DECLARATION

I hereby declare that this work is the product of my research efforts undertaken under the supervision of Dr Nuratu Mohammed and has not been presented anywhere for the award of degree or certificate. All sources have been duly acknowledged.

Dawood Yusuf Jibril
SPS/14/MGE/00038

CERTIFICATION

This is to certify that the research work for this dissertation and the subsequent write-up (by Dawood yusuf Jibril) were carried out under my supervision.

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Supervisor

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HOD Geography Date_____

APPROVAL PAGE

This dissertation has been examined and approved for the award of Master of Science (M.Sc.) Degree in Geography

(External examiner) Date_____

Dr. Bello Gambo Date_____

(Internal examiner)

Dr. Nuratu Muhammed Date_____

(Supervisor)

Dr Salisu Muhammad Date_____

(Head of Department)

Representative of PG school Date_____

DEDICATION

This is work dedicated to my parents, Alhaji Jibril Dawud Imam and Mallama Mametu Tahir and; all lovers of education.

ACKNOWLEDGMENT

My sincere appreciation goes to Almighty Allah, who in His infinite mercy gave me the opportunity to witness the completion of this research work successfully.

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ABSTRACT

Kogi state is adjudged as an agrarian state in view of the fact that agriculture provides employment opportunity for the vast majority of its rural population, but as the rural farm households are faced with various constraints and agricultural livelihoods become unable to meet the basic needs of the people, they sought alternative income via various strategies to augment their income earning.The aim of this study was to investigate the nature of agriculture and how it relates with household employment and income in Ankpa local government area. The objectives cover the nature of livelihood sources, forces influencing the livelihoods, the challenges facing livelihood options and the sustainability of livelihoods in the study area. A sample of 150 rural farm households was drawn from three villages; *Enale*, *Inye* and *Odogomu*, one each from the three districts- *Ankpa*, *Enjema* and *Ojoku* districts respectively using a multi-stage sampling technique. Enale is a remote community of farm and nonfarm income earners with low level of western education. Inye is a semi urban community with high level of western education and their main source of livelihood is from both farm and nonfarm sector of the rural economy. Odogomu is a remote rural community whose livelihood is largely from farming, provision of traditional health services and other nonfarm activities. Primary data was collected using both structured and unstructured questionnaire and focus group discussion to generate both quantitative and qualitative types of data. Data were analyzed using descriptive statistics and spearman correlation model. The distribution of respondents by the type of livelihood strategy adopted revealed that96% of the household heads see farming as their primary livelihood and almost 90% of the respondents adopted the combination of farm and nonfarm strategy. Push factors 97% were mostly found to be responsible for the adoption of multiple livelihoods. Econometric analysis showed that marital status, land ownership and level of education ofthe household head were the dominant factors influencing the choice of livelihood strategies adopted. Income from both agricultural and non-agricultural livelihoods impacted the farm households' welfare positively. The study recommends the promotion of both farm and nonfarm livelihood activities to alleviate poverty and for sustainable rural development.

ANALYSIS OF AGRICULTURAL LIVELIHOOD OPTIONS OF RURAL HOUSEHOLDS IN ANKPA LOCAL GOVERNMENT AREA, KOGI STATE, NIGERIA

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CHAPETR ONE

INTRODUCTION

1.1BACKGROUND TO THE STUDY

Agriculture has been and is still the most important sector for many countries in terms of its potential to influence a wide range of issues that are critically related to development, including the economy, employment, food security, trade flows, poverty reduction, human health, climate change, the use of natural resources, and biodiversity. It is the major employment sector in most of the developing countries of the world. In poor economies like those of Sub-Saharan Africa, agriculture is typically the sector that employs the most people and uses labour least productively (McCullough & Charles, 2015).Over the years, factors such as family pressures, poor output from farm due to depreciating soil fertility and lack of adequate or affordable input, over monetization of rural economy and falling real income from farm have all been inducing the rural people to seek additional avenue to enhance their standard of living (Babatunde, 2015; Oluwatayo, 2009). The inability of the formal sector economy to absorb the youth in both urban and rural areas keeps them within the agricultural and non-agricultural employment sector of the rural economy.

Nigeria has a highly diversified agro-ecological condition, which makes possible the production of a wide range of agricultural products.Despite Nigeria's rich agricultural resource endowment, the agricultural sector has been growing at a very low rate. Less than 50 percent of the country's cultivable agricultural land is under cultivation(Manyong*et al.,* 2003).More than 80 per cent of the labour force inNigeria was employed in agricultural sector in 1960s (Ijayi&Ijayi, 2003). Butafter the discovery of oil in the 1970's, the percentage contribution of agricultural sector to the Gross Domestic Product (GDP) of Nigeria and other

countries ofSub-Saharan Africa has shown a steady decline from 1965 to date. Service sector has continued to register a steady increase in GDP contribution to the economies of both developed and developing countries relative to industrial and agricultural sectors. In Nigeria, it accounts for 32% of the GDP (Kamil, Sevin& Festus, 2017; Banchirigah&Hilson, 2009).This is not because the industrial sector increased its share but due to neglect of the agricultural sector (Oluwatayo, 2009; and Yakubu&Akanegbu, 2015).This situation has long made the country net importer of food commodity thereby undermining our national food security.

1.2 STATEMENT OF THE RESEARCH PROBLEM

Existing literature has revealedthat rural households do not depend on agricultural employment alone but engage in a number of income source portfoliosas a way to offset the risk of uncertainty and to improve their living standard, facing the reality that farming can no longer provide employment for the number of people it did in the past.The returns of small rural households from agricultural investment are unlikely to provide sufficient basis for the means of livelihood in Sub-Saharan regions all year round as agriculture for most part is oriented for subsistence farming.

Diversification for the lower stratum rural households is taking place in the most negative sense of the term: a movement away from agricultural sources of livelihood, without any expanding processes of industrialization or capitalist farming to absorb their labour, and without the resources or skills to create a viable small-scale alternative of their own. This trend tends to aggravate rural inequality, since it is the better-off rather than the poorer households who tend to benefit from the opportunities for diversification (Meager, 1999).

As rural households in Africa face uncertainty in agricultural outputs they tend to diversify into a number of livelihood options on the basis of trial and error (Iliya, 1999). In Nigeria, the

agricultural sector is plagued with problems which include soil infertility, infrastructural inadequacy, risk and uncertainty and seasonality among others. Thus, rural households are forced to develop strategies to cope with increasing vulnerability associated with agricultural production through diversification, intensification and migration or moving out of farming (Ellis, cited by Abimbola&Oluwakemi, 2013).

In the era where government at all levelsof authority claim to be pursuing policies and programmes that ensure food security for its citizens, employment opportunities for the teaming youth and poverty alleviation among the general populace, harnessing the opportunities embedded in both farm and non-farm sectors of Africa's economy could help in achieving these golden goals but as African agriculture become relatively unproductive, the number of global ultra-poor in rural Sub-Saharan Africa had shown a steady increase over the years.Ironically, the states in most Sub-Saharan African countries appear to be insensitive to the situation and even where there are physical structures and policies to address the situation, a careful observation will reveal that a very small, insignificant positive change has been recorded (Barrett, Christiaensen, Sheahan,& Shimeles, 2015). A further argument has been the extent to which agriculture alone can lead to an improvement in people's living standard, vis-à-vis the inherent problems within the sector and whether it can absorb both existing labour and prospective new entrants into the market without a decline in farm holdings and subsequently a decline in household per capita income or the glaring inadequacy of staple food supplies which, according to Bryceson (2009), was more acute in Sub-Saharan Africa. It is argued that it becomes imperative that non-farm activities be developed, improved upon and sustained to offer real opportunities, not just as an alternative means of livelihood but to serve as supplement to agriculture.

Rural livelihood diversification has been studied extensively in Sub-Saharan Africa. For example, the following studies suffice the claim;OyinboandOlaleye (2016),Oluwatayo (2009),AbimbolaandOluwakemi, (2013).Babatunde (2015).BabatundeandQaim (2010). For instance, the study carried out by OyinboandOlaleye (2016) on livelihood diversification in Giwa local government area of Kaduna state revealed that farming household heads who engaged in a number of livelihood activities had lower tendency of being poor as two-third of these group of household heads were found to be above poverty line.BabatundeandQaim (2010) in their study of off-farmlabour market participation in rural Nigeria found that about 90% of their respondents engaged in one form of nonfarm activity or another. The study also found that almost 50% of the rural household income was earned from the participation in rural nonfarm activities.AbimbolaandOluwakemi, (2013) in their study on livelihood diversification in rural Ondo state of Nigeria found that three-quarters of the rural household heads adopted a combination of farm and nonfarm as a way to navigate their way out of poverty. But to the best of my knowledge, no study of this nature has been carried out inAnkpa local government area of Kogi state. As small scale farming is faced with so many problems in the rural Ankpa local government of kogi state, the rural households that depend on subsistence agriculture as a single livelihood strategy often found themselves engulfed in the vicious cycle of poverty and as such, these households adopt means of coping with this distress condition through adoption of multiple sources of livelihoods in the area, or migrate to urban areas in search for non-available jobs. Trends of this nature has been extensively studied butsince it is clear that local variations may exist within the same geographical region, the focus here would be on local specific study.

1.3 JUSTIFICATION FOR THE STUDY

The incidence of poverty in rural Nigeria in recent years and the resilience of the rural households as they struggle to walk their ways out of poverty through various strategies

points to an urgent need to bring to the notice of the authorities concerned the compelling needs to develop or improve on the policies that are targeted at improving the various livelihood opportunities in the rural areas. This study therefore assesses the potential of improving both agricultural and non-agricultural livelihood as a mean of enhancing rural livelihood options in Ankpa local government area of Kogi state.

1.4 RESEARCH QUESTIONS

i. What are the sources of livelihood in the study area?
ii. What are the forces influencing livelihood satisfaction?
iii. What are the challenges facing livelihood activities in the area?
iv. How sustainable are these livelihood options?

1.5 AIM AND OBJECTIVES

The aim of this study is to investigate the nature of livelihood activities and show how it relates with household employment and income in Ankpa local government area. More specifically, the objectives of this study are to:

i. identify the types and examine the nature of livelihood sources in the area;
ii. examine the forces influencing the livelihood;
iii. establish the challenges facing livelihood satisfaction; and
iv. ascertain the sustainability of the livelihood options employed by the households.

1.6 SIGNIFICANCE OF THE STUDY

The expected contribution of this work is to the existing body of knowledge and its potentials to the policy environment of Nigeria in order to improve the wellbeing of the rural people in the country and Ankpa local government area in particular.

Firstly, the findings of this research work would have a great role in understanding the various sources of livelihood and the factors influencing livelihood diversification strategiesparticularly in the study area. Secondly, the study will be useful to the stakeholders such as rural farming households, extension agents and administrators, policy makers,nongovernmental organizations and related governmental agencies. Thirdly, the result of the study will serve as a basis for further research on livelihood options in Ankpa local government area of Kogi state or elsewhere.

1.7 SCOPE

The study analyzed at the nature of agriculture and non-agriculture livelihood options in Ankpa, Kogi State. It captured the economic trends of rural households by assessing the type of livelihood available; the forces influencing the livelihood, established the challenges facing livelihood satisfaction and livelihood sustainability in Ankpalocal government area of Kogi State and the study will be limited to the study area. The study was carried out between November 2016 and March 2017.

1.8 THE STUDY AREA

1.8.1 Location and Size

Ankpa local government arealies approximately between latitude $7^0.22^IN$ to $7^0.49^IN$ and longitude $7^0.37^IE$ to $7^0.56^IE$. It shares borderwith Benue state to the East, Olamaboro local government to the south, Dakina local government to the North-east and Omala local government to the North (Figure 1). The total land area of the local government is $1200km^2$.

1.8.2 Population

Ankpa local government as at 2006 had a total population of 267,353 people (NPC, 2006). The study area is a typical Nigerian community with Muslim, Christian and Pagan households living together in peace. The language of the people is Igala but there are few

immigrants from other parts of Nigeria such as Ibos from east and Hausa from the northern parts of the country who mostly engage in non-farm activities.

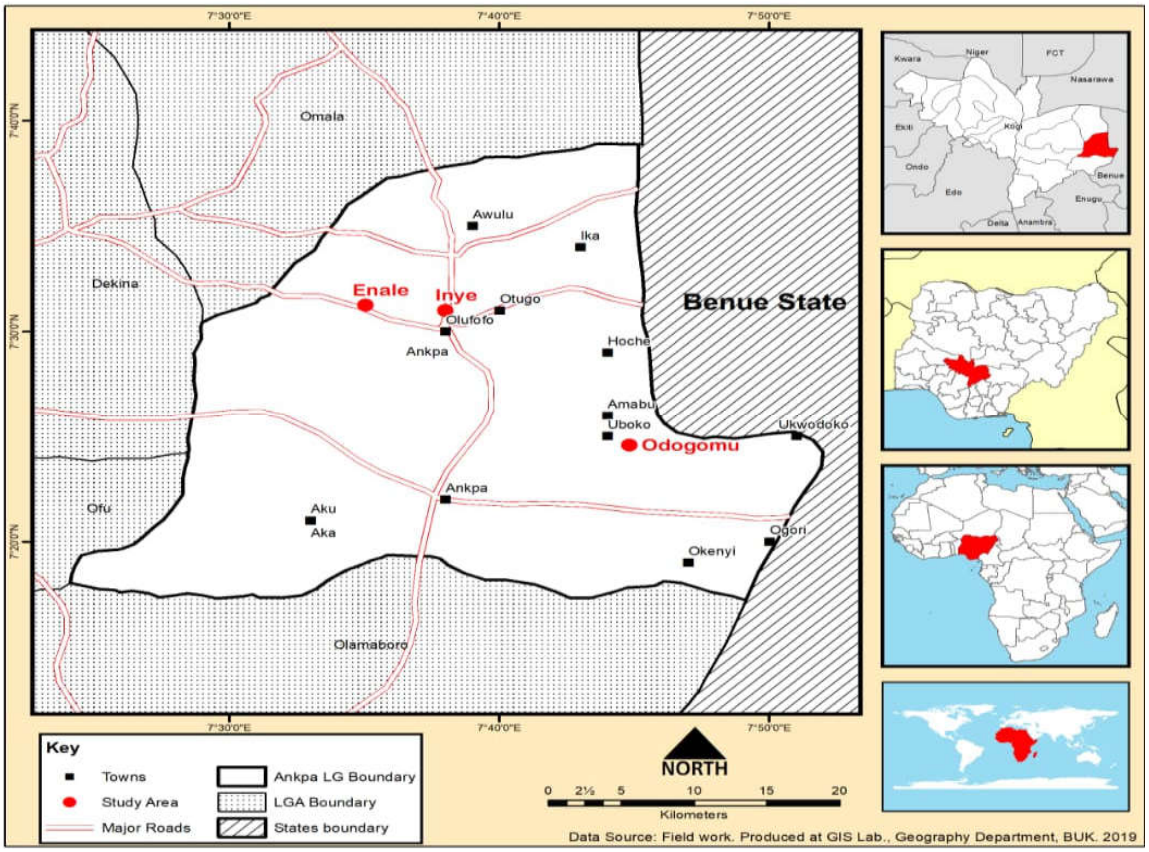


Figure1: Ankpa Local Government Area
Source: GIS Lab. Bayero University, (2019)

1.8.3 Physical Environment

The region has averagely high temperature which ranges between 21 to 29°C and high relative humidity with two distinct seasons namely: the rainy season which lasts from March to October and the dry season which lasts for the rest of the year; November-February. It gets up 1,250mm of rainfall annually with the bulk of the rain received in August and September. Planting in a normal year begins in April.The local government lies within guinea savannah vegetation zone of Nigeria. The vegetation is that of southern guinea savannah with element of mosaic of rain forestwith a sloppy topography. The vegetation type allows both root and

grain crops to be grown in the area (Yunusa, 1999; Salifu, 2016). Geologically, Ankpa falls within the Anambra basin whose genesis has been linked with the development of the Niger Delta Miogeosyncline and the opening of the Benue trough which is underlain by the rocks of Anambra sedimentary basin (Imasuen, Omali & Ibrahim, 2011).

ImaboloRiver is the largest river in Ankpa local government area of Kogi state which is mostly used to supply water to the local government headquarters and the surrounding villages. The river passes through Ankpa to Olamaboro local government area before joining OfuRiver in Ofu local government area to form Anambra River that drains into river Niger. The river flows throughout the year. It is mostly used for domestic purpose with little fishing activities. Most of the town landscape slopes into the valley and as a result of the run-off from the town end up in the river (Salifu, 2016).

1.8.4 Human Activities

The area is predominantly agrarian and consequent upon the climatic variety discussed above,notable food and cash crops mostly grown by the farmers in the area include: cassava, maize, yam, sorghum, millet, groundnut, bambaranut, okra, pepper, tomato, oil palm and cashew nut. Farming is mostly rain-fed. There is no irrigation farming as the area has no facilities that can support such practice. This gives room for people to engage in non-farm activities especially during the off season. Hoes and cutlasses are the major implements used by the farmers but herbicide was recently introduced for weeding mostly used by well to do households.

Farm animals such as sheep, goat and chicken are kept by households mostly as saving strategies to be sold when there is the need to meet any financial requirement of the households or to be slaughter for household consumption during festivities. Apart from farming people also engage in a number of non-farm activities such as trading, tailoring,

mechanic, transportation, agro-processing, hairdressing, barbing, etc.participation in non-farm activities is not seasonal like the farming activity only that the supply and demand for the non-farm fluctuate in response to seasonal variation.

CHAPTER TWO

LITERATURE REVIEW

2.1INTRODUCTION

This chapter gives an account of what has been published on the topic previously by renowned authors and researchers. The purpose here is to convey what knowledge and ideas have been established on the topic. This chapter therefore provokes a discussion on the theory of sustainable livelihood, concept of livelihood diversification strategies for rural households and the livelihood options among the rural households.

2.2 THEORETICAL FRAMEWORK

The study reviews sustainable livelihood theory because of its central principle that people's ability to have a sustainable and adequate livelihood is shaped by the interplay of the resources which the people are able to use and the institutions and 'politics' which influence how the people can use resources and to what effect(Levine, 2014).

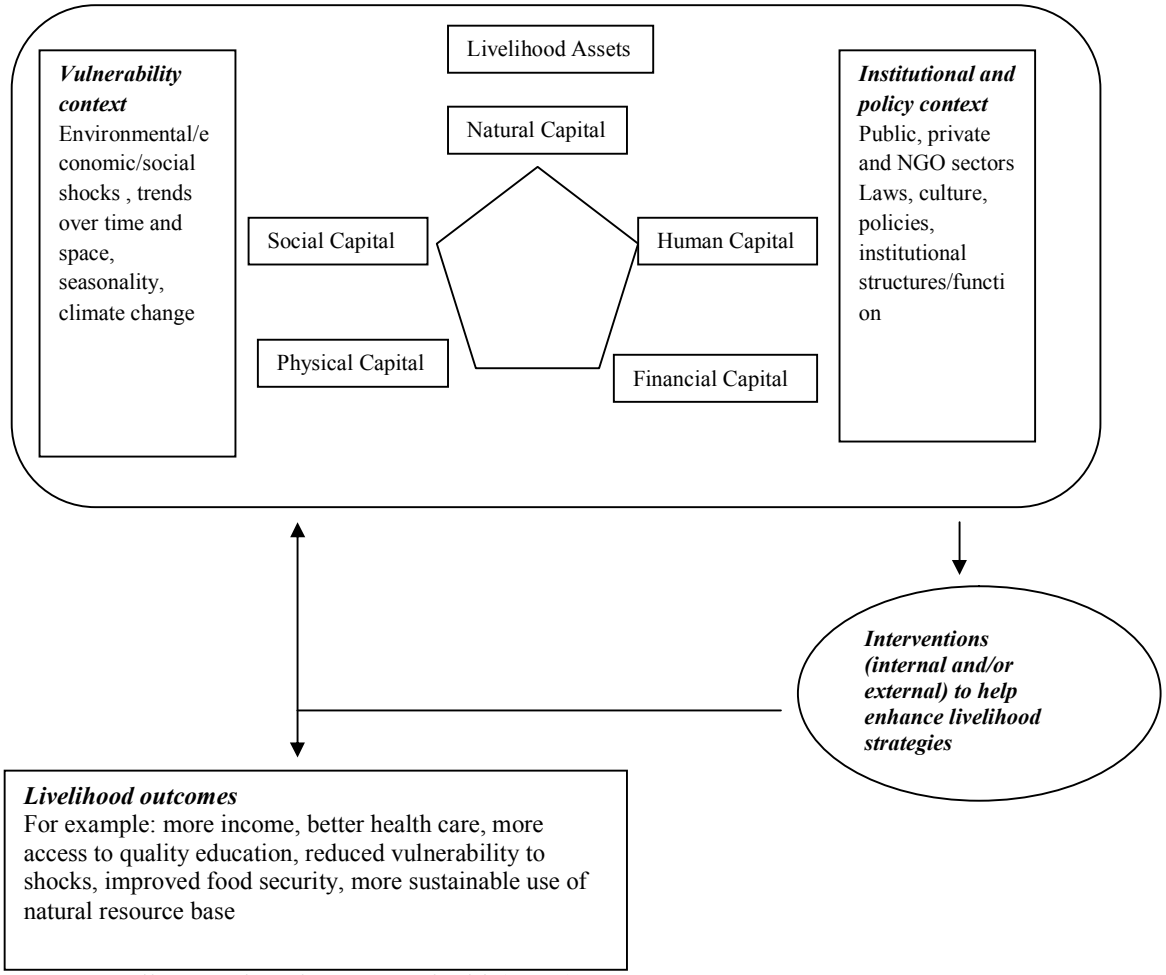
2.2.1 Theory of Sustainable Livelihood

The sustainability of livelihoods falls into two groups: whether a livelihood is sustainable environmentally, in its effects on the available resources and assets; and whether it is sustainable socially, that is, able to cope with stress and shocks, and retain the ability to continue and improve. Sustainability is thus a function of how assets and capabilities are utilized, maintained and enhanced so as to preserve livelihoods. Environmental sustainability concerns the external impacts of livelihoods over other livelihoods; social sustainability concerns their internal capacity to withstand outside pressures (Chambers& Conway 1991). In the words of Chambers and Conway, sustainability of livelihood means the ability of the

household to gain, maintain and improve livelihoods while maintaining and enhancing the assets and capabilities on which livelihoods depend. Sustainability of livelihood is more concerned with the ability of households not only to gain but maintain an adequate and decent livelihood, a livelihood which can cope with stress and shock, so sustainable livelihoods include not just income and consumption, but the ability to handle stress and shocks. Stress like decreasing fertility of land, decline farm labour available to cultivate the land, population pressure on resources leading to declining farm size and declining return to labour, etc. To maintain a sustainable livelihood, households depend on a range of productive *assets* or *capitals*, which they may either own privately, or access as common property, or even use as open access resources. These capitals according to Alison and Springate-Baginski (2009) are categorized into five distinct types namely:

i. Humancapital: this refers to the household members' 'capabilities' in terms of the number of members and their age, health, education, knowledge, skills, and capacity for work which are important to the pursuit of livelihood strategies.
ii. Physicalcapital:this refers at household level to the physical equipment and tools that are used in production. The basic infrastructures such as transports, shelter, energy, communication and water system that enable people to pursue their livelihoods
iii. Naturalcapital: The natural resource stocks from which resource flows useful for livelihoods are derived (e.g. land, water, wildlife, biodiversity, and environmental resources).
iv. Financial capital:households' savings, credit (and debt, which is negative capital), pension, remittance and so on. At the collective level it may be accessibility of credit.
v. Social capital:the kinship networks, associations, membership of organisations and peer-group networks that people can use in difficulties or turn to in order to gain advantage.

Sustainable livelihood approach reflects a multiple capital approach where livelihood sustainability is considered in terms of the availability of the livelihood assets that were mentioned earlier and an examination of the vulnerability context in which these assets exist (Figure2).



Source: Alison and Springate-Baginski (2009)

Figure 2: DFID Sustainable Livelihood Framework

2.2.2 Relevance of the Theory to Study

The theory of sustainable livelihood is relevant to this study in terms of livelihood strategies and sustainability. It renders valuable analysis on the assets upon which the livelihoods are built, the context within which the livelihoods evolve, the possible causes of vulnerability, the livelihood strategies and the resulting livelihood outcome.

2.3 CONCEPTUAL FRAMEWORK

2.3.1 Agriculture

Agriculture is conceived as involving the cultivation of land, raising and rearing of animals for the purpose of production of food for man, feed for animals and raw materials for industries. It deals with the cultivation of land for crop production and rearing of animals for the use of man and also for the feed of animals (Kamil, Sevin& Festus, 2017). Agricultural transformation has resulted in a number of outcomes. At the farm household level, agricultural transformation is characterized by at least two development processes, namely from subsistence to market-oriented and cash crop farming and from agriculture-based livelihood to non-agricultural income generation—a moving-out of agriculture (Ecker, Tan, Alpuerto, &Diao, 2012). The latter process reflects an increasing number of off-farm employment activities for the farm household's members that decouples people's dependency on farming for own food consumption and the associated food security risks. Barrett, Reardon and Webb (2001), asserted that in rural sub-Saharan Africa, a growing number of smallholder farmers, struggling to subsist on earnings generated from the sales of crops, are 'branching out' into non-farm activities to supplement their incomes. BanchirigahandHilson (2009), argue that the precipitous decline in the value of many export crops and the removal of subsidies on crucial inputs such as fertilizers were some of the reasons that made smallholder production unviable, forcing many farmers to 'branch out' in to non-farm activities to supplement their income.

There is a growing recognition in the literature that most rural households get their income from diverse portfolios such as trading and services, what Yaro (2006) refers to as livelihood adaptation, implying both diversification from previous livelihood activities (adoption of new ones), and the change in the form, nature and content of old livelihood activities (adapting to

vulnerability conditions). Oluwatayo (2009) in his study on poverty and income diversification among rural Nigerians stated that Africans diversify their livelihood strategies, including on-farm (crop, livestock, fisheries) and off-farm activities or market and non-market activities, to mitigate risks inherent in unpredictable agro climatic and politico-economic circumstances.

During the 1970s and early 1980s, according to Adams (2002) citing Mellor emphasized the growth linkage effects of agricultural growth. According to this literature, technological change in agriculture boosts production, thereby increasing the incomes of landowning households. In turn, these landowning households use their new income to buy more labour-intensive goods and services, which are produced by the poor working in small-scale firms in the rural non-farm sector. It is posited in literature that an increased demand associated with rising farm income leads to the diversification of the local economy and a growth in jobs in non-farm activities. Chikwama(2004), points out the positive relationship between rural farm and off farm production, based on the rural growth-linkage model;the author suggests that the development of the rural off-farm sector is dependent on the growth of the agricultural sector.Thus, accelerated growth in agriculture has both consumption linkages that provide the poor with more food and production linkages that provide the poor with more employment opportunities in the rural nonfarm sector (McCullough & Charles, 2015). The same process leads to the release of labour from agriculture thereby making it available to other sectors (Pogorzelski, 2014). So it is suggested thatgrowth in agricultural productivity stimulates growth in other sectors of the economy and also plays a role in lowering agricultural employment shares (Pogorzelski, 2014, and McCullough & Charles, 2015).

Agriculture has both forward and backward linkages with itself and other sectors of the economy as it supplies raw materials to the agro-allied industries which enhance the

provision of job opportunities, food, and incomes to those engaged by the sector as well as the government (Binswanger*etal* as cited in Ijayi&Ijayi, 2003). Through farmer income effects, agricultural productivity growth stimulates rural demand for non-agricultural goods and services, pushing up wages outside of agriculture and pulling workers out of the sector (McMillan & Harttgen 2014). Jayne *et al.,* (2015) explain the process as the rural farmers produce in excess and sell the surplus, the money that they mobilize from their surplus production and spend stimulates demand for goods, services and jobs in the various off-farm sectors of the economy, which induces rural-urban migration, gradual urbanization, and a slow or negative rate of population growth in rural areas. Agriculture declines in its relative share of total GDP over time. In addition to proliferating sources of income, the transition encompasses movement away from agriculture towards non-agricultural work, from unpaid towards paid work, and from household-based to more individualized labour activities.

As already noted, the prevailing conception is that rural non-farm activities have close links with the agricultural sector. Although this section focuses on the linkages between the farm and rural non-farm economy, Davis (2006) argues, these must also be viewed within the wider context of broader links. The World Bank (Csaki&Lerman, 2000 cited by Davis 2006) emphasizes the links between the rural sector and all other sectors of the economy – not only those between the rural non-farm sector and the agricultural sector. They argue for a cross-sectoral context to rural development due to "the 'connectedness' of rural residents to many economic sectors, only one of which is agriculture". For example, rural industry has strong links with the urban sector, both due to the market provided by the urban area and due to the links between industries, which may be either competitive or complementary: rural industries may provide components for urban industries, or may assemble or finish their products.

The farm and non-farm economy may be directly linked via production activities, or indirectly linked through incomes or by investment (Reardon et al., cited by Davis 2006). Production linkages may be either upstream or downstream: upstream linkages occur either when the farming sector grows, induces growth upstream in the supply of inputs and services, or when growth of local manufacturing and services reduces the price and increases the availability of inputs upstream. Downstream linkages take place when activities that rely on farm inputs, such as agro-processing and distribution, are increased and thus increase the demand for farm products. Income linkages occur when income earned in one sector is spent on the outputs of the other, and investment linkages take place when profits from one sector are invested in the other.

2.3.2 Livelihood

Livelihood in its simplest sense is a means of gaining a living. It is seen as comprising the people, their capability and their means of living including their food, income and assets (Chambers& Conway 1991). The term livelihood was defined by the Department for International Development (DFID) as a combination of the resources used and activities undertaken as a means of living (DFID, 2001). More specifically, livelihoods can be seen to consist of a range of farm and nonfarm activities that together provide a variety of procurement strategies for food and cash. Banchirigah and Hilson (2009) reported that Ellis provides a broad perspective on livelihood noting that livelihood is more than just income and that a livelihood also includes access to, and benefits derived from, social and public services provided by the state. Livelihoods are understood not only in terms of income earning but a much wider range of activities, such as gaining and retaining access to resources and opportunities and dealing with risk. Livelihood activities are divided into agricultural and non-agricultural and thereafter into on-farm and off-farm (Barrett et al., 2001).

The non-farm "sector" includes all economic activities in rural areas except agriculture, livestock, fishing and hunting (Lanjouw&Lanjouw, 2001 and Gordon & Craig 2001). The sector is composed of services, commerce and transport, construction, mining and manufacturing (Lanjouw&Lanjouw, 2001). Nonfarmincome includes wage earnings from nonagricultural labor, government and private-sector employment plus net revenues from nonfarm enterprises (Adam, 2002). The term non-farm is often used interchangeable with off-farm. But some authors make distinction between the two as they refer to off-farm as activities undertaken away from the household's own farm (Gordon & Craig, 2001). Or agricultural wage labour. It was used by some authors 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. But in the context of this study, nonfarm is used to refer to agricultural wage labour, non-agricultural wages, self-employed earning and other incomes that may accrue to the rural households such as remittance and pensions. Non-farm activities are critical survival strategies offering some form of income to supplement to the agricultural income of families put it in another words, to offset liquidity constraints (Babatunde, 2015). Non-farm activities are defined to reflect any movement away from livelihoods based on agricultural production for the household. This includes agricultural wage labour, as well as non-agricultural activities and other forms of wage labour. Agricultural processing activities for sale outside the household, trade in crops produced by others are also included in the category of non-farm activities. The inclusion of agricultural wage labour and commercial processing activities in the category of non-farm activities informs the choice of the term non-farm rather than non-agricultural. While wage labour and commercial agricultural processing activities can be defined as agricultural activities, they lie outside the category of agricultural self-provisioning activities centered on the household farm, and are, as such non-farm.

2.3.3 Livelihood Diversification

Livelihood diversification has been defined by KimenjuandTschirley (2008) cited by OyinboandOlaleye (2016) as "the number of economic activities an economic unit or household is involved in and the dispersion of those activities shares in the total economic activity of the unit".Rural livelihood diversification can also imply a change from agricultural to non-agricultural activities (Start, 2001 as cited by Elmqvist& Olsson, 2006). It can also be defined as the process by which rural households construct an increasingly diverse portfolio of activities and assets in order to survive and to improve their standard of living(Ellis, 2000 cited by Elmqvist& Olsson, 2006). Rural livelihood diversification reflects an expansion of rural dwellers' income sources away from own farm labour. Such movement has various dimensions as;

a. A change in labour form from peasant household labour to wage labour, individual self-employment, or reliance on remittances, pensions, rent or other income transfers;
b. Added impetus to the already well-entrenched tendency for subsistence-based activities to be substituted by monetised activities; and
c. Increasing replacement of agricultural work with non-agricultural activities.

Livelihood diversification is driven by different factors. According to Yaro (2006) rural households and individuals diversify assets, incomes and activities in response to push (necessity) and pull (choice) factors. The Pull factors include realization of strategic complementarities between activities and specialization according to comparative advantage accorded by superior technologies, skills or endowments. Pull factors will attract households to the nonfarm sector when the nonfarm activities offer higher returns compared to farming. Reasons why a farm household can be pulled into the nonfarm/off farm sector include higher returns to labour and or capital and the less risky nature of investment in the nonfarm sector

(Kilic, Carletto, Miluka, &Savastano, 2009). The desire to increase income in order to become more food-secured, upgrade housing, educate children, accumulate assets or otherwise improve the household's standard of living are also the pull factors. Voluntary diversification is opted with the goal to maximize profits.

Push factors (or necessity) are the involuntary reasons to diversify; they include income risk management, coping mechanisms, diminishing or time-varying returns to productive assets, long-term constraints or smoothing household consumption. The push factors that may drive nonfarm income diversification include: first, the need to increase family income when farm income alone cannot provide sufficient livelihood (Minot*etal*., cited by Babatunde, 2015); second, the desire to manage agricultural production and market risks in the face of a missing insurance market (Barrett et al., 2001); and third, the need to earn income to finance farm investment in the absence of a functioning credit market (Kilic, Carletto, Miluka,&Savastano, 2009; Oseni& Winter, 2009). Ellis (2000) argue that as a result of previous experience with poor crop yields and food security, households diversify in an attempt to spread the perceived risk of shocks on household consumption and other important household expenditure. Moreover, the push factors that may drive nonfarm/off farm income diversification include the desire to manage agricultural production and market risks in the face of a missing insurance market (Kilic, Carletto, Miluka, &Savastano, 2009; Oseni& Winter, 2009).

2.3.4 Households

In the study of livelihood, the fundamental social and economic unit is considered as the household, conceived as the social group which resides in the same place, shares the same meals and makes joint or coordinated decisions over resource allocation and income pooling (Alison & Springate-Baginski, 2009). The term household covers a wide range of residential forms, grouping of people and functions, making a universal definition of household almost

impossible. The basic analysis hereis households defined as units of production rather than as units of cohabitation, as such it is defined as constituting a group of people who own the same productive resources, live together and eat from the same pot (Yaro; 2006 Malleson *etal*., 2008). The members usually constitute a man, his wife or wives and their children, but instances of households with single men and women cannot be ruled out (Yaro, 2006). They suggest that Households depend on a range of productive *assets* or *capitals*, which they may either own privately, or access as common property, or even use as open access resources. These capitals according to Alison and Springate-Baginski (2009) are categorized into five distinct types namely:

vi. Humancapital: this refers to the household members' 'capabilities' in terms of the number of members and their age, health, education, knowledge, skills, and capacity for work which are important to the pursuit of livelihood strategies.

vii. Physicalcapital:this refers at household level to the physical equipment and tools that are used in production. The basic infrastructures such as transports, shelter, energy, communication and water system that enable people to pursue their livelihoods

viii. Naturalcapital: The natural resource stocks from which resource flows useful for livelihoods are derived (e.g. land, water, wildlife, biodiversity, and environmental resources).

ix. Financial capital:households' savings, credit (and debt, which is negative capital), pension, remittance and so on. At the collective level it may be accessibility of credit.

x. Social capital:the kinship networks, associations, membership of organisations and peer-group networks that people can use in difficulties or turn to in order to gain advantage.

2.3.5 Linkage between Livelihood and Households

Livelihood literature (such as Yaro, 2006 and Ellis, 2000) maintains that several factors play significant roles in the kind of livelihood adopted by the rural households. They suggest that though exogenous trends and shocks play an important role in pushing rural people towards adopting or diversifying livelihood strategy, diversification choices are also firmly rooted in the micro-economic logic of farming households. Different elements are considered in this connection. These include:

a. Availability of key-assets: Availability of key-assets such as savings, land, labour, education and/or access to market or employment opportunities, access to common natural resources and other public goods are conditions that make rural households and individuals more or less capable to diversify. Diversification may also develop as a coping response to the loss of capital assets needed for undertaking conventional on-farm production. Decreased availability of arable land, environmental deterioration among others can be indeed important drives towards diversification.

b. Risk management: Risk management is another factor often invoked to explain diversification behavior. Barrett *etal*. (2001) refer to this as 'pull factor'. The basic argument here is that previous experience of crop failure can provoke diversification as a means of spreading perceived risk and reducing the impact of such failure on household consumption.

c. Strengthening the household asset basis: therealization among the rural householdsof strategic complementarities between activities and specialisation according to comparative advantage accorded by superior technologies, skills or

endowments is also another important factor that inform livelihood diversification behaviour among the rural household (Yaro, 2006).

d. Opportunities: Site-specific opportunities such as local market contingencies, development projects, infrastructure development (such as a new road), and personal contacts might play an important role in pulling rural household towards livelihood diversification.

2.4 RELATED LITERATURE

Rural livelihoods have been extensively studied in Sub-Saharan Africa. At some point in the 1990s, it was construed as deagrarianization (Bryceson, 1999), a process which signifies a movement away from agriculture as the sole source of rural households' livelihoods. Yaro (2006) noted that rural households in sub-Saharan Africa are known to move in and out of agriculture as a coping strategy.

In the past many researchers have viewed the rural economy of developing countries as being synonymous with agriculture. According to this view, rural households receive most of their income from the production of food and export crops. In more recent years, this view has begun to change. There is now a growing recognition in literature that rural households receive their income from a diverse portfolio of activities and that one of the most important of these activities is that connected with the rural non-farm sector. In some cases, the rural non-farm sector, which includes such diverse activities as government, commerce, and services, is now seen as providing the bulk of income to rural households (Adams, 2002).This changed view is due partly to the evolving concept of the broader relationship between agriculture, the rural non-farm sector, and the poor.

2.4.1 Livelihood Optionsin African Context

In most developing countries the bulk of the population lives in rural areas, and this population continues to grow at a substantial rate. Given limited arable land available for cultivation, this growth in the rural labour force will not be productively absorbed in the agricultural sector as agriculture alone cannot provide sufficient livelihood opportunities for everyone. Either migration to urban areas, but we know migration is not an option for everyone, or the development of non-farm employment in rural areas must take up the slack (Lanjouw&Lanjouw, 2001).

Agriculture forms a significant portion of the economies of all African countries, as a sector it can contribute towards major continental priorities, such as eradicating poverty and hunger, boosting intra-Africa trade and investments, rapid industrialization and economic diversification, sustainable resource and environmental management, and creating jobs, human security and shared prosperity (NEPAD, 2013). It is the economic mainstay in most sub-Saharan African countries, contributing 20-30% of gross domestic product (GDP) and 55% of the total value of African exports (Akinnagbe, Attamah&Igbokwe, 2015).Because of the seasonal nature and uncertainty of the climatic phenomenon in the savannah region, most farmers in Sub-Saharan Africa see farming as a risky business and as such have to engage in non-farm activities principally to survive. For many households, return from farms are inadequate to see them the year. Non-farm activities have actually provided the rural households to meet their basic needs and survive.

A trend of increased importance of non-agricultural income raises the question as to what extent agriculture is the key driver of development in therural areas. Gollin, Lagakos & Waugh (2014) argue that non-agricultural labour is more productive than agricultural labor in Sub-Saharan Africa. Labour productivity in an economy can be improved either within sectors, through technological gains and capital accumulation or structurally, by shifting labor out of less productive activities and into more-productive activities (McCullough &

Charles, 2015). Non-farm employment and income are important to landless and small farmers and hence to the poor as it provides them with alternative opportunity to earn a living away from farm work.

Substantial number of survey findings suggests that rural households which rely solely on agriculture for their livelihood are now in a minority in sub-Saharan Africa. Babatunde (2015) in the study of on-farm and nonfarm livelihood in rural Kwara state of Nigeria found 90% of rural households engaging in one form of non-agricultural livelihood or another. Bryceson (2002) noted that those few people who hold formal-sector jobs in rural areas have the most secure income for 'consumption smoothing' year-round. She hints at the possibility of a rural educated elite perpetuating itself by virtue of the fact that the relatively educated who hold formal-sector jobs do not default on the payment of their children's school fees, giving their children the opportunity of uninterrupted school attendance. And in most cases, according to Bryceson the pursuit of non-agricultural activities is a year-round phenomenon, subject primarily to fluctuations in local purchasing power rather than seasonal lulls in the agricultural work calendar.

2.4.2 Livelihood Options in Nigeria

Many studies in the literature have pointed out the multiple strategies adopt by rural households in Sub-Saharan Africa in attempt to cope with occasional crop failure or to improve their welfare. In Nigeria, the agricultural sector is plagued with problems which include soil infertility, infrastructural inadequacy, risk and uncertainty and seasonality among others. Thus, rural households are forced to develop strategies to cope with increasing vulnerability associated with agricultural production through diversification, intensification and migration or moving out of farming (Ellis, cited by Abimbola&Oluwakemi, 2013). In the same vein, Oluwatayo (2009) established that in many rural areas in Nigeria, agriculture

alone does not provide sufficient livelihood opportunities hence diversification into non-farm activities has been seen as a form of self-insurance. This is because diversification offers the people options for coping with crisis. The ensuing effect of this is that rural households diversify their income sources by combining two or more jobs (multiple job holding) to enhance consumption smoothing and acquire other basic needs.

The proliferation of non-farm activities as a source of income to complement agricultural income in rural Nigeria has been variously referred to as consumption smoothening measure or coping strategy against agricultural failure. Oluwatayo (2009) has also established that in many rural areas in Nigeria, agriculture alone does not provide sufficient livelihood opportunities hence diversification into non-farm activities has been seen as a form of self-insurance. This is because diversification offers the people options for coping with crisis. The ensuing effect of this is that rural households diversify their income sources by combining two or more jobs (multiple job holding) to enhance consumption smoothing and acquire other basic needs. Adi cited by Kyeremeh (2015) pointed out that, in most cases, a household has one distinct occupation which it considers primary and to which more labour and time are allocated relative to other activity or activities, and identified four major patterns of livelihood in rural Nigeria as

a. Farming: Farming is the mainstay of households' livelihood and almost 90 percent of households participate in farming on either commercial and or subsistence basis. Where land is scarce as in Nguru, subsistence farming on own farm or on rented farm is quite common. Farming system in the entire region follows the mixed cropping pattern that is based on either roots or tubers planted in small farm holdings. Major food crops produced in most areas include cassava, yam and cocoyam. Maize is the only widely grown cereal with other crops such as banana,

plantain, pawpaw, pepper and mango being grown in areas where there is land availability. The chief cash crop is the oil palm.

b. Commerce: Trading is the second largest activity and it includes the sale of different types of farm produce at the village market squares, sale of imported food and clothes. There are two distinguishable classes in commerce. The first and most predominant is the class of petty traders who operate during weekly village markets and engage in other activities on non-market days. The second class is the relatively wealthier households who are able to own shops which are in most cases operated with household labour. This class is usually more stable in operation with a relatively higher longevity.

c. Skilled Nonfarm Activities: Skilled non-farm activities refer to occupations for which requisite training is received by the household in the form of formal education or vocational training, which could be in the formal or informal sector. It encompasses the range of occupations found in the villages such as teaching, carpentry, and painting among others.

d. Low Skilled Nonfarm Activities: Activities that fall under this category are not easily identifiable. However, they can be broadly referred to as artisans, 25 casual workers, and labourers and all other menial tasks. Because activities that fall under this category are the riskiest, very few households fully depend on it.

There are also deliberate efforts to accumulate wealth. Non-farm activities have always played a significant role in the rural economy of the Nigeria savannah. Most farming households earn a large share of their incomes from non-farm sources. A number of ecological, historical, cultural and socio-economic factors have contributed to their importance. Ecologically, non-farm activities are critical factors in accommodating to the intense seasonality and uncertainty of the region. The climate of the guinea savannah is

characterized by a long dry season, lasting three to five months, plagued by uncertain rainfall and intermittent drought. During the long dry season, and in period of poor harvests, rural inhabitants rely on non-farm sources of income to meet their household and other needs (Yunusa, 1999).

2.5CONCLUSION

This chapter dwelled on the assessment of the existing literature in order to establish and identify the experts' opinions on the topic at hand to serve as a guide for the study. Among the key elements in literature that this study focused on includestheoretical guide and conceptual background, including livelihood diversification strategies (or combination of activities and choices) that rural households can adopt in order to exploit multiple assets and sources of income.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

A cross-sectional survey design was adopted for the study. Data was collected from selected households to answer questions related to the kind of livelihoods engage in by the member of the households. Every household had a chance of being selected to represent the study population. Therefore, the data needs of this research were provided by the selected population.

3.2 RECONNAISSANCE

A reconnaissance visits were paid to the sites where the data for the study was collected between 16th and 18th December 2016 in order to familiarize with sites and the locals and also for the researcher to register his intention with the authorities concerned to carry out a study that would capture the livelihoods of the households in the study areas.

3.3 TYPES AND SOURCES OF DATA

Primary data was used for the study using qualitative and quantitative approaches. The quantitative approach employed structured questionnaires with close-ended questions that sought predetermined responses from the corresponding households that can easily quantified while the qualitative approach employed open-ended questions and focus group discussion that provided in-depth experiences of the rural households about their livelihoods.The data was collected from the rural households in the selected villages on the type of livelihoods mostly engaged in by the members of the households through the questionnaires directly administered by the researcher (with his research assistants) and focus group discussions

conducted using clearly stated check list. This aspect therefore involved the use standard questionnaires and an interview guide including necessary observations.

3.4 INSTRUMENTS

The collection of data involved the use of semi-structured questionnaires, meaning that they were a mix of the structured and unstructured questionnaires, with questions leading to both explorative and fixed answers, to obtain information on socioeconomic and demographic characteristics such as household size, level of education, age of household heads, land holdings etc. as well as consumption expenditure, other indicators of well-being of the rural households and diversification activities of the respondents.

Focus group discussions were conducted to obtain supplementary information using clearly stated check listin each of the sampled villages. A group made up of twelve members was formed at *Inye*and ten members each at *Enale* and *Odogomu* for the discussion purpose. The focus group discussion was made to collect data related to existing income sources in the study areas, linkages between farm and nonfarm and/or off farm activities, participation of people in different income generating activities and information about factors that influence income diversification strategies among the rural households. After the administration of the questionnaires, the researcher booked appointments with the host communities for a return visits for the focus group discussion. The first discussion was held at *Inye*, on the 4th of February 2017 followed by *Enale* on the 5th with ten household heads selected by the *Gago* of the village to serve as the group members, while the last focus group was conducted at *Odogomu* on the 10th of February 2017.

3.5 POPULATION AND SAMPLE

The population of the study consists of all the households in the study area. A multistage sampling technique was employed in selecting the representative households used for this study. The first stage was the purposive selection of Ankpa Local Government Area out of the twenty-one Local Government Areas in Kogi State owing to the predominantly rural nature of the area. In the second stage was the stratified selection of three settlements, one each from the three district; *Ankpa*, (fifty-six settlements)*Enjema* (fifty-four settlements) and *Ojoku* (twenty-six settlements) district areas in the Local Government.The selection of a settlement, each from the three districts is to enable analysis of area variation within the local government.The population of households for the three selected villages was 357, a total of 197 households at Inye, 104 from Odogomu and 56 households at Enale.At confidence level 90% and the margin of error of 5%, the population of 357 households gives a roughly sample size of 150 households.Proportionately, eighty-two questionnaires were administered at Inye, forty-four at Odogomu and twenty-four at Enale.

3.6PROCEDURE FOR DATA COLLECTION

The procedure for the data collection involved the use ofquestionnaires which were directly administered between 7th and 20th January 2017,personal observation made by the researcher and group discussion with the rural households. A semi-structured questionnaire was administered to household heads or their representatives to provide responses on socio-economic and demographic characteristics such as household size, level of education, age of the respondent, land holdings etc. as well as consumption expenditure, other indicators of well-being of the rural households and diversification activities of the respondents. Because of the low level of educational attainment among the members of the rural households, the questionnaires were read and interpreted into the local language by the researcher and his assistants (aHigher National Diploma holder*,a level three student at Bayero University Kano*

and *a two hundred level student at Ahmadu Bello University, Zaria*)while the respondents made oral responses to the questions.

3.7 METHOD OF DATA ANALYSIS

The datagenerated from the field wasanalyzed using descriptive statistics and non-parametric technique (spearman correlation) to see the relationship between the variables. Descriptive statistics (such as tables, frequencies andpercentages) were used to summarize, describeand analyze socioeconomic characteristics of the respondents which coverthe first, third and the forth objectives in respect of the type and nature of the livelihoods, the challenges of livelihood satisfaction and the sustainability of the livelihood options available to the households in the study area. Similarly, simple descriptive statistic and partly, correlation analysis were used to analyze the second objective. Thedata on households' employment portfolios was subjected to correlation analysis to see the nature of the relationship between the livelihood activities and some explanatory variables such as the age, marital status, level of western education, household size, household land ownership, etc, of the household heads.On the other hand, narrative type of analysis was used to analyze the qualitative data collected using Focus Group Discussion (FGD). Virtually, all the objectives of the study were analyzed using Statistical Package for Social Science (SPSS). There was also a qualitative data analysis of rural household livelihoods activities focusing on changes in non-agricultural activities over time, sources of start-up capital for non-farm activities and the relationship between agriculture and non-agricultural activities in the organization of household strategies.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1INTRODUCTION

Thischapterpresents and analyses the data collected through the questionnaire administered by the researcher, focus group discussion and observation made in the study areas in the course of collecting the data. The chapter discusses the type of livelihood options available to the rural farm households in the study area, factors influencing livelihood diversification among the rural households, the challenges faced by the households in the study area as they struggle to earn a living and the sustainability of both farm and nonfarm livelihoods in rural Ankpa local government area of Kogi state.

4.2 TYPES AND NATURE OF LIVELIHOOD OPTIONS OF THE HOUSEHOLDS

4.2.1Types of Livelihoods

Rural households derive their livelihoods from multiple sources of income generating activities. As it can be seen from Table 4.1, these income generating activities are generally categorized into farm and nonfarm or agricultural and non-agricultural livelihood options. Agricultural livelihood is here seen as the earnings which come directly from crop production on ones' own farm, animal husbandry, fishing, collection of forest products, etc,while nonfarm income generating activities include all economic activities in rural areas except agriculture, livestock, fishing and hunting.

The table presents livelihood options adopted by the households interviewed and the result reveals that little above one tenth (11%) of the households interviewed in the study area engage only in the crop production as their sole mean of livelihood. This does not mean that every member of this group of households participate solely in farming as his or her only mean of livelihood rather most a time it is the persons interviewed who happened to be the heads of their respective households and at the same time fall within the age bracket of 45

and above. About 5% of the respondents participate in farm and off-farm, agricultural wage labour. This group of participants are young adults who just established away from their parents. One thing that is common with this group is that they do not or have very little of formal education, mostly primary school drop outs and they are all from a particular village.

Three quarters (71%) of the respondents engage in both farm and nonfarm livelihood activities. The farming system in the area involves the production of food crops like cassava, which is the most staple crop of the area, yam, maize, beans, *bambara* nut, etc and cash crops like tomatoes, benniseed, okra, etc. very recently Orchardfarming, cashew crop farming, has gained a lot of popularity among the farming households in the area due to three major factors; first, most of the farmlands in the area have lost their fertilities to support many crops without the application of fertilizer which most of the farmers cannot afford. Second, there is shortage of farm labour supply in the area due to the outwards migration of the youths in search for the white collar jobs and managing cashew crops requires very little labour supplies and, third, there is an international market for the nut which makes it very profitable. The nonfarm activities ranges from petty trading in agricultural products, processing of farm products to large scale commercial activities like shop keeping or trade in farm products mostly grains that are imported from other regions of the country, etc. Very few people depend on nonfarm activities, only three percent, and these are highly skilled and educated individuals in the communities. Less than one tenth (9%) of the households participate in off-farm and non-farm.

The paragraphs below summarized the local variations among the three settlements selected from each of the three district councils of Ankpa local government area.

4.2.1.1 Enale is selected from Anpka district area. The people are predominantly farmers, though agriculture is mostly on subsistence base. It was observed that the level of western

education among these villagers is generally low as none of the household members that participated in the survey have up to tertiary education. The village is almost inaccessible at the peak of rainy season during the period of July-August/September. The most staple food crop grown here as it is in all Igala land is cassava. Oil palm, maize, beans, yam and cashew crop are the major crop grown by Enale people. In the area of nonfarm employment, women engage mostly in food processing like *Obiolo*, *alele, akala, etc* which are mostly sold in the morning as breakfast. Trading in agricultural products is also mostly done by women. The youth in the village also have diverged non-agricultural income sources, ranging from commercial transport, off-farm wage labour, petty trading and shop keeping. Very few people are in the formal sector, mostly primary school teachers.

4.2.1.2 Inyeis a semi-urban settlement under *Enjema* district with schools (private and public), Clinics (private and public), mechanic workshops and a mini park. It is a Christian dominated area with mission houses. Almost all the respondents who have attained up to tertiary education level are from *Inye.* Tomato and okra are mostly cultivated in large scale for commercial purpose as they are sent to the eastern Nigeria for sale. Despite the size, the people are predominantly farmers and even on larger scale compare to *Enale* and *Odogomu.* The relative big size of *Inye,* couple with higher educational attainment among its households makes nonfarm employment to play very important roles in the livelihood of the people. Both formal and informal sectors of the rural economy provide employment for the households here. Among the important nonfarm activities observed are; employment in formal sector like teaching, health service and council workers; transport service, shop keeping, food processing and vendor and petty trading. *Inye* is more accessible as it has its road tarred from *Ofugo.*

4.2.1.3 Odogomu like other rural settlement in Ankpa local government area is more of an agrarian village with almost all its household heads having farming as their main livelihoods.

Cassava, palm oil, maize, millet, yam, and sorghum are the major crops grown by the farmers. Like *Enale, Odogomu* is almost inaccessible neither from *Emabu*axisnorfrom*Akunu*axis during the peak of rainy season. The most common non-farm livelihood activity observed in the village is the provision of traditional medicine. Some households were seen running traditional hospitals in the family compounds where patients are hospitalized. In responding to the question, "What are the main sources of income in your community?" during the focus group discussion the village, the answer was, "*Aluche,adogu, amomawa cha neokada"* (we farm and provide health service and our children ride *Okada* for livings). Shop keeping, petty trading and food processing are also practice in the village.

Table 4.1: Type of Livelihood Options

Types	Frequency	Percent	ValidPercent	CumulativePercent
Farm only	16	10.7	10.7	10.7
Farm/off-farm	7	4.6	4.6	15.3
Farm/Nonfarm	107	71.3	71.3	86.6
Nonfarm only	6	4	4.1	90.7
Off-farm and Nonfarm	14	9.3	9.3	100
Total	150	100	100	

Source: Field Survey (2017)

4.2.2 Agriculture as the Primary Livelihood of the Head of Household

Even though almost all the households interviewed adopt multiple livelihood activities, there is always a particular livelihood they consider to be their main livelihood. From Table 4.2, it can be seen that almost all (96%) of the household heads see agriculture as their main livelihood. That the majority of the rural households see farming as their main livelihood activity may be, as a result of their strong attachment to what they believe to be their ancestral lands. This finding issomewhat consistent with the finding of Oyinbo and Olaleye (2016) but inconsistent with the result reported by Ifeanyi and Mathew (2014).

Crops produced by most of the household heads include grains, root crops and fruits. Among the household heads, production is highest in cassava, maize, cashew nut, tomato, yam, benniseed, millet and sorghum. Apart from tomatoes, benniseed, cashew nut and groundnut which are cash crops, the other crops are either consumed or sold locally.

Table 4.2: Primary Livelihood of the Head of Household

		Frequency	Percent	ValidPercent	CumulativePercent
Valid	Farming	144	96	96	96
	Nonfarm	6	4	4	100
	Total	150	100	100	

Source; Field Survey (2017)

(a) Household Farm Size

Table 4.3 represents the size of farmland in hectares own by the farming households and not necessarily the actual hectares put under cultivation in any given farming season. From the table, it can be seen that those whose farm size in hectares ranges between 1-3 represents almost half (46.5%) of the households interviewed, above one third (37%) own farmlands that range in hectares between 4-6, those between 7-9 hectares represents little above one tenth (11.8%) and those who own farmlands of ten or above in hectares takes 4.9% of the households. As farming is mostly tailored toward subsistence and agricultural labour supply dwindling due to the rural-urban migration by the able-bodied youth, households only put its farmland that it can easily supply the labour required for a given farm season under cultivation and may give out part of its farmland to a non-member ally who is willing to farm for free. In fact, it was discovered through the focus group discussion that average land operation (the actual land put under cultivation at any given time) even among those with large farmlands are less than three hectares.

Table 4.3: Household Farm Size

	FarmSize	Frequency	Percent	ValidPercent	CumulativePercent
	1-3	67	46	46.5	46.5
	4-6	53	36.8	36.8	83.3
	7-9	17	11.8	11.8	95.1
	10 above	7	4.7	4.9	100
	Total	144	96	100	
Missing	System	6	4		
Total		150	100		

Source:Field Survey (2017)

(b) Purpose of Farming

There is a presuppose assumption among many people that the majority of the farming households in rural areas operate on subsistence level but as it can be seen from Table 4.4, the majority (70%) of the farmers operate on both subsistence and commercial basis. Commercial not in terms of scale, but due to the fact that more than half of the farm harvests are sold to meet the liquidity needs of the households. Only little above one fifth (25%) of the households interviewed farm on subsistence base and these group of farmers are mostly civil servants and those with highly paying nonfarm occupations.

Table 4.4: Purpose of Farming

	PurposeofFarm	Frequency	Percent	ValidPercent	CumulativePercent
	Commercial	7	4.8	4.8	4.8
	Subsistence	36	25	25.1	29.9
	Both	101	70.1	71.1	100
	Total	144	96	100	
Missing	System	6	4		
Total		150	100		

Source: Field Survey (2017)

(c) Source of Farm Labour

Family labour supply is the major source of farm employment in the study area. As indicated in the Table 4.5, about 44% of the farming households have their farm labour supplied by the households themselves. About 3% of farming households depend largely on communal farm labour popularly called '*Adakpo'* in the area. Less than one third of the households who are mostly civil servants and in some cases, full time nonfarm self-employers depend solely on hired labour because they are too busy with their nonfarm activities to invest their time in farming and have their wards enrolled in private schools away from the villages. Above one fifth (22%) of the farming households use both household members and hired labour as source of labour for their farming enterprise.

Table 4.5: Source of Labour to Farm

	Source	Frequency	Percent	ValidPercent	CumulativePercent
	Household	64	44.4	44.4	44.4
	Communal	4	2.7	2.8	47.2
	Hired	44	30.5	30.6	77.8
	Household and Hired	32	22.2	22.2	100
	Total	144	96	100	
Missing	System	6	4		
Total		150	100		

Source: Field Survey (2017)

(d) Agricultural Technology Use

This survey result from the field is about agricultural input use by the farmers in the study area. The technology use here refers to the use of such agricultural input as improved seedlings, tractors, harvesters, herbicide, etc. the survey result shows that almost all (99%) of the farmers do not use improved agricultural input as they rely solely on crude implements such as cutlass and hoe, local seedlings that take longer period before they could be harvested. The use of crude tools and the absence of modern farm tools like tractor and harvester could partly be due to the small size of farmlands, as most of the farming activities

are carried out on smaller scales, and the inability of the farmers to afford such expensive inputs.

(e) Application of Fertilizer

Very few farmers can afford to apply inorganic fertilizer to boost the productivity of their farming enterprise because of the high cost of the fertilizer. The little fertilizer supply by the government always arrives very late and it is being shared based on political affiliation. Table 4.6shows that more than three quarters (76%) of the household heads could not afford to apply fertilizer to boost the fertility of the soil, while a little above one fifth (24%) of the respondents could be able to apply it. This has a significant impact on the general outputs from the farm enterprise in the area.

Table 4.6: Application of Fertilizer

Application		Frequency	Percent	ValidPercent	CumulativePercent
	Apply	34	23.6	23.6	23.6
	Don't apply	110	76.3	76.4	100
	Total	144	96	100	
Missing	System	6	4		
Total		150	100		

Source: Field Survey (2017)

(f) The Source of Water for Irrigation

Irrigation facilities allow farmers to cultivate their farm lands all year round. Table 4.7 is about the use of irrigation facilities for dry season farming. It can be seen from the table that almost all (98%) of the farming households in the area rely solely on the rainfall for their farming activities. Since active rainfall last from about April to October, this may partially explain why households here adopt multiple sources of income to keep them engage during

the period of less farm activities. While a very insignificant portion (less than 2%) of the respondents operate both rain-fed and irrigated farm, probably they have their farmlands close to the numerous streams in the area or rivers. But the researcher was told by an informant that there was nothing like irrigation in the area may be, according to him, those that claim to have irrigation farming misunderstood the concept clearly. A household survey data from across the African continent shows that less than five percent of farming households have any irrigation and less than two percent of cultivated land is irrigated (Sheahan and Barrett 2014).Apart from irrigated agriculture, almost every nonfarm livelihood activity of the rural poor needs water (Ellis, 2000).

Table 4.7: Source of Water

	Source	Frequency	Percent	ValidPercent	CumulativePercent
	Rain fed only	142	98.6	98.6	98.6
	Both	2	1.3	1.4	100
	Total	144	96	100	
Missing	System	6	4		
Total		150	100		

Source: Field Survey (2017)

(g) FarmHouseholdExtensionContact

Contact between the farming household and the extension workers is one of the key institutional factors that plays major role in the farming operation anywhere in the world. According to Gebrehiwot and Fekadu (2012), those households who have more contact with extension agents were able to access time oriented information and able to update their knowledge, skill and experience through training and demonstration which in turn enable them to diversify their income.Of the 150 respondents, as shown in Table 4.8, far less than one third (29%) of the respondents have had contacts with extension workers in the past and all the farmers that have agreed to have had these contacts are from '*Inye',* while about two third (71%), of the respondents have had no contact with the extension workers. No household interviewed from the two other settlements, *Enale* and *Odogomo*, have had any contact with extension workers.

This is probably as a result of the semi-urban nature of *Inye* and the higher level of educational attainment among the households. Most of these contacts between the farming households and the extension workers happen before the beginning of farming seasons when the extension officials normally come to promise free fertilizer from the government.The lack of access to the extension service among the majority (71%) of the rural households in the study area could be seen as having negative impacts on the livelihood strategies of the rural households in Ankpa local area of Kogi state. The scarcity of extension service is almost a general condition in all rural sub-Saharan Africa (Barrett, Chrsitiaensen, Sheahan and Shmeles, 2015).

Table 4.8: FarmHouseholdExtensionContact

	Contact	**Frequency**	**Percent**	**ValidPercent**	**CumulativePercent**
	No contact	102	70.8	70.8	70.8
	There is Contact	42	29.1	29.2	100
	Total	144	96	100	
Missing	**System**	6	4		
Total		150	100		

Source: Field Survey (2017)

(h) Credit Utilisationamong the Farming Household

The availability of agricultural credit to subsistence farmers who have little or no savings to expand their farming enterprise or invest in nonfarm activities is important component of rural livelihoods development programs. Table 4.9 reveals credit utilization among the farming household in the area. The majority (93 percent) of the households interviewed had never used credit for the purpose of expanding their farming and nonfarm enterprises because of reasons such as; lack of access to formal credit institutions as that requires them to present collateral before they can be granted loan or their unavailability in the locality, religion or fear of loan repayment time while some feel it is not necessary to take a loan for farm expansion as they do not depend on farming alone. The 10% of the respondents who use credit to expand their farming livelihood got it from family and friends, cooperative society,

microfinance banks and other banks. The inadequacy of credit facilities to cater for the liquidity needs of the poor rural agrarian households in the study area as indicated by this study is consisted with result reported by Barrett, Chrsitiaensen, Sheahan and Shmeles (2015).

Table 4.9: Credit Utilisationamong the Farming Household

	Usage	Frequency	Percent	ValidPercent	CumulativePercent
	Don't use	134	93	93.1	93.1
	Use	10	6.9	6.9	100
	Total	144	96	100	
Missing	System	6	4		
Total		150	100		

Source: Field Survey (2017)

(i) Source of Credit for Farm Expansion

Table 4.10 reveals the source of credit to the farm households in the study area. One fifth (20%) of those that use credit to buy farm input got it from family and friends. Far above one third (40%) is gotten from cooperative. Less than one third (30%) of credit are sourced from bank loan while one tenth (10%) of the credit is mostly from remittance. All the thirty percent of the respondents who could access bank loan for livelihood expansion are from *Inye,* the reason for this is not far from the fact that the households from this settlement have more exposure through higher education and the semi-urban nature of the settlement.

Table 4.10: Source of Credit for Farm Expansion

	Source	Frequency	Percent	ValidPercent	CumulativePercent
	Friend/relative	2	1.3	20	20
	cooperative	4	2.7	40	60
	Bank	3	2	30	90
	Other	1	0.7	10	100
	Total	10	6.7	100	
Missing	System	140	93.3		
Total		150	100		

Source:Field Survey (2017)

(j) Livestock Ownership

Livestock like chicken, goat, sheep, and on rare cases, cattle are kept by the farming households as saving mechanism among the rural households. The data in Table 4.11 shows that little above four fifth (82.7%) of the households keep animals both for personal consumption and to be sold to meet any contingence expenditure that may arise in the households. Seventeen percent of the households claim they do not keep any form of livestock. Local fowls are the most commonly kept livestock among the households. It is so easy to keep this kind of livestock because it is not capital intensive to do so as the households do not need to buy fodder and the animals freely roam about to peck, more so, the area is almost disease free except for the seasonal chicken infections known as '*ekwomi'* and '*okpacibo'* that attack fowls and these are managed locally

Table 4.11:Livestock Ownership

	Ownership	Frequency	Percent	ValidPercent	CumulativePercent
	Don't own	26	17.3	17.3	17.3
	Own	124	82.7	82.7	100
	Total	150	100	100	

Source: Field Survey (2017)

Level ofEarning from Single Livelihood

Table 4.12presents whether the households earn enough income from a single livelihood source that can sustain the households' basic needs, of food, shelter, clothing, health and education all year round. The result shows much of what is earned by the majority (94.7%) of the farmers is not adequate to cater for all the needs of their households.

Table 4.12: Earning from Single Livelihood

	Earning	Frequency	Percent	ValidPercent	CumulativePercent
	Not enough	140	97.2	97.3	97.3
	Enough	4	2.7	2.7	100
	Total	144	96	100	
Missing	System	6	4		
Total		150	100		

Source**:**Field Survey (2017)

4.2.2: Secondary Livelihood Options

Secondary livelihoods are adopted by households to complement earnings from the households' primary livelihood sources which in most cases are not enough to meet the basic needs of the households. As shown in Table 4.1, the majority (85%) of respondents adopt multiple livelihoods in addition to the one they consider as their primary livelihoods. Almost 15% of the households maintain single livelihood and the majority of those in this category do so not because they earn enough from their primary livelihoods but because they are either constrained by old age, lack of capital to start a secondary livelihood or some other factors.

Years of practicing the secondary livelihood

Table 4.13 shows the number of years the households with multiple livelihood portfolios have spent practicing their secondary livelihoods. The Table reveals that little above half (50%) of the households have been engaged in their nonfarm activities for more than five years. Almost one fifth (22.7%) of them have established their secondary livelihoods between three to five years ago, while a little above one tenth (11.3%) of the respondents with more than one livelihood activities have been into the nonfarm activities for less than two years. The portion of the households whose engagement in the rural nonfarm livelihood activities was very recent (less than a year) is a little below (5%). Most of these households have changed from one nonfarm livelihood activities to another in the past depending on the demand for the output and/or competition among the practitioners of the particular nonfarm activity. In fact, some of them are returnee from urban centers from where they acquired the skills that enabled them to perform the nonfarm activities.

Table 4.13: Years of Practicing the Secondary Livelihood

Years	Frequency	Percent	ValidPercent	CumulativePercent
less than a year	7	5.4	5.5	5.5
1-2 years	17	13.2	13.3	18.8
3-5 years	34	26.5	26.6	45.4

	5 above	70	54.6	54.6	100
	Total	128	85.3	100	
Missing	System	22	14.7		
Total		150	100		

Source: Field Survey (2017)

Source of Start-up Capital

Household savings are the primary source of capital for the operation of nonfarm livelihood activities. As shown in Table 4.14, more than three quarters (76%) of the households interviewed got their start-up capital from personal saving by the members of the households. This is mostly achieved through a strong social networking in the form of daily, weekly or monthly contribution among the rural dwellers. Bank loan is almost not available in the study area as most of the households are either not aware of it or cannot access the loan due to the conditions attached to such loan. Only about three percent (3%) of the households have used it. There is almost absent of Non-Governmental Organisations (NGOs) in the area except for *Inye*, a semi-urban settlement mostly dominated by Christians with some mission groups acting as NGOs. Less than one fourth of the households interviewed got their start-up capital from bank loan, charity organization and remittance. Capital appears to be one of the problems of the livelihood satisfaction in the area. This finding corroborates with the finding reported by Babatunde and Qaim (2010).

Table 4.14: Start-up Capital Sources

	Sources	**Frequency**	**Percent**	**ValidPercent**	**CumulativePercent**
	personal saving	109	85.1	85.3	85.3
	bank loan	4	3.1	3.1	88.4
	NGO source	9	7	7	95.4
	Remittance	6	4.6	4.6	100
	Total	128	85.3	100	
Missing	System	22	14.7		
Total		150	100		

Source; Field survey (2017)

Monthly Income from Nonfarm Livelihood

Significant portions (50%) of households holding a secondary livelihood portfolio earn income of more than five thousand naira every month. In fact, majority of these households, in their oral response to the question on income earn from the nonfarm livelihood per month claim to earn between fifteen to twenty thousand naira per month. Almost thirty-three percent of the respondents earn between four thousand to five thousand and five hundred naira from their adopted livelihoods every month. Only about three percent of the respondents earn monthly income of less than four thousand naira from the adopted secondary (Table 4.15). It was observed that push and pull factors combine to drive people into adopting nonfarm livelihoods in the area. The push factors such as soil infertility due to the excessive leaching and the inability of the farming households to afford organic fertilizer, over monetization of rural life style, over reliance on the unreliable climate, etc, account for the main reasons pushing people into adopting nonfarm income activities in addition to agricultural livelihood.

The most frequently mentioned nonfarm livelihood among the members of the rural households in the study area include among others; petty trading, commuting service (driving), tailoring, civil service, barbing, traditional herbalist, provision shop keeping, food processing/vendor, pension, mechanic, etc.

Table 4.15: Monthly Income from Nonfarm Livelihood

	Income	Frequency	Percent	Valid Percent	Cumulative Percent
	2500-4000	5	3.9	3.9	3.9
	4000-5500	44	34.3	34.4	38.3
	Above 5500	79	61.7	61.7	100
	Total	128	85.3	100	
Missing	System	22	14.7		
Total		150	100		

Source: Field Survey (2017)

4.3 FACTORS THAT INFLUENCE LIVELIHOOD

Thereare certain factors that shape and determine the kind of livelihood adopt by households in rural area. These factors mostly range from the socioeconomic characteristics of households and the environment of the households. These factors are explained under the following headlines.

4.3.1 Socio-economic Characteristics of the Sampled Households

A household's ability to adopt multiple livelihoods depends largely on its demographic composition, level of education, family size, marital status, economic institution, geographical location, etc. Abimbola and Oluwakemi (2013).

(a) Sex of the Respondents

The survey result as shown in Table 4.16 depicts the sex composition of the respondents. The majority (84%) of the respondents are male while the remaining 16% are female. This is partly due to the insistence of the household heads who are mostly males, to be the one that fills the questionnaire and partly because the males are more educated and readily available to fill the questionnaire than their female counterparts as the females are busier with the domestic chores combined with their chosen livelihoods.

Table 4.16: Sex of the Respondents

Sex	Frequency	Percent	ValidPercent	CumulativePercent
Male	126	84	84	84
Female	24	16	16	100
Total	150	100	100	

Source; Field Survey (2017)

(b) The Age of the Respondents

Table 4.17 reveals the age of the survey respondents. Ages play important roles in the kind of livelihood adopted by the members of the households. The respondents for the survey were divided into four age groups, beginning from 18 years of age which the researcher considers

as the age that one is likely to be allowed to take up a livelihood of his or her choice. The result shows that 12.7% of those that answered the questionnaire are within the age group of 18-24, while 32.7%, 14% and 40.7% in the age groups of 25-34, 35-44 and 45 and above respectively. It was observed from the field that as members of households advance in age, they tend to narrow their livelihoods down to only agriculture. Age of the household members also affect their ability to participate in the non-farm or adopt more than one livelihood activities at a time. This was revealed indirectly as the households try to respond to the question on 'household size', it was observed that it is the younger members of household who mostly migrate in search of non-farm outside the village.

Table 4.17: The Age of the Respondents

Age	Frequency	Percent	ValidPercent	CumulativePercent
18-24	19	12.7	12.7	12.7
25-34	49	32.7	32.7	45.3
35-44	21	14	14	59.3
45 above	61	40.7	40.7	100
Total	150	100	100	

Source: Field Survey (2017)

(c) **MaritalStatus of the Respondents**

The marital status is also part of the demographic characteristics of the respondents. It is as shown in the Table 4.18. From the survey result, out of the 150 people that responded, almost one tenth (11.3%) are single, four fifth (82%) are married while the remaining 6.6% of the respondents were previously married but are not longer together with their partners.

Table 4.18: MaritalStatus of the Respondents

Status	Frequency	Percent	ValidPercent	CumulativePercent
Single	17	11.3	11.3	11.3
Married	123	82	82	93.3
Divorced	2	1.3	1.3	94.7
widow/er	8	5.3	5.3	100
Total	150	100	100	

Source**:** Field Survey (2017)

(d) Respondents' Level of Education

Educational attainment is perhaps the most important characteristics of household members. Many phenomena such as household size, children's health, type and number of livelihoods, proper hygiene and the tendency to migrate to urban areas in search of white collar job are related to the education of the household members and this has led to the dwindling farm labour supply in the area as there is no household without one or two members in towns. Table 4.19 shows the level of formal education of the respondents. Approximately, one fifth(22.7%) of the respondents have no any form of formal education. This is because most of the female respondents and some of the male respondents who are above 45 years of age have no any form of formal education. Less than one third(28.7%) of the respondents only have primary education, while approximately one third (32%) and a little less than one fifth(16.7%) have secondary and tertiary education respectively. It was observed that the relatively low level of formal educational attainment account for their high involvement in agriculture and low entry barrier form of nonfarm livelihoods. It was also observed that the probability of the households getting employed in regular and salaried employment increase with the increasing level of educational attainment.

Table 4.19: Level of Education

Level	Frequency	Percent	ValidPercent	CumulativePercent
No formal education	34	22.7	22.7	22.7
primary education	43	28.7	28.7	51.3
Secondary education	48	32	32	83.3
Tertiary education	25	16.7	16.7	100
Total	150	100	100	

Source: Field Survey (2017)

(e) Respondent's Position in the Household

Table 4.20 reveals the position of the respondents in the household and it is important to know this as it determines who makes the bulk of the decision concerning resource allocation

in the household. In traditional African society, the father always assumes the head of the household and he mustn't necessarily be the bread winner of the family. From the table, it can be seen that two third (74%) of the respondents are household heads and approximately one quarters (26%) of the respondents interviewed are other members of the households. It was observed that 99.9% of the households interviewed are headed by male and this is partly due to the common belief among the people that the male always leads. It was also observed that there is no restriction to the participation in livelihoods among males and females in the study area only that farms are mostly owned by males. What the researcher could not find out is whether the low participation of female in farming is due to their lack of access to land which is the most important factor of production as far as farming is concerned. It is equally observed that the area is characterized by an extended family system headed by males. The eldest male in an extended family system is often the political and economic head of the household.

Table 4.20: Respondent's Position in the Household

Position	Frequency	Percent	ValidPercent	CumulativePercent
Household Head	111	74	74	74
Spouse	18	12	12	86
Other adult in the household	6	4	4	90
Child	15	10	10	100
Total	150	100	100	

Source**:** Field Survey (2017)

(f) Household Size

The size of rural household is important as it influences the proportion of household farmland cultivated, frequency of cultivation and the intensity of agricultural land use. The household size is very large here as most people maintain a polygamous family with large number of children. As it can be seen from the Table 4.21 more than half (53%) of the people interviewed have household sizes of six or above which is higher than the regional average of 5.0 (Owoo & Naude, 2014)and this partially explains why the households adopt multiple

livelihoods to boost their incomes so that they can be able to cater for the needs of the relatively large household sizes. Most of the households claim migration to urban areas is responsible for the small size of the households as those who attain education beyond secondary school hardly stay in the villages, with the exception of *Inye*, a semi urban settlement, where so many graduates live and carry out their livelihood activities. Household size is an important factor for income diversification. In a large household some members could remain engaged in traditional farming while others could opt for off and nonfarm activities. The larger the family size, the higher the probability to participate in varied income sources (Berhanu, 2007)

Table4.21: Household Size

Size	Frequency	Percent	ValidPercent	CumulativePercent
1-3	25	16.7	16.7	16.7
3-6	76	30.7	30.7	47.3
6-8	31	40.7	40.7	88
8 above	18	12	12	100
Total	150	100	100	

Source: Field Survey 2017

(g) Land Ownership

Land is the most important asset for livelihood in general and for farming in particular, in the rural areas. Table 4.22 shows statistically land ownership among therural households from whom the survey data was collected and it all seems that access to land is not an issue in the survey. Almost all (98%) of the rural households in the study area own the lands they either cultivate themselves or give out to those that want to use it at the time of carrying out this survey exercise, while only three percent of them claimed they did not own the lands on which they farm. The remaining 0.7% represents the household headed by a woman who does not own a farm and lives completely on remittance and nonfarm livelihood. What follows is the method or process of land acquisition in the survey area. Access to farmland does not pose significant problem to farming enterprise by rural households in the study area.

This was echoed in the group discussions held with the households, even though so much value is attached to farmland by the people, they still give out farmlands free of charge to an ally who would want to engage in farming enterprise but does not own a piece of land to do so based on the agreement that the owner can get his land back whenever he needs it.

Table 4.22: Land Ownership

	Ownership	Frequency	Percent	ValidPercent	CumulativePercent
	Don't own	2	1.3	1.3	1.3
	Own	147	98	98.7	100
	Total	149	99.3	100	
Missing	System	1	0.7		
Total		150	100		

Source: Field Survey (2017)

(h) **MethodsofLandAcquisition**

Table 4.23 represents the prevailing methods or processes of land acquisition in the area. Land can be acquired through inheritance, gift, lease or exchange for money. The result shows about four fifth(80.7%) of the farm lands were acquired through inheritance, a little above one tenth (10.7%) through gift, while less than one tenth(4.7%) through lease and (3.3%) were bought. *it must be noted that the kind of lease here is not the same as the dictionary definition of the word 'lease' here the farmers are allowed to use the piece of land for free pending the time the owner would want to use his land. It is observed that the piece of land acquired through inheritance may not be shared among the heirs but maintain by the eldest male in the family and give out portion to anyone that would want to use it. Access to land is not the problem in the area, at least in terms of quantity. But in terms of quality, land can be considered to constitute one of the major problems of agricultural enterprise as most of the lands have lost their fertility due to continuous farming.

Table 4.23: MethodsofLandAcquisition

	Method	Frequency	Percent	ValidPercent	CumulativePercent

	Inheritance	121	80.7	81.2	81.2
	Gift	16	10.7	10.7	91.9
	Lease	7	4.7	4.7	96.6
	Buying	5	3.3	3.4	100
	Total	149	99.3	100	
Missing	System	1	0.7		
Total		150	100		

Source: Field Survey (2017)

4.3.3: Correlation Analysis on the Household Head's Choice of Primary Livelihood

Table 4.24 attempts to explain how some explanatory variables such as sex, age, level of education, marital status and family size correlate with the dependent variable (primary livelihood of the household head). The spearman correlation analysis shows significant relationship between variables; marital status, level of formal education and land ownership and the choice of primary livelihood among the household head in the study area. The result is presented as follows;

Sex/Age:these variables as shown in the table were found to have no significant relationship with the choice of household heads on what they do as primary livelihood activity. One of the possible explanations one can give here may be almost all the sampled households were headed by male. Age may not also count because most of those that answered questions were the household heads and the area being an agrarian society, by default most of them choose farming as their primary livelihoods.

Marital Status: Marital status of the respondent as either married or single significantly correlates with the household heads' choice of primary livelihood at less than 1% significance level. Most married men interviewed saw agriculture as their primary income generating activity even when their earnings from nonfarm livelihood is higher when compare with the incomes from the agricultural livelihood. Though income from farming

activities was very difficult to quantify as it is mostly geared towards family subsistence and there is no proper account keeping by the households of the earnings from farm livelihood. This is unlike the earnings from the nonfarm activities. The earnings from nonfarm activities are the one mostly used by rural households to pay the daily or weekly contributions which serve as the most important saving mechanism for the households, as such, it can be easily quantified. This single fact makes comparison between the two livelihood portfolios a little blurring and a bit bias. Apart from household head, the higher the number of other adults in a household who a single, the more diversified the economic activities of the household as a whole.

Education; this correlates positively with the head of households' choice of income generating activities at less 5% significance level. The higher the educational attainment of the household head, the higher the involvement in nonfarm income generating activity (civil service). But for the rural informal sector, the reverse is the case. This fact holds for every member of the household, the higher the level of educational attainment of a member, the more likely he or she sees nonfarm livelihood activity as the primary income generating activity. It was also revealed that farming households with little educational attainment or no formal education are more likely to be totally agrarian or engage in low entry barrier nonfarm livelihood portfolio. Low entry in term of the capital needed to start up the activity. This resultis in line with the finding of Bryceson (1999).

Household size; sizeof household is an important variable that affect the level of diversification in the livelihood strategies among the household member. The result of the correlation analysis as shown in table 4.23 did not find any significance relationship between the family size and the rural household head's choice of primary occupation. But the study did reveal a positive relationship between the household size and its livelihood diversification

strategies.The larger the family size, the higher the probability to participate in varied income sources. This finding is consistent with the finding ofBerehanu (2007).

Land possession; Eventhough access to land is not seen as a major problem in the area, land ownership was found to negatively correlate with the household head's choice of primary livelihood at 1% significance level.Maybe this is partially due to the easy access to this important factor of production. This is consistent with the finding of Babatunde and Qaim (2010).

Table 4.24: Correlation Analysis on the HH's Choice of POC

Spearman'srho	Primary occupation of the household head
Sex	0.004
Respondent's age	-0.03
Marital status	-.222**
Respondent's level of Education	.179*
Respondent's position in the Household	0.035
Household size	-0.147
Household land ownership	-.302**
** Correlation is significant at the 0.01 level (2-tailed).	
* Correlation is significant at the 0.05 level (2-tailed).	

Source: Field Survey (2017)

4.4: CHALLENGES FACING THE LIVELIHOOD SATISFACTION

Some of the major problems associated with livelihood activities that were mentioned in the questionnaire survey and hinted during the focus group discussions are presented as follows:

Decline in Soil Fertility: High rate of leaching due to excessive rainfall, continuous cropping as well as rudimentary farming practices have rendered most farmlands in the area less fertile to be able to adequately support food crops without the application of fertilizer, which most (over 76%) farmers (Table 4.6), claimed they could not afford. As a result, outputs over the years have continued to fall affecting farmers' income from agricultural livelihood. This as seen in Table 4.25, almost one-third of the responding households view this as the major problem facing the farming

households in rural Ankpa local government area of Kogi state. This finding corresponds with the report of Tully, Sullivan, Weil and Sanchez (2015).

High Cost of Labour: The increase in school enrolment and subsequent exodus of youths from the rural areas to urban centers at the end of their school years in search of white collar job has led to dwindling in farm labour supply in the area. Table 4.5has shown that 43% of the farm labour is supplied by household members. As a result of this, since farming operation in the area is mostly labour intensive, the cost of farm labour has become too costly that most households could not afford. As reiterated during the focus group discussion, existence of nonfarm activities also competes negatively with agriculture in terms of labour demand and farmers who are unable to afford farm labour at a very high cost resort to subsistence farming on a very small scale. This, according to them, has seriously affected food production thereby making the cost of living very high in the area. Table 4.25 also reveals that more than one-fifth of the rural households view high cost of labour as the major face by the farming households in the area. This report corroborates with the finding reported by Ibitoye (2011).

Agricultural theft: this is another major problem faced by rural farming households in Ankpa local government area. The thieves normally go to the farm during the odd hours when the farmers might have closed from farm and steal their products. This has made farming enterprise costlier as households would have to spend additional hours on the farm providing security for the farm. Even this has not solved the problem as thieves have now devised the mean of going to the farm at night when the farm household members are fast asleep at homes. Closely related to this is the issue of herdsmen leading their herds into farms and get them destroyed. Though farmers do get compensation as the communities' leaders work with Fulani leaders in the area to fish out the perpetrators and make them pay for the farm destroyed. This is also included in other problems mentioned by the respondents as shown in Table 4.25.

Agricultural Cycles: During harvesting period, the relative abundance of food crops forces farmers to dispose-off or sell their food crops to retailers and food processors at very low prices to the extent that most farmers are unable to break even the investment made for their production including the cost of inputs. During the off season with less agricultural activities, these farmers are left with nothing to sell and few to survive on. At these point, only farmers who are able to store less perishable crops such as maize would be able to take advantage of higher prices for farm commodities. Recounting their experiences during one of the focus group discussions at '*Inye*,' farmers complained on how a basket of okra which normally sells between five to seven hundred naira was sold at a very much lesser price between two hundred and fifty to three hundred naira this year. This as shown in Table 4.25 reveals that only 8% of the respondents see occasional crop failure as a problem. This is somewhat consistent with the result reported by Bryceson (2000)

Crop Failure: Occasional crop failure due to drought whereby in the mid of raining season the rain would cease to fall for like a month plus leading to the drying of crops, affects farmers' livelihoods. Vegetables such as tomato, garden egg and pepper as well as other food crops also need much rainfall but the erratic and changing nature of the rainfall pattern affect farmers output and income. Crops affected by pests especially during periods of drought also could mean that farmers have to spend more on inputs such as pesticides and fertilizers. This ultimately affects farmers‟ income and livelihood. This as shown in Table 4.25 reveals that only 5% of the respondents see occasional crop failure as a problem. This finding is consistent Oseni and Winter (2009).

Youth Attitude towards Farming: Youth constitute an important segment of any community. They form a vital source of manpower for agricultural practice in rural areas. As reiterated in the focus group discussion, the youth have negative attitude towards agricultural practice as they view it as inferior, non-lucrative and requires a hard labour. The youths' apathy towards farming has led to the reduction in the farm labour supply and affect the output negatively. Though the percentage of

those who see this as one of the challenges facing livelihood satisfaction in area is small compare to other problems frequently mentioned by the rural households as revealed in Table 4.25, personal observation by the researcher confirmed this as a serious challenge facing the rural farming households in the area. This result tallies with the finding of Ibitoye (2011).

Accessibility: poor and bad road network connecting these rural areas and the council headquarter, Ankpa is another major concerns of the rural households. *Enale* and *Odogomu* are almost inaccessible during the peak of raining season around July, August and September due to flooding, excessive run-off and erosion that washes away their roads. This constraint, couple with their sizes account for some of the problems of household livelihoods in these locations. Though the percentage of those who see this as one of the challenges facing livelihood satisfaction in area is small compare to other problems frequently mentioned by the rural households as reveals in Table 4.25, personal observation by the researcher confirm this as a serious challenge facing the rural farming households in the area. This result is consistent with result reported by Babatunde and Qaim (2010).

Low Demand: Market demand for nonfarm products or service are characterized by low demand, a problem which is further compounded by the inability of the state government to offset the salaries of its workers as at when due and when it eventually pays the salaries, they come on percentage far below what they workers are expecting. The problem of nonpayment of salaries affects virtually all livelihood activities. Though the percentage of those who see this as one of the challenges facing livelihood satisfaction in area is small compare to other problems frequently mentioned by the rural households as reveals in table 4.26, personal observation by the researcher confirm this as a serious challenge facing the rural farming households in the area. This result is consistent with result reported by Babatunde and Qaim (2010).

Lack of capital/Low skills: The rural households mostly lack access to capital (Table 4.16) to

initiate a nonfarm activity or to expand the existing livelihoods apart from personal savings. This, couple with the low skills among the rural household members, despite the high incentive to diversify have limited their capacity to do so because of the lack of skills and that of capital for start-up and expansion. Though the percentage of those who see this as one of the challenges facing livelihood satisfaction in area is small compared to other problems frequently mentioned by the rural households as reveals in Table 4.25, personal observation by the researcher confirmed this as a serious challenge facing the rural farming households in the area.

Table 4:25Challenges of Livelihood Satisfaction in the Area

Challenges	Frequency	Percent	ValidPercent	CumulativePercent
Decline in soil fertility	52	34.7	34.7	34.7
High cost of labour	40	26.7	26.7	61.3
Occasional crop failure	8	5.3	5.3	66.7
Agricultural Circle	12	8	8	74.7
Inadequate supply of improved farm input	9	6	6	80.7
Others	29	19.3	19.3	100
Total	150	100	100	

Source: Field Survey (2017)

4.5: LIVELIHOOD SUSTAINABILITY THROUGH DIVERSIFICATION

Livelihood Vulnerability or Risk: Households in the study area who adopted single livelihood activity are more likely to suffer the worse of any shock or stress emanating from their primary livelihood activities. This was confirmed by nonfarm operators like civil servants who hitherto, depended on salaries from the state government as a result of nonpayment of salary backlogs for months. Also farmers, who depended on agriculture as the sole source of income, have found themselves constantly embedded in the vicious cycle of poverty as they hardly meet the basic needs of the households. So having multiple sources of income help the households to cope with any shock or risk in their livelihoods (Table 4.1).The livelihood stresses like declining labour work available, declining crop yields due to the falling fertility of the soil, population pressure on the resources, earning too little from the

household livelihood to meet the basic needs of the family and even the rural households' inability to afford the inorganic fertilizer to improve the fertility of the soil as revealed in Tables 4.3, 4.4, 4.5, 4.6, 4.6, 4.12, 4.15 are some of the indications of household livelihood vulnerability in the area.

Poverty and Improved Welfare: Even though this study did not directly measure the level of welfare of households, in fact, no attempt was made to categorize the households according to their poverty let alone the extent to which poverty has been reduced among the rural households as they diversify their sources of incomes, nevertheless, adopting multiple livelihood activities, increase income and help the rural households spread risk and thereby reduce vulnerability. (Table 4.1) can be used as proxy or indicators of increased welfare and poverty reduction. The data revealed in Table 4.12 attest to the level of poverty among the households in the rural area of Ankpa local government area of Kogi state. The table shows the majority 95% of the households do not earn enough income from a single livelihood source.

Coping Strategies: in attempt to spread the risk of livelihood vulnerability, the rural households adopt some coping strategies like having multiple sources of income generating activities as shown in Table 4.1. Majority, 83% (Table 4.11) of the households also keep livestock as saving mechanism which can be sold to offset the households' liquidity problems that may arise at any time. Dependence on remittance from relatives and assistance from nongovernmental organization, though very insignificant, form parts of coping strategies employ by the households to smoothen household consumption pattern in face of shock and stress. On the basis of these,Figure 3 shows that when a household adopts a multiple source of livelihood portfolios, the household income increases and this leads to improved living standards of the rural households.

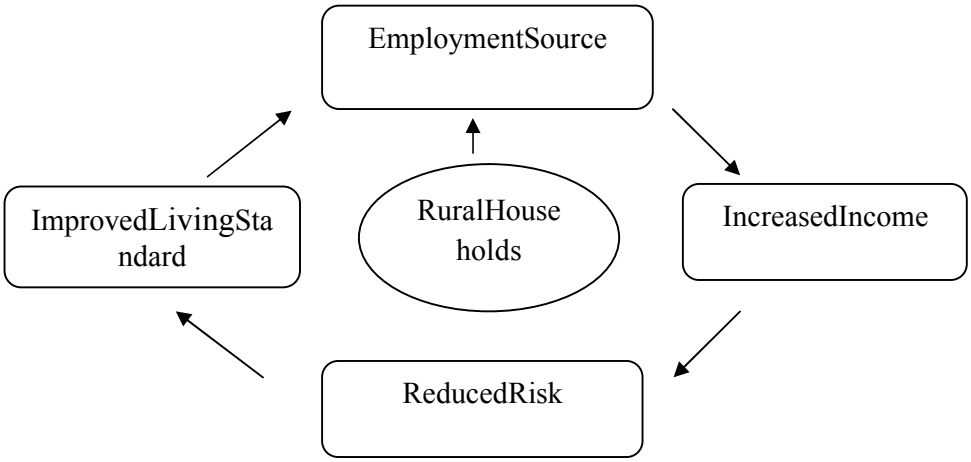


Figure 3: Livelihood Sustainability through Diversification

Source**:** Fieldsurvey(2017).

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1INTRODUCTION

The chapter mainly assesses the livelihood options, examine the forces influencing livelihood, the sustainability of the livelihoods and the major constraints faced by rural households as they struggle to make a living. Conclusions were drawn from the findings and recommendations were provided for improvement.

5.2SUMMARY

The findings of this study are summarized as follows:

i. From the study, self-employed food crop farming is the mainstay of rural livelihood for households in the rural Ankpa local government area of Kogi state in view of the fact that about 96% of the head of households involved in the study view farming as their main livelihood activity just as most people in the rural area are involved in farming one way or the other. The proportion of the population that engage in agriculture in area is higher compare to the national average that hover around 65 or 70%.

ii. Agriculture in the area is mostly geared towards subsistence as the proceeds from farm output is used to meet the basic needs of the household. It was observed that more than half of crops produced by households are sold and the proceeds used to buy food and other basic needs of the households.

iii. Farming is mostly rain-fed, 98% so the rural households are predominantly wet-season farmers. This may partly explain why people keep multiple livelihoods to keep themselves engage during the off-farm period. Farming is also mostly labour intensive, almost 99%and about 67% of the farm-labour is supplied by the households.

iv. Older generation in the communities visited have more lands are involved maximally in agriculture. In fact, it was observed that people tend to return to the land as they advance in age. Farmers who have their farmlands close to the communities face the risk of their crops being destroyed by roaming animals, especially goats. This has tended to increase the time the farmers have to spend on their farms in order to keep the animals away.

v. Livestock keeping is not very significant in the life of the people, only as a saving mechanism and for household consumption.

Diversification into nonfarm livelihood activities has been on for years. More than 50% of the respondents have been engaging in their current nonfarm income generating activities for more than five years. The most noticeable trends in the livelihood diversification among the rural households as observed and intimated during the focus group discussions include;

i. All households are multi-active, in the sense that every household as a unit of production has a diversified source of income, but when householdheads are considered (table 4.1) as breadwinners, single-active households can beidentified. As it was the complaint of some household heads that even though members of their households engage in one form of nonfarm activities or another, they hardly contribute anything to the up-keep of the households.

ii. It was observed that rural youths are less involved in farming and engage more in nonfarm activities. Some families even encourage members to set up nonfarm activities. This maybe a calculated attempt to reduce the risk or shock that may emanate from crop failures.

iii. It was reported that individual members of households participate more in their own economic or income generating activities as against the households as a production unit.

iv. Most of the nonfarm livelihood activities among the rural households are low-entry barrier nonfarm activities. In fact, the dominant nonfarm activities in Ankpa local government area of Kogi state are trading, public transport operation, food process and services. Trading and food processing are dominated by women.

v. Advancement in telecommunication technology has made available new nonfarm activities in the study communities as phone charging points and trading in telephone accessories are now common among the rural youths of the communities.

vi. Many nonfarm operators in the study have reportedly changed from one nonfarm livelihood to another as some traditional nonfarm activities like basket weaving are gradually losing their prominence.

vii. Remittance plays important rules in the livelihood of the people more especially the older generation households as they mostly claim to have a relative in urban centers who from time to time send them money for the family up-keep.

viii. Out-migration is an option to escape rural poverty.

Agricultural livelihood in rural Ankpa local area of Kogi state is constrained by unreliable rainfall, high rate of leaching which has made most of soil poor and infertile, lack of/inadequate supply of improved input, almost absence of extension service and technical constraints which manifest in poor technology use and inadequate supply of fertilizer. Epileptic power supply, poor rural access roads, lack of capital and poor managerial skills, high cost/inadequate supply of farm inputs have been identified as some constraints of livelihood participation in rural areas.

The major problems/constraints of livelihoods faced by the rural households in rural Ankpa local government area of Kogi State. There is an expressed concern that nonfarm activities together with high rate of out-migration among the rural youths do withdraw labour out of agriculture leading to high cost of labour which in turn negatively affects agricultural productivity. Though it was hinted that youths who operate their nonfarm activities in the rural areas do contribute to the households' farm labour supply, but those that move to the urban centers hardly do as they come home occasionally and spend little time to take part in the farm. Other challenges faced by the farming households include;

i. Decline in Soil Fertility
ii. High Cost of Labour
iii. Agricultural theft
iv. Agricultural cycles
v. Crop failure
vi. Youth Attitude towards Farming
vii. Low Demand
viii. Lack of capital/Low skills

It was equally observed that neither agricultural livelihood nor nonfarm livelihood alone is economically sustainable as none of them can single handedly cater for the needs of the rural households. Even though the farmers earn more from farming enterprise, the earnings from the nonfarm livelihoods appear more important in the lives of the rural households as it is more constant and smoother.

5.3: CONCLUSION

By way of conclusion, it is shown by this that both farm and nonfarm livelihoods are very important to the rural farm households in the study as provide employment opportunity and

income for the rural populace. It must be noted here that the performance of both sectors of the rural economy in the study area are far below optimum. Agriculture which is the mainstay of the rural livelihoods is seriously neglected and the rural farm households are left to solve their puzzles themselves. This has resulted in low productivity from this sector in spite of its high place in the rural livelihoods.

There are chances to enhance agricultural livelihood in the area through the use of improved agricultural technologies. To achieve this requires substantial investments in rural infrastructure such as road, irrigation system, and credit market, particularly in Kogi east in light of the agricultural potentials in this area. Such investment will foster and sustain the adoption of improved agricultural technologies, with a significant impact on poverty reduction due to the importance of the agricultural sector in Kogi State of Nigeria, which to a large extent, is the main source of employment in the state.

The study has also shown that non-farm income plays a very important role in augmenting farm-income as almost three-quarters of the respondents adopted a combination of farm and nonfarm strategy. This is an indication that farming alone is not an adequate source of revenue for the rural households. Therefore, promoting non-farm employment may be a good strategy for supplementing the income of farmers as well as sustaining equitable rural growth. This could be achieved through training programmes directed towards developing the human capital among the rural households so as to increase their productivities.

5.4RECOMMENDATIONS

It must be admitted that a study like this is not complete without the involvement of all the stakeholders; the households and the policy makers. But it was unfortunate that at the time the data for the study was collected, the state civil servants had been on industrial strike for more than eight months over nonpayment of their salaries and other allowances. This made

them unavailable to be reached to give an insight on the kind of programmes of the state government which are tailored towards improving the livelihoods of the rural households. But their absence actuallydid expose a very important issue, that even if the state government has any programme which is designed to address difficulties faced by rural households as they pursued their livelihoods, I wish to state here that, either such program is poorly designed and have little and very insignificant impact on the people or it is not reaching the people it should be designed for.

Based on the findings, the following recommendations are made;

i. Looking at the great potential of the area in terms of its land resource, agricultural livelihoods can be significantly improved. This can be achieved if the government will support and make available for use improved farming technologies to rural farmers. Fertilizer, tractors, agro-chemical and better extension service among others should be made available to the rural farm households at right time and affordable prices to the farmers and make sure they reach the targeted beneficiaries in order to increase the yields.

ii. Investment in rural infrastructure such as road, education and health facilities, power etc, can significantly reduce the cost of production as well as taming the menace of rural-urban population drift especially among the youths there by making them available for the rural farm labour.

iii. Investment in irrigation facilities can help the farmers overcome the difficulties pose by the vagaries of weather.

iv. If the government wants to improve the livelihoods of rural households, there is the need to train and deploy extension workers to the rural areas in order to increase information source and training on better utilization of improved agricultural technologies.

v. Credit facilities should be made available and accessible to the rural households as well as creation of awareness among the households as the problem is not that of its unavailability or inaccessibility alone, but also little information among the households on such development in the study area.

vi. The findings also suggest that, although most households participate in the farm sector and even saw it as their primary livelihood, rural development policies aimed at poverty reduction should focus equally on both the farm and the nonfarm sectors. Farming as a primary source of income has failed to guarantee sufficient livelihood for most farming households in rural Ankpa local government area of Kogi state.

vii. There is need for further research on the livelihoods and incidence of poverty in rural Ankpa local government area of Kogi state as this will help the government and donor agencies to identify the vulnerable members of community and kind of help they can provide in order to improve the livelihoods of the rural households.

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APPENDICES

APPENDIX I

Household Questionnaire

My name is Dawood YusufJibril. I am a student from Bayero University Kano, Nigeria. 1 am carrying out this research project for my master programme in Human Geography. This project

is an independent study purely for academic purpose. The aim of this research project is to gain more knowledge on the agricultural and non-agricultural livelihoods among rural households in Ankpa local government area ofKogi state Nigeria. The results of this research project will be written down in a report, which will be made available to whoever is interested. This report will not mention the names of names of the respondents or the locations of your households. Any information you will provide me with will be used for research purposes only.

1. Sex of respondent: [ ] Male [ ] Female

2. Age of respondent: [ ] 18-24 [ ] 25-34 [ ] 35-44 [ ] 45 and above

3. Marital Status: Single [ ] Married [ ] Divorced [ ] Widow/wer [ ] Separated

4. Level of Education: [ ] Primary [ ] Secondary [ ] Tertiary [ ] other

5. What is your position in the household?

[ ] Household head [ ] Spouse [ ] other adult (grandparents / relative of spouse) [ ] Child

6. Household size: [ ] 1-3 [ ] 4-6 [ ] 7-8 [ ] above 8

7. Primary occupations of the household head: [ ] Farmer [ ] Others _____

8. Do you ownthe land on which you cultivate your crops? [ ] Yes [ ] No

9. What is the size of farm in hectares _____

10. How did you acquire the land? [ ] Inheritance [ ] Gift [ ] lease [ ] Share cropping [ ] other

ii. On what basis do you farm? [ ] Commercial [ ] subsistence [ ] both

12. What is the source of the labour on the farm? [ ] Household[ ] Communal [ ] Hired

13. How many members of your household work your farm? _____

14. Do you apply organic fertilizer on your farm? [ ] Yes [ ]No

15. What agricultural technologies do you use? [ ] crude [ ] improved

16. Which crops do you grow?

17. What's your main crop and why that particular one? _____

18. Are the crops rain fed or irrigated? [ ] rain fed only [ ] irrigated only [ ] both

19. If both, which of the, crops do you cultivate under dry season farming?

20. How long have you been irrigating your farm? (years) _____

21. If rain fed only, why are you not irrigating your farm? [ ] farmland far from the facilities [ ] not aware of it [ ] sufficient rain and moisture [ ] others (specify)

22. Have you ever got any contact with extension agents? [ ] yes [ ] no

23. If yes, how often is the contact? [ ] prior to planting period [ ] prior to harvesting period [ ] once in a year [ ] intermittently

24. What were the purposes of the contact? _____

25. Have you ever collected loan to expand the size of your farm? [ ] yes[ ]no

26. From where did you get the loan? [ ] friend and relatives [ ] cooperative society [ ] Agricultural bank [ ] other (specify)_____

27. Do you keep any livestock? [ ] yes [ ] no

28. Which of these livestock do you keep? [ ] chicken [ ]sheep/goat [ ] cattle [ ] other (specify)

29. Why do you keep the livestock? _____

30. In monetary term, how much do you earn from your farm annually?

31. Is your income from farm enough to meet your household basic needs [ ] yes [ ] no

32. If no, how do you supplement the income? [ ] off farm work [ ] nonfarm activity [ ] remittance [ ] other (specify)_____

33. What livelihood activity(ies) do you practice in addition to your primary source of income? _____ _____

34. For how long have you been practicing this secondaryactivity? (in years) [ ] less than a year [ ]1-2 [ ] 3-5 [ ] above

35. What reason(s) can you assign for the adoption of this new or extra activity?

36. What was your source of start-up capital? [ ] personal savings [ ] bank loan [ ] NGO source LI remittance LI others (specify) _____

37. What can you estimate is your weekly/monthly/annual income from your secondary livelihood (in Naira)

Options	Weekly	Monthly	Annually
A	250-500	1000-2500	5000-10000
B :	500-750	2500-4000	10000-15000
C	750-1000	4000-5500	15000-20000 —
D	Above 1000	Above 5500	Above 20000

38. What proportion of your total income do you spend on feeding? _____

39. What are the associated problems you face engaging in your chosen livelihood?

40. Do you hope to continue to combine these two activities? [ ] yes [ ] no

41. Ifso, why? _____

42. In your own view, what support do you need to enhance your livelihood activities?

43. How do you compare your chosen livelihoods? In terms of(a) income generation _____ (b) in terms of sustainable employment _____

APPENDIX II

Focus Group Discussion Checklist

1. What are the main sources of income in your community?

2. How do you describe the trend ofinvolvement of the rural people in agricultural and nonagricultural livelihoods?

3. What do you think are the forces people to adopt multiple livelihoods in the village?

4. What is/are the positive and negative linkages between on farm and non-farm income?

5. Do you think multiple livelihoods help the rural people to increase their income or improve the food security situation of the Households?

How?