing, the link of women with extension services is imperative. As agriculture depends heavily on the natural resource base, it influences environmental sustainability.

Agriculture is also closely linked to human health and education and it can influence rural development through the following, as well as attainment of the MDGs:

I. *Eradicating Poverty and Hunger:* - An estimated 1.2 billion people are absolutely poor, living on less than US$1 per day; nearly twice that number live on less than US$2 per day. Currently, about 800 million people go hungry each day. Approximately 75 percent of the absolute poor in developing countries live in rural areas, where they depend mostly on agriculture for their livelihoods. Thus, reducing poverty in rural areas, and hunger in both rural and urban areas, will depend heavily on the sustainable development of agriculture. Through efforts in the sector, income of the rural poor must increase rapidly, and food production in the developing world must more than double over the next twenty years to keep up with population growth. To achieve these goals, the sector must promote pro-poor economic growth at rates at least as fast as population growth rates. This, in turn, will require raising agricultural productivity, integrating agriculture into local and international markets effectively, and creating productive on- and off-farm employment.

II. *Promoting Gender Equality and Empowerment of Women:* - Women are responsible for half of the world's food production and between 60 percent and 80 percent of the food in most developing countries. Not only are women the mainstay of the agricultural food sector, labour force, and food systems, they are also largely responsible for post-harvest activities. Their specialized knowledge about genetic resources also makes them essential custodians of biodiversity for food and agriculture. However, women's fundamental contribution is continually under-appreciated and under-supported, and is often adversely affected by

prevailing economic policies and other development conditions. These circumstances must be reversed: sustainable rural development through agriculture cannot be achieved without the full participation of women.

III. *Achieving Environmental Sustainability*: - The natural resource base of suitable land, water, forests, and biodiversity largely determines the potential of agriculture. These resource endowments have a major influence on human activity in agriculture, and in turn, are affected by them. Historically, agriculture responded only to the need for food. Much later, it sought to respond to poverty-reduction mandates as well. Now it seeks to simultaneously help meet the triple objectives of poverty reduction, food security, and environmental sustainability. Most of the land suitable for agriculture is already in production. Therefore, meeting current and future food requirements will require rapid increases in productivity; otherwise, an undesirable expansion onto fragile and marginal lands will result. There is widespread concern that deforestation and land degradation are severely diminishing the potential of ecosystems. The main causes of these conditions go well beyond agriculture; however, agriculture does play a role: when policies are inappropriate, unsustainable agricultural practices are used and property rights are insecure.

Biodiversity supports the production of an ecosystem's goods and services essential for life as well as for many cultural values. Improving crops, livestock and feeds; increasing soil fertility; and controlling pests and diseases often depend on these resources; however, increasing population pressure, deforestation, and unsustainable agricultural practices are contributing to degradation of these "life insurance policies."

IV. *Contributing to Human Health and Education:* - Good health and education are two prerequisites for sustainable development and agriculture contributes to both—in positive as well as negative ways; adequate nutrition is indispensable to attaining good health. Though insufficient by itself, an adequate supply of food is a key determinant of adequate nutrition. This factor alone can drastically reduce malnutrition in adults and children, and increase birth weights of newborns. By improving incomes and nutrition, gains in agricultural productivity can help break the cycle of passing malnutrition from one generation to the next. In addition, it is often the savings from agriculture that provide the means to meet expenses relating to educating children.

Agricultural practices, however, can have negative effects on human health and education. For example, overexposing adults and children to dangerous chemicals and harmful forms of child labour in both family and commercial settings are significant problems. In addition to exposure to dangerous chemicals, children may suffer long working hours, lack of access to education, very low or no pay, and injury due to heavy loads and dangerous machinery. If children must work to support themselves or their families, they should be assisted with programs that reduce the physical risks they face and provide leisure time, flexible schooling, and fair pay.

Agriculture and health are also related to efforts to combat HIV/AIDS, malaria and other diseases. Poor people and farming communities have been particularly hard hit by HIV/AIDS: about 60 percent of HIV-positive sub-Saharan Africans are women. Given women's pre-eminent role in food production and preparation, this fact could exacerbate food insecurity in the region.

V. *Aid Successful Application of an Integrated Approach to Rural Development:* - The internal complexities, as well as the external linkages, of agriculture must be simultaneously managed to attain development that is integrated, equitable, and sustainable. In response to this challenge, two closely aligned and congruent approaches, *Sustainable Livelihoods and Ecosystems Health*, are relevant in strategizing rural development programming efforts.

Sustainable Livelihoods focuses on activities that promote sustainable human communities. The approach begins with peoples' assets and capabilities, and seeks to build on them. A livelihood is said to be sustainable if it can adapt to stresses and shocks, maintain and enhance its capabilities and assets, and at best, enhance opportunities for the next generation. This approach recognizes that the root of all human development and economic growth is livelihoods—not jobs per se, but the wide, infinitely diverse range of activities people engage in to Promoting Sustainable Rural Development Through Agriculture make their living—together with assets or entitlements they own or can access.

Hence, it integrates considerations of income generation; the production of sufficient, nutritious food; women's empowerment; and environmental management.

Ecosystems Health is a way of thinking about human development that focuses on the systemic ecological and social contexts in which human activities occur, and that make them sustainable or not. A healthy ecosystem maintains itself without major human intervention, changes and adapts over time, and provides the services that sustain human communities. This approach, therefore, provides a broad framework to help identify both constraints and opportunities for those

activities. It can help to identify agricultural policies and practices, for instance, and the livelihoods associated with them that increase food production without disempowering women and undermining ecological integrity.

A network of Canadian and international researchers is linking these two approaches. In so doing, both social and ecological considerations are brought into the same development framework. This helps overcome many of the limitations that occur when either is considered in isolation.

2.4 Rationale for the Introduction of Agricultural Development Projects (ADPS) in Nigeria

The Agricultural Development Projects (ADPs) were initiated in the mid-1970s as Nigeria's oil production and revenues were rapidly expanding and stimulating rapid urban growth. At the same time, government adopted policies which maintained the value of the Naira at a high level. The potential detrimental impact of these changes on agricultural production became a cause for concern. The ADPs were designed to increase crop production through a coordinated approach to rural development. The main elements were improved technology (and the means to get it to farmers, especially women), increased supplies of farming inputs (especially fertilizer), and extensive infrastructure improvements (especially rural roads and water supplies).

Initially three pilot, enclave projects were undertaken in the Northern part of the country. By the late 1970s the initial results were considered sufficiently encouraging to justify expansion and accordingly, a series of similar projects, some covering whole states were prepared whose implementation began in the early 1980s, and lasted through the decade. The Kogi State ADP was a follow-up of this group in the following decade.

The ADPs consist four basic components; *farm and crop development* (expanded research, extension, and input supply); *infrastructure development* (feeder road construction and maintenance, water supplies, markets and storage facilities); *institutional support, establishing project entities separate from the state agriculture departments*; and *technical assistance*, largely to manage the new institutions.

Hence, below is a breakdown of ADPs introduction in Nigeria.

First Generation: Enclave Agricultural Development Projects: *Funtua* 1974, 1982; *Gusau* 1974, 1982; *Gombe* 1974, 1982; *Lafia* 1977, 1984; *Ayangba* 1977, 1983; *Bida* 1979, 1986; *Ilorin* 1979, 1988; *Oyo North* 1980, 1988; *Ekiti Akoko* 1980, 1985.

Second Generation: Statewide Agricultural Development Projects: *Bauchi State* 1981, 1989; *Kano State* 1981, 1989; *Sokoto State* 1982, 1990; *Kaduna State* 1984; *South Borno* 1986. (Idowu O, 2003).

2.4.1 The Emergence of Kogi State Agricultural Development Project (KADP)

Kogi Agricultural Development Project (KADP) came into being by the Edict No. 12 of Kogi State Government on December 19, 1991. The project took off with personnel and assets it inherited from the ADPs of Kwara and Benue, the two States from which Kogi was created during the state creation exercise of August 27, 1991.

On establishment, the project operated from a temporary site along Danladi Zakari Road, Lokoja but now operates from its permanent site along Okene–Abuja Road in Felele, Lokoja.

Kogi ADP is tripartitely funded by the World Bank, Federal and State governments. The World Bank provides about 68% of the funding while the federal and the State governments provide 14% and 18% of the remaining respectively.

Kogi ADP has the ultimate mission of tapping the abundant agricultural resources of the state to make it the "food basket" of the nation. Operating with this determinant and within the framework of the broad objectives set out for all the ADPs in the country, the programmes of the project are aimed at achieving the following:

1. Raising the standard of living of the rural populace through increased income from higher agricultural productivity;

2. Reducing drudgery to make farming attractive to both youth and Women in order to check rural-urban influx;

3. Making the State self sufficient in food production;

4. Improving the distribution of farm inputs to farmers;

5. Developing rural feeder roads to ensure smooth distribution of inputs and evacuation of farm produce; and

6. Providing portable water for rural communities.

For the sake of operational efficiency, the Kogi ADP is structured into the following:

Agricultural Development Project Executive Committee (ADPEC): - The ADPEC is the highest policy making body for the project and is headed by the Chief Executive of the

State. It meets every three months to review the performance of the project and takes vital policy decisions for the operation of the project.

The Ministry of Agriculture and natural Resources ensures compliance with policy decisions made for the project.

Project management Unit (PMU): - The PMU is responsible for implementation of the policies formulated for the project. It is, therefore, responsible for day to day management of the project. There are eight sub-programmes under PMU which are four operational and four supportive sub-programmes, each of which is headed by a director. The four operational sub-programmes are extension services, technical services, engineering services, and commercial services (rural institutional development); while the four supportive sub-programmes include administration, management and training services, planning, monitoring, and evaluation services, human resources development and finance. It is headed by the Managing Director and other members include all the directors of the eight sub-programmes and the four zonal managers.

Operational Zones: - Kogi ADP is a statewide project and therefore, its activities cover the length and breadth of the state. Hence, the state is divided into the following zones:

Zone A: - with Aiyetoro–Gbede as the zonal headquarters which covers Ijumu, Kabba–Bunu, Yagba east, and Yagba West local government areas.

Zone B: - with Ayangba as the zonal headquarters which covers Dekina, Bassa, and Ankpa local government areas.

Zone C: - with Koton–Karfi as the zonal headquarters which covers Adavi, Ajaokuta, Koton–karfi, kogi, Okene, and Okehi local government areas.

Zone D: - with Aloma as the zonal headquarters which covers Idah, Ofu, and Olamanboro local government areas.

Each of these zones is headed by a zonal manager who supervises the project's activities in his/her zone (KADP, 1995:7 – 13).

2.5 Mainstreaming Women into Development Policies

Since the late 18th century, social scientists have sought to develop a schema to explain the varieties and differences in human experience in terms of development as they move from primitive, backward forms of societies to advanced and developed ones. As such, after the United Nation's decade for Women (1976–1985), development policies and programmes, which were initially assumed to be gender neutral, took a new discourse through which women are considered as useful as men in development struggle of their nations (Reddock, 1997). This new schema focused on welfarist view at Women's lives by making policies and designing programmes aimed at minimizing the impact of poverty on their lives by integrating them into national economies, thus improving their status and assisting the effectiveness of both international and national development efforts, particularly, of the Third World Nations. Hence, the major approaches developed are Women in Development (WID) and Women and Development (WAD) (Meagher and Miller, 2010).

2.5.1 Women in Development (WID) Approaches

In 1975, the International Year of Women, the idea of integrating Women in the development process gained acceptance within development agencies and became to be labeled as *Women in Development or WID approach*.

Basic assumptions underlying WID approach include:

- Women should have both legal right and access to existing means for the improvement of oneself and of society through various development policies and programmes initiated.
- Women access to productive resources enhances improvement in their status relative to men in the struggle for national development, thus eliminate socio-cultural and political disparity between men and women.
- Improvement in women status contributes to effective national development effort, that is, women become active contributors to national development, agents of socio-cultural and political advancement, and actively seek to enhance women's participation in the process (USAID, 1982).

Moser (1993), identifies four distinct post Boserup WID approaches; equity, anti-poverty, efficiency and empowerment. The first three approaches (equity, anti-poverty, and efficiency) reflected changes in the policies of development agencies.

The equity approach dealt with the unequal relations between Women and men both in the family and in the labour market. It sought ways of integrating Women into paid labour. Under the equity approach government and development agencies intervened by creating income-generating activities for Women. The main assumption was that getting Women to participate more in paid work would remove the inequality between Women and Men. The efforts in this direction failed to bring about gender equity or

equality since intervention did not target traditional norms and values that placed Women in inferior position relative to Men.

The anti-poverty approach paralleled the equity approach and it coincided with the belated acceptance in mainstream development thought that economic growth did not eliminate poverty or equity. The anti-poverty approach saw Women's poverty problems as a problem of underdevelopment not of subordination. Further, that if Women's poverty problems were addressed, there would be more gender equality. The failure of the anti-poverty approach to recognize subordination as a problem meant that it could not promote gender analysis of the development process.

The efficiency approach proposed that Women's time and their labour was underutilized. Consequently, it emphasized the need to increase Women's participation in the labour force as a means of ensuring more efficient and effective development. The main assumption here is that increasing Women's paid employment would remove the observed inequality between Women and Men. The efficiency approach is associated with structural adjustment programme (SAP). Several studies show that SAPs had regressive effects on the economic growth and development of most of the countries that implemented them. Further, that their most negative impact were on Women (Elson, 1995; and Garba, Akanji, and Isiuogo-Abanihe, 1997). Although some evidence of feminization of labour force is observed, the evidence is that the feminization has taken place at the lower levels of public service and industry employment (Garba, 1999). Evidence from his study also show that the feminization of employment even at the lower grade levels was made possible by the mass movement of Men away from such positions to more lucrative jobs in the private sector.

The empowerment approach is the most recent of the WID approaches. Unlike the other three approaches, the empowerment approach reflected the contributions of the Third World Women's feminists and grassroots organizations (Moser, 1993). This approach addresses Women's strategic needs to transform laws and structures that oppress them through a bottom-up process of organizing around practical needs (Visvanathan, 1997). This approach also viewed Women's subordination by men, colonization and neocolonial oppression as detrimental to strategic goals of Women. It is hardly surprising that a coalition of development agencies and governments that sustain neocolonial oppression have largely been un-supportive of the empowerment approach.

2.5.2 Women and Development (WAD) Approaches

The idea of mainstreaming Women was promoted by development agencies in the early 1980s. By mainstreaming, it was meant to bring Women to the centre of development programmes and institutions that deal with the economy (Karl, 1995). While there was consensus on the need to bring Women to the centre of development programmes, the major fear of Women activitists which later killed the efforts at mainstreaming Women was that Women's special needs would be lost in the general development programmes. Consequently, WAD advocates promoted mainstreaming through increasing Women's visibility, reporting development data by gender, and setting agenda for planning (Visvanathan, 1997).

Also, its basic assumptions are as follows:

- Women are the link between human and economic development, the primary workers

in both the private and the public spheres of the national and international economies.

- There exist a consensus on the relationship between states (represented by national governments) and market economies that form a liberal/neoliberal society within which women operates.
- The consensus enables efficient resource allocation, restructuring of production and distribution, and liberalization of trade and investment in order to make the ideology of market economies more humane that is inclusive of the needs of women.
- State should play the central role in introducing development policies and strategies that could lead to improved standards of living and conditions of life for women (Reddock, 1997).

The eventual shift in focus from emphasis on Women as target of inquiry to gender as the focus of concern seemed inevitable. According to Visvanathan (1997), the women and development (WAD) approach adopts a holistic approach and treats development as a complex process influenced by political and socio-economic forces. According to Visvanathan (1997), WAD analysis includes both analysis of production and of social reproduction and household level relations between Men and Women. Consequently, the WAD model has enabled analysis of men-Women differences and power relations in agriculture, rural development, households, communities, environment, labour force, e.t.c. In addition, the gender concept exposes the inherent weaknesses of generalizing the characteristics of patriarchal oppression.

2.5.3 Gender and Development (GAD)

Since the mid 1980s there has been a growing consensus that sustainable development requires an understanding of both women's and men's roles and responsibilities within the community and their relations to each other. This has come to be known as the Gender and Development (GAD) approach. Improving the status of women is no longer seen as just a women's issue, but as a goal that requires the active participation of both men and women (AusAID, 2003).

The basic assumptions of GAD include:

- Provision of equitable access and opportunities to women and men, both individuals and groups, to Alternative Development resources.
- Take measures to ensure women and men's equitable access to and full participation in power structures and decision making in Alternative Development programmes is effective and accessible.
- Inculcate gender assessment as part of the situation analysis for each Alternative Development project document.
- Clear and equitable division of labour and roles between women, men and children; on productive roles, reproductive roles and community roles.
- Equitable access and control over resources, such as land, capital, labour, knowledge and education and services by women and men.
- Full participation in decision-making at household, community and organization level be enhanced to develop cognitive capacity of women and men in development issues (UNDP, 2000).

The GAD approach is based on the premise that development cooperation programs cannot succeed or the impact be sustained if the people affected do not support

them. The role of gender analysis is to examine ways in which men's and women's differing roles, responsibilities, resources and priorities may affect their project participation. Through the collection of sex disaggregated data, it identifies how development programmes may impact differently on women and men. Gender analysis, an essential part of social analysis, considers the social, economic, political and cultural relationships between men and women, and how these will be affected by and influence development activities.

Mainstreaming women's needs and perspectives into all activities is one of the primary objectives of GAD. Mainstreaming acknowledges that all development operations have a gender impact and do not automatically benefit men and women equally. A project which mainstreams gender considers women's and men's needs first at the country program level, and then at each stage of the project cycle. It ensures that women and men equally participate in every aspect of the project, both as beneficiaries and decision makers.

Hence, GAD addresses the specific roles, responsibilities and expectations of women and men in development efforts which focus on the relation between the different actors in the developmental field. Thus, GAD which focuses on the relative roles and responsibilities of both women and men is premised on roles of women and men and their access to resources and decision making for improved development policy and practice (AusAID, 2003).

In view of the research topic, the WAD approach is more applicable with the modernization theory adopted as the theoretical framework.

2.6 Theoretical Framework:

Modernization Theory

A host of scholars, from the left to the right, connects the incredible change experienced in the modern era with modernization. Appelbaum and Williams (1997) describes modernization as a complex set of changes that take place in almost every part of society as a society attempts to industrialize. Russ (2009) thus identified four general characteristics of modernization to include a shift from the simple to the complex; agriculture progresses from being oriented towards subsistence farming that occurs on small plots to commercial farming of large scale; a trend towards industrialization in which human and animal powers are de – emphasized, replaced by machinery drive production; and society changes from one centred on rural to one centred on cities. It is thus based on the postulations that as societies modernize, they leave behind their historical agrarian lifestyles in favor of modern industrial or technological lifestyles; at worst, modernize their cultural agrarian lifestyle, towards economic prosperity and effective fight against poverty (McGuigan, 2009).

The core assumptions of modernization theory (Giddens, 1991) include:

The World is a Stable System of Interrelated Parts: -Modernization theory, according to Shannon (1989), views the world society as a "relatively stable system of interrelated parts." Modernization theory views social change as an evolutionary type process that gradually adapted to a changing environment (Ragin and Chirot, 1984).

All Societies will Develop Like Europe: - Shannon (1989) contends that much of the modernization theory is based upon the European developmental experience. It suggests that all countries can become modern industrial societies.

Differentiation and Modernization: - The primary characteristic of modernization is differentiation. A few institutions that provided broad ranging services to the citizenry characterized pre-modern societies. Modern societies consist of a variety of specialized institutions.

Development: An Internal Process: - Modernization theory views development as an internal process in each society (generally perceived of as nation-states.) They often view each case as independent of the others.

Modernization theory is thus the theory used to summarize modern transformations of social life. It is an evolutionary theory that looks at the internal factors of a country assuming that with help, "traditional" societies can develop in the same ways "modern" societies did. Modernization theories attempt to identify the social variables which contribute to the social progress and development of certain societies and seek to explain the details of social evolution. However, modernization theory not only stresses the process of change, but also the response to that change. It also looks at internal dynamics referring to social and cultural structure and the adaptation to new technologies (Kalogeraki, 2009).

Proponents of modernization theory posit that as a society transformed, economic and technological advancement is enhanced which further results in greater affluence, pluralism, heterogeneity, and more generally, in extensive individual freedoms (Hawdon, 2005). Within the context of this theory, individual freedoms provide individuals with a variety of choices of associations and more choices of association free individuals from group control (Simmel, 1971). In modern societies personalities become more independent and autonomous as they are differentiated from their social and cultural context (Habermas, 1984). The pursuit of personal interests becomes common replacing

collective ones (Parsons, 1951). Therefore, modernization promotes an increasing shift in the direction of an individualistic ethos, i.e., the ability to "be one's own person" emphasising self-actualisation and personal happiness rather than collective goals. Hence, the theoretical proposition that the socio-economic, cultural and political development in the form of labour force structure, level of development, technology, state bureaucratization and value system as a result of modernization came to be known as the "convergence hypothesis" of modernization theory (Inkeles and Rossi, 1956; Lenski and Lenski, 1987).

2.6.1 Application of the Modernization Theory to the Study

The individuals, groups, or structures that form the society in this regard comprise of: Kogi Agricultural Development Project (KADP); Kogi State; Women; and Some selected local governments in the State.

It, therefore, logically follows that rural development in Kogi State impinges on the activities of a network of interdependent parts. Invariably, this societal arrangement is crucial for growth and development in the rural areas of the State and Nigeria at large. It is pertinent therefore to know or determine how the flow of inputs and outputs within the society is managed as obtained through "help".

Women (Community associations) in Kogi State receive resources (inputs) from KADP in the form of state "help", process them and return them in changed form (outputs), i.e. boost in agricultural production, skill and enterprise development, support to gender and vulnerable groups, and above all, impacted on sustainable rural development. Similarly, the State and local governments re-enforced these inputs through

counterpart funding and establishment of infrastructure and thus, enhance sustainable rural development in Kogi state.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter focuses on the method employed to carry out the research study and is divided into six sections. These are location of the study, sources of data (containing population and sample size), methods of data collection, sampling method, and techniques of data analysis.

3.2 Location of the Study

Kogi State was created along with eight others during the creation exercise of 27 August, 1991. The State, which has its capital as Lokoja, has a total land area of 28, 312.64 squares kilometer located in the above mentioned latitudes &longitudes.

Kogi State shares borders with Niger and federal capital territory to the north, with Benue to the east and with Enugu, Edo, Ondo and Kwara states to the south and west.

The State has a total population of about 2.1million people with an average of 172,000 farm families. About 70% of this population lives in rural areas and engage in Agricultural production.

The soil types in the State are classified into three, alluvial and swampy soils, the forest soil and lateritic soils. The alluvial and swampy types are found in areas along the Niger and Benue valleys whiles forest soils exist along the South West of Lokoja to Okene. Lateritic soils are found along the slopes of high elevations in the State. These diverse soil types are rich and support high agricultural yield. This also accounts for

diverse agricultural practices in the State. The rich soil types and conducive agricultural climate are being effectively utilized by over 70% of the population that are engaged in agricultural activities. The farmers produce crops such as yam, cocoyam, cassava, maize, soya bean, sorghum, rice, cowpea, beni-seed and lots more. Tree crops of various varieties thrive in the State and the climate supports the rearing of various breeds of animals. The two main rivers- Niger and Benue, other rivers and streams provide the State with abundant fishing opportunities. In fact, fishing is one of the main agricultural activities in the riverine areas of the State.

The task before the Kogi Agricultural Development Project, therefore, is to provide adequate agricultural services and assistance to tap the huge agricultural resources of the State for its development and Nigeria at large including enhancing women participation in agriculture.

3.3 Sources of Data and Instrument for Data Collection

Primary source of data was used for the analysis in this study and was collected through structured questionnaire, in-depth interview (IDI) and focus group discussion (FGD). The members of the target group of this study are women farmers in Kogi State.

Kogi State has four KADP zones and three senatorial districts. Given this background, two of the ADP zones were selected; zone B and zone C. From these selected zones, three (3) Local Government Areas (LGAs) were again selected representing the three senatorial districts of the State. These LGAs are Ankpa from ADP zone B in Kogi East Senatorial District, Lokoja from ADP zone C in Kogi Central Senatorial District, and Okene from ADP zone C in Kogi West Senatorial District. All the

three instruments of data collection – structured questionnaire, in-depth interview, and focus group discussion were administered to sampled women within these areas.

The questionnaire consists of five sections: the bio data of the respondents, women contribution to agricultural production, problems of Women farmers in the state, KADP and Women in Kogi State, and Women productivity and sustainable rural development in Kogi State. The in-depth interview was with (2) two KADP staffs at the Headquarter in order to enable comparison of views with that of Women farmers. The focus group discussion was conducted in six (6) units consisting of 5 Women and one women leader so as to observe and capture certain information that the questionnaire and in-depth interview may not be able to bring out. These are done within the two selected KADP zones covering the three senatorial districts of the State.

3.4 Population and Sample of the Study

The population of the study consists of all female farmers within the two sampled KADP zones in Kogi State. From this population, women currently engaged in farming activities were sampled to gather the required information for the analysis of the study. The sample size for the study was purposively selected and as such three hundred (300) women farmers were sampled, 100 women farmers each (purposively) from the three LGAs selected.

3.5 Sampling Procedure

The sampling frame used for the study is a method of selecting any member from women farmers within the two KADP zones representing the three senatorial districts.

The choice of selecting over the existing list (if at all) of women farmers is due to poor data keeping attitude in Nigeria.

The purposive sampling technique is used for the data collation. A purposive sample refers to selection of units based on personal judgment rather than randomization. This judgemental sampling is in some way "representative" of the population of interest without sampling at random. One of the commonest uses of purposive sampling is in studies based on small numbers of areas or sites (for instance LGAs) to be included in the sample (Elder, 2009). One of the justifications for the use of purposive sampling technique is finance. Covering wider area will require huge amount to visit towns, cities, rural areas, nooks, and crannies of the study area and as such, purposive sampling technique is used with caution ensuring that different categories of target audience are represented in the sample.

Another justification for the use of this sampling technique is the seeking of pre-defined characteristics of women (current farmers) so that proportion of women who are not farmers will not be part of the study sample.

3.6 Techniques of Data Analysis

There are basically two techniques of data analysis and these are descriptive and inferential techniques. Descriptive statistics are used to describe the basic features of the data in a study. The descriptive statistics provides simple summaries (average, median, mode, percentages e.t.c) about the sample and the measures. Together with simple graphics analysis, they form the basis of virtually every quantitative analysis of data.

Questionnaire was analyzed through Social Science Statistical Package (SPSS) while data obtained from FGDs and IDIs were transcribed for analysis alongside with the questionnaire. The chi square ( ) statistics is also used to evaluate statistical significance of responses concerning women participation in agriculture in the study area.

CHAPTER FOUR

FINDINGS ON WOMEN PARTICIPATION IN AGRICULTURE IN KOGI STATE

4.1 Introduction

This chapter presents data analysis through the use of percentages and cross tabulations. It consists of six (6) sub-sections, each capturing a research objective including the first sub-section in which the overall questionnaires administered was

analyzed. The percentage analysis was based on the outcome of the Social Science Statistical Package (SPSS) while the in-depth and focus group discussions were transcribed and analyzed alongside the SPSS outcome.

The overall total of the questionnaire administered and retrieved were presented in this sub-section as shown in Table 4.1 below.

Table 4.1: Summary of the Administered Questionnaires

Questionnaire	Distributed	Returned	Not Returned
Ankpa LGA	100	84	16
Lokoja LGA	100	83	17
Okene LGA	100	83	17
Total	***300***	***250***	***50***

Source: Field Survey, 2010.

From Table 4.1 above, 300 questionnaires were administered among which 250 were retrieved and completely filled. It is these retrieved and completed questionnaires that were used for the analysis of the study alongside the transcribed in-depth interview and focus group discussions.

4.2 Social Demographic Characteristic of Women Farmers in Kogi State

This section examines age of respondents, marital status, family structure, wife's position, respondents' children and educational qualification in relation to their farm holding. This is based on the responses obtained from structured questionnaire administered to sampled women and focus group discussion with women; the summary shown in the Table 4.2 below:

Table 4.2.1 Social Demographic Characteristics of Women Farmers and their Farm Holding

Age	Size of Farm Holding (Hectares)

(Years)	Less than 1		1 – 2		3 – 4		5 – 6		7 and More		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
18–27 Yrs	15	6.0	15	6.0	4	2.	3	1.0	3	1.0	**40**	**16.0**
28–37 Yrs	32	13.0	55	22.0	15	6.0	9	4.0	1	0.4	**112**	**45.0**
38–47 Yrs	8	3.0	30	12.0	16	6.0	18	7.0	6	2.0	**78**	**31.0**
48–57 Yrs	9	4.0	10	4.0	1	0.4	00	0.0	00	0.0	**20**	**8.0**
58–67 Yrs	00	0.0	00	0.0	00	0.0	00	0.0	00	0.0	**00**	**0.0**
Total	**64**	**26.0**	**110**	**44.0**	**36**	**14.0**	**30**	**12.0**	**10**	**4.0**	**250**	**100.0**
Single	15	6.0	4	2.0	1	0.4	0	0.0	0	0.0	**20**	**8.0**
Married	10	4.0	15	6.0	15	6.0	8	3.0	2	1.0	**50**	**20.0**
Widowed	20	8.0	37	14.8	13	5.0	14	6.0	6	2.0	**90**	**36.0**
Divorced	19	8.0	54	22.0	7	3.0	8	3.0	2	1.0	**90**	**36.0**
Total	**64**	**26.0**	**110**	**44.0**	**36**	**14.0**	**30**	**12.0**	**10**	**4.0**	**250**	**100.0**
Monogamous	45	18.0	30	12.0	10	4.0	5	2.0	00	0.0	**90**	**36.0**
Polygamous	19	8.0	80	32.0	26	10.0	25	10.0	10	4.0	**160**	**64.0**
Total	**64**	**26.0**	**110**	**44.0**	**36**	**14.0**	**30**	**12.0**	**10**	**4.0**	**250**	**100.0**
1st Wife	6	2.0	30	12.0	24	10.0	14	6.0	6	2.0	**80**	**32.0**
2nd Wife	20	8.0	41	16.0	4	2.0	13	5.0	2	1.0	**80**	**32.0**
3rd Wife	18	7.0	10	4.0	2	1.0	3	1.0	2	1.0	**35**	**14.0**
4th Wife	16	7.0	19	8.0	0	0.0	0	0.0	0	0.0	**35**	**14.0**
Total	**60**	**24.0**	**100**	**40.0**	**30**	**12.0**	**30**	**12.0**	**10**	**4.0**	**230**	**100.0**
1 – 3 children	20	8.0	29	12.0	12	5.0	4	2.0	0	0.0	**65**	**26.0**
4 – 6 children	40	16.0	70	28.0	15	6.0	23	9.0	2	1.0	**150**	**60.0**
7 – 9 children	0	0.0	1	0.4	3	1.0	3	1.0	7	3.0	**14**	**6.0**
10–12 children	0	0.0	0	0.0	0	0.0	0	0.0	1	0.4	**01**	**0.4**
Total	**60**	**24.0**	**100**	**40.0**	**30**	**12.0**	**30**	**12.0**	**10**	**4.0**	**230**	**100.0**
Primary	5	2.0	10	4.0	15	6.0	15	6.0	5	2.0	**50**	**20.0**
Secondary	8	3.0	28	11.0	10	4.0	2	1.0	2	1.0	**50**	**20.0**
NCE	11	5.0	29	11.6	5	2.0	4	2.0	1	0.4	**50**	**20.0**
OND	20	8.0	25	10.0	3	1.0	1	0.4	1	0.4	**50**	**20.0**
HND	15	6.0	10	4.0	3	1.0	1	0.4	1	0.4	**30**	**12.0**
Degree	5	2.0	8	3.0	0	0.0	7	3.0	0	0.0	**20**	**8.0**
Total	**64**	**26.0**	**110**	**44.0**	**36**	**14.0**	**30**	**12.0**	**10**	**4.0**	**250**	**100.0**

From Table above, women within the ages of 28 – 37 years constitutes the highest majority with 45% followed by those within the ages of 38 – 47 years having 31.0% while ages of 18 – 27 years and 58 – 67 years are 16% and 8% respectively. However, no women farmer falls within the ages of 58 – 67 years and hence no farm holding by this age bracket. Among the highest majority (28 – 37 years), farm holding of 1 – 2 hectares

pre-dominates followed by less than 1 hectare (13.0%). The statistics revealed that farming activities in the study area is a hobby of the adults (aged 28 – 37 years and 38 – 47 years) although on a small scale venture.

The Table 4.2 above also revealed that widowed and divorced women are the majority in farming activities. They constitute 36.0% each and cut across all sizes of farm holding. Although, married and singles engage in farming activities, no single cultivate large size of farm land; neither 5 – 6 hectares nor 7 and more hectares. While singles engage in less than 1 hectare (6.0%), 1 – 2 hectares (2.0%) and very few in 3 – 4 hectares (0.4%); the married are found in all the samples of farmland sizes covered in the study mainly in 1 – 2 and 3 - 4 hectares. It is deduced from the above analysis that farming activities in the study area is used as a supporting means as majority are widowed and divorced, the groups without provider (male family head).

An indication from Table 4.2 about women family structure show that women in polygamous homes are more into farming activities than their counterparts in monogamous family; among the 64.0% of the polygamous women in farming activities, 4.0% cultivate 7 and more hectares of farmland; 10.0% are on 5 – 6 hectares of farmland; 10.4% engage in 3 – 4 hectares of farmland; and 8.0% occupy less than 1 hectare of farmland while 32.0% own 1 – 2 hectares of land. But none of the women in monogamous family owned a farmland of 7 and more hectares of farmland.

Evaluating the position of these women in their husbands homes, responses revealed that 4th as well as the 3rd wives, according to Islamic injunctions, are few in farming undertakings as they constitute 7% each. The 4th wives primarily engage only in small scale farming as they cultivated between 0 – 2 hectares of land while 3rd wives engage in all sizes of farm holding covered in the study. One of the reasons for this, according to

views from focus group discussion (FGD), a new wife and/or the last wife is given a privilege in addition to a way of making her accustom to the family principles and as such she has little or no time to engage in moderate or large scale farming.

Among these women farmers, 26% of them have 1 – 3 children, 60% have 4 – 6 children, about 6% have 7 – 9 children while only 0.4% has 10 – 12 children. Based on this information, women with 10 – 12 children are found engaging in 7 and more hectares of farm holding while none is found on this size of farm holding among those with 1 – 3 children. More so, women with 7 – 9 children are not engaging in less than 1 hectare of farm holding. Focus group discussion held with women across the selected Local Government Areas revealed that children serve as helping hand to their mothers during short and long vacations. This enables mothers to have relatively larger farm land than they can personally handle.

All forms of educational qualification from primary certificate to diploma do not influence farm holding among women farmers in the study area constitute 20% (50) each while higher diploma and degree are 12% (30) and 8% (20) respectively. This implies that as education increases, farm holding decreases given that farm holding decreases by 8% between ordinary diploma and higher diploma while it decreases by 4% between higher diploma and degree. Specifically, primary certificate holders are more in 3 – 4 hectares, 5 – 6 hectares (6% each); 1 – 2 hectares (4%); and less than 1 hectare and 7 and more hectares (2% each). Secondary certificate holders pre-dominate in 1 – 2 hectares (11.2%) followed by 3 – 4 hectares (4%); then less than 1 hectare (3.0%) while 5 – 6 hectares and 7 and more hectares constitute 0.8% respectively.

From the above analysis on social demographics of women farmers in Kogi State, evidences revealed that 1 – 2 hectares of farm holding (44%) dominated among sampled

women farmers in Kogi State. This is followed by less than 1 hectare (26%) while farm holding of greater than two hectares of land were also owned but by few sampled women. Among these sampled women farmers, youth and adults are the main farmers in the study area – 18 – 27 years (16%); 28 – 37 years (45%); and 38 – 47 years (31%). More so, widow and divorced are the majority of women farmers as they constitute 36% each and farming undertaking is found to be inversely correlated with educational qualification. That is, higher education levels (HND – PG) were found less in farm undertakings than low levels (primary – OND). As a way of summary, farming is thus seen as supportive mechanism for survival as majority is widow and divorced.

4.3 Analysis of Women Participation in Agricultural Production in Kogi State

This section evaluates the importance of women participation (involvement) in agricultural production in the study area in relation to their various farming undertakings and its subsequent contribution to agricultural production in the study area. In the Table 4.3, summary of women view obtained from structured questionnaire is presented.

Table 4.3.1 Women Participation in Agricultural Production in Kogi State

Farm Activities	Size of Farm Holding (Hectares)											
	Less than 1		1 – 2		3 – 4		5 - 6		7 and More		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
All Year Round	30	12.0	44	18.0	36	14.0	30	12.0	10	4.0	**150**	**60.0**
Sometimes	14	6.0	36	14.0	0	0.0	0	0.0	0	0.0	**50**	**20.0**
Just Veg. Garden	20	8.0	30	12.0	0	0.0	0	0.0	0	0.0	**50**	**20.0**
Total	**64**	**26.0**	**110**	**44.0**	**36**	**14.0**	**30**	**12.0**	**10**	**4.0**	**250**	**100.0**
Farm Structure												
Personal	64	26.0	80	32.0	20	8.0	30	12.0	6	2.0	**200**	**80.0**
Group	0	0.0	30	12.0	16	6.0	0	0.0	4	2.0	**50**	**20.0**
Total	**64**	**26.0**	**110**	**44.0**	**36**	**14.0**	**30**	**12.0**	**10**	**4.0**	**250**	**100.0**
Farm Intensity												
1 Farm Lands	20	8.0	10	4.0	12	4.8	8	3.0	0	0.0	**50**	**20.0**
2 Farm Lands	10	4.0	40	16.0	15	6.0	8	3.0	2	1.0	**75**	**30.0**

3 Farm Lands	10	4.0	40	16.0	5	2.0	13	5.0	7	3.0	**75**	**30.0**
4 Farm Lands	24	9.6	20	8.0	4	1.6	1	1.0	1	0.4	**50**	**20.0**
Total	**64**	**26.0**	**110**	**44.0**	**36**	**14.0**	**30**	**12.0**	**10**	**4.0**	**250**	**100.0**
Farming System												
Labour Intensive	64	26.0	69	28.0	12	5.0	5	2.0	0	0.0	**150**	**60.0**
Capital Intensive	0	0.0	0	0.0	5	2.0	10	4.0	5	2.0	**20**	**8.0**
Mixed	0	0.0	41	16.0	19	8.0	15	6.0	5	2.0	**80**	**32.0**
Total	**64**	**26.0**	**110**	**44.0**	**36**	**14.0**	**30**	**12.0**	**10**	**4.0**	**250**	**100.0**
Farm Output (Tones)												
≤ 1	40	16.0	10	4.0	0	0.0	0	0.0	0	0.0	**50**	**20.0**
> 1	24	9.6	100	40.0	36	14.4	30	12.0	10	4.0	**200**	**80.0**
Total	**64**	**25.6**	**110**	**44.0**	**36**	**14.4**	**30**	**12.0**	**10**	**4.0**	**250**	**100.0**

It is seen from the Table 4.3.1 above that women who engaged in continuous agricultural activities are more than those that engaged in the other two farm activities: sometimes and just vegetable garden. About 60% of the sampled women farmers are on continuous farming season cutting across all forms of farm holding whereas 20% each concentrate on just vegetable garden and seasonal farming (sometime).

In the entire farm holding sizes, 1 – 2 hectares predominates with 44% followed by less than 1 hectare with about 26% while 3 – 4 hectares, 5 – 6 hectares, and 7 and more hectares are 14.0%, 12%, and 4% respectively. Neither of the women who sometimes engage in farming activities nor those that have just vegetable garden occupied 3 – 4 hectares, 5 – 6 hectares, and 7 and more hectares of farm land; hence these two forms of farming activities are on less than 1 hectare and 1 – 2 hectares respectively.

Table 4.3.1 above also revealed that both personal and group forms of farm holding are owned by women in the State. Personal farm structure was found to be rampant among women farmers than the group farm structure. Personal farm structure is found to be most frequently owned by women to the tune of 80% while only 20% of the sampled Women owned group farm structure. However, the group farm structure basically exists in three forms, that is, 1 – 2 hectares of farm land, 3 – 4 hectares of farm

land, and 7 and more hectares of farm land. Whereas the personal farm structure exists in all the forms of farm holding investigated by the study. From the 80% of the personal farm structure owned by women 7 or more hectares of farm land is the least which constituted only 2.4% while 1 – 2 hectares predominate with 32%, less than 1 hectares, 5 – 6 hectares, and 3 – 4 hectares of farm lands are also significantly owned to the sizes of about 26%, 12%, and 8% respectively.

The number of farm lands owned is termed "farm intensity" and as such four kinds of farm intensity is investigated as presented in Table 4.3 above. These include one farm land, two farm lands, three farm lands, and four farm lands. The investigation revealed that about 20% each of the sampled women farmers owned one and four farm lands while 30% each also owned two and three farm lands. The table also show that none of the women on one farm land hold 7 and more hectares of farm land while those on two farm lands are found in all forms of farm holding covered by the study. Most of the women owing two and three farm lands are on 1 – 2 hectares of land while those on one and four farm lands are on less than 1 hectare of land.

Investigating farming technique employed by these women in their various farming operations, three farming systems/techniques were found to exist in the study area and include labour intensive farming system/technique, capital intensive farming system/technique, and mixed farming system/technique. In this regard, the use of more or exclusive human power/energy is termed labour intensive system while application of science and technology is referred to as capital intensive system and the combination of these two irrespective of the proportion is known as mixed farming system.

The study found that labour intensive system prevails among majority of women farmers as 60% of them employ this farming system followed by mixed farming system

in which 32% of them indicated that their engagement in this system while capital intensive constitutes the least farming system employed by women farmers (8%). Also, responses regarding farm output from these operations revealed that 20% of women farmers harvest at most 1 ton of farm produce while 80% (200) usually have more than 1 ton of farm produce. The farm size of less than 1 hectare and 1 – 2 hectares result to the harvest of at most 1 ton of farm produce and farm size of 3 – 4 hectares and above do yield above one ton of farm produce. However, among the 80% that harvest greater than 1 ton of farm produce, 40% holds 1 – 2 hectares of farm land while 14.4% and 12% hold 3 – 4 hectares and 5 – 6 hectares of farm land respectively.

Information from focus group discussion (FGD) revealed that major reasons that motivated high women participation in agricultural production (farming oriented) in Kogi State include the following; almost all the sampled women reveled that farming is an ancestral inheritance and the only effective source of livelihood in their villages. Farming is described by various participants within the FGD as the only activity that everyone can easily and conveniently undertake as necessitated by high rate of unemployment and in the country in which Kogi is not an exclusive entity and as one of the effective way of fighting poverty through ensuring adequate in-take of calorie. Given the belief of these women (agricultural undertaking serve as the effective way to reduce high poverty incidence and to reduce cost of living) they dreamt for higher farm produce to enable them cater for their family: provide adequate food, train their children through education, and to enlarge their holding, and hence, agricultural activities to become the mainstay of the National economy.

In order to ascertain the role or importance of women involvement to the development of agricultural activities in Kogi State in particular and Nigeria at large,

farm intensity (number of farm lands owned) was cross-tabulated with the nature of farm output and result presented in Table 4.3.2 below. The rationale for using these indicators (techniques and holding) is that whatever the size of farm land held, either of the techniques is employed and the end result is farm output (produce).

Table 4.3.2: Relationship between Respondent Farm Intensity and the Nature of Farm output

Farm Intensity	Farm Output					
	Less or Equal to 1 **Ton**		Greater than 1 **Ton**		Total	
1 Farm Lands	30	(60.0%)	20	(40.0%)	50	(100.0%)
2 Farm Lands	3	(4.0%)	72	(96.0%)	75	(100.0%)
3 Farm Lands	5	(7.0%)	70	(93.0%)	75	(100.0%)
4 Farm Lands	2	(4.0%)	48	(96.0%)	50	(100.0%)

df = 3 = 90.278 Table = 7.81 Alpha Level = 0.05

The Chi-square test in Table 4.3.2 above shows that there is a statistically significant difference (based on the evidence that calculated value is greater than table χ^2) between farm output and farm intensity. On the average, one and four farm lands were undertaken by equal number of Women while two and three farm lands were also identical in the number Women engaging in its operation. Hence, one farm land holding tends to yield ≤ 1 ton of farm output while as from two farm lands holding to four farm lands holding tend to yield > 1 tones of farm output.

Analysis revealed that women participation in agriculture in the study is high. This is due to women involvement in agricultural activities all year round as well as seasonal and vegetable gardens. In the study area, personal farming (80%) with labour intensive techniques (60%) dominates other forms of farming operations: group farming as well as capital and mixed farming systems. However, most of the women farmers do harvest > 1 ton (80%) of farm produce at the end of farming seasons. This high women involvement in agriculture is justified from the study according to its role as supportive

mechanism through which poverty, unemployment, and hunger are effectively safeguarded against.

4.4 Analysis of the Problems of Women in Agriculture in Kogi State

In this section, issues impinging on women effective participation in agricultural production and activities were investigated so as to enable policy and approaches towards better women farmers' welfare in the study area and the nation at large.

In assessing the accessibility of women farmers to basic farm inputs as an independent problem (land, capital, fertilizers, chemicals, and machineries among others), responses from the sampled women is presented in Table 5 below:

Table 4.4.1: Women Difficulties in Accessing Basic Farm Inputs

Basic Farm Inputs	Responses	Percentage (%)
Land	170	68
Capital	200	80
Fertilizer	200	80
Chemical	200	80
Machinery	223	89

As shown in Table 4.4.1 above, women face certain difficulties in accessing basic farm inputs: 68% in land, 80% each in capital, fertilizer, and chemical; and about 89% in farm machineries. Other problems faced by women as ascertained through focus group discussion (FGD) and in-depth interview include low prices of farm produce, lack of feeder roads, lack of storage facilities, inadequate improved/high yielding seedlings, high cost of fertilizers/late supply, frequent outbreak of pests/diseases, poor/depleting soil

fertility/productivity, and most importantly, poor access to efficient market as more than 90% of their farm produce are channeled through local markets: nearby villages.

Evaluating these difficulties with respect to the size of farm holdings, Table 4.4.2 below show the summary of responses obtained.

Table 4.4.2 Problems of Women in Agriculture in the Study Area

Difficulty Accessing Farm Input	Size of Farm Holding (Hectares)											
	Less than 1		1 – 2		3 – 4		5 – 6		7 and More		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Land	13	5.0	22	9.0	7	3.0	6	2.0	2	1.0	**50**	**20.0**
Capital	12	5.0	22	9.0	8	3.0	6	2.0	2	1.0	**50**	**20.0**
Fertilizer	13	5.0	22	9.0	7	3.0	6	2.0	2	1.0	**50**	**20.0**
Chemical	13	5.0	22	9.0	7	3.0	6	2.0	2	1.0	**50**	**20.0**
Machinery	13	5.0	22	9.0	7	3.0	6	2.0	2	1.0	**50**	**20.0**
Total	**64**	**25.0**	**110**	9.0	**36**	**15.0**	**30**	**12.0**	**10**	**5.0**	**250**	**100.0**
Machinery in Use												
Personal	0	0.0	0	0.0	0	0.0	0	0.0	1	0.4	**1**	**0.4**
Government	0	0.0	0	0.0	15	6.0	5	2.0	0	0.0	**20**	**8.0**
Cooperative	0	0.0	10	4.0	5	2.0	15	6.0	0	0.0	**30**	**12.0**
Commercial	64	25.6	100	40.0	16	6.4	10	4.0	9	3.6	**199**	**80.0**
Total	**64**	**26.0**	**110**	**44.0**	**36**	**14.0**	**30**	**12.0**	**10**	**4.0**	**250**	**100.0**

All the five basic farm inputs as shown in the above 4.4.2 Table equally (50% each) affect women farmers in each of the farm holdings classes.

Machineries available for farm usage by women in the study area are categorized as personal, government, co-operative, and commercial. From the evidences, it is only 0.4% of the sampled women that is using personal machinery and is being used on 7 and more hectares of land. Among the 8% of women using government machineries, none is being used for less than 1 hectare, 1 – 2 hectares, and at least 7 hectares (7 and more) but

6% of the machineries are being used on 3 – 4 hectares and the remaining 2% of the machineries are used on 5 – 6 hectares. Although there are 12% of the sampled women using co-operative machineries, women farmers on less than 1 hectare and at least 7 hectares are not the beneficiaries of these machineries as they are being used on 1 – 2 hectares (4%), 3 – 4 hectares (2%), and 5 – 6 hectares (6%). However, 80% of the sampled women farmers depend on commercial machineries for their farming activities being used across all forms of size of farm holdings covered in the study.

The KADP has responded to some of these problems within their management and technical capabilities as revealed through in-depth interview (IDI) with staff selected for IDI. One of the medium used by KADP to combat agricultural problems faced by women in the State is by grouping them into groups of 5, but mostly ranges between 5 and 10. All interventions are thereafter undertaken through this grouping: granting loan either in cash or in material form (farm inputs: chemicals, fertilizers, new seedlings, etc) to enlightenment talks. In the case of drought, management techniques are offered through education such as use of irrigation, planting of short-term crops, and early planting management; while directives to relevant authorities are also offered where the capabilities of KADP are ineffective.

From the above analysis, farm machinery, farm machinery constituted one of the greatest problems being faced by sampled women; this is followed by capital, fertilizer and chemicals. Land accessibility is least but improvement on tenure system could enhance mechanization by women farmers in the study area.

4.5 Impact of KADP Programmes on Women Participation in Agriculture in Kogi State

Haven identified the extent of women participation in agricultural production in Kogi State as well as constraints being faced, the role of KADP in enhancing (mainstreaming) women effective participation in agricultural activities and in eradicating constraints they face is thus imperative. In this section, women views on the effectiveness of KADP programmes on their farming involvement are evaluated in addition to KADP response model as given in Table 4.5.1 below.

Table 4.5.1: KADP Offers and Performance Rating by Women

Kind of Offers for Women	Rating of KADP Performance								Total	
	Poor		Good		Best		Undecided			
	N	%	N	%	N	%	N	%	N	%
Credit Facilities	0	0.0	2	1.0	3	1.0	0	0.0	**5**	**2.0**
Farm Implements	0	0.0	3	1.0	5	2.0	0	0.0	**8**	**3.0**
Fertilizer/Chemicals	4	2.0	30	12.0	76	30.0	0	0.0	**110**	**44.0**
Extension Services	10	4.0	15	6.0	55	22.0	0	0.0	**80**	**32.0**
Improved Seedlings	2	1.0	14	6.0	31	12.0	0	0.0	**47**	**19.0**
All of the above	0	0.0	0	0.0	0	0.0	0	0.0	**0**	**0.0**
Total	**16**	**7.0**	**64**	**26.0**	**170**	**67.0**	**0**	0.0	**250**	**100.0**

Women rating on the performance of KADP programmes (offers) in Table 4.5.1 above revealed that none of the sampled women enjoyed all offers of KADP at a time. Among the five offers of KADP, fertilizer/chemicals has the highest number of beneficiaries with 44% followed by provision of extension services (32%) and improved seedlings (19.%) while farm implements and credit facilities provision are negligible as they constitute just 3% and 2% respectively.

The method of rating offers in the study is categorized into best, good, poor, and undecided. As used in the study, best rating implies a situation whereby an offer is given

to beneficiaries regularly and timely, year in and year out; on the other hand, an offer is described as good whenever at each period, the distribution is even but subsequent period is not guaranteed. And a poor offer is such that the targeted beneficiaries are most cut off from the system of distribution in which they obtain it through intermediaries. However, certain people who are not certain about which of the categories an offer belongs are termed undecided as at the time of conducting the study.

As such, best ratings of the offers predominate with 68% followed by good ratings with about 26% and poor ratings with 6.0%. Among 7% of the sampled women that rated KADP offers as poor, 4% of them indicated extension services as being poor; 2% of them revealed fertilizer/chemicals as poor; and 1% pointed out improved seedlings as being poor in their performance ratings. Hence, good and best ratings favour fertilizer/chemicals more than extension services and improved seedlings while credit facilities and farm implement are the least.

The Table 4.5.2 below gave the summary of the impact of KADP offers on women participation in agricultural activities in the study area.

Table 4.5.2 KADP Farming Directed Intervention and Women Outlook

Women Participation	KADP Offers (Facilities/Services/Provisions)											
	Credit		Farm Implement		Fertilizer / Chemicals		Extension Services		Improved Seedlings		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Improved	5	2.0	5	2.0	100	40.0	78	21.0	46	18.0	**234**	**94.0**
No Difference	0	0.0	3	1.0	10	4.0	2	1.0	1	0.0	**16**	**6.0**
Total	**5**	**2.0**	**8**	**3.0**	**110**	**44.0**	**80**	**22.0**	**47**	**18.0**	**250**	**100.0**

From the Table, about 94% of the sampled women revealed that KADP offers have improved their participation in agriculture. Fertilizer/chemicals take the lead with 40% followed by extension services with 21%, and improved seedlings with 18% while

credit facilities and farm implement are each 2%. Thus, all the participants in the focus group discussion as well as those from in-depth interview (KADP Staff) identified exactly these offers by KADP as effective and regular.

Issues concerning administration of women farmers are looked into in terms of the modalities employed by the KADP and the kind of results it yield on the women as shown in Table 4.9 below.

Table 4.9 KADP Farming Directed Intervention and Farm Opportunities for Women

KADP Directed Farming Intervention	Women Outlook							
	Psychological Support		Morale Boosting		Opportunity Provision		Total	
	N	%	N	%	N	%	N	%
Seeking Women Opinion	0	0.0	35	14.0	15	6.0	**50**	**20.0**
Visiting Localities	20	8.0	30	12.0	50	20.0	**100**	**40.0**
Organizing Women Programmes	30	12.0	35	14.0	35	14.0	**100**	**40.0**
Total	**50**	**20.0**	**100**	**40.0**	**100**	**40.0**	**250**	**100.0**

Based on this, three modalities were identified which include seeking women opinion, visiting localities , and organizing women programmes while results it yields are categorized as providing psychological support, morale boosting, and opportunity to women farmers in Kogi State. Accordingly, 20% of the sampled women indicated that these modalities provided them with psychological support in the midst of their male counterparts mainly as a result of visiting localities and organization of women programmes by the KADP. Both morale boosting and opportunity provision were revealed to constitute 40% each. While seeking women opinion as well as organization of women programmes are more important than visiting localities in providing psychological support to women farmers, visiting of localities is more crucial in

opportunity provision than organization of women programmes and seeking women opinion.

Information from in-depth interview (IDI) revealed that KADP Staff used to make a 1 – 2 visits to localities in the State. They opined that the main essence of their visits are to educate women farmers on the principles of farm management, farm input (chemicals, fertilizers) application, pest/disease control/management, and technical requirements of new improved/hybrid seedlings introduced. More so, responses from in-depth interview with KADP Staff also revealed only one special programme exclusively being organized for Women which is known as *Women in Agriculture*. Hence, focus group discussion revealed that the programmes of KADP which have enhanced women participation in agriculture include access to funds, farm inputs, farm implements, management and control education.

In order to ascertain the role of KADP in enhancing women participation in agricultural activities in Kogi State, a summary of Chi-square test in presented in Table 4.5.4 below.

Table 4.5.4 KADP and Women Farmers

KADP Directed Farming Intervention	Women Farm Output					
	≤ 1 Ton		> 1 Ton		Total	
	N	%	N	%	N	%
Seeking Women Opinion	10	(22.0%)	35	(78.0%)	45	(100.0%)
Visiting Localities	15	(21.0%)	70	(79.0%)	85	(100.0%)
Organizing Women Programmes	25	(26.0%)	95	(74.0%)	120	(100.0%)

df = 2 = 12.475 Table = 5.99 Alpha Level = 0.05

The Chi-square test in Table 4.5.4 above showed that there is a statistically significant relationship (based on the fact that calculated value is greater than the tabulated value) between KADP directed farming intervention and women farm output. On the average, organizing women programmes proved more effective in affecting

women farm output followed by visiting localities; while seeking women opinion is the least in affecting women farm output. However, all the three modalities tend to yield farm output greater than 1 ton; in their order of importance are organization of women programmes, visitation to localities, and seeking women opinion.

4.6 Analysis of Women Views on Agricultural Sector in Kogi State

Given that women in Kogi State revealed their participation in agricultural activities as inheritance, only source of livelihood in their localities, as easy and simple way to get engaged in the facet of high rate of unemployment and high poverty stricken situations in Nigeria and Kogi State in particular and therefore would be most happy if the sector is lucrative as other sectors of the economy. This section evaluates women views on their current and future agricultural undertaking as summarized in Table 4.6.1 below.

Table 4.6.1 Views of Women on Children Participation in Agricultural Sector

Women Status	Agricultural Income Generation							
	Small		Moderate		High		Total	
	N	%	N	%	N	%	N	%
Contented in Agric Sector	20	8.0	49	20.0	14	6.0	**83**	**33.0**
To Remain in Agric Sector	30	12.0	42	18.0	11	4.0	**83**	**33.0**
Want Children in Agric Sector	0	0.0	84	34.0	0	0.0	**84**	**34.0**
Total	**50**	**20.0**	**175**	**70.0**	**25**	**10.0**	**250**	**100.0**

From the above Table, the three identified sampled women status is not numerically different from each other. There are 33% of the sampled women who are contented in agricultural sector as well as 33% who indicated their mission to remain in

agricultural sector and another 34% who showed interest in wanting their children to be in agricultural sub-sector of the economy.

Three forms of income generation were investigated which are small, moderate, and high. Based on this categorization, 20% of the sampled women indicated that the income they generate from engaging in agricultural sector is small while 10% revealed theirs to be high and 70% said their income generation from agricultural undertakings is moderate.

About 20% of the sampled women that are contented in agricultural sub-sector generate moderate income as well as 17%that want to remain in agricultural sub-sector of the economy whereas 34.0% that showed preference of wanting their children to be in agricultural sub-sector generate moderate income.

Majority of the sampled women farmers rated KADP offers as best while others rated it as good but few among them rated these offers as poor. This was based on the evidence that these interventions (offers) by KADP have improved sampled women (94%) status in agriculture in the study area. These women revealed that modality of KADP operations through seeking women opinion, visiting localities, and organizing women programmes have indeed provided them with psychological support, boosted their morale, and also provide them with opportunities in the presence of their male counterpart. Hence, this resulted positively in enhancing their farm output.

4.7 Summary of Findings

All categories of sampled women: married, single, widowed, and divorced as well as educated are significantly engaged in agricultural activities in the study area. Farm holding among sampled women is directly affected by the number of their children while

education negatively influenced women participation in agriculture within the study area. Farming (agricultural undertakings) is seen as an ancestral inheritance and an effective way of fighting poverty and hunger in their localities, which accounts for greater number of sampled women participation in agricultural activities.

Women participation in agriculture in the study area is high and significant. This is due to women involvement in agricultural activities all year round as well as seasonal and vegetable gardens. In the study area, personal farming (80%) with labour intensive techniques (60%) dominates other forms of farming operations: group farming as well as capital and mixed farming systems. However, most of the women farmers do harvest greater than 1 ton (80%) of farm produce at the end of farming seasons. This high women participation in agriculture is justified from the study according to its role as supportive mechanism through which poverty, unemployment, and hunger are effectively safeguarded against.

The basic agricultural problems affecting women participation in agriculture in the study area is poor access to farm machinery. Although, capital, fertilizer, and chemical, also constituted some of the problems; land access was the least problem identified by sampled women as having tremendous impact on their participation in the study area. To relief women and in order to make them more meaningful in the agricultural sub-sector of the economy, Kogi State Agricultural Development Project (KADP) has embarked on mainstreaming programmes such as formation of women farmers' group (WFG) and exclusive women agricultural programme (Women in Agriculture) which have provided them with psychological support (20%), morale boosting (40%), and opportunity provision (20%). This intervention by KADP has led to improvement in sampled women agricultural participation (70%) and as such about 94%

of the women rated KADP performance above poor. Although majority of women farmers generate moderate income (70%), they are contented in the agricultural sub-sector (33.2%), wish to remain in the sector (33.2%), and prefer their children to operate in the agricultural sub-sector (33.6%). This trend has ensured women steady contribution to agricultural production in Kogi State.

CHAPTER FIVE

SUMMARY, DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary of the findings, conclusion, and recommendations. It also includes the discussion made on the findings in accordance with the modern theory as applied in the study.

5.2 Summary

In evaluating women participation in agriculture: the role and impact of Agricultural Development Project (ADP) in Kogi State, Nigeria", five research objectives were set as guide to the study which include to examine social demographic characteristic of women farmers in Kogi State; to evaluate the extent of Women participation in agricultural production in Kogi State; to identify constraints that women face in their participation in agriculture in Kogi State; to investigate the impact of KADP on women participation in agriculture since its inception; and to proffer other policy options that can enhance the role of KADP in mainstreaming Women participation in agriculture in Kogi State.

Given these objectives of the study, modernization theory was used as the theoretical background whose basic assumptions include the world is a stable system of interrelated parts, all societies will develop like Europe, and modernization leads to development. The underpinning postulation of the theory is to help "traditional" societies develop the way "modern" societies do in the past based on the identification of some social variables which contribute to the social progress and development of certain societies in the form of adding impetus to change process required for the development, and "traditional societies" will respond to modern transformation for the development of

the society. Quantitative method of data collection through structured questionnaire, in-depth interview (IDI), and focus group discussion (FGD) was employed to gather the required information from women farmers in the selected Local Government Areas (Ankpa, Lokoja, and Okene) of Kogi State which in turn was analyzed by the use of descriptive technique of data analysis. Based on the research objectives, modernization theory and Women and Development (WAD) were used as the theoretical basis for the study.

From data analysis, farming undertakings by women in Kogi State are mostly done by youths within the ages of 28 – 37years (45%) and adults within the ages of 38 – 47 years (31%). Other age groups of women undertaking farming activities in Kogi State are 18 – 27 years (16%) and 48 – 57 years (8%). Majority of women who participated in farming are widowed and divorced (36% each). The married and singles constitute 20% and 8% respectively. On average, women that own two and three farm lands dominated over those that own one and four farm lands.

Among these women farmers, those belonging to family structure other than monogamous engage mostly in farming activities, particularly first and second wives in such family structure while third and fourth wives also engage in agricultural production in the state, majority of the women (80%) engage in personal farming mainly for survival supportive strategy.

Hence, the study found that farming engagement by women in the area is highly influenced by their educational background and the number of children. It is only from Higher National Diploma (HND) or its equivalent in terms of educational qualification of a woman that tends to correlate negatively with her farm holding. Between none educational qualification and National Ordinary Diploma (OND) including National

Certificate on Education (NCE), women farm holding is identical. While women with at least four children own more farm land, in terms of size, women with three children or less own few hectares of farm land; although seven children and above are rare for a women which also accounts for their low number in farm size holdings.

Analysis revealed that women participation in agriculture in the study is high. This is due to women involvement in agricultural activities all year round as well as seasonal and vegetable gardens. In the study area, personal farming (80%) with labour intensive techniques (60%) dominates other forms of farming operations: group farming as well as capital and mixed farming systems. However, most of the women farmers do harvest > 1 ton (80%) of farm produce at the end of farming seasons. This high women involvement in agriculture is justified from the study according to its role as supportive mechanism through which poverty, unemployment, and hunger are effectively safeguarded against.

Majority of the sampled women farmers rated KADP offers as best while others rated it as good but few among them rated these offers as poor. This was based on the evidence that these interventions (offers) by KADP have improved sampled women (94%) status in agriculture in the study area. These women revealed that modality of KADP operations through seeking women opinion, visiting localities, and organizing women programmes have indeed provided them with psychological support, boosted their morale, and also provide them with opportunities in the presence of their male counterpart. Hence, this resulted positively in enhancing their farm output.

5.3 Discussion of Findings

It is found from the study that agricultural undertaking is exclusively the work of youth and adult ranging from 18 – 57 years as those above 57 years (old) were not among the sampled women. This is consistent with the findings of Chayal, *et al*. (2010) that strong correlation exists between women age and their participation in agriculture in India. They found young aged women farmers with physical abilities which enable them to perform more agricultural activities. Contrary to the findings of Chayal, *et al*. (2010), this study found family structure, number of children, and educational background of the sampled women to have strong influence on women participation in agriculture in the study area. Also, farming among sampled women in this area is taken as supportive mechanism as participation is dominated by both the widow and divorced (36% each).

The study also found that the most farm size of ownership by sampled women farmers in Kogi State is 1 – 2 hectares of land (40%). While 3 – 4 hectares and 5 – 6 hectares are equal in ownership proportion (12% each), less than 1 hectare constitutes 24% of ownership with majority using labour intensive farming technique thereby making their output just greater than 1 ton even though many of the respondents are into continuous (all years round) farming while the remaining are equally into vegetable garden and seasonal farming; they. This agreed with the findings of Emmanuel (2008) that farm size and farm techniques significantly influenced women farm produce. In the study area, one of the main problems is poor access to farm machinery as majority of the sampled women rely on commercial for their farm operations. More so, information obtained through focus group discussions (FGD) with women revealed that farming has been termed as ancestral inheritance and it is the easiest occupation that can be indulged with little constraints. It is also found that land for farming is obtained through family inheritance and leasing while capital and farm inputs (seedlings, fertilizer, and chemicals)

are secured through Agricultural development Project of the State (KADP), financial institutions, and friends.

One of the reasons inferred from the study to be responsible for small size of farm – land ownership (1 – 2 hectares) by the majority of respondents is farming system employed. Larger proportion engage in labour intensive system with very few practicing capital intensive system while the remaining women farmers adopt mixed farming system. Olayemi (1980) and Aromolaran (1992) found that small sized farms are characterized by low level of operation, low literacy of operators, and a labour intensive production. Thus, in the present contemporary world where science and technology have become the dictator of the day, about 20% of the respondents still have their farm output less than or equal to 1 ton. In spite of this, about 80% of the women farmers do have farm output greater than 1 ton.

However, the study found a significant evidence of sampled women participation in agriculture in the study area. This is due to fact that all categories of sampled women: youth and adult, widow, divorced, married, and single; all categories of educational qualifications, among others.

From the study, poor access to farm machinery is the highest of the problems encountered by the sampled women. This is followed by non access to effective market as most of the sampled women output serve their village (local) markets. Capital, fertilizer, improved seedling, and extension services were among the problems being faced by the sampled women farmers in the study area.

The introduction of Kogi State Agricultural Development Project (KADP) has improved women participation in the agricultural sub – sector of the state as indicated by

majority of the respondents (94%) through opinion seeking, visitation to localities, and organizing women programmes. Based on the efforts made by KADP, its performance in mainstreaming women into agriculture in the state are described as best and good by 175 out of 250 respondents. Although, 70% (175 respondents) of the women described their agricultural income as moderate, 84 of them want their children to specialize in agriculture, 49 are contented in agricultural sector, and 42 wish to remain in the sector no matter the improvement in the general economy. In addition, 10% and 20% believed their income to be high and small respectively. Kindness and Gordon (2001) postulated that the intervention of NGOs and CBOs in agricultural development in developing countries has changed the dimension and opportunities of the less privileged and poor farmers to greater future hope in agriculture.

Hence, the respondents want the KADP to intensify effort in mainstreaming women into agriculture so as to enable them take full advantage of their potentials in making meaningful contributions to rural as well as national development and thus raise their living standard above average. According to them, this will give them more opportunity to assist their husbands, cater for their family, and live an independent life thereby improving their productivity and making them competitive with their men counterpart.

5.4 Conclusion

In an evaluation of women participation in agriculture; the role and impact of agricultural development project (ADP) in Kogi State, the following conclusion are drawn based on the data analysis and findings from the study:

Agricultural undertakings are found to be the work of youth and adult among the sampled women in the study area. Sampled women aged 18 – 57 years are those found in agriculture and none of those above 58 years of age is identified to be engaging in agricultural undertakings. An agricultural undertaking in the study area is also seen as a supportive mechanism given that widow and the divorced dominate in the participation.

The study found that women participation in agriculture in the study area is significant. This is due to their involvement in the three forms of participation identified in the study: participating all year round, participating seasonally (sometimes), and participating in vegetable garden. The farm produce of majority of women is also found to be greater than 1 ton even though small farm land (1 – 2 hectares) is prevalent among the sampled women.

The major problem facing women farmers in the study area is poor access to farm machinery as majority depend on commercial equipment thereby making them to employ labour intensive technique of farming. The sampled women also identified non access to efficient market as well as poor prices for their farm produce.

Kogi Agricultural Development Project (KADP) is found to have positively impacted on women participation in agriculture in the study area. This is achieved through the effort of KADP in organizing sampled women into farm group and introducing exclusive women agricultural programme: *women in agriculture*. The KADP

also embark on the provision of basic farm input to women in the study area which they have rated as best and good: chemical/fertilizer, extension services, and improved seedling while capital and farm machinery programmes are not effective.

Sampled women farmers in the study area are contented in agriculture thereby wishing to remain, want their children to engage in the sector even though the income generated by the majority is moderate. They thus encourage KADP to intensify its effort in mainstreaming women in agriculture in the study area.

5.5 Recommendations

Based on the findings of the study, the following recommendations are imperative:

- The government of Kogi State and the KADP should introduce programmes that will encourage the youth and adults to remain in agriculture sector. This programmes should also address the plight of the widow and the divorced who are the majority participants among the sampled women. In this regard, agriculture sector of the state will remain attractive and effective thereby providing the necessary cushion against social vices and generating more employment opportunities as well as ensuring food security of the state.
- The study identified small land size ownership by women farmers in Kogi State mostly 1 – 2 hectares. The respondents revealed that most farm lands are obtained mainly through family inheritance. However, such agricultural undertakings discourage mechanization as well as capital intensive system development. Therefore, the government of Kogi State in particular and Federal Government of

Nigeria in general should formulate and implement policy on land tenure system that will give women adequate access to farming land so that their farm land could improve to medium (4 – 5 hectares) and even large (at least 7 hectares). In this policy, land allocation for residential and industrial development should be clearly distinguished from agricultural lands.

- Contract and out-growing farming system should be developed in the state as a way of ensuring consistent market and steady agriculture output prices. This will enable women farmers the opportunity to earn high income from their participation in agriculture and help in the fulfillment of their dreams. These systems of farming can also help reduce poor access to farm machinery as the involved agro – allied industries and other participants will make some of the required machinery available to those women farmers that may be involved.
- KADP should redesigned its programmes and projects towards becoming women focus as this will provide them the opportunity to develop and utilize their endowed potentials thereby making competitive and efficient in agriculture and home management as well.

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APPENDIX I

QUESTIONNAIRE FOR WOMEN FARMERS

Dear Respondents,

I am a Post-Graduate student of the above named department and currently undertaking a thesis write-up titled: *Agricultural Development Projects (ADPs): Study of Women in Rural Development in Kogi State,* in partial fulfillment for the award of Masters' Degree in Sociology.

I will be most grateful if you could sincerely provide responses (answers) to the following questions.

I assure you that all your responses shall be treated as high confidentiality and the results wherefrom shall be used exclusively for academic purposes only.

Anticipating your co-operation and responses.

Yours sincerely

Musa Aboda Bilkisu

(M. Sc/SOC-SCIE/49320/2005-06)

BIO DATA

1. What is your age range?

a. 18–27 Years [ ] b. 28–37 Years [ ] c. 38–47 Years [ ] d. 48–57 Years [ ] e. 58–67 Years [ ]

2. Marital status a. Single [ ] b. Married [ ] c. Widowed [ ] d. Divorced [ ]

3. What is the nature of your marital home?

a. Monogamous [ ] b. Polygamous [ ] c. Others (specify) [ ]

4. What is your position among wives in the house? a. First [ ] b. Second [ ] c. Third [ ] d. Fourth [ ]

5. How many children do you have? a. 1–3 [ ] b. 4–6 [ ] c. 7–9 [ ] d. 10–12 [ ] e. 13 and above [ ]

6. What is your educational qualification?

a. Primary [ ] b. Secondary [ ] c. NCE [ ] d. OND [ ] e. HND [ ] f. University Degree [ ]

7. What is your religion? a. Islam [ ] b. Christianity [ ] c. Traditional Religion [ ]

WOMEN PARTICIPATION IN AGRICULTURAL PRODUCTION

1. How frequent do you engage in farming activities?

a. All year round [ ] b. Sometimes [ ] c. Just vegetable garden [ ]

2. What is the size of your farm land?

a. Less than 1 hectare [ ] 1–2 hectares [ ] c. 3–4 hectares [ ] d. 5–6 hectares [ ] e. More than 7 hectares [ ]

3. Do you normally hire labour to work in your farm? a. Yes [ ] b. No [ ]

4. What is the structure of your farm? a. Personal [ ] b. Group [ ]

5. Do you have more than one farm land? a. Yes [ ] b. No [ ]

6. What farming system do you normally use? a. Labour intensive [ ] b. Capital intensive [ ] c. Mixed [ ]

7. Does your farm output exceed one tone every year? a. Yes [ ] b. No [ ]

PROBLEMS OF WOMEN IN AGRICULTURE

1. Do you have easy access to land for farming? a. Yes [ ] b. No [ ]

2. If no, what is the problem? …….

…….

3. How do you acquire land for your farming activities?

a. Family land [ ] b. Hire [ ] c. Lease [ ] d. Government allocation [ ] e. Others (specify) …….

4. Do you have enough capital for your farming activities? a. Yes [ ] b. No [ ]

5. Do you have access to credit facilities in your area? a. Yes [ ] b. No [ ]

6. If yes, what is the source?

a. Family/Friends [ ] b. Government [ ] c. Banks [ ] d. Others (specify) ----------

7. What source of Machines do you use in your farm?

   a. Personal [ ] b. Government [ ] c. Cooperative [ ] d. Commercial [ ]

8. Do you have access to fertilizer in your area? a. Yes [ ] b. No [ ]

9. Do you have access to chemicals in your area? a. Yes [ ] b. No [ ]

KADP AND WOMEN IN KOGI SATE

1. Does KADP seek for the opinion of Women farmers before making provision? a. Yes [ ] b. No [ ]

2. How frequent does KADP staffs visit your locality?

   a. Once a year [ ] b. Twice a year [ ] c. Thrice a year [ ] d. Always [ ]

3. Did KADP ever organize any special programmed for Women? a. Yes [ ] b. No [ ]

4. If yes, please name the programme ……

5. Which of the following does KADP offer to Women?

   a. Credit facilities [ ] b. Farm implements [ ] c. Fertilizer/Chemicals [ ]

   d. Extension services [ ] e. Improved seedlings [ ] f. All of the above [ ]

6. Does KADP assist in the marketing of your farm produce? a. Yes [ ] b. No [ ]

7. Has the presence of KADP improved your participation in agricultural production? a. Yes [ ] b. No [ ]

8. If yes, please explain ……..

WOMEN PRODUCTIVITY AND SUSTAINABLE RURAL DEVELOPMENT

1. Are you happy working in agricultural sector? a. Yes [ ] b. No [ ]

2. How would you describe the income you generated from farm produce?

   a. Very small [ ] b. Moderate [ ] c. High [ ]

3. Would increase in your farm output increase your income? a. Yes [] b. No [ ]

4. If your income improves from agricultural activities, would you prefer working in another sector of the economy? a. Yes [ ] b. No [ ]

5. Would you prefer any of your Children to engage in agriculture if the conditions improve? a. Yes [ ] b. No [ ]

6. Would you want KADP to develop more Women-targeted programmes in your locality? a. Yes [ ] b. No [ ]

7. How would you rate KADP performance in your area?

a. Poor [ ] b. Good [ ] c. Best [ ] d. Undecided [ ]

APPENDIX II

In – depth Interview Guide for the Staff of ADP

1 How does KADP organizes programmes for the farmers in the state?

2 What are the criteria for making Women benefit from KADP programmes?

3 How are the Women's responses?

4 What role is KADP playing concerning Women mainstreaming into agriculture in Kogi State?

5 What are your recommendations on how Women can best be served by KADP in Kogi State?

6 Does KADP organizes exclusive Women programmes in Kogi State?

7 How often does KADP organizes programmes for Women Kogi State?

8 How does KADP respond to special circumstances (such as drought, disease outbreak, e.t.c) affecting farming activities in Kogi State?

APPENDIX III

FOCUS GROUP DISCUSSION GUIDE ON WOMEN FARMERS

FARMING ACTIVITIES

1 What motivated you to take farming as a hobby?

2 What are your dreams as a farmer in this locality?

3 Do you encounter any problem in your farming activities?

4 If yes, what are some of these problems?

5 Are you aware that KSADP organizes programmes to promote and assist Women farmers in your locality?

6 If yes, how often are these programmes been organized in your locality?

7 To what extent has KSADP solved the agricultural problems listed above?

In case, should any respondent identify that she is not aware of the existence of KSADP, the researcher and interpreter would introduce KSADP and its functions to the respondent and the following questions would be asked.

8 Would your farming activities been enhanced with KSADP programmes?

9 If no, why?

10 Would you prefer KSADP to intensify their present farming programmes and projects in your locality?

11 Are the KSADP programmes covering Women farmers in your locality?

12 What areas would you want the KSADP to focus on the programmes on Women farmers?