ASSESSMENT OF CONTRIBUTIONS OF NON-FARM ACTIVITIES TO POVERTY REDUCTION AMONG RURAL WOMEN IN KAJURU LOCAL GOVERNMENT AREA OF KADUNA STATE, NIGERIA

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CHAPTER 1: INTRODUCTION

1.1 BACKGROUND TO THE STUDY

In many parts of the world, the number of poor people in rural areas exceeds the capacity of agriculture to provide sustainable livelihood opportunities. Even with a decline in fertility rates and a slowing of population growth, this situation will not change significantly. Any attempt to alleviate poverty and improve the living standards of the rural poor and this requires a much broader perspective than simply agricultural development (Szirmai1997: 51). The population of rural areas of developing countries is now approximately three billion, and which makes up a large portion of the world's poor (UNDP, 2009).

Poverty in Sub Saharan Africa is of particular concern and a major development challenge. The United Nations Millennium development goals (MDGs) Report, 2005, reported by National Bureau of Statistics (NBS, 2007), confirms that while global poverty rates have been falling, led by Asia, millions of people in Sub Saharan Africa have sunk deep into poverty. The poor are getting poorer, owing to a vicious circle of low income, low savings and investment and consequently low living standards. The persistence of poverty in developing countries has been one of the challenging problems in the world today, available statistics show that as much as 1.4 billion people, out of about 7 billion around the world live on less than US$1 a day and were thus classified as extremely poor with over 850 million people going to bed without sufficient food (UNDP, 2008).

Despite the rapid process of urbanization observed in most developing and transition countries, poverty still remains a predominantly rural phenomenon (UNDP, 2008), these trends are expected to persist in the foreseeable future. With a population of over 140million on a land area

of 926,000sq kilometers (NBS, 2006), Nigeria's rural economy remains largely agriculture based whereas the rural sector carries 70% of the country's population and the bulk of its natural resources (Federal Ministry of Agriculture and Rural Development, FMARD 2001). Whilst there is potential for out- migration, it is not an option for everyone, especially women and in any case, urban centers cannot be assumed to be capable of providing adequate livelihood opportunities for all those unable to make a living in agriculture (Marsland, Robinson, Davis, Gordon, and Long, 2000). Moreover, urban centres in Nigeria have limited absorptive capacity because of the poor level of urbanization.

Not only do a majority of the poor live in rural areas, it is estimated that 85% of the country's extreme poor belong to the rural areas and women constitute 60% of this number, but also the severity of their destitution is, on average, far greater than in urban areas. This indicates an important role for rural non-farm activities in reducing poverty in rural areas (NBS, 2007). That being the case, it is critical that rural poverty is addressed in both poverty reduction strategies and, generally, as part of policies seeking to promote rural development.

Correspondingly, it is important for developing countries and international development organizations, in assessing approaches to rural development, must not view agriculture as a basis for rural development, an approach which has neglected the contributions of other sectors and their effectiveness in reducing rural poverty and improving the quality of life of rural dwellers. It is therefore useful, when thinking about rural development, to consider, both agricultural and non agricultural other income generating activities, carried out by rural households, to an understanding of the relationship between the various economic activities, and of their implications for income growth and poverty reduction.

The Oxford Dictionary (2010) defines poverty as the state of being extremely poor, that is the state of being inferior in quality or insufficient in amount. Poverty can also be defined as lack of material wellbeing, insecurity, social exclusion, psychological dismay, lack of freedom, and low self esteem. According to the International Monetary Fund (IMF, 2014) poverty is pronounced deprivation in wellbeing comprising many dimension which includes low income and the inability to acquire the basic goods and services necessary for survival and dignity, while the united nations view poverty as the inability of getting choices and opportunities, a violation of human dignity and lack of capacity to participate effectively in society, in other words it means insecurity and powerlessness.

The World Bank's Development Report (2000), defines poverty as an unacceptable deprivation in human well-being that can comprise both physiological and social deprivation. Physiological deprivation involves the non-fulfillment of basic material or biological needs, including inadequate nutrition, health, education, and shelter. A person can be considered poor if he or she is unable to secure the goods and services to meet these basic material needs. The concept of physiological deprivation is thus closely related to, but can extend beyond, low monetary income and consumption levels. Social deprivation widens the concept of deprivation to include risk, vulnerability, lack of autonomy, powerlessness, and lack of self-respect.

In Nigeria the incidence of poverty has been on the increase with about 70.8% of the population living on less than 1USD per day (UNDP, 2009). While the rural sector carries 58.7% of the country's population and the bulk of its natural resources, a disturbing aspect of rural life in Nigeria is the striking poverty that has become almost intractable (Adedayo and Yusuf, 2004). its communities are subsisting under poor conditions devoid of opportunities and options within environments lacking in basic facilities such as roads, schools, water supply and sanitation,

energy and communication and characterized by illiteracy, poverty, hunger, disease, The National Bureau of Statistics (2006) also agrees that poverty is higher in rural areas (63.8%) than urban areas (36.2%).

For many decades now, agriculture has remained the main source of income and employment in rural areas of developing countries Nigeria inclusive and most households are involved in the farm sector. However, the non-farm sector is becoming increasingly important (Haggblade, Hazell and Reardon, 2002). Growing interests in rural non-farm incomes reflects increasing evidence that rural people's livelihoods are derived from diverse sources and are not overwhelmingly dependent on agriculture as previously assumed.

Farm activity means agricultural activity and non-farm activity is used synonymously with non-agricultural activity. There are two alternative approaches to define rural non-farm sector (Saith, 1992). The first is the locative approach in which the primary criterion is that a rural non-farm activity is performed on a location which falls within a designated rural area. The second is based on the linkage approach where an industrial enterprise generates significant development linkages with the rural areas. The former is adopted in this study and to this end non-farm activities refer to those activities that are not agriculture or forestry or fisheries; however non-farm does include trade of agricultural products (Marsland *et al*., 2000).

The term non-farm should not be confused with off-farm, the latter refers to activities undertaken away from the households own farm. Ellis (1998) considered the non-farm to include activities other than production of primary agricultural commodities. This study, therefore considers nonfarm activities to include; artisanal mining, rural small and cottage industries, construction, commerce and trading, tailoring, hair dressing, basket weaving, restaurants and food vending.

Others includes Poultry, Pottery, Personal and government services, retail of airtime, rope-making and in fact all other activities that are income-generating other than production of primary agricultural commodities. The non-farm sector has grown significantly in recent years and its role in rural development has become increasingly important. The significance of the non-farm sector is even more pronounced in agriculturally low productivity zones (Davis and Cristoiu, 2002).

The 2006 National Census, published in 2007, puts Nigeria's population close to 150 million. Fifty two percent of the population are women and about 45% of them live in the rural areas, the highest percentage of which are in the northern part of the Country(NPC, 2007). Most of these women are poor; the reason for this poverty may be attributed to the common approach to rural poverty reduction in Nigeria which relies almost entirely on the production of crops and livestock which depends solely on land. Evidence shows that the traditional land ownership system prevalent in Africa and Nigeria in particular do not encourage ownership of land by women (NBS, 2007).

Incidence of poverty among women has attracted particular attention because women constitute the majority in rural areas (Khan, 2001) and some of them are household heads catering for children, the aged and other vulnerable groups in the society. Participation in the rural non-farm activities allows poor people, women inclusive to offset fluctuations in agricultural income that usually occur on a seasonal basis or as a result of unexpected events such as flooding, this is especially the case where savings, credit and insurance mechanisms are not available for this purpose, as is the case in many rural areas of Nigeria.

Most of the past rural development and poverty reduction approaches by successive governments in Nigeria were largely agriculture-related, aimed at boosting food production. They, however, failed to meet the food aspirations of the nation neither did they uplift the poor in any significant way because they were based on faulty philosophy. The philosophy behind them was that of making farmers out of all Nigerians. There is no evidence that any country in the world has attained self- sufficiency in food and indeed significantly reduced poverty level by turning all its citizens into farmers. A rundown of some of these intervention measures reveal that they have not yielded the desired impact, as the incidence of poverty in Nigeria's rural areas continues to rise.

The availability of various economic activities besides agriculture allows accumulation of capital for investment into farm inputs and creates opportunity for women outside unremunerated domestic work. Income from these alternative sources could lead to poverty reduction; help to cope with shocks usually emanating from poor yields and natural disasters.

Past studies (Awoyemi, 2004; Jonasson, 2005; Benjamin and Kimhi, 2006) reported that the contribution of non-farm activities in a rural economy cannot be neglected; this is because they have grown substantially during the last decade and their share of total household income ranges between 30% and 50% in some developing countries. Following the principle of revealed preference, observed diversification patterns provide important evidence as to what households consider their most attractive options, given the constraints they face and their preferences. As remarked by Barrett and Reardon (2000), four distinct rural livelihood strategies could be identified. Some rural households depend exclusively on their own agricultural production for income, which is full-time farmer strategy. Others combine own production on-farm with wage labour on others' farms. The other two strategies combine farm and non-farm earnings. In this

work the focus is on the full time farmer strategy on the one hand and the farm and non-farm earnings on the other. In this respect, the behaviour of women in diversifying their sources of income and employment from solely agriculture to include non-agricultural, could be considered to be important requirement for rural poverty reduction in Nigeria.

Women involvement in non-farm activities is expected to lead to sustainable income, release pressure on migration and tighten the labour supply for agriculture. This study therefore examines the contributions of non-farm activities to poverty reduction among women in Kajuru Local Government Area of Kaduna State.

1.2 STATEMENT OF RESEARCH PROBLEM

The traditional image of farm households in developing countries has been that they focus almost exclusively on farming and undertake little rural non-farm activity. In many rural areas, agriculture particularly farming alone cannot provide sufficient livelihood opportunities. Migration is not an option for everyone and especially women. Rural non-farm employment can play a potentially significant role in reducing rural poverty and numerous studies indicate the importance of non-farm enterprise to rural incomes.

Women living in rural areas of Nigeria are known to be suffering from general deprivation; the reasons may not be unrelated to the socio-economic status of the rural women (Phillips 2006). Obeng (2002) reporting a study conducted by IFAD in 2001 revealed that 60% of the rural poor are women. As pressure on the land increases with growth in population and unfavourable land administration and ownership systems, where lands traditionally belong to the males, diversification of income is inevitable for women, who are usually at the receiving end of these pressures.

In rural Africa, Nigeria inclusive, many ecosystems are on the verge of collapse (UNDP, 2009). The interplay of social, ecological and economic forces has compromised the ability of farmers to sustain their precious soil. As a result farmers and especially women farmers face a constant struggle to survive. Soil degradation in part is not simply a function of population pressure and ignorance rather it is embedded in gender relations and complex struggles in Africa. Full time housewife practice died as a result of poverty, the substandard socio-economic conditions coupled with constraints from fluctuating farming activities have made income diversification a necessity for women.

A large body of literature suggests a potentially strong relationship between the rural non-farm sector and rural poverty. Ellis and Bahiigwa (2001) argue that household level diversification has implication for rural poverty reduction since it means that income from non-farm sources will raise household income by the same margin. Mwabu and Thorebecke (2001) posit that since rural people derive a livelihood in one form or another from nonfarm activities, increasing profitability of these activities would improve living conditions in rural areas.

As Griffith, Kindness, Goodland, and Gordon (1999) reminded us, the majority of the poor in Sub-Saharan Africa are women. They have therefore, greater need than most for the income that can be secured through involvement in non-farm activities. With the sudden rise in world oil price in the mid 1970's that resulted in severe inflation in Nigeria coupled with widespread unemployment and corruption, the women were left with the onerous task of household heads occasioned by the migration of the male heads in search of greener pastures outside the rural areas. Consequently many women use non-farm sector as the last resort (UNDP, 2009).

Women have long been constrained in the activities in which they are allowed or able to participate, by tradition, religion, and other social reasons. Both Ellis (1998) and Newman and Canagarajah (1999) point out the activities in which women are involved are more circumscribed than those for men. Gender issues, particularly those pertaining to reduction of poverty among women did not get serious attention until the declaration of United Nations decade for women (Ijatuyi, 2004).

Women's involvement in income earning opportunities has greater significance than simply increasing their own or household income. Islam (1997) stated that it strengthens their decision making power within the household, helps limit family size, and improves child nutrition and education, and went on to report that the share of the non-farm sector in rural employment in developing countries varies from 20% to 50% and in Africa 22% to 93%

Reardon (1997) documents that the typical rural household in Africa has more than one member employed in a non-farm enterprise, adding that in Africa the average share of rural non-farm incomes as a proportion of total rural incomes, at 42%, is higher than in Latin America and Asia. It has already been noted that majority of the poor in sub-Saharan Africa are women. They have, therefore, greater need than most for the income that can be secured through involvement in the nonfarm sector.

In previous studies, Haggblade *et al*., (2002) examined issues related to the structure and growth of non-farm employment. Reardon *et al*., (2000) examined the risk and vulnerability in the rural non-farm economy finding that wage employment is much more important than self employment, the later being more risky and capital intensive. Lanjouw and Feder (2001) focused on economic analysis and policy implications of farm and non-farm employment.

Given the multitude of constraints facing women in farming, ranging from; inadequate access to farm land, improved seedling, fertilizers, pesticides, agricultural finance, to long absence from the farm due to maternal activities, underlining the bleak implications of these, calls for this study. The incidence of rural poverty in Africa, Nigeria inclusive also call for this study.

Based on the research problem, this study intends to provide answers to the following questions:-

i. What are the non-farm activities engaged in by women in Kajuru Local Government Area?
ii. How do the non-farm activities influence the income of women in the study area?
iii. What is the incidence of poverty among rural women in the study area?
iv. Are there favourable and inhibitory factors to these non-farm activities among women in the study area?

1.3 AIM AND OBJECTIVES

This study seeks to assess the impact of rural non-farm income on poverty of rural women in Kajuru Local Government Area of Kaduna State. The specific objectives are to:-

i. characterize the non- farm activities engaged in by women in the study area.
ii. assess the contribution non-farm activities to the income of women in the study area
iii. assess the effect of non-farm income on poverty reduction among the women in the study area.
iv. analyze favourable or inhibitory factors to rural women involvement in non-farm activities.

1.4 RESEARCH HYPOTHESIS

Based on the research questions the following research hypothesis is put forward:

Ho: Non-farm activities have not contributed significantly to income of rural women in Kajuru Local Government Area.

1.5: JUSTIFICATION OF THE STUDY

For a long time, lack of understanding of the key income sources of poor people has sometimes led to the inadvertent misdirection of poverty reduction policies to the rural non-poor. It follows that the incorporation of livelihood criteria that capture the diversity of income sources could result in projects that are more attuned to the livelihood strategies of the poor and which, therefore, are more accurate in reaching them. But official data give little indication of households' and individuals' sources of livelihood because of the informal nature of activities and sensitivities about providing information on income. In other words the importance of non-farm activities has been neglected in most rural development issues.

Research on rural economies is increasingly showing that rural people's livelihood are derived from diverse sources and are not overwhelmingly dependent on agriculture as previously assumed Reardon (1997).

This work is justified, given the increasing focus on poverty and poverty reduction in the agenda of the development community. Therefore an attempt is being made to establish the quantitative importance of this sector and to ask the question: whether these activities are productive enough to ensure the women a decent income and level of living or are non-farm activities of a mere

residual nature to which women turn merely as a last resort? It is also relevant with respect to the growing body of research which seeks to replace earlier, simplistic structural adjustment programmes with more sustainable livelihood approaches.

Although statistics on poverty level of women in Kajuru local Government Area is not only lacking, examination of the living conditions of the women reveals a serious level of deprivation. It is therefore pertinent to analyze the contributions of such complementing livelihood options available to them and the roles played by these non-farm activities need to be investigated as well. This investigation will provide necessary data on which poverty reduction through non-farm endeavours can be built on. The absence of such investigation calls for this study.

Furthermore this interest in diversification of rural income generation is to illustrate that despite the reliance on agriculture as the driving force of the rural economy over half of the population remains in poverty.

The data generated from this research will form a data base for consultations by policy makers in the local government and for subsequent similar studies. The study would serve as an essential tool to individuals as well as communities to raise awareness, and perhaps change their attitude towards engaging in rural non-farm economic activities that could ameliorate their livelihood conditions. To this end the challenge for policy makers would be how to ensure that the growth of rural non-farm economic activities can be harnessed to the advantage of poor rural women and identify mechanisms to best exploit synergies across agricultural and no agricultural sectors.

1.5 SCOPE OF THE STUDY

The spatial scope of the study will cover the entire Kajuru Local Government Area (figure3. 2). The focus of the study will be women who fully participate in agriculture as their only source of

income and those other women who adopt both agriculture and non-farm activity as their source of livelihood; details on the participation of individual women and income from both sources, what property are acquired, safety net used among other things will be examined. The temporal scope will be the last five years from 2010 to 2014.

1.6 ORGANIZATION OF THE STUDY

This study is organized into five chapters. Chapter one includes the background of the study, statement of research problem, the study aim and objectives, justification and scope of the study. Chapter two is essentially on the review of related literatures. Chapter three deals with the study area and methodology of data analysis, where location and geographical features of the area were stated as well as data collection, sampling procedure and tools used in analysis were discussed. Chapter four presents the data and discussion on the various findings. Chapter five is summary and conclusions, as well as recommendations reached.

CHAPTER TWO: LITERATURE REVIEW

2.1 Conceptual Classification on rural non-farm activities

The literature on farm and non-farm issues is plagued by definitional problems (Gordon and Criag, 2001). Reardon (2000) defines non-farm as activity outside agriculture. Here non-farm refers to those activities that are not primarily agriculture, forestry or fisheries. However, non-farm does include trade or processing of agricultural products. The term non-farm should not be confused with off-farm. The latter generally refers to activities undertaken away from the households own farm, and some authors for example (Ellis, 1998) used it to refer exclusively to agricultural labouring on someone else's land, so off-farm used in this sense would not fall within the normal definition of non-farm. The term rural is subject to a similar amount of debate; hence the practical solution is for researchers to make sure that the definition they have adopted is clearly stated. The text refers to 'activities' to emphasize the income generating endeavors undertaken in the study area. Finally, there is the unit of observation which are the women referring to the female gender in the society.

As for the relationship between rural non-farm employment and economic wellbeing, the evidence points predominantly to the poverty alleviating (or welfare increasing) effect of the non-farm sector (Reardon *et al*., 1992; Block and Webb, 2001; Ravallion and Datt, 2002). It has been argued, however, that the direct contribution of the non-farm sector to economic wellbeing is quite muted as it is difficult for the rural poor to enter better remunerated types of non-farm employment (Barrett *et al*., 2001; Lanjouw and Shariff, 2002). The poor typically lack skills, capital for investment, access to information, and social networks that condition entry into lucrative nonfarm market niches (Barrett *et a*l., 2005). Richer households, on the other hand,

have assets that enable them to undertake high-return non-farm employment that adds considerably to their incomes. Although there is little doubt that the nonfarm sector is important for rural households, whether the nonfarm sector offers prospects to reduce poverty and improve wellbeing of the rural poor still remains a contentious issue.

Whilst there is potential for out-migration, urban centers cannot be assumed to be capable of providing adequate livelihood opportunities for all those unable to make a living in agriculture (Marsland *et al*., 2000). This indicates a potentially important role for rural non–farm activities in reducing poverty in rural areas. Rural non-farm activities may:

- absorb surplus labour in rural areas;
- help farm-based households spread risk;
- offer more remunerative activities to supplement or replace agricultural income;
- offer income potential during the agricultural off-season;
- provide a means to cope or survive when farming fails.

Most evidence shows that rural non-farm activity in Africa is fairly evenly divided across commerce, manufacturing and services, linked directly to local agriculture or small towns, and is largely informal rather than formal (Reardon, 1997). Nonetheless, there are many ways in which rural non-farm activities are important to women in Africa. Cottage industries enable women to combine income-generating activities with other tasks, such as food preparation and childcare. Examples in Sub-Saharan Africa include fish processing, edible oil processing, Crochet, Rice husking, groundnut shelling and other small trading activities.

Successive Nigerian Governments have attempted to tackle the problem of poverty as a major impediment to rural development. These intervention measures were mainly agriculture-related.

The Green revolution of 1979, whose main aim was to curtail food importation and boost crop and fiber production was criticized for enriching senior civil servants and high military officers at the expense of peasant land owners; the back to land programme introduced by Buhari, fizzled out almost immediately, even with the existence of the Nigeria Agricultural and Cooperative Bank (NACB); The National Agricultural land Development introduced between 1992 and1994 to develop 3000-5000 hectares of land in each state for agricultural purposes, suffered from the drawback of offering the land to highly placed public officers and rural rich individuals at the expense of the targeted poor rural population. The Directorate of food, Roads and Rural Infrastructure (DEFRRI), the Strategic Grains Reserve Programme, The Family Economic Advancement Programme, were no doubt well-intended, but suffered certain drawbacks which inhibited their overall impact on the poverty situation. Reasons being that the programmes lacked targets, took no adequate account of technical capacity and budgetary limitations. Also limited participation of beneficiaries in planning and implementation processes estranged some of the interventions. Because some intervention programmes lacked focus, they ventured into too many activities and became unsustainable (NBS, 2007). The Better life for Rural Women Programme that was specifically targeted at women introduced by Mrs Maryam Babangida, however suffered due to unavailability of technical support.

2. 2: Rural Non- farm Activities – Their Relative Importance within Rural Economies.

Rural development has been pushed to the top of agenda in Nigeria's national development drive. The upsurge of interest in rural development can be attributed to a number of events which had their origin in our colonial heritage and the unanticipated oil boom of the seventies. These were massive rural-urban drift of able bodied young men and women, declining productivity in agriculture, increasing food imports, growing unemployment and the widening gap, in welfare

terms between the urban and rural areas. In addressing this imbalance, there is growing interest in rural non-farm activities as research on rural economies is increasingly showing that rural people's livelihoods are derived from diverse sources and not overwhelmingly dependent on agriculture as previously believed. Moreover, policy makers are turning their attention to the wider rural economy, as they seek ways to reduce persistent rural poverty. The existing literature points to a strong relationship between nonfarm employment and rural welfare. One strand of empirical work has examined extensively the impact of nonfarm employment on income inequality in rural areas.

Other researchers have been predominantly interested in nonfarm employment as a strategy to combat rural poverty and improve economic wellbeing. This could well occur if all households earn nonfarm incomes, with the wealthier households earning relatively more of these incomes. Empirical evidence on the relationship between nonfarm employment and income inequality is abundant and varied. Adams and He (1995) found that sources of nonfarm incomes decrease income inequality; Others have found that nonfarm employment is inequality- increasing (Reardon *et al*., 1996; Canagarajah and Thomas, 2001)..

Employment in rural non-farm sector has traditionally been seen as low productivity sector, however the experience in many developing countries in not distant past does not lend credence to this view (Bhattacharya, 1996). Numerous studies indicate the importance of non-farm activities to rural incomes. Newman and Canagarajah (1999) found out that the rural non-farm is now more dynamic and important than previously believed. Reardon, (1997) documented small enterprise study that show that the typical rural household in Africa has more than one member employed in non-farm activity. Islam, (1997) reported that the share of the non-farm sector in rural employment in developing countries varies from 20% to 50%. In Africa, the average share

of rural non-farm incomes as a proportion of total rural incomes, at 42%, is higher than in Latin America and higher still in Asia (Reardon *et al,* 1998). Most evidence shows that rural non-farm activity in Africa is fairly evenly divided across commerce, manufacturing and services, linked directly to local agriculture, and is largely informal rather than formal (Reardon, 1997).

Haggblade, Hazell and Brown (1987) found services, commerce, restaurants as the fastest growing non-farm activities. Decisions by rural households concerning involvement in rural non-farm activities depends on two main factors; Household capacity and incentives offered (Lanjouw and Feder, 2001). The later is the focus of this study, where such incentives lead to the reduction of poverty. Rural non-farm activity makes a significant contribution to food access and food security through their various linkages with farming.

Non-farm income compensates for a bad harvest or insufficient land. In other words, for a given woman with a given level of farm income, an increase in non-farm income clearly raises total income by the same amount enriching the woman and compensating a drop in agricultural production. As far as nonfarm income is concerned, women participate to a greater degree in wholesale or retail trade or in local crafts, than in other sectors. Existing patterns of rural non-farm participation suggest substantial entry barriers faced by women, so women also tend to engage in businesses that require lower start-up capital than those in which men are involved. Haggblade *et al*. (1987) provided data for five African countries (Benin, Ghana, Nigeria, Kenya and Zambia) where women's share in employment ranged from 25% to 54%. For reasons of differential access to education, child care responsibilities and social expectations, women are more involved in the informal sector than the formal sector.

Tovo (1992) studied women receiving small business training in Tanzania. The findings suggest a positive impact from training and extension services. The author found that extension services have been particularly helpful, as is evident in the success rate achieved by those who received the training. She suggests that those putting themselves forward for such services may be more dynamic and entrepreneurial individuals, the implication being that they would in any case show a greater degree of success in their enterprise, with or without assistance. She also opined that during their training courses, the women may have made contacts that contributed to the success of their businesses.

In their research on women's enterprise in Mozambique, Horn, Da Silva and Ara (2000) found that the respondents recognized their need for training in the management of money as a prerequisite for success in business. This is likely to be applicable to all farm and nonfarm business since micro entrepreneurs tend not to keep detailed records of income and expenditure, and, therefore, find accurate financial planning and cash flow forecasting difficult, if not impossible. Work by Co-operative League of the USA (CLUSA), also in Mozambique, stresses financial skills, as well as business and marketing planning, in their training of farmers' groups (Kindness and Gordon, 2001). They also found that the potential of the women interviewed in Mozambique was severely constrained by their inability to see themselves in situations very different from those in which they currently live. Limitations of personal vision may also relate to the issue of confidence. Those households with little or no experience of the non-farm sector may not trust their ability to participate successfully, and may decide to settle for lower returns from agricultural activities, in which they feel more confident. The women were risk-averse, fearing leaving their lives differently. Nonetheless, there are many ways in which rural non-farm activities are important to rural areas, for instance cottage industries enables women to combine

income generating activities with other tasks, such as food preparation and childcare. Participation in the rural non-farm activity allows poor people to offset fluctuations in agricultural income that might occur on a seasonal basis or as a result of unexpected events, like flood. This is especially the case where savings, credit and insurance mechanisms are not available, as is the case in many rural areas in Africa. There is little controversy about the short term effects of participation in rural non-farm activity on food access. A case study from Burkina Faso before and after the 1984 drought illustrates the typical consequences: households with greater income diversification were able to buy food and weather the effects of the drought and also tended to have higher overall incomes than those that were not able to supplement their farm incomes with rural non-farm incomes. It is often believed that rural non-farm employment, and thus the microenterprise promotion programmes designed to stimulate this sector, will reduce rural income inequality and, as a result, social and political tensions.

This position is typically presented as a hypothesis that non-farm activity reduces the inequality of total income in the rural areas. Furthermore, in this type of reasoning non-farm income is treated independent of farm income and considered more as an income transfer, i.e. non-farm income compensates for insufficient land. The other side of the coin is that the seasonality of farm labour requirements influences the supply of labour to rural non-farm activity. Planting and harvesting occupy labour in peak seasons of farming activities; demand for farm labour is generally low during the rest of the year, hence the need for non-farm employment. It is important however, that policy analysts do not neglect the low return activities. Lanjouw and Feder (2001) pointed out that, such employment may serve to reduce aggregate inequality; where there exists seasonal or long-term unemployment in agriculture, households may benefit even from low non-farm earnings.

2.3 Rural Non-farm Activity and Poverty Reduction.

One important pathway towards livelihood sustainability involves avoidance of long-term dependency on only one income source (Block and Webb, 2001). Given the key role diversification can play in stabilizing incomes and reducing rural poverty, governments in developing countries, like Nigeria should create an economic environment that can engender diversification of activities and incomes among the rural majority. Although there is little doubt that the non-farm sector is important for rural households, whether the non-farm sector offers prospects to reduce poverty and improve wellbeing of the rural poor still remains a contentious issue.

The relationship between the incidence of poverty and rural non-farm activities could be easily discerned when the sector offers employment opportunities to the poor, with remuneration levels that are sufficiently high to lift them out of poverty. Lanjouw and Lanjouw (1995) suggest that non-agricultural activities could be divided into two groups: high income activities and low income activities. However one of the worrying findings drawn from study of the relationship between non-farm activities and poverty reduction is the poor distribution of non-farm earnings in rural areas, despite the importance of these earnings to food security and farm investments (Reardon, 1997).

This poor distribution implies significant entry barriers and market segmentation. The short term effects of rural non-farm income on food security are reasonably clear. Non-farm income provides the cash that enables a farm household to purchase food during drought, after a harvest shortfall or during difficult times. On the long- term effects on food security, growth in the RNF sector may reduce poverty and income inequality, if income from such activities favors' the

poor. On the evidence of the relationship between the share of non-farm income in total household income, Reardon's (1997) review found that rural non-farm income was more important to the higher income households, however there were also examples where opposite was true, indicating comparable importance of rural non-farm income to total income to both the poorest and the least poor households for example Northern Nigeria.

Rural non-farm employment can play a potentially significant role in reducing rural poverty and numerous studies indicate the importance of non-farm enterprise to rural incomes. Reardon (1997) documents small enterprise studies that show that the typical rural household in Africa has more than one member employed in a non-farm enterprise, finding that rural non-farm shares in Africa ranging from 22% to 93%. Newman and Canagarajah (1999) point to a large body of research that indicates that the rural non-farm sector is thought to be more dynamic and important than previously assumed. In Africa, the average share of rural non-farm incomes as a proportion of total rural incomes at 42% is higher than in Latin America and higher still than in Asia (Reardon, Stamoulis, Basilican, Berdegue and Banks, 1998). Expansion of non-agricultural employment opportunities is likely to tighten casual labour markets in general and thus raise wages in the agriculture labour market (Lanjouw, 1999).

Based on the successful experience of some Southeast Asian countries, the promotion of non-farm rural activities is currently proposed as an alternative measure for rural poverty reduction (Barrett *et al.*, 2001). A broad comparative review of a process described as ide agrarianizationi in Sub- Saharan Africa concluded that perhaps 60%-80% of rural household income in the late 1990s was derived from non-farm sources, in comparison with approximately 40% in the 1980s (Bryceson, 1999). It is also important to note that migration for work elsewhere is one typical mode of diversification in the livelihood of the rural people. Studies conducted by Ellis et

al.(2002) in Dedza District of Malawi revealed that just under 50% of household incomes were derived from own production of crops and livestock, and over 50% from other sources comprising non-farm self employment, remittance income and safety net transfers. This 50:50 split between own farm income and non farm income is consistent with other findings on rural income portfolios across Sub- Saharan Africa (Ellis and Bahiigwa, 2001; Ellis and Mdoe, 2002).

Recently the potential role of non-farm employment has been emphasized, looking for options to enhance household expenditure and investment opportunities through selective engagement in the labour market (Lanjouw and Lanjouw, 1995; Reardon, 1997). It could be argued that this probably informed the policy wisdom that the promotion of rural non-farm employment and rural micro-enterprises, which aim to stimulate the rural non-farm sector, will enhance rural income and, as a result, reduce social and political tensions. Block and Webb (2001) found that wealthier Ethiopian households tended to have more diversified incomes and that those with initially more diversified incomes also had a greater increase in income and calorie intake. This indicates that inequality may increase over time due to differential access to non-farm income. This view has also been expressed that non-farm activities reduce the Gini coefficient of total income in the rural areas, hence are income-equalizing (Reardon, 1997). Barrett *et al.* (2001) concluded that the poor have no other option but to diversify out of farming and into unskilled labour, however increasing livelihood diversification may not reduce poverty. In some instances, diversification is a strategy for coping with poverty rather than a mechanism for escaping it. The asset poor households tend to engage in low return activities that ensure food security without increasing income (Mwabu and Thorebecke, 2001). Empirical studies in Africa show that there is strong positive relation between non-farm share and total household income (Reardon, 1997).

Non-farm income was very unequally distributed; however asset poverty appeared to inhibit entry into remunerative non-farm earnings.

2.4: Factors Influencing Participation in Rural Non-farm Economic Activities

The factors which influence participation in rural non-farm activities by the poor have been identified through empirical study to include a broader range of assets (natural, physical, financial, human and social) over the narrower, traditional focus on farmer's means of production (land, labour and capital).

2.4.1: Natural Capital

Natural capital comprises of the natural resources, such as water, land and common property resources that are also central to rural livelihoods. These resources provide a foundation for farming and also for much of the rural nonfarm economy. The effect of natural capital is felt in several ways:

- Through forward and backward linkages between agriculture, post harvest activities and agricultural inputs and services;
- Through linked labour markets for farm and nonfarm activities and hence, transmission of higher wages in one sector to another;
- Through consumption multipliers, that magnify the effects of growth (decline) in the farm economy;
- Through correlation between household access to land and other wealth-enhancing assets such as education, contacts and finance;
- Through knock-on effects of risk and vulnerability associated with certain natural resource-based activities on the choice of rural nonfarm activities also pursued.

A number of studies have sought to estimate the effect of additional agricultural income on nonfarm incomes. Three results are important here: it seems that a more dynamic agricultural sector will generate a stronger nonfarm multipliers (which supports the 'agriculture as the engine of growth' model); the African multipliers tend to be smaller than those of in Asia (which is consistent with a less dynamic agriculture); and in Africa, the consumption linkages tend to be stronger than the production linkages. Data from Sierra Leon and Nigeria revealed that an additional dollar of agriculture income would generate another 50 cents of nonfarm income (Haggblade *et al*. 1989).

2.4.2 Physical Capital

Physical capital includes infrastructure (e.g roads, electricity, telecommunications, power and water), as well as production equipment and buildings that are more likely to be individually owned. There is a consensus in the literature on the critical role of infrastructure in the development of rural nonfarm economy. Lanjouw (1999:3) notes: "…innumerable studies that document the constrained access of rural enterprises to power and telecommunications, and the high transactions costs caused by inadequate roads. Moreover, there is ample evidence to show that banks, marketing and service centres, training centres and other support activities tend to locate where infrastructure is adequate.

Ellis (1998) observed that in Africa, poverty can be largely explained in terms of location, and lack of access to facilities. When asked what improvements in their circumstances they would most ask, villagers most frequently cite road access. The majority of African farmers currently

sell their products to local markets. However, improvements in transportation can also expose the user to increased competition for rural enterprises formerly protected by remoteness.

Islam (1997) points out that infrastructure improvements not only increases the supply of competing products, they can also contribute to a change in rural tastes and preferences, towards more urban products. Reardon *et al* (1998) comment that the distributional impact of road improvement, is uncertain and will depend on the involvement of lower-asset households in activities favoured or harmed by improved market integration. Certainly access to employment in rural areas will improve.

Power is another critical component of infrastructure. Mains electricity helps to create increased rural nonfarm opportunities in several ways, which include but not limited to;

i. By enabling the development of enterprise for which electricity is a prerequisite;
ii. By reducing costs of, for example, diesel-powered, small scale milling to viable level;
iii. By providing lighting and increasing the hours that can be spent in processing products
iv. By releasing labour from time-consuming and low productivity chores such as manual pounding of grain.

2.4.3 Financial Capital

One of the principal problems for rural households and individuals wishing to start a business, whether in the farm or nonfarm sector, is access to capital or credit. With little or no capital at all for investment, households are limited to a small number of activities which yield poor returns, partly because of the proliferation of similar low entry barrier enterprise. Gordon *et al*. (2000) highlighted the importance of funds available from friends and family in meeting unforeseen

needs, or in investing in nonfarm enterprise. Reardon (1997) observed that own-cash sources, or financing from money lenders, are an important determinant of capacity to start nonfarm businesses or to obtain employment. Horn *et al*. (2000), however, found that women in northern Mozambique generally chose not to borrow from family members, due to the potential problems if they were unable to repay the loan.

2.4.4 Human Capital

Human capital (education, vocational training, good health and Personal vision) are important to the ability to pursue different livelihood strategies. The existence of a positive link between access to, and level of education on one hand and involvement in more remunerative nonfarm activities on the other hand is virtually undisputed. Lanjouw (1999) stated thus: "…..Breaking down the nonfarm sector between casual non-agricultural wage employment and regular salaried employment typically reveals that the probability of employment in the latter sector rises as education level rise. The opposite is often observed for employment in the casual non-agricultural wage sector. (Involvement in self-employment is usually most likely for those with some basic education)".

There are several processes that reinforce the effect of education on incomes:

- Education increases skill levels, which are required for some rural nonfarm activities, or contribute to increased productivity, or may be an employment rationing device;
- Education can set in train processes that increase confidence, establish useful networks or contribute to productive investment (exposure outside the village, migration, using improved earnings to educate other family members to invest in rural enterprise);

- Education tend to be closely correlated with other variables that also improve access to higher income employment (pre-existing wealth, useful social networks and confidence);
- Non-educated family members can benefit from advice given by more educated relatives.

Reardon *et al*. (1998) indicate that education is one of the first major investments of farmers in cash cropping zones, illustrating the point with evidence from cotton-growing areas in Mali following the 1994 devaluation of the CFA franc. Indeed there is ample evidence from rural poverty surveys that underline the importance the poor attach to education of their children.

Islam (1997) argues that primary education enhances the productivity whilst secondary education stimulates entrepreneurial activity. In addition, to being educated themselves, entrepreneurs are better equipped to train employees on the job. Islam (1997) also cites interesting work in Ghana that explores the wider family impacts of one person's education.

There is no doubt that the health status of household members has a significant bearing on their participation in income generating activities, while this general rule applies to health in its broadest sense, at the present time in parts of sub-Saharan Africa concerns about health tend inevitably to focus on HIV/AIDS, Malaria, and Hepatitis among other terminal diseases. For example, White and Robinson (2000) outlined the considerable extent to which HIV/AIDS has impacted on household livelihood in sub-Saharan Africa. Many of the conclusions may also be applicable to health problem other than aids. HIV/AIDS is particularly relevant as it often results in the loss of household members who are at the peak of their productivity, and potentially have most to contribute to the livelihood of the household.

Productive time and material resources are further lost in caring for those afflicted with the disease, and households may have the additional burden of having to take in orphans or other

dependants of the person in question. Coping strategies to tackle this situation mirror to some extent the strategies used by rural households for coping with other shocks, for example, diversifying income sources or migrating to seek work (however, migration has also been found to be a significant factor in the spread of AIDS). White and Robinson (2000) found that as a result of the impacts of HIV/AIDS on household livelihoods, there appears to be growing reliance on non-farm income generating activities. In their research in Uganda, Smith and Zwick (2001) note that the rural nonfarm activities of the poor are often more demanding physically. Respondents recognized that good health was important to their ability to earn rural nonfarm income.

It is interesting to consider a finding of Horn *et al*. (2000) that the potential of the women interviewed in Mozambique was severely constrained by their inability to see themselves in situations very different from those in which they currently live. Limitations of personal vision may also relate to the issue of confidence. Those households with little or no experience of the non-farm sector may not trust their ability to participate successfully, and may decide to settle for lower returns from agricultural activities, in which they feel more confident. The women were risk-averse, fearing leaving their lives differently.

2.4.5 Social Capital

Social capital comprises the social resources (age, gender, family size and structure and networks) upon which people draw in pursuit of livelihoods. There is ample anecdotal evidence of the influence of social capital on access to different types of employment, and an increasing amount of empirical data that supports this also. Lanjouw (1999) observes that:

"…other characteristics [aside education], such as race, gender or caste, also play an important role in determining the probability of employment…"

Several authors address the significance of household members' age in relation to their participation in the non-farm sector. It is important to understand how it affects participation in the nonfarm sector. Smith (2000) noted that it is generally the younger household members who migrate in search of nonfarm income earning opportunities, and points out that age is a factor synonymous with moving into the nonfarm sector more broadly. Bryceson (1999) considered that both gender barriers and barriers to youth involvement in the nonfarm sector are declining. She points out that through the expansion of the service economy; youth have been afforded cash- earning opportunities that were previously lacking.

Like age, gender is a dimension of human capital, but its effects are mediated through social institutions. There is a general consensus that gender is a significant factor determining access to rural nonfarm opportunities. Griffith *et al*. (1999) remind us that the majority of the poor in sub-Saharan Africa are women. They have, therefore, greater need than most for the income that can be secured through involvement in the nonfarm sector. Women have long been constrained in the activities in which they are permitted or able to participate by tradition, religion, or other social mores. Both Ellis (1998) and Newman and Canagarajah (1999) points out the activities in which women are involved are more circumscribed than those for men. As far as nonfarm income is concerned, women participate to a greater degree in wholesale or retail or in manufacturing, than in other sectors. Women also tend to engage in businesses that require lower start-up capital than those in which men are involved. Women's involvement in income earning opportunities has greater significance than simply increasing their own or household income. Islam (1997) states

that it strengthens their decision making power within the household, helps limit family size, and improves child nutrition and education.

The structure of rural families plays a significant part in determining access by individuals to non-farm opportunities. Reardon (1997) observes that family size and structure affect the ability of a household to supply labour to the non-farm sector. Larger families and those with multiple conjugal units supply more labour to the rural nonfarm sector, as sufficient family members remain in the home or on the farm to meet labour needs for subsistence.

Individuals and households with better social networks have greater opportunities in the non-farm sector. Once again, this discriminates against the poorest, who lack social network therefore, unable to capitalize on informal opportunities and remain excluded from formal support systems (Smith, 2000). Gordon *et al*. (2000) reported that the ability to migrate, and the choice of destination for migration, is influenced by social networks. Typically, men will migrate to areas where they already have relatives or friends on whom they can rely for initial support and information. They might also learn of employment or business opportunities through friends or family who are already involved in the nonfarm sector. Using regression analyses, Fafchamps and Minten (1998) demonstrate that social network raises the total sales and gross earnings. They identify several quantifiable dimensions of social capital, including the number of traders that the respondent knows, the number of friends and family who can help with an enterprise, and the number of suppliers and clients that the respondent knows personally.

2.5 Constraints to Participation in Non-farm Activities by the rural poor

The review in the previous section highlighted the influence of numerous factors on participation in rural non-farm activity, as well as the interrelationship between many of these factors. This

strongly suggests that attempts to improve access to rural non-farm employment based on uni-dimensional interventions are not likely to succeed. Poor people's participation in the rural non-farm economy is constrained by multiple factors including poor health, education and skills, social capital, access to finance, as well as poor rural services and infrastructure. Some of the more subtle components of that equation (such as certain skills, confidence and contacts) may be some of the harder constraints to address. Meanwhile, richer households dominate the most lucrative niches.

Gender, caste and social status likewise restrict access by the poor to the most lucrative non-farm activities in some settings. In the same way child-rearing obligations may limit women's mobility and force them into home-based, highly labour intensive pursuits such as weaving, silk rearing and basketry, caste and social restrictions may force specific poor household groups into traditionally reserved, low- productivity rural non-farm activities. Evidence from a range of settings demonstrates a correlation between asset poverty, ethnic minorities and gender (Lanjouw and Shariff, 2000; Lanjouw, 2007). Therefore, discrimination, a weak asset base, and restrictions and geographical and occupational mobility all conspire to limit access by key disadvantaged social groups to the most remunerative rural non-farm activities. Also, other factors contributing towards the unsatisfactory growth of non-farm activities in the different chiefdoms are scarcity of locally available raw materials and the inadequate development of an effective marketing network for selling products of these communities. Some other factors are outdated techniques of production, decline in local demands and low levels of production. Besides the low level of income generation capacity and decreasing participation of young generation to adopt traditional household rural industrial activities as their sources of employment, problems of credit and

product competition in selling the goods outside the rural areas are equally limiting the growth of various rural non-farm economic activities in the local government.

Another constraint the rural non-farm activities face is arguments in favour of cost-recovery schemes in government circles, as well as making limited public funds go further. The problem with such schemes in rural areas is that where there is so much poverty, there is a critical lack of purchasing power, and infrastructure has an inherently high per capita cost because of lower population densities. Too great an emphasis on cost-recovery would relegate rural populations to persistent poor access to infrastructure – a point underlined by Lanjouw and Feder (2001) ‘‘. . . recent initiatives to engage the private sector in the provision of infrastructure may be more difficult to apply in rural than in urban areas.’’

Most government policies in rural areas that are supposed to be beneficial to the rural poor are not appropriately implemented due to poor training and lack of capacity building (Griffith *et al.,* 1999; Lanjouw, 1999). This underlines the need, not only for appropriate policy, but also for training and capacity building to promote the implementation of policy that is true to its spirit as well as its word.

In previous studies, Haggblade, Hazell and Reardon, (2002) examined issues related to the structure and growth of non-farm employment. Reardon, *et al*., (2000) examined the risk and vulnerability in the agricultural sector finding that wage employment is much more important than self- employment in Africa, the latter being more risky and capital intensive.

Haggblade, Hazell, Peter and Dorosh (2007) examined the transformation of the rural economy in Africa concentrating on sectoral growth linkages between agriculture and rural non-farm economy saying a sound agricultural base forms a good foundation for a sustainable rural non-

farm economy, while Lanjouw and Feder (2001) focused on economic analysis and policy implications of farm and non-farm employments. However, relatively little attention has been given to finding the contributions of non-farm earnings to reduction of poverty among women in the study area. This research therefore seeks to fill this gap.

CHAPTER THREE: STUDY AREA AND METHODOLOGY

3.1 THE STUDY AREA

3.1.1 Location and size

Kajuru LGA is located in Kaduna State of Nigeria, carved out of Chikun Local Government Area in March 1997 by the then General Sani Abacha military regime. It is located between Latitude $9^0$59' and $10^0$35' North of the Equator, and Longitude $7^0$34' and $8^0$13' east of the Greenwich Meridian. The study area is found on the southern flank of Kaduna state along Kaduna – Kachia road, some 39km from Kaduna metropolis. It comprises of two chiefdoms; Adara and Kajuru, predominantly rural with 16districts and its headquarters at Kajuru. The study area shares boundary with Igabi LGA to the north-west, Soba and Kuban LGAs to the north, Kauru LGA to the west. It is bounded on the south by Zangon Kataf and Kachia LGAs and on the west by Chikun LGA south and Pleteau to the southeast (See Figures 3.1and 3. 2).

3.1.2. Relief and Drainage

The local government area is situated on the gentle undulating plain of the North-central part of Nigeria.The general relief of the area is fairly plain with isolated rock out crops of inselbergs found in the area. The inselbergs are granitic in origin formed from underlying complex basement rocks. Its relief ranges between 550-760 meters above sea level (Fadama-II Report, 2007). The depressions are found along water courses where steams occur. The study area is drained by network of streams that got their sources mostly from the isolated hills around, e.g Kufana steam, Kasuwan Magani stream, and Janwuriya stream. The streams serve as important tributaries to other rivers, particularly River Rimau and River Kallah, which all empty into river Kaduna at Geffe (Kajuru Local Government Mannual, 2010).

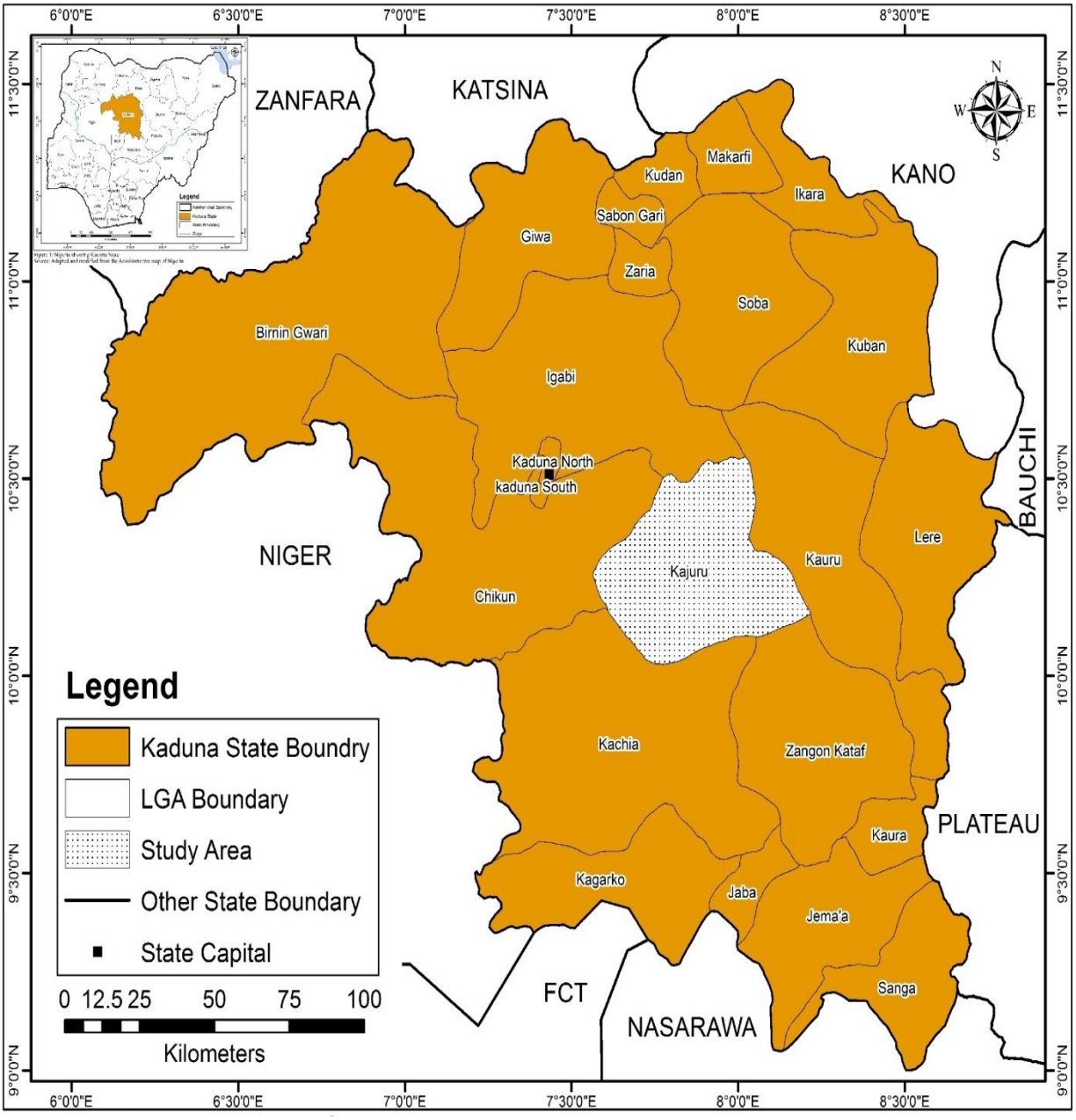


Figure 3.1: Kaduna State: Kajuru LGA

Source: Adapted and modified from the administrative map of Kaduna State.

3.1.3 Climate

The climatic variables in the area include; Rainfall, Temperature and Relative humidity. According to Koppen's climate classification, Kajuru falls within the tropical continental climate, classified under 'Aw' which is marked by distinct wet and dry seasons. These seasons are controlled by the movement of inter tropical discontinuity (ITD) which in turn is dictated by movement and dominance of the air masses (Tropical Continental Air Mass [cT] and Tropical Maritime Air Mass [mT]). The wet season usually lasts from April to October, while the dry season is between November and March. The mean annual rainfall ranges from 1300-1500millimeters with a peak of about 285millimeters in August. The area experiences high temperatures all year round, with mean daily temperature as high as 34oc between March and May, accounting for the hottest period of the year , just before the onset of the rains. Temperatures could be as high as 40^{o}c during the month of April and as low as 20^{o}c around December and January, usually cold and dry due to the influence of Harmattan. Her relative humidity ranges between 65% and 70% in the rainy season and between 18% and 38% in the dry season (Kajuru LGA Manual, 2010).

3.1.4 Vegetation

The study area lies within Guinea Savannah Zone, The vegetation is typically of woodland type and deciduous in character, shedding their leaves annually during the dry season in order to conserve water (Kajuru LGA Mannual, 2010). Trees do not grow very tall, but are hard and twisted. Dominant tree species found in the region include; *Mangifera indica, Khaya senegalensis, Isobelina doka, Accacia sieberiana, Parkia clappertonia, Adonsonia digitata, Butyrospernum paradoxum, Bridelia ferruginia, Terminalia avicenniodes,* among others (Kajuru

Local Government Mannual, 2010). Exotic trees found in the study area are cashew trees, pear trees among others.

These trees have umbrella-shape to protect their roots from the sun. Clumps of short trees and scrubs are scattered in this area and are generally not more than 6 meters high on plain land, but along the river valleys they are as high as 20 to 40 meters in some places. Low forests or gallery forests are found along the river banks where the ground is moist. Grasses occur in tussocks and the predominant family is the androgeneae. Grasses can reach between 1.5-2m tall, but stiff, dry and yellow in the long dry season and the tallest variety is the elephant grass. The grasses are abundant and luxuriant especially during the rainy season (Emielu 1996). The natural vegetation has long been disturbed as a result of long history of settlement and man's activities.

3.1.5 Geology and Soils

Kajuru is found on the extensive crystallized basement complex rocks of the northern Nigeria. These basement complex rocks are intrusive igneous rocks which have been in existence since the Precambrian times, a complex of both older and younger granite series with the older granite dominating larger part of the area leaving few isolated areas for the younger granite series which forms most of the isolated inselbegs.

Its soils can be classified generally under the tropical ferruginous soil derived from the crystalline acid rock. Three main types of soils are found over the study area; the sandy gravels of the hill slopes, the sandy loam of the upland area of the plains, and the alluvial deposits of the Fadama/hydromorphic on the river valleys. Fadama which are fairly rich in nutrients and have good excessive water supply that persist in the dry seasons, are of special importance. Because of its deep suitability, many parts of it are used for the cultivation of high moisture demanding crops

like Rice, Cocoyam, Sugarcane and Vegetable. Cereals such as maize, millet and guinea corn (Fadama-II Report, 2007) are also cultivated in dry seasons in the area.

Sandy-loam is more widespread and forms the main soil type of the upland though it is also found on hillsides and valleys where slope conditions are more favorable. The soils are characterized by its' light-dark grey color near the hillside settlement where constant cultivation has reduced it humus content to a dark grey variety further away where farming has not made a great impact on natural vegetable. The soils have well drained profile with the zonal divisions showing more clearly as one approaches the dark grey kind. The soil is relatively rich in humus content, fine grains and usually well drained. It is more widespread than any other soil types, and supports a wider variety of crops grown (Fadama-II Report, 2007).

3.1.6 People and Occupation

This is one of the foremost variables in a study of any project designed with the sole purpose of affecting the populace. The size, growth, density distribution and other occupation of the people, in addition to its culture, are some determinants to adoption of some new ideas introduced by a project. The 2006 population census put the population figure of the study area at approximately 110868 people with an estimated growth rate of 2.8% and a population density of 55 per square kilometer. This population comprised of 55712 males and 55156 females (NPC, 2006). The major ethnic group is known as Adara. Others include Gbagyi, Fulani, Igbo and Hausa. Other migrants' tribes who form minority groups include Igbo, Yoruba, Ham, Bajju, Atyap and Gwarock. The Fulani on the other hand, only temporally settle in the area due to their migration habits. The general language spoken is Hausa (Kajuru Local Government Manual, 2010).

Generally, the family unit is the basic form of social organization in the study area. The family normally comprises of the man and his wife or wives and their children, and may be 'extended' to include other relations of either the man or the woman all staying together in a house. Like in other part of the North, the man who commonly called the 'Maigida' is usually the head of the household and to him the right to land is entrusted for the family.

There is also a high degree of cultural and religious uniformity in the area. Their religion, like in other localities in the southern Kaduna was based on African traditional culture before the penetration of Christianity into the area. Although this traditional religion is still practice by few, the people now are predominantly Christians. There are also few practicing Islam (Kajuru Local Government Manual, 2010). .

The main traditional occupation in the study area is agriculture in form of crop production. The people in the area therefore, are predominantly small scale farmers, who lived mainly on rain fed crop production, and in addition, irrigation farming in the dry season. Until recently, the bulk of population in the study area became "idle" during the long dry season. During this period, the able-bodied men migrate to nearby towns/cities to work as laborers. However, the introduction of water for farming and the development of fadama farming during the dry season have reversed the situation. Immigrant farmers today are attracted by the better condition of farming during dry season as such, they mostly clustered around fadama communities during the dry season in order to be engaged in farming activities. The bulk of agricultural produce here is undertaken by these small scale farmers (Kanuri Local Government Manual, 2010). The major crops grown in the area include Groundnut, Pepper, Guinea corn, Rice, Soya beans, Sorghum, Millet, Maize, Yam, Beans and vegetable.

Animal husbandry is also practice in form of subsistence mixed-farming in the study area as most of these peasants also own some cattle and others small herds of animals to provide them with money and food especially during festivals. These animals also supply the farmers with dung, which they use as organic manure to enrich their farmlands. Over time, this has also strengthens the relationship between the peasant farmers and the migrant Fulanis in the study area (Kajuru Local Government Manual, 2010).

Trading also forms another vital occupation that combines both provisions, agricultural and non-agricultural commodities. Though the major commodity for exchange or trading is the agriculture produces comprising of crops and animals raised by the people. Traders from far and near visit the popular market which is in Kasuwan-Magani. This market is the most important and the largest market, which coincidentally is located in the largest community (Kasuwan-Magani) in the entire Kajuru Local Government Area. Land uses are generally categorized into agricultural and residential.

The patterns of human settlement depicted in the study area are rural, which according to Dogonyaro (2008), is characterized as either nucleated villages, linear pattern along the major road or scattered homestead surrounded by farm lands. Within the nucleated and the linear settlements, the settlement pattern is characterized by an open space which is usually regarded as the village square where meetings and cultural activities take place. In most cases, these spaces serve as periodic markets where buying and selling of things particularly agricultural produce take place (Field observation, 2015).

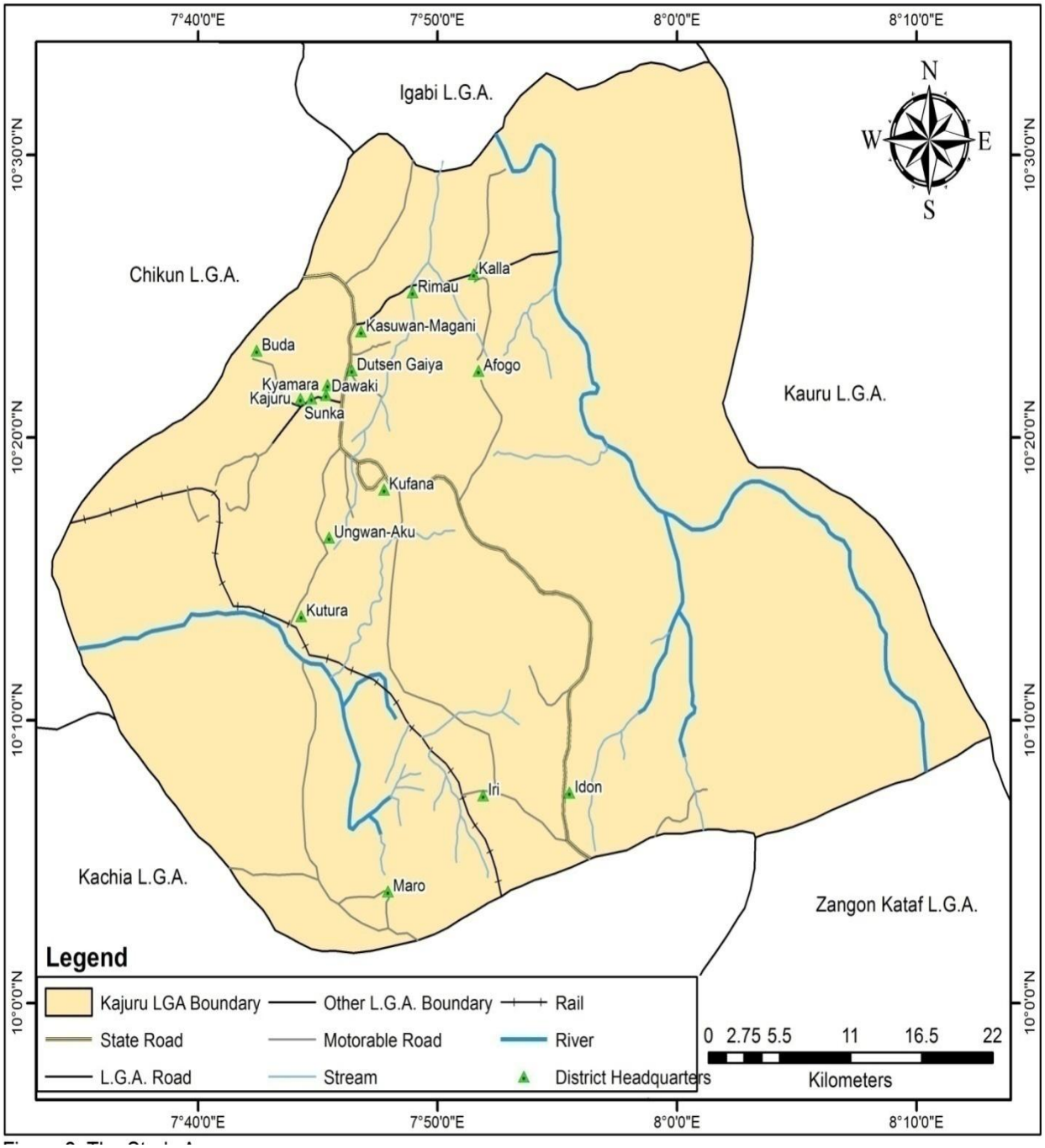


Figure 3.2: The Study Area.

Source: Adapted and modified from the administrative map of Kaduna State.

3.2 METHODOLOGY

3.2.1 Reconnaissance Survey

A reconnaissance survey of the study area was undertaken to acquaint the researcher with the study area, to enable on the spot assessment of the problem and understand the general characteristics of the rural dwellers including their village norms to facilitate data collection.

3.2.2 Types of Data

The data used for this study were farm and non-farm economic activities, level of income generation from the activities, motivation for participation in non-farm economic activities; sources of funding for the non-farm activity; potentials and constraints of non-farm source of livelihood. All these data were collected in relation to women.

3.2.3 Sources of Data

For the purpose of this research, two main sources of data were used namely: Primary and secondary.

3.2.3.1 *Primary source*

The primary data sources were field observations, interview and structured questionnaires. The questionnaire contains both open and close ended questions administered to selected respondents. Interviews were unstructured to allow key informants such as women leaders provide elaborate information on key issues. Eight of these women Leaders, comprising heads of women cooperatives, women heads of market associations and women opinion leaders participated in the interview. Non participant observation was carried out on how the women engage in their non-farm activities.

3.2.3.2 *Secondary Source*

The primary data is complemented by materials from secondary information such as library, the archives, text books, journals, conference papers, and existing literature that are related to the research problem. These were utilized for literature review and supportive evidences from findings obtained from fieldwork.

3.3 Sampling techniques and Sample size.

The study area is made up of two chiefdoms; Adara and Kajuru chiefdoms. The population of women in the LGA is 55,304 (NPC, 2007).

A total of 382 women formed the number of respondents, which is adequate representation based on the simplified sample size table by Krejcie and Morgan (1970) which indicates that for a population range of 55000-75000 people the appropriate sample size should be 382.

Ten Settlements across the study area, mostly noted for agricultural production and other non-farm activities were purposefully identified for this study. In each of the settlement considered, equal number of the questionnaire was issued to the selected women; this is because figures for women population by settlement in the study area are not available. Previous researchers overcame this shortcoming by projecting the 1991 population census figures but Kajuru was created in 1997 hence using the 1991 census figures will have resulted in bias and inappropriate sampling. Two more questionnaires will be added to the sample size of Kasuwa Magani settlement because of the location of the largest market in the area to make up the sample size.

TABLE 3.1: Settlements and Corresponding Sample Size.

Settlements	No.	Percentage
Afogo (Af)	38	9.9
Budah (Bu)	38	9.9
Dutsengaiya (du)	38	9.9
Idon (Id)	38	9.9
Kajuru (Kaj)	38	9.9
Kallah (Ka)	38	9.9
Kasuwa Magani (Kas)	40	10.5
Kemara (Ke)	38	9.9
Kufana (Ku)	38	9.9
Rimau (Ri)	38	9.9
Total	382	100

Source: Field Work, 2015.

To have adequate representation, the women respondents were divided into equal halves for questionnaire administration. Those who participate in both non-farm and farm activities were the first halve, while those who participate in only farm activities were the other halve, distinguished by two regimes, to improve comprehensibility: Regime 1: women who generate both non-farm income and farm income; Regime 2: women who do not generate non-farm income, but only farm income.

Respondents were first approached to indicate which halve they belong to before administering the questionnaire on them. Systematic sampling technique was used to select respondents in each community whereby women were selected at intervals of three houses in each community, till the sample size was achieved.

3.4 Method of Data Analysis.

Both descriptive and inferential statistics is used in analyzing data. The students t-test which is a statistical method used to see if two sets of data differ significantly is used to test the hypothesis, at 0.05 level of confidence.

Objective 1: Tables were used to summarize the different types of non-farm activities engaged by women in the area, as well as incomes generated from these activities.

Objective 2: inferential statistics (bar graph and pie chart) is used to draw out the activity that substantially improve the income of the women

Objective 3: The Foster Greer Thorbecke (FGT) (1984) weighted poverty measure is used to examine the incidence of poverty among the women by adopting the relative poverty line which is defined as two-thirds of the mean income. The FGT weighted poverty measure is obtained using the formula:

$$P\alpha = \frac{1}{N}\sum_{i=1}^{n}\left(\frac{Z-Y_i}{Z}\right)^{\alpha}$$

Where N=the total population in the group of interest

Z=the poverty line

n=the number of individuals below the poverty line

Yi=adult equivalent income

a=the poverty aversion parameter that takes the value of 0, 1, 2.

The FGT poverty measure satisfies relevant welfare properties that include the head count ratio and is additively decomposable. This means that poverty of the whole society can be expressed as the weighted sum of the FGT poverty measures of its constituent groups, where the population shares of the groups are weights.

When a is 0 (zero), the formula above becomes the poverty incidence given as $Po = \frac{n}{N}$

Poverty incidence, also known as poverty head count, refers to the proportion of the total population of a given group that is poor, based on a given poverty line. The relative poverty line, defined as two-thirds of the mean income (NBS, 2006), was adopted.

Objective 4: Percentages was used to analyze the factors which favour or otherwise inhibit rural women's involvement in non-farm activities.

CHAPTER FOUR: DATA PRESENTATION AND DISCUSSION OF FINDINGS

4.1: INTRODUCTION

This chapter presents the data collected during the field survey. The results of the data analyzed were discussed and presented according to the objectives set for this study. Interpretations were given about some trends and inferences drawn from these analyses.

4.2: SOCIO-ECONOMIC CHARACTERISTICS OF RESPONDENTS

The socio-economic characteristics of the respondents in the study area are shown in Table 4.1, where age of 35-39 years constitute the highest proportion of respondents with 22.5%, followed by those aged between 40-44 years (19.1%) while those aged 45 and above, 25-29, 30-34 and 20-24 years, constitutes 18.8%, 16.2%, 15.9% and 7.6% respectively. This may be because the older women (45years and above) were not very keen in participating in the survey saying that they have been part of a number of surveys in the past and have not seen the linkages of such surveys to the development of their communities. Majority of the respondents (80.4%) were married, with the resultant effect on increased number of household size which is needful both for farm and non-farm labour, this percentage may also be an indication of early marriages which is prevalent in the rural areas. A small proportion of 6.5% never married.

On the educational attainment of the respondents also in table 4.1 the highest number of the respondents had secondary education representing 36.8%, this may be because of non-availability of higher education institutions in the area and the attendant high cost of seeking higher education outside the area. Primary education represents 19.3% while 13.6% had tertiary education. About 10.4% of the respondents' attained adult education, this may be the effect of the awareness of the importance of education to the female gender and the attendant benefits of

acquiring skills necessary for engaging in non-farm activities. 11.5% had Quranic education which is the preferred basic education among muslims.

Table 4.1: Socio-Economic Characteristics of Respondents

Age	**Frequency (N=382)**	**Percentage (%)**
20-24	28	7.3
25-29	62	16.2
30-34	61	15.9
35-39	86	22.5
40-44	73	19.1
45 and above	72	18.8
Total	382	100
Marital Status		
Never Married	24	6.5
Married	308	80.4
Separated	11	2.9
Divorced	7	1.8
Widowed	31	8.1
Total	382	100
Educational Qualification		
No formal education	31	8.1
Qu'aranic education	44	11.5
Primary education	74	19.3
Adult education	40	10.4
Secondary education	141	36.8
Tertiary	52	13.6
Total	382	100
Primary Occupation		
Farming and non-farming	191	50
Farming only	191	50
Total	382	100

Source: Field Survey, 2015

Tertiary education attainment among the women represented 13.6%, many of them were sponsored by Government interventions such as federal and state government scholarships while others were sponsored by well meaning politicians from the area. Still in table 4.1, the same

numbers of respondents were selected for who participate in farming non-farm activities as their sources of income on the one hand, and those who take up farming alone on the other.

Table 4.2: Nature of primary activities among Respondents

Factor	Primary Occupation			
	Farm and non-farm		Farming Only	
Number of Crops Grown	Frequency	(%)	Frequency	%
One crop only	33	17.2	34	17.8
Two crops	117	61.2	104	54.4
More than two crops	42	21.9	53	27.7
Total	191	100	191	100
Production Level				
Subsistence	54	28.2	6	3.1
Commercial	137	71.7	185	96.8
Total	191	100	191	100
Time for Selling Crops				
Before harvest	6	3.1	-	-
After harvest	42	21.9	181	94.7
Months after harvest	143	74.8	10	5.2
Total	191	100	191	100

Source: Field Survey, 2015

Table 4.2 reveals the nature of crop production among the two income groups focused in this study. From the contents, it can be deduced that disparities occur in all the factors considered, between women who take up both farm and non-farm activities and women who engage in farming alone. In the number of crops cultivated, the women in farming activities only had the highest frequency in farming more than two crops perhaps because since it was their only source of income they cultivate a variety of crops in that they focus their energy and resource to the farms alone without divided attention, unlike women who combine the two occupations with the attendant fluctuation that may arise. In the case of category of production, more women among those relying on farming alone produce at commercial level. The women in their response during

interview attributed it to the fact that since farming was their only source of income they believe that the larger the scale, the more the income. But coming to the time of sale of produce, the majority of the women who engaged in farm and non-farm activities sold their produce mostly after harvest, thereby earning more income because field observation show that prices of produce tend to be higher months after harvest. This is in tandem with the findings of Mwabu and Thorbecke (2001), that non-farm earning increases household income by the same margin. On the other hand, majority of respondents in farming alone sell their crops immediately after harvest, which may be attributed to the level of monetary need and poverty which compel farmers to sale their produce immediately after harvest to satisfy basic needs.

4.3: NON-FARM ACTIVITIES OF WOMEN

Non-farm activities have become an important component of livelihood strategies among rural households in most developing countries. . The types of non-farm activities engaged in by respondents include; tailoring, trading, basketry, potter, rope-making, restaurant and food-vending, sales of GSM airtime vouchers, poultry keeping and hairdressing.

Table 4.3: Frequency distribution of Non-farming Activities

Non-farming Activity	Frequency	Percentage (%)
Tailoring	33	17.3
Hair dressing	15	7.9
Trading	60	31.4
Basketry	4	2.1
Restaurant and food-vending	38	19.9
Rope making	2	1.0
Pottery	8	4.2
Sales of airtime vouchers	7	3.7
Poultry	18	9.4
Others	6	3.1
Total	191	100

Field Survey, 2015

Table 4.3 presents the non-farm activities engaged in by respondents in the study area, showing

that trading accounted for the highest percentage of women participation in non-farm activities with 31.4%, this may be connected to the fact that trading by women in the area required no special skill and that inadequate capital does not pose a major barrier, since goods can be obtained on credit and paid for after sales. Restaurant and food-vending ranked second with 19.9%, corroborating the views of Haggblade *et al* (2007) that as far as nonfarm income is concerned, women participate to a greater degree in wholesale or retail trade or in local crafts, than in other sectors. Ranking the least is Rope-making, with only 1.0%, it was observed in the area that rope-making was a male dominated trade.

Other activities include; pottery 4.2%, sale of aie time vouchers 3.7, poultry keeping 9.4%, basketry 2.1%, hairdressing 7.9% and tailoring 17.3%, supporting the views of Oladeji, Olujide, and Oyesola, (2006) that even though farming was the predominant activity in most rural areas, farmers including women usually engage in supplementary activities.

4.3.1: Issues on reasons and Sustainability of Non-farm activities (NFA)

Initiating and sustaining non-farm activities are a function of several factors. These include the motivation for the activity itself, sourcing for initial capital investment and understanding the barriers to continous triving of the non-farm activity. All these are considered in Table 4.4. Majority of the respondents (79.6%) engaged in non-farm activities to generate more income, 18.3% represents those who do so to cope with farming related shocks. This agreed with Ellis (2006) that the reason for income diversification includes declining farm income and the desire to insure against agricultural production and market risks.

The sources of start-up capital for non-farm activities as revealed by the women is largely loan from family and friends and income from farm produce with 52.9% and 36.1% respectively. This may be because these two sources do not require documented collaterals.

Table 4:4 Initiation and Survival of Non-farm Activities (NFA)

Reasons for engaging in NFA	Frequency	Percentage (%)
To cope with farming related shocks	35	18.3
To generate more income	152	79.6
Leisure	-	-
Others	4	2.1
Total	191	100
Sources of start-up fund		
Income from farm produce	69	36.1
Money lender	11	5.8
Loan from family and friends	101	52.9
Others	10	5.2
Total	191	100
Amount for Initial investment		
5,000-10,000	84	44
11,000-15,000	47	24.6
16,000-20,000	19	9.9
Above 20,000	38	19.9
Others	3	1.6
Total	191	100
Barrier to non-farming activities		
Inadequate capital	118	61.8
Competition from external market	39	20.4
None	30	15.7
Others	4	2.1
Total	191	100

Source: Field Survey, 2015

As regards the amount of initial startup capital, the highest number of respondents representing about 44% started their businesses with less than eleven thousand naira (#11,000), underlying the fact that women have limited access to credits, especially in the rural areas, and highlights the importance of informal sources of funds available from family and friends. These are however inadequate, since household expenditure follows a similar pattern in rural areas, with everyone's need to be satisfied at the same time, i.e. when food supplies are running low and the next crop is not yet ready for harvesting.

Another 19.9% started with above #20,000, while 24.6% started with less than ₦16, 000. Table 4.4 also indicates that 68.1% of the respondents find inadequate capital to be the most challenging barrier of engaging in non-farming activities, while 20.4% were of the view that competition from external market was their main problem. Overall this reflects the incidence of poverty in the area and the small scale nature of non-farming activities engaged by women.

4.3.2: Distribution of Non-farm activities by Settlements

The location of well functioning markets, availability of locally sourced raw material and requisite skills are some of the factors that influence the participation of women in rural non-farm activities. Ten settlements across the study area noted for farming and non-farm activities were selected. They include;Afogo, Budah, Dutsengaiya, Idon, Kajuru, Kallah, Kemara, Kufana and Rimau. Looking at Table 4.5 and considering the location of the large periodic market in the area which is located in Kasuwa magani, it was discovered that activities like tailoring and hair dressing were practiced close to the market, the reason may be connected to the fact that the market attracts participants from all over the study area that may require these services. Also settlements with proximity to the market participated more in Trade and commerce which include trading, poultry keeping and res. and food vending.

Areas like Afogo and Idon which are endowed with raw materials suitable for crafts engaged in activities like Basket weaving, and Pottery. This supports the theory of comparative advantage and human behavior where people take advantage of the endowments of their location in other to reduce production costs.

Table 4.5: Frequency distribution of Non-farm activities by Settlements

Activity	Settlements										
	Af	Bu	Du	Id	Kaj	Ka	Kas	Ke	Ku	Ri	Total
Tailoring	2	2	-	3	5	6	5	2	3	5	33
Hair-dressing	2	-	-	2	3	-	5	1	2	-	15
Trading	8	1	18	4	7	2	2	7	9	2	60
Basketry	2	-	-	-	-	-	-	2	-	-	4
R/food-vending	2	15	-	5	1	4	2	2	3	4	38
Rope-making	1	-	-	-	-	1	-	-	-	-	2
Pottery	2	-	-	-1	2	-	-	2	-	1	8
Sale of airtme vouchers	-	1	-	2	1	1	-	-	-	2	7
Poultry keeping	-	-	1	3	2	3	4	3	1	1	18
Others	-	-	-	-	-	-	1	-	1	4	6
Total	19	19	19	19	20	19	19	19	19	19	191

Source: Field Work, 2015

Key**:** Af= Afogo, Bu= Budah, Du= Dutsengaiya, Id= Idon, kaj= Kajuru, Ka= Kallah, Kas= Kasuwa-Magani, Ke= Kemara, Ku= Kufana, Ri= Rimau.

4.3.3 Age and participation in non-farm activities

The age of women to a large extent affects their productivity; this is because physical strength declines with age. It also affects the level of adoption of innovations and ability to manipulate knowledge to achieve desired goals.

Table 4.6: Age and participation in non-farm activities

Activity	Age Groups					
	<25	**26-34**	**35-46**	**47-58**	**59 and above**	**Total**
Tailoring	4	13	14	1	1	33
Hair dressing	-	6	8	1	-	15
Trading	6	11	32	10	1	60
Basketry	2	-	2	-	-	4
r/food vending	1	3	22	12	-	38
Rope making	1	-	1	-	-	2
Pottery	1	1	5	1	-	8
Sale of airtime voucher	-	3	4	-	-	7
Poultry keeping	-	8	10	-	-	18
Others	1	3	2	-	-	6
%	8.4	26.2	51.3	13.0	1.0	

Source: Field Work, 2015

From Table 4.6, it can be deduced that the preponderance of women participation in non-farm activities occur within the age bracket of 35 – 46years, indicating that there was at least one woman within this age bracket participating in all the activities engaged in by repondents. Part of the reason may be in agreement with Horn *et al (*2000) which found that as women mature they are more likely to take up business opportunities. Other reasons may include the fact that at this age bracket, considering the early marriages prevalent in the rural areas the children of these women would be growing into young adults with additional upbringing needs especially in

education which usually require cash payments and these women need to support their husbands efforts. The age bracket 26 -34 is ranking next, showing that though this age bracket includes young and energetic women, women with child care responsibilities are also somewhat confined, until their children can be left with others in the home but they were also found to be active in non-farm activities,

Further findings include the fact that tailoring and trading are the most widely engaged non-farm activity by women in the study area, as each age bracket recorded women participating in these two activities. This according to the women is because there is high demand for these services in their communities which in turn fetches them more income to take care of their needs and reduce poverty.

Other activities that have the potential for high returns include poultry keeping, hair dressing and refreshment and food vending, but the women said they were not able to participate more in these activities due to the many entry barriers, including access to land, requisite skills, and huge start-up capitals among others. Only 1.0% of the respondents aged 59yrs and above was actively engaged in non-farm activities, specifically tailoring and trading. These two activities have been noted to have the potential of yielding high income.

4.3.4: Education and Participation in Non-farm Activities

The level of education of an individual influences the type of non-farm activity to engage in. Also those with higher education tend to engage in more lucrative activities than those with lower educational qualifications.

Table 4.7: Educational attainment of respondents

Educational attainment	Frequency	Percentage
No formal education	21	10.9
Adult education	22	11.5
Primary education	33	17.2
Quranic education	29	15.1
Secondary education	59	30.8
Tertiary education	27	14.1
Total	191	100

Source: Field Work, 2015

Table 4.7 shows data from field on the influence of education in the participation of respondents in non-arm activities. Women are identified as a specific group for which access to education is more limited, (Haggblade et al., 2007) the effect of this, in combination with child care responsibilities means that there is greater involvement of women in informal than the formal employment sector. Table 4.7 shows that the highest proportion of the women were only secondary school leavers (30.80%), which may be due to the fact that tertiary educational facilities are still not available in the area. Those with primary education rank next with 17.2, attributed to the change in the orientation of parents especially in the rural areas towards the education of the girl child.

Next is quranic education, which though has been found to be more accessible, the curriculum limits the level of enrolment. Women with no formal education were the least with 10.9%. This may be because of two major reasons, one is the cost related barrier to educational access, which some households could not afford and the second is the belief and orientation that a woman's

education ends in the kitchen since women are merely meant to be seen and not to be heard. So this group of women could not afford the much needed education that could spur them to high-income returns non-farm activities.

Table 4.8: Education and participation in non-farm activities

Activities	Educational status					
	No formal education	Adult education	Primary education	Quaranic education	Secondary education	Tertiary education
Tailoring	4	-	4	2	18	5
Hair dressing	-	1	3	-	4	7
Trading	9	9	16	3	20	3
Basketry	-	2	2	-	-	-
R/foodvending	5	-	8	18	2	5
Rope making	1	1	-	-	-	-
Pottery	2	3	-	-	3	-
S/airtime	-	2	-	2	3	-
Poultry keeping	-	2	-	1	9	6
Others	-	2	-	3	-	1

Source: Field Work, 2015

The women that had tertiary education (14.1%) revealed that the passion to equip themselves with higher education so as to be better than their mothers financially and the obvious fact that education held the key to greater opportunities for success in human endeavours contributed to

their present status. This passion made them to seek higher education outside the area as such facilities were not available in the area.

Among the respondents, as presented in Table 4.7 women with no formal education, accounting for 10.9%, were seen engaging in activities that did not depend on higher education such as trading, restaurant and food vending, rope making and pottery, though the women recognized their need for training, in the management of money as a pre-requisite for success in business.

In their participation in non-farm activities women who had adult education (11.5%) participated in activities like trading, pottery, basketry, poultry keeping, rope making sale of airtime vouchers and even hair dressing. The women admitted that the emphasis on entrepreneurial studies in the adult classes have helped them to earn income from these activities.

Respondents with primary school qualifications had their fair share of participation in non-farm activities, with almost halve of them (16) were engaged in trading, which at their community level did not require much education. Those with secondary education, were involved in both the activities that required requisite skill, such as tailoring which coincidentally are high income rewarding, as well as those that do not require higher education like pottery. The respondents with tertiary education were mostly engaged in activities that require skill and effective management in order to succeed like hairdressing, poultry keeping, tailoring and only three of them were into trading.

4.4: LINKAGE B ETWEEN NON-FARM ACTIVITIES AND INCOME

Rural non-farm activity makes a significant contribution to food security. A given household copes with drought or other causes of harvest shortfall by among other things, working outside

the farm to raise the cash to fill the food deficit. Responding to the whether they were able to access better food, healthcare and education more than when they were not involved in non-farm activities, a high percentage of women (64%) agreed they were able to access better services including the ones mentioned earlier. This improved their nutrition and capacity to expand their participation in non-farm activities and could lead to poverty reduction. Other women involved in no-farm activities who did not improve in their assessment of food, healthcare and education (36%) attributed it to their family size.

Table 4.6 shows the contribution of the various non-farm activities to the annual income of the rural women in the study area. The Table reveals that 11.75% of the annual income generated from non-farming activities was from those who engage in tailoring although the number of the women engaged in trading was the highest.

Table 4.9: Non-farming activity and Income Contribution

Non-farm activity	**Average yearly income**					**Freq**	**Percentage**
	2010	**2011**	**2012**	**2013**	**2014**		**(%)**
Tailoring	31481.48	37379.31	30827.59	39068.97	33637.93	33	11.75
Hair dressing	23281.25	37343.75	24055.56	36500.00	30777.78	15	10.36
Trading	27331.25	35375.00	30625.00	36931.25	38046.20	60	11.47
Basketry	10000.00	25250.00	30250.00	35500.00	37750.00	4	9.46
R/food vending	27592.60	33046.30	31379.63	33129.63	33342.59	38	10.80
Rope making	10000.00	25250.00	15250.00	15250.00	42750.00	2	7.39
Pottery	22333.33	23444.44	23444.44	32111.11	33722.22	8	9.20
Sales of airtime	23000.00	35035.71	20750.00	36533.33	27066.67	7	9.70
Poultry keeping	28454.54	33923.08	29730.77	40153.85	38884.62	18	11.66
Others	20000.00	21750.00	23416.67	25166.67	30083.33	6	8.21
Total	200474.45	307797.59	259729.66	330344.81	346061.34	191	100.0

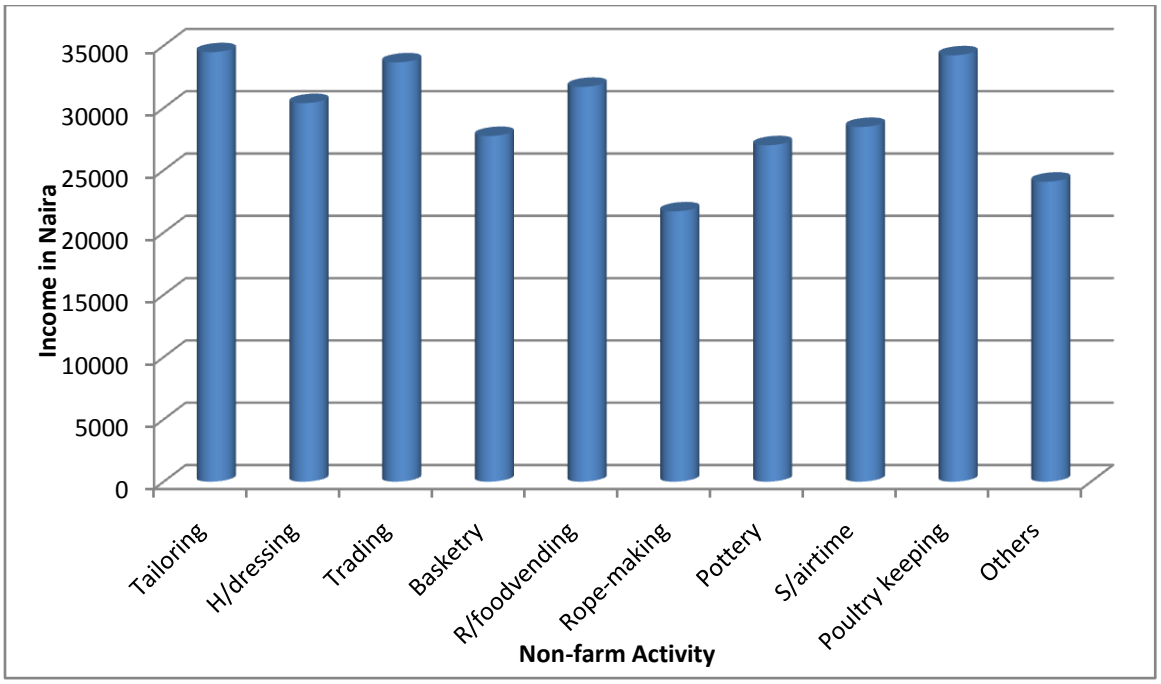
Source: Field Work, 2015

This according to the women may be due to the fact that their customers' preferred to sew their clothes locally as it was cheaper than buying already made clothes. There was also the fact of fewer participants per settlement probably because of lack of tailoring skills. This was followed

by poultry (11.66%) the women revealed that though their trade was sometimes marked by seasons, they normally make some cash to cover for the lean periods. The least was rope-making, which accounted for 7.39%. The women opined that because it was a male dominated trade, most buyers preferred to buy from the men and this was responsible for the low income generated from the trade. This result indicates that non-farm activities where specialized skills were required pay more than those with little or no skill.

According to human capital models, education is an important factor of non-homogeneity of labour. Hence, high educational attainment may imply larger set of employment opportunities and, specifically in a rural context, a better awareness of the full potentials of the non-farm sector. Compared with uneducated, all persons who have been educated are more likely to find employment in the non farm sector. There are several processes that reinforce the effect of education on incomes: education increases skills level, which are required for some rural non-farm activities, or contribute to increased productivity, or may be an employment rationing device; education can entrench processes that increase confidence, establish useful networks or contribute to productive investments that could stimulate the education of other members of the household.

Tovo (1991) for instance studied women receiving small business training in Tanzania and the findings suggest a positive impact from training and extension services on ways of preserving agricultural stock. The author argued that those putting themselves forward for such services may be more dynamic and entrepreneurial, the implication being that they would in any case show a greater degree of success in their enterprise with or without assistance. The income contribution of each type of non-farm activity is shown in Figure 4.1.



.

Figure 4.1: income contribution of non-farm activities

Source: Field Work, 2015

4.5 INCIDENCE OF POVERTY AMONG WOMEN

While the rural sector carries the bulk of the country's natural resources, its communities are subsisting under poor conditions devoid of opportunities and options within environments lacking in basic facilities such as roads, water supply and sanitation, energy and communication. In Nigeria, non-farm incomes represent an important element in the livelihood of the poor. In several areas the depletion of natural resources are such that agriculture cannot possibly remain the only, or even the main source of income. it is a universally accepted fact that agricultural sector is incapable of creating sufficient gainful employment opportunities amidst of increasing population in the developing countries.. Despite poverty-reduction strategies adopted in Nigeria, the incidence of poverty in rural areas still remains high (UNDP, 2008).

4.5.1 Distribution of Income of Respondents (2010-2014)

Table 4.7 shows the income generated by the rural women from the two regimes in the years under study. Regime 1 (income from farm and non-farm activities); Regime 2 (income from farm activities alone)

The paired sample statistics shown in Table 4.10 reveals that in 2014 the, rural women recorded the highest mean income. Many of the women acknowledged that this was due to favourable climatic conditions, citing that both the onset and cessation of the rain happened in good time, and because agriculture in the area was largely rain fed it led to bumper harvest.

Table 4.10: Mean Annual Income of Respondents (2010-2014)

Year	Type of Income	Mean in Naira	%	Standard Deviation
Year 2010	Farm and N/F	77.3053	67.0	30.43201
	Farm only	38.0000	33.0	13.10115
Year 2011	Farm and N/F	85.2316	66.6	36.31052
	Farm only	42.5737	33.4	16.56995
Year 2012	Farm and N/F	88.9474	65.9	38.42394
	Farm only	45.8526	34.1	20.22700
Year 2013	Farm and N/F	96.7737	65.7	48.33532
	Farm only	50.3263	34.3	32.18036
Year 2014	Farm and N/F	122.2211	64.5	60.95947
	Farm only	67.2632	35.5	52.69343

Source: Field Work, 2015

Others attributed it to the increased demand due to increased population witnessed in the area, as many indigenes residing outside the area returned home to escape any undesirable aftermath of the 2015 general elections which usually escalates in towns and cities more than in the rural areas. However in the duration of study (2010-2014) the average mean income of women in farm and non-farm activities was seen to be higher in all the years than those in farming alone, which

agrees with the findings of Mwabu and Thorbecke (2001) that rural non-farm earnings increases total income by the same margin.

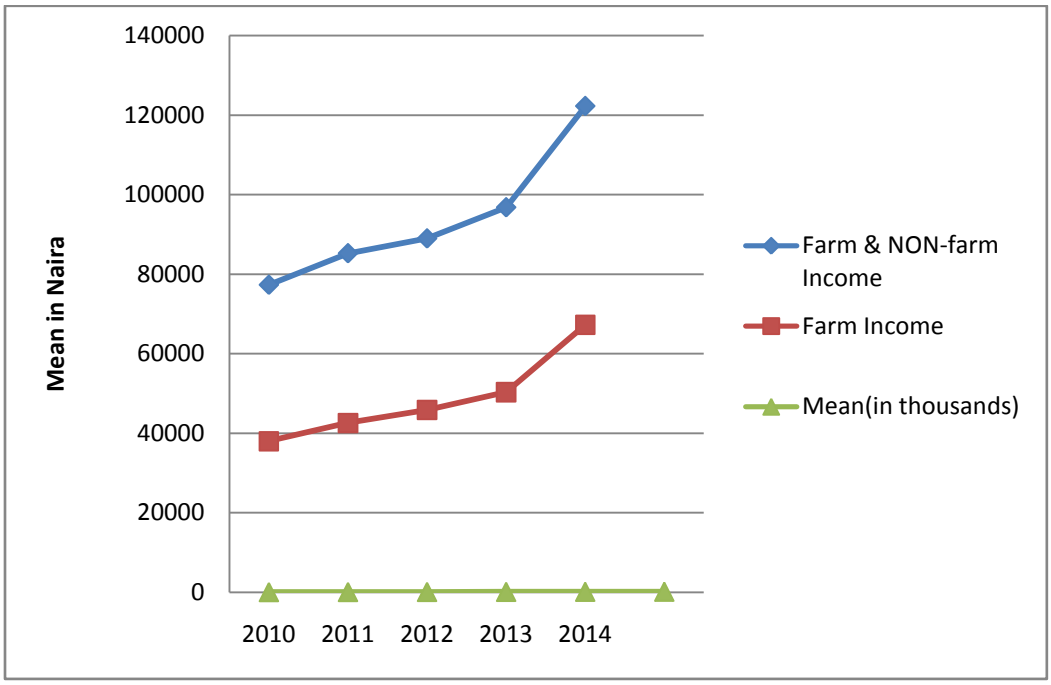


Figure 4 2: Mean income of respondents (2010-2014)

Source: Field Work, 2015

4.5.2 Poverty incidence by type of rural activities

In an attempt to answer whether the movement to rural non-farm activity is poverty reducing, we drew upon the results from Table 4.11. The standard Foster-Greer-Thorbecke (FGT) (1984) ratios for two-thirds of mean income were estimated for each income group. Here attention was given primarily to the comparison of poverty in the two income groups over the study period. The Table 4.11 represents the income of the respondents who generate farm and non-farm incomes. Although most rural households are involved in farming, on average women make up 43% of farming labour in developing countries, including Nigeria. In the rural areas, households

involved in agricultural activities are more likely to be poor, mostly due to lack of access to productive assets.

Table 4.11 revealed that the least minimum income generated from farming activities annually across the years studied was ₦5, 000 and ₦12, 000 was the highest minimum income in the same period. The highest maximum income also in farming activities, of ₦600, 000 was got in the year 2014, while the least was in 2010, amounting to ₦38000. This is however lower than the national average of ₦45, 250 in Nigeria, but is a representative figure for households located in rural areas of Nigeria (NBS, 2006).

Table 4.11 Incidence of poverty by rural activity (2010-2014)

Rural activity	Minimum Income(N)	Maximum income (N)	Mean Income (N)	2/3 mean income(N)	Sampled population	No. of poor women
Farm and non-farm income earners	25000	600000	940958	627305	191	148
Farm income earners only	5000	600000	488032	325354	191	153

Source: Field Work, 2015

The lowest minimum income of women, adopting both farming and non-farming activities as their source of income, according to Table 4.11 were recorded in 2010 and 2011, while the highest was in 2014. Similarly the lowest maximum income was in 2010, while the highest was in 2014. This may be because as the years go by women improved in the activities they were engaged in. There was also a wide recognition among the women of a significant improvement in the access to inputs like fertilizer among the farmers, and increased opportunities for

acquisition of skills and training by both the public and private organizations. From the statistics in Table 4.11, the incidence of poverty in the two income groups is as follows

Regime 1: $\text{Po1}\frac{n}{N}$ *this gives a poverty incidence of 77.5%*

Regime 2: $\text{Po2}\frac{n}{N}$ *this gives a poverty incidence of 80%*

From the above calculations, the incidence of poverty among the women who generate income from farming alone at 80% is higher than in those who generate both farming and non-farm income at 77.5%. This agrees with the report of the survey conducted by the National Bureau of Statistics in conjunction with the World Bank (NBS, 2007), that in the rural areas, agricultural households are poorer than other households, mostly due to lack of adequate access to productive inputs as well as insecure land tenure system. Incidence of poverty among the women is now $\text{Po1}\frac{n}{N} + \text{po2}\,\frac{n}{N}$, which gives a poverty incidence of 78.8% among the women.

The result shows that the incidence of poverty among the respondents from Kajuru LGA is high even higher than the national average of 63.8%, supporting the findings of Fasoranti (2008) that women living in rural areas are poor income earners, who cannot even operate a bank account, let alone life assurance policy.

4.5.3 Calculated Values of t- for Mean Incomes (2010-2014)

Considering the trend of income generation over the periods (2010-2014) by rural women who engaged in both farming and non-farming activities and the fluctuations experienced over the period, t-test was used to determine if the differences were significance across the sampled years.

Table 4.12 presents the calculated student's *t*-test results, comparing the mean annual income of women in Regime 1 and Regime 2.

Table 4.12: Paired Sample Test (2010-2014)

	Paired Differences			95% confidence interval of the Difference				
Year	Mean	Std Deviation	Std Error Mean	Lower	Upper	T	df	Sig(2 tailed)
2010	39.30526	31.22391	2.26522	34.83690	43.77363	17.352	189	.000
2011	42.65789	37.13957	2.69439	37.34296	47.97383	15.832	189	.000
2012	43.09474	42.58165	3.08920	37.00100	49.18847	13.950	189	.000
2013	46.44737	57.15731	4.14663	38.26775	54.62698	11.201	189	.000
2014	54.95789	80.68463	5.85348	43.41135	66.50444	9.389	189	.000

Source: Author's Computation, 2015

The result shows that through the period under study (2010-2014), that there were significant differences between the income of women in farm and non-farm activities and those in farming alone.

Table 4.13: Paired Sample Test for Equality of Means

	Paired Samples Test							
Activity	Mean	Std Deviation	Std Error Mean	95%`confidence interval of difference		T	Df	Sig. (2-tailed)
				Lower	Upper			
Farm and Non/farm income-Farm income alone	**45.29263**	**5296828**	**1.71852**	**41.92010**	**48.66517**	**26.357**	**945**	**.000**

Source: Author's Computation, 2015

Table 4.13 compared the mean incomes of women in farm and non-farm activities and incomes of women that are engaged in farming alone for the entire five year period under study.

For the five year-year period (2010-2014), it is established that there is significant difference between the income of women that engage in both farm and non-farm economic activities and income of women that engage in farming only in the study area. Therefore the null hypothesis which says that non-farm activities have not contributed to income of rural women must be rejected.

4.6 FACTORS FAVOURABLE OR INHIBITING WOMEN INVOLVEMENT IN NON-FARM ACTIVITIES

Table 4.14 shows that 42.9% of the respondents strongly agree that high startup capital was a discouraging factor to non-farm activities while 7.8% and 3.6% disagreed and strongly disagreed respectively.

As regards inadequate market for non-farm activities goods and services, about 73.2% were of the view that lack of market for their produce have affected negatively the growth of non-farm activities. This might be typical of a rural settlement given the unstandardized products which often times do not attract increased demand. Majority (70.6%) of the respondents agreed that low profit due to many participants discouraged the rural women from engaging in non-farm activities while 17.0% disagreed. This might be connected with non dense population in the rural areas, such that however low the frequency of participation is, it could result in many participants due to low demand as a result of low population. A little above 68.1% of the respondents disagreed that inconsistent government policy has retarded the growth of non-farm activities in the study area while 31.8% represented those who were indifferent.

Table 4.14: Factors Affecting Non-farming Activities

Factor	Strongly Agree		Agree		Indifferent		Disagree		Strongly Disagree	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
High start-up capital	82	42.9	70	36.6	17	8.9	15	7.8	7	3.6
Inadequate market	64	33.5	76	39.7	25	13.1	26	13.6	-	-
Low profit due to many participants	40	20.9	95	49.7	40	20.9	10	5.2	6	3.1
Inadequate raw material	-	-	-	-	61	31.8	51	26.7	79	41.4
Inconsistent policies	-	-	-	-	63	32.9	128	67.0	-	-

Source: Field Work, 2015

Using the scale in Table 4.14 to summarize; those who strongly agreed as well as agreed to a particular factor will be used to analyze the inhibitory factors, while those who disagreed and strongly disagreed to a particular factor will represent the favourable factors, leaving out the Indifferent group, since they were neither here nor there. Table 4.15 shows the results.

Table 4.15 reveal that there are high percentages of responses that form the inhibitory factors to women participation in non-farm activities, at 70% and above, while the highest percentage responses that form the favourable factors was about 68.1%. The finding is therefore, that based on these percentages, factors that inhibit women's participation in non-farm activities are more than those that favour their participation in the study area.

Table 4.15: Analysis of Favourable or inhibitory factors

Factors	INHIBITORY RESPONSE			FAVOURABLE RESPONSE		
	Strongly Agree	Agree	Total	Disagree	Strongly Disagree	Total
High Start-up Capita	42.9	36.6	79.5	7.8	3.6	11.4
Inadequate Market	33.5	39.7	73.2	13.6	-	13.6
Low Profit due to Many participants	20.9	49.7	70.6	5.2	3.1	8.3
Inadequate raw Materials	-	-	-	26.7	41.4	68.1
Inconsistent Policies	-	-	-	67.0	-	67.0

Source: Author's Computation, 2015

Table 4.15 reveals that there were high percentages of responses that form the inhibitory factors to women participation in non-farm activities, at 70% and above, while the highest percentage responses that form the favourable factors was about 68.1%. the finding is therefore that based on these percentages, factors that inhibit women's participation in non-farm activities are more than those that favour their participation in the study area.

The inhibitory factors which include inadequate market for sale of produce highlights the need for citing of more markets in the area as field observations reveal that there was only one periodic market capable of carrying large volumes of trade located in Kasuwa Magani, while the problem of high start- up capital buttress the fact that formal source of business capital are not available in the rural areas. Low profit due to many participants was another major inhibitory factor to the participation of respondents in non-farm activities with 70.6% of the women agreeing to this fact. This may be connected to the fact that demand for goods and services as

well as purchasing power is usually low in the rural areas and follows a top-down approach which is supply driven, instead of demand driven, resulting in low pricing and low profit.

It can also be deduced from the analysis in table 4.15 that availability of raw materials attracted fovourable responses from the respondents, pointing out that the respondents did not encounter many problems in sourcing the raw materials they needed for their non-farm activities. Inconsistent policies by government did not inhibit respondents participation in non-farm activities, probably because their scale of production and volumes of trade are small, which very large portions of it are consumed within the state.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECCOMENDATIONS

5.1 SUMMARY OF MAJOR FINDINGS

The rural non-farm (RNF) activities were found to be heterogeneous with women participating in several income generating activities, and some of them taking up more than one type of activity at the same time. Indeed RNF incomes are important as an offseason, part-time or home based income supplement. However relatively little attention and emphasis have been given to the contributions of these alternative livelihood option outside the farm in reducing poverty among women.

So far, the types of non-farm activities in Kajuru LGA, engaged in by the respondents include: tailoring, hair dressing, basket weaving, rope making, restaurant/food vending, poultry keeping, sale of airtme vouchers, pottery and trading. These activities were engaged in by the women, majorly as self employed, with such activities as basketry and pottery, supported by the natural resources found in the area.

The intention in researching the contributions of non-farm activities to reduction of poverty among Kajuru women was to try and focus attention on these majority rural dwellers, who incidentally are also majority of the poor and findings from the study show that non-farm earnings indeed increased the income of participating women and evidence show a positive correlation between non-farm activities and increased income. The reasons for the positive link is traceable to large amount of surplus labour in the rural areas, as a result of seasonality of agricultural activities which are largely rain fed, and the resultant low marginal product of labor

Attempts was made to test predetermined hypothesis in order to understand whether incomes generated from women in farm and non-farm activities are significantly different from income of

women in farming only. Also the effect of Age and Level of education on participation in non-farm activities, were discussed, and found that they are generally significant in choice and capacity for non-farm activities.

The study also found that the rural women experienced constraints to their participation in non-farm activities these constraints were examined, and it was discovered that majorly, inadequate or almost lack of credit and non-optimal functioning markets, form the bulk of the challenges to the expansion of the non-farm sector in the study area. However, there are arguments that non-farm activities is not always, or in every context, the route out of poverty.

5.2: Conclusion

The idea that rural areas are synonymous with agriculture is widespread, but the results of rural surveys including this study have changed this view. There is a growing recognition that the rural non-farm activities play a vital role in the economies of many rural households. One of the risk reducing strategies of many rural people, who are primarily farmers is to take up employment outside farming.

The diversification of income sources allows for a more stable income stream and thus functions as an informal insurance which reduces vulnerability to exogenous shocks, as illness, drought, or death of a household member. In the long run, reducing risks and vulnerability, spurs income growth and increases productivity as has been demonstrated in the difference between the poverty incidence of women who take up farming ang non-farming activities as their source of income, and those who are engaged in farming alone.

Nigerian agriculture is characterized by low level of productivity, which means that agriculture alone cannot bear the burden of poverty reduction in rural areas. In the rural areas, households involved in agricultural activities alone are more likely to be poor, mostly due to lack of access to productive assets.

Interviews conducted in this work reveals that participation in non-farm activities instead of pure farming can be driven by very precarious nature of agriculture, inadequate income from sale of produce and lack of requisite education to enter high income-yielding non-farm activities. There are several factors which affect the capacity of an individual to participate in non-farm activities like the Age, educational attainment, and availability of such opportunities and or Natural resources that support the activities. Education is a crucial factor explaining the choice between non-farm and farm activities, higher education is also the main determining factor which allows participation in high income yielding non-farm activities. The significance of RNF incomes illustrated here should not be taken to mean that RNF development represents an alternative to addressing agricultural development problems; nor should it detract from the importance of agricultural policy and research.

This research work used income to analyze the incidence of poverty among the respondents from 2010-2014.

5.3: Recommendations

Rural non-farm sector development has fallen into an “institutional vaccum”, since it has not belonged to the domain of Agricultural Ministries per se, or to that of Industry, which commonly focus on large scale formal sector companies. Hence it is very important to establish a system that links the agricultural and rural non-farm activities domains.

The general goal of a sector-specific policy orientation should be to identify promising subsectors and then systematically address the constraints to incentives and capacity for development – ranging from the participation of small- and medium-scale entrepreneurs, small and medium-sized agro-industrial development and/or linkages with larger agro-industrial companies, and market development and consumer product acceptance. The specific goal should be to provide the incentives and capacity for rural households and rural non-farm activities to overcome entry barriers, and to create "linkage friendly" agriculture and rural non-farm activities.

On the basis of the findings of this study, suggestion are made, which may be incorporated in future templates of development in the area and the state in general, expected to have significant influence on the direction of policies for reduction of poverty among women in the rural areas

- Rural people should be encouraged towards establishing businesses which offer area specific comparative advantages, through awareness and integrated participatory approach.
- Empowerment of rural women to enable them access financial and other resources, with a view to enhancing their participation in non-farm activities.
- Also education opportunities should be expanded because more of the educated women engage in high income generating non-farm activities.

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APPENDIX 1

QUESTIONNAIRE.

DEPARTMENT OF GEOGRAPHY

FACUITY OF SCIENCE

AHMADU BELLO UNIVERSITY ZARIA, NIGERIA

The following questions form part of a research work in partial fulfillment of the requirement for the award of Masters of Science degree at Ahmadu bello University Zaria, Nigeria. The research aims at analyzing the contributions of rural non-farm economic activities to reduction of poverty among women in Kajuru Local Government Area of Kaduna State.

You have been chosen as one of the women to be studied, you are therefore pleas required to answer the accompanying questions by completing the questionnaire as honestly as you can. All information provided will be treated with confidentiality and used for research purposes only, thank you.

SECTION A : GENERAL CHARACTERISTICS OF RESPONDENTS.

1. Age……
2. Marital Status? A Never married [ ] Married [ ] Separated [ ] Divorced [ ] Widowed [ ]
3. Village/Settlement…….
4. How many are you in the household?.....
5. Educational Qualification? a No formal education [ ] b Quranic education [ ] c Primary education [ ] d. Ault education [ ] e. Secondary education [ ] f. Tertiary education [ ]
6. Do you engage in farming? a. Yes [ ] b. No [ ]
7. What is your primary occupation? a. Farming [ ] b. Non-farming [ ] c. Farming and Non-farming [ ]

8. Which crops do you produce …….
9. What is your level of production? a. Subsistence [ ] b. Commercial [ ]
10. When do you sell your crops? A. Before harvest [ ] b. After harvest [ ] c. Months after harvest [ ]
11. Briefly state the problems associated with farming in your area……...
12. How do you think these problems can be solved…….. …….

SECTION B: NON-FARM ACTIVITIES ENGAGED IN BY RESPONDENTS.

13. Indicate the type of non-farm activities you are engaged in, based on the two categories bellow;

ACTIVITY	SELF EMPLOYED	EMPLOYED BY OTHERS
Tailoring		
Hair dressing		
Trading		
Basketry		
Restaurant and food-vending		
Rope Making		
Pottery		
Sale of Airtime		
Poultry		
Any other (specify)		

14. Reasons for engaging in non-farm activities? a. To cope with farming related shocks [ ] b. To generate more income [ ] c. As a past time [ ] Any other specify……..
15. In what year did you start this activity?……...
16. How did you obtain the start up fund? A. Income from farm produce [ ] b. Money lender [ ] c. Loan from family and friends [ ] Any other specify [ ]
17. How much was your initial investment in naira? A 5,000- 10,000 [ ] b. 11,000- 15000[ ] c. 16000 – 20,000 [ ] d. Above 20,000 [ ] e. Any other specify…….
18. What entry barriers did you face? a. Inadequate capital [ ] b. Competition from external markets [ ] c. None [ ] d. Any other specify……

SECTION C: EFFECT OF NON-FARM ACTIVITY ON POVERTY REDUCTION

19. Are you able to access better food, healthcare and education more than when you were not involved in non-farm activity? a. Yes [ ] b. No [ ]
20. What is your average annual income in naira from farm and non-farm activities as required below?

    2010

    Farm income a. 15,000-25,000 [ ] b. 26,000-35,000 [ ] c. 36,000-45,000 [ ] d. above 45,000[ ] Any other specify……..

    Non-farm income a. 15,000-25,000 [ ] b. 26,000-35,000 [ ] c. 36-45,000 [ ] d. above 45,000 [ ] e. Any other specify……

    2011

    Farm income a. 15,000-25,000 [ ] b. 26,000-35,000 [ ] c. 36,000-45,000 [ ] d. above 45,000 [ ] e. Any other specify…….

    Non-farm income a. 15,000-25,000 [ ] b. 26,000-35,000 [ ] c. 36,000-45,000 [ ] d. above 45,000 [ ] e. Any other specify……..

    2012

    Farm income a. 15,000-25,000 [ ] b. 26,000-35,000 [ ] c. 36,000-45,000 [ ] d. above 45,000 [ ] e. Any other specify…….

    Non-farm income a. 15,000-25,000 [ ] b. 26,000-35,000 [ ] c. 36,000-45,000 [ ] d. above 45,000 [ ] e. Any other specify…….

    2013

    Farm income a. 15,000-25,000 [ ] b. 26,000-35,000 [ ] c. 36,000-45,000 [ ] d. above 45,000 [ ] e. Any other specify ……

    Non-farm income a. 15,000-25,000 [ ] b. 26,000-35,000 [ ] c. 36,000-45,000 [ ] d. above 45,000 [ ] e. Any other specify…….

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    Farm income a. 15,000-25,000 [ ] b. 26,000-35,000 [ ] c. 36,000-45,000 [ ] d. Above 45,000 [ ] Any other specify ……..

    Non-farm income a. 15,000-25,000 [ ] b. 26,000-35,000 [ ] c. 36,000-45,000 [ ] d. Above 45,000 [ ] e. Any other specify ……..

21. From the following options thick as appropriate the factors the factors that stimulate farm activities

S/N	Factors	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree
1	Increasing demand for					

	produce					
2	Increasing diversity in population characteristics					
3	Government Policy that Promote Non-farm activities, such as Sure P Loan, Free improved seedling etc					
4	Availability of Production Resources					
5	Historical or Traditional Factors					

22. Indicate as appropriate the factors that inhibit Non-farm activities

S/N	Factors	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree
1	High Start-up capital					
2	Inadequate Market					
3	Low profit due to many participants					
4	Inadequate raw materials					
5	Inconsistent policies					