THE STATE AND FOOD SECURITY POLICIES: AN ASSESSMENT OF THE NATIONAL PROGRAMME FOR FOOD SECURITY IN SELECTED STATES OF NIGERIA (2001-2011)

BY

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A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, AHMADU BELLO UNIVERSITY SCHOOL OF POSTGRADUATE STUDIES, ZARIA, IN PARTIAL FULFILLMENT OF THE AWARD OF THE DOCTOR OF PHILOSOPHY DEGREE IN POLITICAL SCIENCE

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DECLARATION

I declare that the work in this dissertation entitled The State and Food Security Policies in Nigeria: An Assessment of The National Programme for Food Security in Selected States in Nigeria has been performed by me in the Department of Political Science and International Studies. The information derived from the literature has been duly acknowledged in the text and in a list of references provided. No part of this dissertation was previously presented for another degree or diploma at this or any other institution.

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CERTIFICATION

The dissertation entitled The State and Food Security Policies in Nigeria: An Assessment of the National Programme For Food Security In Selected States in Nigeria by Kamal Olaniyi LAMIDI meets the regulations governing the award of the degree of Doctor of Philosophy Degree in Political Science of the Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This thesis is dedicated to my late father, dearest mother and all my teachers.

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ABSTRACT

In recent times, the idea of food security has undergone transformation from the perspective of having adequate available food at national level to the ability of nations to ensure that people have adequate access to nutritious and healthy food at all times at the household level. This transformation has invoked a global concern that calls for the need to evolve strategies for either minimizing or possibly eliminating the obstacles against the universal realization of food security most especially at the household level. To complement global efforts in reducing hunger, successive regimes in Nigeria governments initiated series of policies and programme to see that Nigeria is food secured. These policies and programmes vary with the change of governments; but they emphasized almost same objectives on food security both at national and household levels. In spite these interventions, food insecurity remains intractable in the country. It is against this backdrop that this study assessed the contribution of the National Programme for Food Security on household food security. In carrying out this study, multi-stage sampling technique was employed. Firstly, the study adopted Vision 2020 stratification of Nigeria into three zones and in each of these zones a state was randomly selected for data collection. The three selected states for the study were: Jigawa, Osun and Kwara States. Secondly, three sites were randomly selected in each state and in the third stage, 38 beneficiaries were selected from each site. Thirteen interviews were conducted and three hundred and forty-four questionnaires were administered across all the selected sites. Out of this number, three hundred and twenty-three questionnaires were returned. For the interview, National Coordinator of NPFS, three State Coordinators of NPFS and nine Apex leaders were interviewed across the selected sites. Thereafter, the study utilized mean, simple percentage and t-test to analyze the collected data as well as to test the research assumptions, while USDA approach was used to determine the food security status of the beneficiaries. The study found that the NPFS is a community driven programme and allowed wider participation of the beneficiaries in decision-making and implementation. In addition, the study found that after participation, the agricultural productivity and income of the beneficiaries increased. In the area of diversification, only 30 percent were able to diversify among the sampled beneficiaries. On food security status of the sampled beneficiaries, the study found out that majority of the beneficiaries were between food insecurity without hunger (30.65%) and food insecurity with moderate hunger (60.68%). Also the study found that none of the beneficiaries attained full status of food security while 8.67% were not food secured. Thereafter, the study concludes that for any programme to improve household food security there is the need to constantly review the activities of both the executors and the beneficiaries in line with the objectives of the programme.

TABLE OF CONTENTS

LIST OF TABLES

ACRONYMS

CBN	Central Bank of Nigeria
FAO	Food and Agricultural Organization of the United Nations
GDP	Gross Domestic Products
IFPRI	International Food Policy and Research Institutes
IITA	International Institute for Tropical Agriculture
LIFDCs	Low-Income Food-Deficit Countries
MT	Metric ton
NBS	National Bureau of Statistics
NEEDS	National Economic Empowerment Development Strategies
NPC	National Population Commission
NPFS	National Programme for Food Security
SPFS	Special Programme for Food Security
UNDP	United Nations Development Programme
WFS	World Food Summit
USDA	United States Department for Agriculture

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Viewed from the perspective of having adequate availability of food on national scale to coping with vulnerability and risk in food and nutrition access (IFPR, 2004), the idea of food security was presented for the first time at the World Food Conference in 1974. Food Security today is taken to mean a condition that all people have access at all times to enough food of an adequate nutritional quality for healthy and active life (World Bank, 1986). Sustainable development of a nation as Osundare (199) rightly observed depends on its ability to ensure food security. As a basic necessity of life, adequate intake of quality food is a key requirement for healthy and productive life and the survival of the society. It has therefore invoked a global concern that calls for the need to evolve strategies that are workable and sustainable for minimizing or possibly eliminating the obstacle against the full realization of universal food security (Onyido, 1997). The Food and Agricultural Organization, FAO (2013) reported that 842 million people, about 12.5 percent of world population, were unable to meet their dietary energy requirements between 2011 and 2013. Thus, one in every eight people in the world is likely to have suffered from chronic hunger, not having enough food for an active and healthy life. Africa remains the region with the highest prevalence of undernourishment, with more than one in every five people estimated to be undernourished. Though, levels and trends in undernourishment differ within the continent, the Sub-Saharan Africa has the highest level of undernourishment, although it has declined in the last two decades from 32.7 percent to 24.8 percent (FAO, 2013).

Food insecurity is currently one of the challenges facing the world community. The state of food importation is different across the continent and varies according to countries level of income. The rich countries had the ample means of settling their import bills using revenue generated from other sectors of the economy. The available data between 1980 and 2007 shows that Africa's total net food imports in real term grew at 3.4 percent per year, but this growth was mostly fuelled by population growth 12.6 percent per year. The increase in per capita food import was only about 0.8 percent per year, while food production grew at an even smaller rate of less than 0.1 percent per year (Manitra, Massimo & Marianna, 2011).

This problem is said to be most critical in low income African countries of which Nigeria is one. FAO (2002) listed Nigeria as one of the countries faced with serious food insecurity. At national level, the production of major food items has not been sufficient to satisfy the demand for an increasing population. Available evidence has shown that there is a big gap between national supply and demand for food. Though there is a remarkable increase in the production of staple food in the country, there is still an observable gap between food demand and food supply (Sanusi, Badejo & Yusuf 2006). Over 40 percent of households across all agro-ecological zones in the country face the problem of severe food insecurity (Maziya-Dixton, Akinyele, Oguntona, Nokoe, Sanusi & Hais 2004). This invariably shows that the concept of food insecurity goes beyond the simplistic idea of a country's ability to make food available at national level.

The Nigeria's national food expenditure data showed that almost two-third of the total expenditure of most households in 1980 was on food. This expenditure pattern rose by 10 percent in 1985, but dropped between 1985 and 1992 (Agboola, Ikpi, & Kormawa, 2004). In 2009/2010, 64.68 percent of the total household expenditure was spent on food, while the balance of about 35.32 percent spent on non-food items. During this period, rural areas expenditure on food account for 71.95 percent (N9.9

billion) compared to urban areas where food items claimed about 55.35 percent of total income (NBS, 2012). Similarly, the percentage change in consumer price index of 1995 was about 2000 percent of the 1985 (Adebayo, 2010). By 2000/2001, it increased by 28.1 percent and 13.1 percent and further by 6.0 percent in 2001/2002 and 2002/2003 respectively (Saliu & Omotola, 2006). The 2005 food price index was almost 7000 percent of the 1985 prices (Adebayo, 2010). This translates to a sharp reduction in the consumers' ability to access available food. This is responsible for nutritional deficits facing Nigeria. In the national survey on food security carried out by FAO (2003), 42 percent of children less than five years old were stunted, 9 percent wasted while 25 percent were underweight. As a result, 16 percent of Nigerians are undernourished while about 41 percent are food insecure (FAO, 2005). The above argument confirms that food availability in Nigeria does not guarantee people accessibility and stability.

Successive governments in Nigeria have made conscious efforts and embarked on programmes to ensure that Nigeria is food secured. These programmes and policies vary with the change in government but emphasize almost the same objectives like food security and sufficiency for all the inhabitants of the nation and encourage the production of surplus for export purposes. These interventions include, Operation Feed the Nation, Green Revolution, National FADAMA and Root and Tuber Expansion programme. Yet, Nigeria is unable to achieve food security most especially at household level. The failure of some of these past policies and programmes were blamed on policy inconsistency and poor governance, poor human development, inadequate funding and poor coordination among the different agencies charged with responsibility of implementing the policies and programmes (Iwuchukwu & Igbokwe, 2012).

This development has turned Nigeria into a high food importing country with the food bill accounting for 14.71 percent of 1991's total import bill compared with 6.87 in 1970 (CBN/NBS, 2006). Similarly, between 2011 and 2014, the country's food production grew by 21 million Metric Tonnes and led to a huge decrease in food imports. Nigeria's expenditure on food importation fell from an all-time high of N3.19 trillion in 2011 to N635 billion in 2013; a 403% reduction (Onuka, 2017). In 2016, food imports for Nigeria as a share of merchandise import was 12.8 percent compared with 17.0 and 17.8 percent in year 2014 and 2013 respectively. The share of food bill in the total import bill is an indication of dependence on foreign food and other related products (Adesina, 2012). The demand for rice is projected to rise from the current level of 5 million Metric ton (MT) to 36 million MT by 2050 (Adesina, 2012). This means that about $150 billion will be spent annually importing rice by 2050 (Adesina, 2012). This subjects Nigerians to global food price fluctuation to the extent that many low income households become food in secured. In the Report of the World Bank, rising food prices between 2010 and 2011 pushed an additional 70 million people into extreme poverty and food insecurity all over the World (Annan, 2011).

This situation is undesirable and requires proper re-examination of policy and programmes put in place in order to improve food security. National Programme for Food Security (NPFS) is one of the programmes designed and implemented by government under the assistance of FAO's National Special Food Security Programme (NSFSP). NPFS' main aim is to achieve rapid increase in productivity and food production on an economically and environmentally sustainable basis, emphasizing the use of tested technologies and grass-roots participation (NPFS Manual, 2001).

1.2 Statement of the Research Problem

This study assesses the contribution of the National Programme for Food Security (NPFS) to household food security and income through increase in agricultural productivities. In the face of several government intervention policies and programmes designed to improve food security in Nigeria. The problem of accessibility to food by Nigerian household still remains unsolved. Using the Global Food Security Index (GFSI), the International Institute for Tropical Agriculture (IITA, 2012) ranked Nigeria very high in area of food availability or supply among many other countries, while in the area of food affordability or food access, Nigeria was ranked very low. The result of the GFSI's analysis revealed that out of a total of 105 countries, Nigeria ranked 80th in 2012. Similarly, in 2013, GFSI rated Nigeria 86th out of 107 countries sampled. Nigeria had a total weighted score of 33.3 out of 100. In the affordability category rank of the GFSI, Nigeria scored 16 out of the 105 maximum points. According to the Index, costly food and large vulnerable populations put Nigeria, the Democratic Republic of Congo (DRC) and Chad at the bottom of the Index for affordability (Agboola *et al*, 2015). This shows that food security challenges in the country are related to accessibility.

The analysis of poverty incidence attests to the challenges of food accessibility in the country. The level of poverty in Nigeria, according to National Bureau of Statistics (2012), rose from 54.4 percent in 2004 to 69.0 percent in 2010 with an estimated population figure of 163 million. This translates to about 113 Nigerians living below poverty line. About 63 percent of this population living below poverty line is farming household who reside in rural areas (Ayantoye *et al*, 2011).

By implication more than half of Nigeria's populations lack the means to sufficient and nutritional food at all time. This confirms the fact that food availability in Nigeria does not guarantee household accessibility and stability. But the pertinent question one could ask from the above argument is that why has this problem persisted despite series of government interventions? The answer to this question can be sought by assessing policies formulated to solve the problem. But the fundamental problem, according to Anna (2011), "is that very little is being done to ensure socio-economic access to available food for everyone, at all times".

1.3 Research Questions

This study attempts to provide answers to the following research questions:

i) To what extent has the National Programme for Food Security (NPFS) differs from previous food security policies and programmes in Nigeria?

ii) To what extent has the National Programme for Food Security (NPFS) increased agricultural productivity of the beneficiaries in Jigawa, Kwara and Osun States?

iii) To what extent has the National Programme for Food Security (NPFS) increased agricultural diversification of the beneficiaries in Jigawa, Kwara and Osun States?

iii) To what extent has the NPFS increased the income of the beneficiaries in Jigawa, Kwara and Osun States?

iv) To what extent has the NPFS improved the food security of the household beneficiaries in Jigawa, Kwara and Osun States?

v) What are the constraints facing the beneficiaries of the programme in Jigawa, Kwara and Osun States?

1.4 Objectives of the Study

The major objective of the study is to assess the contribution of the NPFS on household food security and income through increase in agricultural productivity. In line with the research problem that guides this study, this research sought to achieve the following specific objectives:

i) Find out how the National Programme for Food Security (NPFS) differs from previous food security policies in Nigeria

ii) Find out whether the National Programme for Food Security (NPFS) has increased agricultural productivity of the household beneficiaries In Jigawa, Kwara and Osun States.

iii) Find out whether the National Programme for Food Security (NPFS) has increased agricultural diversification of the household beneficiaries In Jigawa, Kwara and Osun States.

iv) Find out whether the NPFS has increased the income of the household beneficiaries in Jigawa, Kwara and Osun States.

v) Find out whether the National Programme for Food Security (NPFS) has improved household beneficiaries' food security in Jigawa, Kwara, and Osun States.

vi) Find out the constraints facing the beneficiaries of the programme

1.5 Research Assumptions

Based on the research objectives, the study tests the following assumptions:

i. That the National Programme for Food Security has significantly differed from previous food security programmes in Nigeria

ii. That the National Programme for Food Security (NPFS) has not significantly increased agricultural productivities of the beneficiaries in Jigawa, Kwara and Osun States

iii. That the National Programme for Food Security (NPFS) has not significantly increased agricultural diversification of the beneficiaries in Jigawa, Kwara and Osun States

iv. That the National Programme for Food Security (NPFS) has not significantly increased income of beneficiaries in Jigawa, Kwara and Osun States

v. That the National Programme for Food Security has not significantly improved food security status of the beneficiaries in Jigawa, Kwara and Osun States.

vi. That the beneficiaries of the programme are facing problems

1.6 Significance and Justification for the Study

The issue of food security goes beyond the simplistic idea of a country's ability to make food available. In the previous study significant attention was paid to analysis of the causes of food insecurity and the dynamics of poverty in several studies like Olatidoye, Jimoh and Adebusuyi (2010), Hart and Atinmo (1982), olorunfemi, Aderinnola and Ajibefun (2009). The dimensions of various food security intervention policies have been examined with reasonable analysis in these studies. The study therefore, will be of immense significance in ascertaining the progress so far made by the government in improving households' food security via availability, accessibility and stability.

This study also has the potentials of contributing immensely to the existing body of literature on the subject matter. The study achieved this by focusing on the beneficiaries of government intervention policies and programmes. The reason is that majority of past studies, Beckman (1988), Oculi, Hassan & Omotola (2006), Iwuchukwu & Igbokwe (2012), focus on the process of formulation and mode of implementation of governmental programmes and policies; with little attention given to the level of programme's benefits utilization by the beneficiaries. This will serve as a point of reference for future researchers who may wish to embark on assessing the contribution of the programme to households' food security.

The rationale for the study is to provide the decision makers with the adequate knowledge about methods of improving food security in the country. The outcome of the study is expected to shed light on attitude of the beneficiaries towards such programmes and the extent of benefits derived from them by the target groups.

1.7 Scope and Limitations of the Study

This study assessed the contribution of the National Programme for Food Security on households' food security for the period of ten years, that between 2001 and 2011.

The study was revolved around three key pillars namely: food availability, food accessibility and stability (FAO, 1996). The reason is that a nation whose food production level is unable to satisfy these three criteria is said to be food insecure. The problem of ensuring adequate food security is solved by relying on domestic production and imports, access to food through function of purchasing power, to sustainable livelihoods and employment opportunities to stabilize the accessibility.

This study would look into food security at household level by specifically concentrating on Nation Programme for Food Security (NPFS) which is expectedly designed to improve people's food security especially through local production. The reason is that effective implementation of government policies would indisputably boost the productivity of food capacity of the beneficiaries as well as the empowerment of the beneficiaries. The surplus from the produced food items can be marketed to earn the desired income needed to stabilize access to food.

Similarly, the scope of this study would inferentially mean involving all states of the federation including the Federal Capital Territory in terms of assessing this programme in relation to food security in Nigeria. This is however impossible within the context of time and limited financial resources. Therefore, this study would be limited to a state in each of the three identified climatic zones in the country. The sample states from each climatic zone are: Jigawa (Arid Zones), Semi-humid, and Osun

(Very Humid and Humid). It is also pertinent to observe that the components of these zones have different vegetation peculiarities that can aid or even deter farming activities as well as production of varieties of food crops in Nigeria. Virtually all the three zones that make up the diverse rainfall pattern in Nigeria claimed to have comparative advantage in terms of crops that can be best produced (Vision 2020 Report, 2009).

The limitations of the study are as follows:

This thesis is limited to food security policy, with focus on the three key indicators namely availability, accessibility and stability; it did not cover the nutritional aspect of food.

The work is also limited to the beneficiaries' National Programme for Food Security household. This was chosen because the household still remains the target population for government policies.

The work is also limited to a cross-sectional data collection. Given the limited time for this study the work could only collect data on food security at one point in time.

The study also confronted with the following problems during the fieldwork, but did not reduce the quality.

The earlier proposed State's Agricultural Development Projects (ADP) to determine the sample population as well as draw respondents from each sampled site was probably the greatest limitation of this study.

The reason is that, using the State's Agricultural Development Projects record of beneficiaries in each site became practically impossible due to the following reasons:

1. The composition of both the primary groups and Apex groups was not uniform.

   For easy administration, each site was expected to have primary groups with range between 25-30 members and 30 primary groups in each site. But the available documents from the State's ADP shown variation in the composition of the primary group members and number of the primary groups in all sampled sites. For instance, the primary group members ranged between 2 to 34 members in all the sampled states. This goes down to the number of the primary groups in the sites. Some sites have 10 primary groups while others have 66 primary groups.

2. There are some primary groups that no longer exist in reality. This problem was first of all attributed to the absconded of the beneficiaries immediately after collecting the loan. Those who absconded explained that the loan was a national cake, the second reason was death of some members of this group. Since the programme did not have any serious legal backing on loan recovery, it was difficult to recover loan from members who died. These problems cut across all the registered primary groups in all the sampled sites. It was as a result of these problems that the remaining available active primary group members agreed to adopt Apex Group meeting since they cannot form a quorum at their various groups. Therefore in each sampled Site, Apex Group was meeting a least once in a month. There are some primary groups that appeared on the list but did not have members.

Once these problems were identified the list from State's ADP was discarded and the list of the active members from Apex Group from each sampled site in all the three states was adopted for the study.

For interview, the major problem was how to locate FAO officials. This researcher's first visit to FAO office in Abuja yielded no positive result because the researcher was told to book an appointment on line. The researcher was made to understand that since the incidence of terrorist attack on the United Nations Building in Abuja any transactions with the UN Agencies (including FAO) in Nigeria had to be on appointment. The researcher sent an e-mail to the FAO via their e-mail address that was available on their official web-site. After one and half months, there was no reply. The researcher equally tried the phone number that is available in the site it was not reachable. The researcher went back, precisely after two months and one of the security men said they could only help if they had an introduction letter directly addressed to the organization instead of "to whom it may concern". That was how the appointment was made.

1.9 Organization of the Study

This study is organized into six chapters. Chapter one is the introduction, it comprises of the background to the study, the statement of the problem, the objectives of the study, research questions, the significance of the study, the scope and limitations of the study and the arrangement of chapters. Chapter two focuses on the review of relevant literature and theoretical framework. In this chapter, existing scholarly works relating to the conceptual clarifications on concepts such as food security, the determinant of food security, challenges to food access, the position of food security in politics, the nexus between human rights and food security, the state and food security, the trend of food security in Nigeria; food insecurity and its implications, agriculture and the Nigerian economy, while entitlement approach was used as theoretical framework of analysis. Chapter three contains the research methodology. Here, the method of collecting data was explained. In chapter four, attention was paid to the historical development and philosophy of the National Programme for Food Security (NPFS). Chapter five deals with presentation and analysis of data collected. The final chapter of the study contains the summary, conclusion and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.0 Introduction

In this chapter, scholarly views related to the topic of this study would be reviewed, thus, assisting the researcher in identifying the existing gap in the literature to be filled. The review was done under both thematic and theoretical perspectives. The following sub-headings: the concept of food security; agricultural policies; challenges to food access; food security and politics; food security and human rights; the trend of food security in Nigeria; and food insecurity and its implications and the theoretical framework.

2.1 The Concept of Food Security

In the last decade, most countries of the world is focused on the adequacy of food production to meet domestic needs (FAO, 1996). This development shapes the initial meaning given to food security. At the 1974 World Food Summit for instance, food security was defined as availability at all times of adequate supplies of food stuff to sustain a steady expansion of consumption and to offset fluctuations in production and prices (FAO, undated). Based on this definition, many countries have attempted to pursue policies for food 'self-sufficiency' when such policies are extremely inefficient (Paul, 1998). The drive towards self-sufficiency is the realization of the leaders that a "minimum level of food self-sufficiency is a prerequisite for national security" (Paul, 1998). This formed part of the reasons why most countries in the world have tended to restrict food imports in the interest of promoting food self-sufficiency domestically.

Esu (2000) argued that food security refers to "self-sufficiency in food production, preservation and exchange". He further identified the characteristics of food security as follows:

i. Capacity to produce and store sufficient food to meet basic food needs for all groups;

ii. Maximum action and self-determination (without implying autarky, that is national economic sufficiency and independence), reducing vulnerability to international market fluctuations and political pressures;

iii. Reliability, such that seasonal, cyclical and other variations in access to food are minimal;

iv. Sustain ability such that the ecological system is protected and improved over time; and

v. Equity in distributional and dependable access to adequate food for all social groups

Food security is a concept that has evolved around the Food Availability Decline Theory in the mid-70s. The concept of food security focuses on aggregate food supplies at national and global level; the analysts advocated self-sufficiency in production as a strategy for nations to achieve food security (Sen, 1981). This definition, according to Anne and Tagel (2011), focused on supply side and overlooked the multiple forces that in many ways affect food access. The focus of food security definitions have shifted from global and national level to households and individual levels. At this level, food security is said to exist when all people at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (FAO, 1996).

The scope of this definition was later extended by the Food and Agriculture Organization (William & Qamar, 2003) to include individual and household level access. This reason is that large number of a population may be living in hunger even if the country had sufficient food in the aggregate during normal times. Though, the world, as Seid (in Akarue & Bakporhe, 2013) rightly observes, may have enough food to feed everyone, there are countries, regions, villages, households and individual that are not able to meet their food needs. The widely accepted 1996 World Food Summit definition reinforces the multidimensional nature of food security as including food accessibility, availability, utilization, and stability. The scope of this definition is built on three pillars namely; food availability, that is, sufficient quantities of food available on a consistent basis, food access, the condition of having sufficient resources to obtain appropriate foods for a nutritious diet and finally, food use: appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation.

Food security is, thus, seen as "access by all people at all times to have enough food for active, healthy life" (World Bank, 1986). The World Bank described food security as essentially a matter of ensuring effective demand rather than a question of food supply. The relationship among poverty, hunger and the food problem was gaining recognition, and vulnerable groups were beginning to be defined. Thus, what the foregoing suggests is that these definitions place more emphasis on availability, access and utilization. This definition would, therefore, conveniently serve as a working definition for this work.

The opposite of food security is food insecurity. According to Devereux *et al* (2008) food insecurity refers to lack of access to adequate diet, which can either be temporary or continuous. Absence of food security is food insecurity; food insecurity on the other hand represents lack of access to enough food and can either be chronic or temporary. Adeoti (1989) opine that chronic food insecurity arises from lack of resources to acquire and produce food thereby leading to persistent inadequate diet. FAO (2010) refers to food insecurity as the consequences of inadequate consumption of nutritious food bearing in mind that the physiological use of food is within the domain of nutrition and health. When individuals cannot provide enough food for their families, it leads to hunger and poor health. Poor health reduces one's ability to work and live a productive healthy life. Poor human development destabilizes a country's potential for economic development for generations to come (Otaha, 2013).

National Academy of Sciences, (2006) refers to food insecurity as the social and economic problem of lack of food due to resource or other constraints not voluntary fasting or dieting or because of illness, or for other reasons. Thus, the Academy posited that food insecurity is experienced when there is uncertainty about future food availability and access. Insufficiency in the amount and kind of food required for a healthy lifestyle or, the need to use socially unacceptable ways to acquire food (National Academy of Sciences, 2006).

Food insecurity, according to FAO (2002), is classified into chronic and transitory. Chronic food insecurity occurs when a household is persistently unable to meet the food requirements of its members over a long period of time. This situation is common with households that persistently lack the ability to either buy food or produce their own. Transitory food insecurity refers to a temporary decline in a household's access to enough food. This type of insecurity occurs when there is a seasonal scarcity, temporary illness or unemployment, instability in food prices, production, household income or combination of these factors. Transitory food insecurity can be further divided into two sub-categories namely cyclical and temporary. Cyclical food insecurity is where there is a regular pattern of food insecurity, for instance, period before harvest. Temporary food insecurity is a result of short-term shocks such as droughts, floods or conflict.

Based on the definitions of food security, the following are the dimensions of food security:

i. Food Availability: This refers to sufficient quantities of appropriate, necessary types of food from domestic production, commercial imports, and other sources which are consistently available to individuals, are in reasonable proximity to them (Akinyele, 2009). Food availability is achieved when sufficient quantities of food are consistently available to all individuals within a country. Such food can be supplied through household production, other domestic outputs, commercial imports or food assistance (FAO, 2003). In this context, it entails physical existence of food both at national and household and individual levels. At the national level, food availability is combination of domestic food production, commercial food imports, food aid, and domestic food stocks (Akinyele, 2009; Adenegan, 2004). This dimension addresses supply side of the food security and expects sufficient quantities of quality food from domestic agriculture production or import. This dimension can be assessed or measured by level of domestic food production, food importation and food aid. At household level, food could be from own production or bought from the local markets.

2.1.2 Domestic Food Production: The country that pursues food self-sufficiently is reluctant to rely on the international market for food supplies and will rule out imports as a component of their food security policy (Alexander & Lucky, 2010). In Nigeria for instance, efforts to boost domestic food production was clearly demonstrated by the government through various agricultural policies since 1960. This according to UNDP (2012), would not only boost food production and replace food imports, but could also provide non-food exports to earn foreign exchange. Increase in agricultural productivity can also guarantee household food security because the revenue from non-food agricultural products such as cash crops finances rural investments that help increase food crop production. The revenue can also serve as foreign exchange for food import.

The available data shows that food production in Africa is increasing, but the demand is higher as available energy decline per capita (FAO, 2006). The very modest growth in production has been primarily through area expansion, with stagnant yields per hectare, particularly for cereals. In 2007, the United Nations Population Division report reveals that cereals yields in Sub-Saharan Africa increased by 29 percent between 1961-63 and 2003-05 compared to 177 percent in Asia and 144 percent in Latin America. Over the same period the population in Sub-Saharan Africa grew by 216 percent (Jason, 2012). The productive capacity of the region's food systems has not matched the surging demand for food (Monty ND). In Nigeria for instance, domestic food production (staples) stood at 30.8 million tons in 1970 and declined to 15.1 million tons in 1979. Thereafter, it rose to about 123.9 million tons in 2002. With this development, the annual growth rate in domestic production in 70s, according to Arosanyin (2006), shows a negative growth. With the exception of 1983, the positive annual growth rates were recorded between 1980 and 2002. The highest annual growth rate for this period was recorded in 1984 at 107.5 percent. This clearly shows the potential of Nigeria to increase domestic food production to meet local demand as well as export (Arosanyin, 2006).

In his study, Abdulrahaman (2013) established that between 2000 and 2012, Nigerian population witnessed an increase of 46,785,900 million people, which is equivalent to 37.9 percent increase. The output of agricultural production during this period is inconsistent to complement the growing population. In 2006, for instance, the major agricultural output was 130,574,500 million metric tons and the volume increased to 139,315,100 million metric tons in 2007, which account for an increase of 8,740,600 million metric tons or an increase of 6.7 percent. Nigeria recorded output decrease of 24,522,300 million metric tons (14.61%) between 2010 and 2011 production year (Faostat 2001, CBN Annual Bulletin 2005 & Abdulrahaman 2013).

2.1.3 Food Importation: As explained in the last section, production of major food items has not been sufficient to meet the demand of an increasing population. This creates a big gap between national supply and demands for food which can only be filled through food importation. Lack of self-sufficiency in domestic production and comparative advantage usually provide justification for food importation with the ultimate goal of making the nation food secure (Arosanyin, 2006). On this note, Adenega *et al* (2004) argues that food importation is playing both complementary and positive role with domestic food production in improving local diets or replacing a potential output, which had been exploited. Food importation plays a complementary role when commodities that dominated the import baskets are food that cannot be produced locally as well as processed foods like sugar, vegetable fruits and livestock required to improve the local diet of the people. Food importation plays a positive role in order to close the gap created by growing population which domestic production cannot cope with.

At national level, Nigeria is a net food importer and food import bill. According to Adebayo (2010), the country's food import bill has maintained an upward movement despite various governments' restrictive agricultural trade and interventionist policies. A review of food importation in Nigeria reveals that food imports are taking an increasing share of total export earnings. In Nigeria, cost of food importation in 1970 worth N57.7 million this constituted about 7.63 percent of the total import bill for the year. In 1980, a total of N1.44 billion was spent on food import which constituted 15.80 percent. The percentage of food share from import bill rose to about 20 percent in 1983 when the food worth N1.76 billion was import to the country. The share of food import fell to 3.50 percent of total import in 1991(Arosanyin, 2006). This clearly demonstrates that since 1970 there was no year Nigeria spent less than 6 percent of her total import bill on food items. Though, in Nigeria food importation is playing a positive and complementary role.

2.1.4 Food Aid: In a situation where the country is unable to acquire food needed through domestic and net import, such country is expected to rely on food aid from abroad. Many countries in Africa received emergency food aid due to their inability to produce and import food from world market. Food aid programmes, according to Adenega *et al* (2004), provide people in need with food rather than cash because the food is nutritionally more effective. Four basic principles, at its founding, governed food aid activity. Food aid should directly feed hungry people, bring additional food to recipient countries provided from the donor's surplus stock and be given under short-term commitment sensitive to the political and economic goals of donors. Hunger is most visible and compelling symptom of Sub-Saharan Africa. Over the decade, Sub-Saharan African countries have been significant net importers of food notably cereals. The volume of cereals importation jumped from 8.2 million in 1989 to 11.4 million tons in 1991. Inability of most of these countries to cope with rising food imports has led to an increasing volume of food aid into the region (Adenega *et al* 2004). This development helped to avert short-term losses of life in some African countries

2.1.5 Access to Food: Food availability does not guarantee for households and individuals within a state to be food secure, being able to access food is central to food security (UNDP, 2012). Access to food is defined by an individual's capacity, in terms of income or other resources, to obtain levels of appropriate foods needed to maintain consumption of an adequate diet and nutritional level (Akinyele, 2009). It is also referred to as ability of nations and households to acquire sufficient food on sustainable basis and address issues of purchasing power and consumption behavior (Abu, 2012). Food access is ensured when households and all individuals within them have adequate resources to obtain appropriate food for a nutritional diet. Access depends upon income available to the household, on the distribution of income within the household and on the price of food (William & Qamar, 2003). Having sufficient food at national level cannot be taken as the proof that all the households or individuals in the country have enough food to eat. Food access also is a function of the physical, social, and policy environment which determines how effectively households are able to use their resources to obtain appropriate foods for a nutritious diet (Riely *et al*, 1999).

Food enters a household in a variety of ways. A household may produce food when it has the human and material resources to do so and such a household will have direct access to food. The ability of farmers to produce food in adequate amounts and sufficient variety depends to a large extent on their access to resources. The level of resources (capital, labor, and knowledge and others) at the disposal of households and individuals (to a large extent) determines their economic access to required food, in addition to the prevailing market prices of the food commodities (UNDP, 2012). The ability of most of households to generate a sufficient income which can be used to meet food needs is however, undermined as a result of high level of poverty. This explains why when people go hungry; it is typically not because food is unavailable but because they are too poor to acquire it (Akinyele, 2009).

Food security as noted above is not only depended on the availability of food, but equally on the strategies employed to acquire it. The ability to establish access to food supply, either at global or regional, even at individual level can be considered both in terms of production and people's ability to exchange their assets for food (Akinyele, 2009).

Food accessibility encompasses both economic and physical accessibility (UNDP, 2012). Drastic change in any of these dimensions may seriously disrupt production strategies and threatens food access of affected households. Economic accessibility applies to any acquisition pattern or entitlement through which people procure their food and is a measure of the extent to which it is satisfactory for the enjoyment of right to adequate food.

Physical accessibility implies that adequate food must be accessible to everyone, including physically vulnerable individuals. Food enters a household in a variety of ways. A household may produce food when it has the human and material resources to do so; such households have direct access to food. The ability of farmers to produce food in adequate amounts and sufficient variety depends to a large extent on their access to resources. Food is also purchased. Indeed, most households purchased a portion of their dietary requirement depending on need and affordability. This type of food acquisition represents economic access.

2.1.6 Use of Food: Food availability and accessibility does not automatically guarantee good nutrition and human development (UNDP, 2012). Food utilization is the proper biological use of food, requiring a diet providing sufficient energy and essential nutrients, potable water, and adequate sanitation. Effective food utilization depends on knowledge within the household of food storage and processing techniques, basic principles of nutrition and proper childcare. Food utilization is another dimension of food security which addresses not only how much food the people eat but what and how they eat (Akinyele, 2009). Food security depends on using food properly, which includes eating a balances diet; avoiding nutrient losses during food preparation, having clean water and adequate sanitation and energy to ensure basic hygiene for food preparation, storage and consumption and ensuring basic capabilities in health and education (UNDP, 2009). Use of food describes the socio-economic aspects of household food and nutrition security, determined by knowledge and habits. Use of food, most especially when nutritious food is available and accessible, anchor on the discretion of the household to decide on what food to purchase and how to prepare it as well as how to consume and allocate it within the household. And anything short of these can lead to malnutrition.

Malnutrition has serious consequences on human development. At national level, malnutrition slows economic growth and deepens poverty through direct losses in productivity from poor physical and mental performance of work force. Secondly, it also slows economic growth and deepens poverty through indirect losses from reduced working and cognitive capacity of the working population at present and in the future. Finally it slows economic growth and deepens poverty through losses in resources due to increase in health care cost (World Bank 2006). At individual level, under-nutrition reduces individual income generation potential, lowers children's schooling performance which can lead to intergenerational transmission of poverty and illness (Black *et al*, 2008). The economic costs of malnutrition are substantial. Only productivity losses to individuals are conservatively estimated at more than 10 percent of lifetime earnings and losses to Gross Domestic Product (GDP) at 2 to 3 percent on average (World Bank, 2006).

Malnutrition leaves people more susceptible to infections and slows or prevents recovery. This undermines household food entitlements by reducing productivity and increasing spending on healthcare in Sub Saharan Africa (UNDP, 2012). Thus, Africa's health systems are among the weakest in the world. On average in Africa, the region has 1 doctor per 5,300 people, less than a seventh of the world average (UNDP, 2012). In Nigeria, access to the health service is poor. In 2005, 80 percent of households in urban areas and 66 percent of rural areas households have to travel 5 kilometers before they can access Primary Health Care (PHC) (Akinyele, 2009).

Only a few Nigerians have access to safe water and sanitation. In 2005, 42 percent of Nigerian households had access to safe sources of drinking water (pipe-borne water, public taps and protected wells); while 74 percent have access to an improved sanitation facility. Among the households that did not share their facility, 37 percent of them have access to an improved sanitation facility (World Bank, 2005).

2.1.7 Food Stability: This dimension addresses the stability of the other three dimensions over time. People cannot be considered food secure until they feel so and they do not feel food secure until there is stability of availability, accessibility and proper utilization condition. Instability of market price of staple food and inadequate risk bearing capacity of the people in the case of adverse condition (e.g. natural disaster, unexpected weather etc), political instability and unemployment are the major factors affecting stability of the dimensions of food security.

The determinants of food security are heavily stressed in Sub-Saharan Africa by vulnerability to shocks, price volatility and violence and conflicts (UNDP, 2012). Interventions to address this dimension are saving and loan policy, inter-household food exchange, grain bank, food storage, etc.

2.2 Household Food Security

Food security can be measured both at national, household and individual levels (Maxwell & Smith, 1997). Anderson (in du Toit, 2011) distinguishes between food security at national, household and individual levels. This distinction is essential since the approaches for measuring food security are not the same. Food security at national level entails the condition whereby the nation is able to produce, import, retain and sustain food needed to support its population with minimum per capita nutritional standards. This method contributes substantially to policy analysis and is crucial to determining where food insecurity exists, monitoring its trends over time and predicting future food insecurity Jacobs & Summer, in (Maxwell & Smith, 1997). Thus, availability of food at national level is a necessary condition for achieving food security but it is not sufficient. The reason is not far from the fact that access to food at household level depends on how food markets and the distribution system function rather than availability via local production.

This has given prominent access to food security assessments at household level. Thus, household is regarded as food secure when the members of the family do not live in hunger or fear of starvation. It was furthered observed that household is food secured when it has access to food needed for a healthy life all its members, adequate in terms of quality, quantity, socially and culturally acceptable and when it is not at risk of losing such access (UNDP, 1999; Alade and Eniola, 2012).

And for households to be food secure, they must have the means to produce or purchase the food that is needed and ensure that the dietary requirements of all family members are met. The household food security assessment are usually done in form of food expenditure surveys, which are used to capture issues of accessibility to food hence enabling more accurate identification of food insecure households, social groups and regions (Maxwell and Smith, 1997). This approach is relatively easy but its major problem is its inability to capture intral-household distribution of food.

2.3 Food Security and Human Rights

The FAO (2002) has declared that the right to food is a human right and not a political option that governments can choose to implement or ignore. Acknowledging this means obligations for governments. It is not normal for the governments to observe their obligations arising from economic and commercial agreements on the international level at the detriment of ligations regarding human rights, which are, moreover, often incompatible with trade agreements.

The right to food was recognized for the first time at the international level in the1948 Universal Declaration of Human Rights. The reason is that the Declaration anchored the right to food as part of a broader set of economic, social and cultural rights. Article 25, Paragraph 1 of the declaration the signatories proclaimed that:

> Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control (FAO, 2005:3).

The importance of the UDHR lies in its being accepted today by all countries (United Nations Human Rights and FAO, 2010).

In 1966, close to twenty years after the declaration, the International Covenant on Economic, Social and Cultural Rights was adopted. In this treaty, governments recognized several economic, social and cultural rights, among which are the right to food, the right to health, the right to education, the right to adequate housing and the right to work. In Article 11 of the Covenant, governments committed themselves to taking all measures necessary to ensure:

> the right of everyone to an adequate standard of living for himself and his family, including adequate food... and to the continuous improvement of living conditions. The fundamental right of everyone to be free from hunger (UNHR/FAO, 2010:7)

These actions include improvement of methods of production, conservation and distribution of food. The Covenant also called for an equitable distribution of world food supplies (UNHR/FAO, 2010). The International Covenant on Economic, Social and Political Rights is a treaty, legally binding for the 160 countries that have ratified it as at 2012 (HLPE, 2012). The right to food, recognized in the Covenant applies to everybody, without exception.

In Africa, the right to food is protected by the 1981 African Charter on Human and Peoples' Rights. The Charter does not explicitly recognize the right to food. However, several other rights, such as the right to health are recognized (Article 16) and can be interpreted as protecting the right to food. The Charter also stipulates in Article 60 that African governments should implement the right to food recognized by these governments on the international level, such as by their accepting the International Covenant (OAU, 1999). All countries that have accepted the Charter and the International Covenant thus have the obligation to take measures to fulfill the right of their people to food. At national level, Article 16 of Nigeria Constitution states that:

> The State shall assure, within the context of the ideals and objectives for which provisions are made in this constitution... that suitable and adequate shelter, suitable and adequate food, reasonable living wages, are provided for all citizens

Therefore, as a provider of the public good, it is the duty of the state to ensure that the public goods needed by the societies to remain peaceful and prosperous are available (Paarlberg, 2002). The international Covenant on Economic, Cultural and Social Rights (CECSR) asserts that "the fundamental right of everyone to be free from hunger" and specifies actions to be undertaken by nations to ensure freedom from hunger. These actions include improvement of methods of production, conservation and distribution of food while also achieving "the most efficient development and utilization of natural resources" through improvement in the production side of food system.

Then, the State has the primary obligation to protect and promote this right. The core obligation of the state is to take necessary action to mitigate and alleviate hunger as provided for in Paragraph 2 of article II of the Covenant, even in times of natural or other disasters. Every state is expected to ensure that everyone under its jurisdiction has access to the minimum essential food which is sufficient, nutritionally adequate and safe, to ensure his/her freedom from hunger. These obligations are defined and guaranteed by both local and international law. The state obligation, according to FAO (2010) is divided into three categories namely; the obligations to respect, protect and fulfill.

States have to respect people's existing access to food and means of obtaining food. This means that any measure which results in preventing access to food is prohibited. This obligation requires states not to take any measures that would hinder or prevent individuals from having access to adequate and nutritious food (Manitra *et al*, 2011). The right holders are at liberty to lawful and safe food. This can only be ensured via regular review of national policies and programmes related to food to ensure that they effectively respect the equal right of everyone to food (Manitra *et al*, 2011).

Secondly, states have to protect individual's enjoyment of the right to food against violations by the third parties. In addition to state prevention of third parties from destroying sources of food, it is also an obligation of the state to ensure that food put in the market is safe and nutritious. States must therefore, establish and enforce food quality and safety standards. A state must also take into account its international legal obligations regarding the right to food when entering into agreements with other states or with international organizations (FAO, 2012).

Lastly, in the obligation to fulfill the right to food, the states must be proactive in strengthening people's access to and use of resources and means of ensuring their livelihoods, including food security. Typical measures include the implementation of agrarian reform programmes or minimum income regulations. Meanwhile, in a situation where an individual or groups are unable (due to reasons above his power) to enjoy the right to food by the means at their disposal, the state has the obligation to provide it (FAO, 2012).

States must fulfill the right to food of the people who are underfed, meaning they must facilitate and provide access to food. The respect of these obligations requires that governments identify those whose rights are at risk of being violated or are being violated outright. The purpose of the obligation to facilitate the right to food is to enable these persons to have unimpeded access, through their own efforts, to an adequate diet. Concretely, governments are under obligation to take measures, according to the socio-economic, historical and geographic situation of the country.

2.4 The Trend of Food Security in Nigeria

The issue of knowing exactly the number of people who are food insecure poses a serious challenge to decision-makers and analysts as well as all programmes designed to curb the problem. This problem is as a result of inadequate data as well as operational and measurement problems (Olayemi, 1987; Ayantoye, 2011). Yet lack of precision should not stand in the way of devising and implementing policies and programs for improvement of food security.

Thus, the number of hungry people in Nigeria is over 53 million, which is about 30 percent of the country's total population of roughly 150 million; and 52 percent live under the poverty line (Ayodeji, 2010). The irony of the situation is that Nigeria was self-sufficient in food production and was indeed a net exporter of food to other regions of the world in the 1950s and 1960s. This is as a result of decline in level of food production in the country. National food expenditure data showed that almost two-thirds of total expenditure of households in 1980 was on food. This percentage rose by about 10 percent in 1985, but dropped during the period 1985-1992 (Babatunde *et al*, 2007). The Food Price Index in 1995 was about 2000 percent of the 1985 price, a period of about 9 years and the 2005 Food Price Index was almost 7000 % of the 1985 price. Rising food price invariably implies that consumer's ability to access food will be reduced unless there is income redistribution or increase in income (Adebayo, 2010). It is feared that the population figure might significantly rise due to a number of factors: Akinyele (2009) reported that, there are overwhelmingly large proportion of Nigerians who are food insecure that spread across both urban and rural communities, though most of the food insecure are found in the rural areas. CBN (2010) reported that the rate of increase in food production of 2.5 percent per annum does not keep pace with the annual population growth rate of 2.8 percent per annum. Ojo & Adebayo (2012) see increase in domestic food production as the only solution to food insecurity in Nigeria. This pattern was followed in Kughur, Omale & Lonrenge (2015), when they placed emphasis solely on the supply side. In the view of these scholars, food unavailable seems to be the only dimension of food insecurity worthy of attention. Fakiyesi (2001) also maintained that Nigeria's domestic food supply has been far short of the need of the population. Over the period 2007–2010, prices were more volatile than they had been for decades. This situations are bad for farmers (who are left not knowing how and where to invest) and worse for consumers, especially the poor, who are unable to afford basic food (Sasson, 2012).

Apart from domestic production, Nigeria has had to rely on food importation because of gap between local productions vis-a-vis population growth. The allocation of foreign exchange in Nigeria reveals that from 1999 to 2003, food alone accounted for about 14.50 percent in 1999, in 2000 was 9.90 percent, in 2001 was 11.00 percent, 13.00 percent in 2002 and 11.40 percent in 2003 (CBN, 2003). The food import bill, according to Ogbe (2004) was $5.8 billion. In the year 2000, the bill rose to $7.8

billion. The total import was $11.3 billion in 2001, but declined in 2002 to $7.0 billion, the import stood at $5.5 billion between January and June 2003. By 2009, for example, the Federal Ministry of Agriculture estimated that Nigeria was spending over $3billion annually on food imports (Ayodeji, 2010). What can be deduced from the above development is that Nigeria has economic power to access the food that is not adequately available in the country where there is surplus. Economic capability of Nigeria makes it difficult to establish the level of food insecurity at national level.

Since the major argument is that availability of food at national level does not guarantee household food security, many studies were carried out at household level to determine the level of food insecurity in the country and the studies revealed that households are not food secured. The empirical evidences on food insecurity in the country show that food insecurity differs in degree, intensity and importance. For instance, Amaka, Kenechukwu & Olisa (2016) use descriptive statistics to evaluate food security situation in Nigeria from 1991 to 2015. Their result of analysis shows that there is a shortfall in domestically produced food. According to them, population is growing at the rate of 3.2 percent compare while the growth in food production has been less than one. They attributed these problems to inconsistent government policies, environmental degradation and non-sustainable agricultural production. Jabo, Ismail, Shamsuddin, Abdullah & Maikasuwa (2015) used the World Bank Living Standard Measurement Survey (LSMS) technique to examine the incidence, depth and severity of food insecurity among rural households in Nigeria. The food security situation in Nigeria was examined using the Foster Greer and Thorbecke (FGT) class of decomposable food poverty measures that satisfy both monotonicity and transfer axioms. Their findings revealed that the food insecurity indices at national level was ($\propto$=0, 46.36, $\propto$=1, 0.43 and $\propto$=2, 1.11 for and $\propto$=0, 42.78, $\propto$=1, 0.348 and $\propto$=2, 7.45) for post-harvest seasons respectively. This suggests that almost half of the rural households in Nigeria are food insecure living on less the RDAs, however, depth and severity of food insecurity also differ. Disaggregating the households based geo-political zones and some key socio-economic characteristics, further indicates a significant differences based on the relative size of the coefficient of $\propto$. Similarly, Fakayode, *et al* (2009) used USDA Approach to assess food security situation in Nigeria. The result of their findings shows that only 12.2% of the farm households were food secure, while the remaining 87.8% of farm households are food insecure at different level of food insecurity.

Olatidoye, Jimoh & Adebusuyi (2010) used SPSS version 10 and Health Statistics (NCHS) to assess the determinant of household food security and nutritional status of children from low income households in Oyo state. The result of their finding shows that more than half of the children studied were underweight (70.0%), a large percentage of the children were found to have severe protein-energy malnutrition, while those with mild PEM were 17.3% when weight for age was considered. Their result further showed that there are certain issues associated with some socioeconomic variables and the anthropometric measurements and vulnerability of children are reflected in their anthropometry measurement result.

Using anthropometric method and biochemical method, Hart and Atinmo (1982) carried out another comparative study of nutritional status of rural and urban school age children in Rivers State of Nigeria. The study reveals that the mean anthropometric values of the rural children were lower than those of the urban although the difference was not significant. Arene & Anyaeji (2010) estimated food security among households in Nsuka metropolis Nigeria using binary logistic regression and identified income and age of the household to be the major determinants of food security.

Otunaiyia & Ibidunni (2014) used the food security index and logic regression model to analyze food security among rural farming households in Ogun state. The result shows that about 70 percent of the farming households were food secure. The study furthered reveals that dependency ratio (-0.26) and household size (-0.45) were found to aggravate probability of household food insecurity condition, while educational status of household head (1.39), farm size (0.19), membership of cooperative society (0.54), access to credit (1.06) and access to food on credit (0.70) enhance household food security status. Engaging in other off-farm activities was the most common coping strategy of the households to sustain their livelihood and escape food insecurity. Olorunfemi, Aderinnola & Ajibefun (2009) used discriminate analysis to identify the factors influencing household food security in Southwest Nigeria. The study reveals that out of three sample states (Ekiti, Osun and Ondo), only Ekiti state is food secured in the Southwest when compared daily household per caput calories and protein intake of 2.676.73 kcal and 70.44g with the FAO minimum daily per caput requirements for food security of 2,125.15kcal of energy and 65.0g of protein for food security. The study further reveals that household size, food expenditure from household income, percentage of household food expenditure for carbohydrate, for animal protein, household income per month and educational status of household heads are indicators to distinguish between food secure and food insecure household heads. Oluwatayo (2009) use probit regression model to examine the food security status of household members and non-members of cooperatives in Ekiti State, Nigeria. His findings show that household members belonging to a cooperative are more food secure than non-cooperative households. Dauda (2010) examines the interrelationship between women's status and household food security coping strategies in the metropolitan area of Lagos state, Nigeria; she identified marital status, income, education and occupation to be significant indicators of food security status.

Similarly, a study carried out in Jere Local Government of Borno state showed that majority of farm households are food insecure (Idrisa, Gwary, & Shehu, 2008). The result of the findings, according to them, further revealed that households whose heads had low level of education with large family size as well as low level of income were worse affected by incidence, depth and severity of food insecurity. Their study further revealed that coping strategies adopted included eating once per day, allowing children to eat first, eating wild fruits and buying food on credit. Also, Ahmed, Eugene and Abah (2015) used descriptive statistic, Cost-of-Calorie Function (COC) and Logit model to analyze food security among farming households in Borno State. The result of their analysis indicated that 40% of the households were food secure and the major determinants that positively influenced food security in the study area was gender, age, level of education, cooperative membership, extension agents' contact, farming experience, access to credit, income, and farm size while household size and child dependency ratio negatively influenced food security. Food diversity result showed that about 57% belong to the low food diversity group. In another study, Bamire (2010) used discriminant technique and probit regression model to analyze the effects of land use factors on food security among rural households in the dry savannah zone of Nigeria. The result of analysis shows that 75% of the households were food insecure and spending 30% of their income on food. His study further revealed that; farm size, use of land improvement techniques, age, membership of the association and access to extension services as the important determinants and predictors of food security. Abdullahi, Hassan & Ayanlere (2015) used logistic regression model to examine the determinants of food security status among rural farm households in Kaduna. The result of their findings also revealed that age, extension contact, source of labour and per capita income of respondents. The result of marginal effect, according to their findings, shows that the probability of food security among the farm households in more responsive to a change in age than to extension contact, source of labour and per capita income.

In Nasarawa State, Ibrahim & Bello (2009) used line and linear programme model to determine both the food security status and optimal farm plan that can enhanced the food security status of farming households. According to their findings, majority of the farming households (58.9%) were food insecure. The optimal farm plan recommends the production of Cassava, maize/cowpea and Benniseed and Groundnut/Yam enterprises at 0.64, 0.34, 0.35 and 0.22 ha respectively to yield a net return of 141692.89 Naira. Obayelu (2013) used descriptive statistics and multivariate-ordered Logit to analysis food security situation in Kwara and Kogi. The descriptive results of his analysis revealed that only 16% of the households were food secure (FS), 36% food insecure without hunger, 28% FS with moderate hunger and 21% food insecure with severe hunger. The results from the ordered logit revealed that geographical location, marital status, gender of the household head, household size, food dietary diversity, total household expenditure, level of education, occupation of household head, household dependency ratio, social capital and agricultural land-holding size significantly affect households food security status.

What can be deduced from the above is that majority of Nigerian households are not food secure. Some likely factors responsible for this problem of food insecurity were examined below.

2.5 Factors Responsible for Food Insecurity in Nigeria

The causes of food insecurity in Nigeria are diverse and multi-facet in nature. One of the most common causes is poverty. Going by the rate of poverty, if access to food is a basic right as rightly observed by Arosanyin (2006), then most Nigerians lack this right. Poverty constrains the ability of farming households to invest in productive assets and agricultural technologies, resulting in insufficient agricultural productivity (Paul, 2013). For instance, the percentage of the Nigerian with less than $1 a day rose from 17.7 million (27.2 percent) in 1980 to 69 percent (112,518,507) in 2010. The NBC break down of the poverty profile in the country shows that North-West and North East geo political zones recorded the highest poverty rates in the country with 77.7 percent and 76.3 percent respectively (NBS, 2012). The country poverty incidence is an indication that many households are food insecure. As Amartya Sen observed when people are food insecure it is not because food is unavailable but because people are too poor to acquire it (Sen, 1981).

Similarly, the rise in food prices is another factor that denied people access to food. Using 1985 as a base year, Adebayo (2010:141) captures the food price index as follow:

> The food price index in 1995 was about 2000 percent of the 1985 price, a period of just 9 years and in 2005 Food Price Index was almost 7000 percent of the 1985 price. Rising food prices, ceteris paribus, implies that consumers' ability to access available food supplies will be reduced greater increases are recorded in income and or income is redistributed in favour of the poor.

The composite consumer price index shows that the percentage change (increase) in consumer price index from 1999 to 2000 was 2.3 percent. Between 2000 and 2001, it recorded an increase of 28.8 percent. In 2001 and 2002, it increased by 13.1 percent and further by 6.0 percent in 2002/2003 (CBN, 2003; Hassan & Omotola, 2006). Increase in the price of food in the country is accompanied by a very sharp decline in the purchasing power of the people. This largely explains the drastic reduction in access to food by Nigerians most especially rural households. The inflationary rate has been staggering to the extent that most households find it difficult to have access to adequate food since much more naira buy only limited quantity of food (Hassan & Omotola, 2006).

Access to food from international market is also function of foreign exchange available. For country with limited foreign exchange power, economic access to food in international market is limited. Inability to access food in international market due to foreign exchange deficit explain why many countries recourse to food aid. Food aid is determined by fiscal constraints, world market prices and surplus production level (Joachim etal, 1992). Related to this phenomenon is the rate of unemployment in Nigeria. This is not far behind the fact that agricultural pursuits becoming more and more unbearable and unaffordable by the rural peasantry due to (among others) high costs of inputs, fertilizers, labor etc. The peasants have been systematically forced out of farming and to pathetically abandon farming by selling or mortgaging their farmlands to move out of the rural environment for the frivolous urban life, for wage labor and other lumen-proletarian works (UNDP, 2012).

2.6 The State and Policy Interventions to Improve Food Security

To discuss food security policy in Nigeria, it is important to emphasize that food security is not a stand-alone sector. Food security policy in the country, as it will be explained in this study, is the mixture of policies designed to stimulate agricultural production, support rural livelihoods, reduce vulnerability through safety nets, and stimulate broad based economic growth (Sahley, et al 2005). It is pertinent here to briefly review various food security intervention options available to government.

A policy intervention to improve food security is regarded as approaches which either emphasize food production and supplies or aimed at improving access to food (FAO, 2007). There are different types of policy instruments that government can use to improve household food security. But the implementation of any policy/approach depends on the types of food deficit that exists in each country. That is, the specific nature of a population's food security problem must be well understood (Joachim et al, 1992). For instance, in countries where temporary or structural production deficits are the predominant problem, there is a priority need for supply approaches. In a situation where there is spread wide of poverty, demand deficit are the main issue of concern; policy measures must be primarily geared towards employment and income generation or other measures to promote access to food of vulnerable groups (FAO, 2007).

However, for the purposes of this study, it is useful to organize interventions into four groups: price control and stabilization, safety net programs, and producer-oriented policy responses intended to support farmers to increase production.

2.6.1 Price Control and Stabilization Policy

This policy was used to stabilize domestic prices. Price stabilization is widely applied strategy to stabilize food supplies. The price support is mechanism used by governments to entice farmers to increase agricultural production. Price support can also be used to prevent food shortage. It involves setting a minimum price level received by farmers above equilibrium level. This strategy can be used to achieve price stability through direct approach, that is, setting official market prices and indirect approach; by stabilizing price through public sector market interventions. Though, indirect approach is flexible and market friendly but both can only operate when the government purchases through marketing agency, food on the market and builds up food stocks when market supplies are abundant and the prices tend to fall below desired level. Equally, they operate when the government releases food onto the marked stocking operation. In 2008 for instance, Sri Lanka government fixed maximum retail and wholesale prices for different grades of rice (*Asian Tribune, 2008*). In the same year, the Cote d Ivoire government announced emergency measures to cut prices of food and basic services in April, after protests by citizens against the rising cost of living (IRIN, 2008).

In some cases, a government needs support of the private sector or NGOs before it can control prices of basic items including food. For instance, Burkina Faso government had to negotiate with importers and wholesalers before they could announce prices for some basic staple food such as sugar, oil and rice (Mulat *et al*, 2009). Similarly, with the agreement between government and private sector, prices of rice and sugar in Jordan were printed on all packages to avoid retail mark-ups.

The other related response was storage under public control to increase domestic supply and controlled price market which allows purchases to be regulated. The response is common in a situation where there is postharvest lose. The buffer-stocks were built for the purpose of storing food most especially in the period of abundant supplies. With food in storage, government has the capacity to regulate and stabilize the prices of food from falling below the desired levels both in times of abundant supplies and when supplies are scarce. On this note, governments in many countries keep strategic grain reserves to buffer price variation and to be able to respond quickly to an acute food shortage. The intention is to reduce fluctuations and stabilized commodity prices. For instance, National grains reserve systems and state grains trading companies, together with bumper harvests have helped China escape the increases in grain prices that have hit other countries in the Asia-Pacific region (Mulat *et al*, 2009). The government of Ethiopia sold about 190,000 tonnes of wheat from its grain reserve to about 800,000 urban poor and imported 150 tonnes of wheat in August/September 2008 to meet demand in urban areas, while WFP and NGOs channel about 197,629 tonnes of food to the increasing number of people requiring food assistance (Mulat *et al*, 2009).

Reducing or eliminating tariffs and value added tax is another silent measure many countries applied to control food prices. Though, the impact of this policy on food prices, to a certain extent, depends on the gravity of the reduction; the impact of tariff reduction was only felt in few developing countries on selected food items. The reason is that most of these countries have already been involved in either multilateral agreements or regional and bilateral deals. For instance, in 2008 Nigeria government suspended all duties and levies on rice importation for the period of six months. In the same year, Nigeria government also lifted the ban on the importation of Sorghum, wheat flour and biscuits and imposed tariffs of 5, 35 and 25 percent respectively on them (GAIN Report, 2009). The reason behind this intervention measures was to cushion the impact of the global food crisis on Nigerians. Burkina Faso suspended import taxes on four food staples in February 2008 after riots over price increases (*Business Day, 2008*). In an effort to regulate the food item prices, many countries have also suspended domestic taxes on food items. In Kenya, 16 percent VAT was completely removed on rice and bread while Mongolia scrapped its value-added tax on imported wheat and flour in 2008 (*Business Day, 2008*).

These measures have the capability to provide a soft ground for price shocks but not to solve the problem of chronic food shortage. The reason is that smaller and resource-poor countries in Africa have fewer administrative and fiscal means to implement these measures.

2.6.2 Safety Net Programs

This measure is intended to avert starvation of most vulnerable groups in both urban and rural areas (Mulat *et al*, 2009). These are called the Safety Net Programs because they help vulnerable households to be protected against livelihood risks, maintain an adequate level of food consumption and improve food security (FAO, nd). The safety net instruments range from cash transfer or food vouchers, food distribution in kind, universal food subsidy, employment based safety nets. The following types were considered under review: cash based transfers, feeding programs, and food stamps.

2.6.2.1 Cash Transfers

Cash transfers seek to create incentives for individuals to invest in human resources development. The aim of this measure is to target food in secured individual/households and empowered them economically. Cash transfers may be conditional or unconditional, universal or targeted to specific groups. Conditional cash transfers, according to FAO (nd), refers to regular payments to the poor households in exchange for their compliance and participation in health, nutrition and education programmes in order to ensure human development needed to improve food security. While unconditional transfers include measures such as social pensions, child support grants or family allowances. This program gives the poor households additional resources to purchase food and other goods that are capable of improving caloric intake and quality of diet (FAO, nd).

2.6.2.2 School Feeding Programs

Targeted feeding programs are generally aimed at those persons especially vulnerable to malnutrition, usually children and women of child bearing age at low income levels. This program is achieved through either geographical targeting or school feeding program depending on the level of nutritional need and objectives of the program (Joachim *et al*, 1996). Geographical targeted feeding program focused on selected areas with high prevalence of food insecurity. School feeding has become an important component of food assistance and income support. It is viewed as a way to encourage students from poor families to keep going to school and to discourage their parents from taking them out of school. High food prices have resulted in pupils/students dropping out of school and reducing enrolment in schools. School feeding programs is also perceived as an incentive for parents to send their children to school (Joachim *et al*, 1992). For instance, in Nigeria, the Federal Government launched Nigeria's National Home Grown School Feeding Programme on 9th June 2016 as part of the Social Investment plans to tackle poverty and improve the health and education of children and other vulnerable groups (Osinbajo, 2016a). The programme is also expected to strengthen communities across the country in the following ways:

i. Increasing school enrolment and completion. The country currently has a primary school dropout rate of around 30 percent

ii. Improving child nutrition and health. Nigeria has the third largest population of chronically undernourished children in the world.

iii. Strengthening local agricultural economies by providing a school feeding market in which farmers can sell their produce (Osinbajo[2], 2016b).

2.6.2.3 Food Stamp Programs

Another measure to improve food security is food stamps programs, currently known as the Supplemental Nutrition Assistance Program in United States of America (Mulat *et al,* 1996, CBPP, 2016). This program provides eligible individual and households with benefits to buy food items at grocery stores and other participating retailers. The government will design stamps or counterfeit or credit card loaded with benefits and distributed it to low income individuals or households to purchase food at any retailer authorized to participate in the program (CBPP, 2016). In 2015, the program, according to CBPP (2016), helped more than 45 million low-income Americans to afford a nutritionally adequate diet.

Though, the experience with food stamp programs according to Joachim *et al*, (1992), shows that it is not easy to administer in Zambia and the program was eliminated as a result of large scale counterfeit of food coupons. Similarly, in the United States with the level of success the program recorded; there was a case of omission of large proportion of eligible households (Mulat *et al*, 1996).

2.6.3 Programs to Increase Food and Agricultural Production

The third type of policy response is the production oriented programs. The aim of this policy is to improve and support domestic food production through direct interventions. Direct intervention in food production also has the potential of improving domestic food production which automatically tends to reduce the prices of food items in the market. Price reduction will increase the food purchasing power of households in both the rural and urban areas. But such effects can be corrected by adopting measures in supporting producers (Mulat *et al,* 2009*).* The reason is that increase in production via producers empowerment may likely increase the sales that can translate to stable incomes of the poor households facing food security. The income generated through sales of surplus can be used to buy food items that are not available in the market.

Thus, producer supportive measures can either be actions to improve access to funds and credits facilities, reduction of import taxes, and exemption of producers from the payment of taxes on fertilizer and farm machinery. In some cases, the government provides subsidies on farm inputs so that the small-holder producers can access them at convenient price.

This does not mean that policies to increase production and supplies should be restricted to the food subsector. Joachim *et al* (1996) argued that the commercialization of agriculture provides employment as well as income to the poor households. The reason is that if a country has a comparative advantage in producing other than food crops with higher economic benefits for export; the income earned and the foreign exchange generated through the sale of such non-food crops can be used to buy more food that could not alternatively be produced locally on economical basis (Joachim *et al,* 1996). Therefore, the policies to improve food production and domestic supplies as well as other agricultural products comprise (in principle, according FAO) the following fields: agricultural research, training and extension, agricultural input supply, mechanization, irrigation, rural infrastructure and institutions, land reform, agricultural marketing and pricing policies and agricultural credits.

The relevance of this policy is that the obstacles that could hinder a better use of existing human and natural as well as technologies potentials to improve food security will be removed.

2.7 Government Interventions Policies and Programmes in Nigeria

In the above section, it was stated that food security is not a stand-alone sector. On this note, the analysis of government intervention in food production required proper understanding of the nature and dynamics of political economy of Nigerian agriculture. Dunmoye (1989) observed that the Nigerian political economy anchors on three issues. These issues are; the pattern of allocating resources acquired from oil, the determination of the direction of development and the political processing of social conflicts.

2.7.1 Agricultural Transformation in Nigeria

In the pre-colonial era, Nigerian rural communities had a fairly complex organization. These social organizations were predominantly peasant communities, producing a variety of commodities mostly to satisfy their needs with little surpluses for exchange with other commodities. Trading among the various communities was broadly based on batter. With the arrival of the colonial masters, trade by batter was replaced by money economy among the peasant communities. The goal of the colonial administration at that time was mainly surplus extraction to support British economy (Ayoola, 2001).

At the inception of the colonial administration, Nigerian economy was integrated into the world capitalist system. This, to Omoyibo (2010), is a deliberate policy to debase Nigerian economy from productive capacity in order to export and entrenched capitalism. This development exposed Nigerian economy to both internal generated crises and dislocation arising from global capitalist crises. The reason is that the new economic system is not accompanied with serious transformation of organization of production. The integration deprived majority of the peasant farmers' access to factor of production so that labour will be available for the production of export crops and for other servicing sectors (Dunmoye, 1986). This period only witnessed the involvement of colonial government, the provision of conductive environment for economic to growth through infrastructure, like railway and harbours, that facilitated the exploitation of Agricultural produce (Dunmoye, 1986).

During the colonial era, the exploitation took different dimension and patterns in the colonies. For instance, land was alienated and appropriated for the production of the desired agricultural commodities. Peasant commodity production was disrupted and hence directed and regimented towards cash crop production for extraction and export. The surplus derived from sales of agricultural produce was not being reinvested to expand the sector instead it was used for the maintenance of the colonial administrative purpose.

Similarly, the colonial government failed to introduce new technology to farming system and most of the farm surplus Nigeria experienced during the period was as a result of expansion in land under-cultivation coupled with available labour. The above argument explains why most of the government agricultural policies and programmes have always been in favour of capitalist form of production.

At independence, the Nigerian economy evolved into what Dunmoye (1986) called a 'neo-colonial and dependence relations as petty bourgeoisie assumed political power. The new political elite continued the agricultural policy of colonial administration. The government at both Federal and Regional level modified tax system on most of agricultural produce. The centrality of agriculture to the Nigeria economy prompted all the regional governments to become directly involved in the planning and execution of agricultural projects. They maintained the existing Agricultural Boards established by colonial government in addition to the new ones established by the post-colonial government. The main objective of these boards was to help government regulate prices of farm produce and generate revenue for government which can only be achieved when the price paid to farmers was less than what was obtained in the market (Monye-Emina, 2007). The focus of public policy on agriculture by the regional governments was mainly on establishment of large scale plantations or farm settlements which was rejected by the report an Expert Report in 1979 (Dunmoye, 1986).

The Nigerian economy after independence could reasonably be described as an agricultural economy because agriculture served as the engine of growth of the overall economy (Ogen, 2003). During this period, Nigeria was the world's second largest producer of cocoa, largest exporter of palm kernel and largest producer and exporter of palm oil. Nigeria was also a leading exporter of other major commodities such as cotton, groundnut, rubber and hides and skin (Adesina, 2012). The agricultural sector contributed over 60% of the GDP in the 1960s and despite the reliance of Nigerian peasant farmers on traditional tools and indigenous farming methods, these farmers produced 70% of Nigeria's exports and 95% of its food needs (Lawal, 1997).

The sector also accounted for more than 50 percent of the Gross Domestic Product (GDP) and more than 75 percent of export earnings. Agriculture sector’s contribution in the area of crops was about 80%, livestock 13%, forestry 3% and fishery 4%. In the 60s, Nigeria accounted for 42% of the world's exports of groundnuts. Her total export volume was 502, 000 MT and this declined to zero by 2008. Similarly in groundnuts production, Nigeria lost her leadership position to countries like USA, China and Argentina. While the production of palm oil declined to the extent that the export volume went down from 167,000 MT in 1961 to 25,000 MT in 2008 (Adeshina, 2012).

Indeed, the contribution of the sector to the total GDP has fallen over the decades; the available statistic shows that between 1960 and 1970, agricultural sector contributed 55.6 percent to the GDP. The sector’s contribution in 1971-1980 is 24.4 percent and later rose to 32.3, 34.2 and 40.3 percent in 1981-1990, 1991-2000, and 2001-2009 respectively (National Bureau of Statistics, 2011). This performance is attributed to the dominance of subsistence farmers and their reliance on rudimentary farm equipment and low technology. Another feature of the sector is under capitalization which results in low yield and declining output, among other (Sanusi, 2010 and CBN, 2008).

2.7.2 Food Sub Sector of Agriculture

In the area of food production, the agriculture sector supplied 95 percent of food needs in the 1960s. The overall trends of food production in Nigeria can be ascertained, but little is known about the structure of the demand for staple crops. This relative lack of knowledge about import and export flows with neighbouring countries makes it difficult to establish an overall food assessment. Crops production in Nigeria is dominated by cereal, root and tuber crops. The most important food crops are yam and cassava in the South and sorghum (Guinea corn) and millet in the North (Vision 2020 Report, 2009).

Upon discovery of oil, the pattern of food production changed as this period witnessed the stagnation of agricultural activities to the extent that Nigeria once, one of the world's leading producers of some agricultural goods became a net importer of some of the products it produced earlier especially food. The contribution of agriculture to food production fell to the extent that in mid 70s, Nigeria became a net importer of food to cater for her growing population. Between 1973 and 1980, a total of 7.07 million tons of wheat, 1.62 million tons of rice and 431,000 tons of maize were imported. Thus, from N47.8 million in the 60s, the cost of food imports in Nigeria rose to N88.2 million in 1970 and N1, 027.0 million in 1988 (Alkali, 1997:19-21). This development turns Nigeria to be the largest importer of rice in the world (Adesina, 2012).

Thus, with the discovery of crude oil, agriculture lost its domineering position in terms of contribution to GDP, foreign earnings and government revenue. The reason for this is examine in the next sub section.

2.7.3 Oil Sector and the Nigerian Economy

Crude oil play significant role in Nigeria's economy. The revenue generated from the oil sector provides a fiscal base for the Nigerian government to pilot the nation's economic activities. With oil revenue the central government exercised supreme power over other tiers of government (that is states and local government areas). The significance of the sector to the Nigeria state was also noticed in the area of foreign relation. The revenue acquired helps the government to regulate and adjust the relations between capitalist and non-capitalist modes of production through interventionist policies and programmes (Dunmoye, 1986).

The oil industry has continued to play important roles in the nation's economy as it contributed about 90 percent of foreign exchange earnings (Aghalino, 2007). The sector also provides about 41 percent of Gross Domestic Product (GDP), and 88 percent of the Federal Government collectable revenue. This strategic position of the sector in the Nigeria economy turned the sector to instrument of financing other sectors of the economy. These were manifested in various government interventions (programmes and policies) in agriculture, health, industry and so on. The sector also plays a leading role in political stability. The Federal government, with oil revenue, has a strong economic power with other federating units (States and local government). In line with political stability, the sector also assists the government to substantiate its power beyond administrative cities or town.

The central position of the Oil sector in the Nigerian economy makes Nigeria a mono economic country. Over reliance on oil industry for revenue made Nigeria a "Rentier State" (Dunmoye, 1986). Rentier state refers to countries whose larger part of sources of revenue on regular basis come from external rent. The characteristic of rentier states is that the generated revenue of such countries has very little relationship with production of such countries domestic economies. The oil revenue enhanced the potential of oil producing state to embark on large public expenditure programmes without resorting to taxation or borrowing (Dunmoye, 1986). The Nigerian state is a rentier state without a production base where the forces of production and social relations of production are unrelated. It is noted that Nigerians are not creating wealth; people are only interested in sharing the revenue that accrued to the state from oil. The political elites are constantly seen fighting among themselves to get a share but not for production, for appropriation and consumption which has made the State a rentier one based on clientship patronage.

However, the root of this structure is attributed to a deliberate policy by the colonialists to incapacitate their colonial states from productive capacities in order to entrench capitalism. The productive forces were weakened, given no room for productive activities which led to clientele patronage on government and political positions. On this note, Soludo (2000:5) observed that:

> In Nigeria, the excessive dependence on oil was compounded by the concentration of the commanding heights of the economy in the hands of Government. Government then became the fastest and cheapest means of making quick money, a rentier state emerged, intensifying the politics of 'sharing' rather than 'production'. This created a horde of 'rent-entrepreneur', that is 'Big men' without any productive source of livelihood except proximity to state power.

Soludo further asserts that majority of Nigerian elites do nothing for a living other than government patronage and this has led to distortion of the value system. The Nigerian State lack a productive base anchored on production economy that would transform the society and people. Thus, large numbers of the population are peasant farmers who live in the rural areas.

2.7.4 Peasant Farming

There is a consensus amongst the food specialized agencies and analysts that smallholder farmers have huge potential to increase food production, improving their lives and contributing to greater food security (Olayide *et al*, 1980). Peasant farming characterizes agricultural practice in Nigeria. Farming families engage in subsistence farming in which family needs determine the scale of production and wherein small plots of land are cultivated by individual owners or sub-owners following crude methods without much control on the yields. Family farms use mainly family labour which could be augmented with minor hired labour and labour exchanges with other farmers at peak seasons (Dunmoye, 1989). The essential factors of production – land, labour, and capital are provided within the family. This system does not make adequate use of modern farming techniques, capital input, advisory services and market information. The technology of production is not modern and involves a lot of drudgery. Also there is the problem of lack of or inadequate infrastructural facilities. Peasant agriculture takes care mainly the food needs of the farm family and produces little surplus for sale. This farming system, according to Attah (2010), involves about 95% of Nigerian farmers, while farmers employed on corporate and government supported large-scale farms account for only about 5 percent. It is this 5% that has continued to receive priority attention in governments' efforts to promote agriculture in Nigeria. Nigerian agriculture has being dominated by small-scale farming on small farms, family-owned, rented, or leased. The major staple foods produced by the farmers are sorghum, yam, millet, cassava, and maize, as well as livestock which give a majority of Nigerians the amount of carbohydrate and protein they need.

Going by international standards (all farm less than 10 hectares are classified as small farm), then 80 percent of farmers in Nigeria cultivate small scale farm. For instance, a demographic survey carried out in Nigeria in 2004 shows that the small-scale farms, ranges from 0.10 to 5.99-hectares, medium scale, 6.0-9.99 and large scale above 10 hectares (Apata *et al,* 2011). With these classification small scale constitute 84.49 percent, medium scale accounted for 11.28 percent, while large scale equally constitute 4.23 percent respectively (Oksana, 2005; Antman & Mckenzie, 2005; Dorward *et al*, 2005; NBS, 2006).

2.7.5 Agricultural Policy in Nigeria

It is as a result of the position of agriculture to Nigerian economy, that successive governments in Nigeria have adopted different agricultural policies and programmes aimed at increasing agricultural productivity as well as improving the level food security both at the national and household level.

Historically, the agricultural policies geared towards food production in Nigeria received little attention during colonial era. The basic philosophy of colonial agricultural policies mainly focused on forest matters with less emphasis on food and animal production. Thus, the earlier interest of agricultural policies like Forest policy (1937), Forest Policy (1945), Agricultural Policy (1946), Policy for the Marketing of Oils, Oil Seeds and Cotton (1948), Forest Policy for Western Region (1952), Western Nigeria Policy on Agricultural and Natural Resources (1959) were focused on forest matters with less emphasis on food and animal production in Nigeria. The major idea of development in this era, according to Iwuchukwu and Igbokwe (2012), was to satisfy the demand for raw materials in metropolitan Britain.

Agricultural policy framework in Nigeria has gone through a number of fundamental changes. These changes affect the philosophical stance of government on the content of agricultural development and its roles in the development process of Nigeria. The philosophical trend, according to Ayoola (2001), is divided into three stages.

The first agricultural philosophical trend identified by Ayoola (2001) is gradual departure from sub-sectorial, regional or commodity based policy declarations towards the articulation of centralized and comprehensive agricultural policies. The agricultural policies in pre-colonial era encouraged the demarcation of the country into the Western

Region (cocoa), Northern Region (groundnut) and Eastern Region (oil palm). The period featured lack of the central co-ordination, which in some cases led to wastage of national resources and duplication of efforts in each region (Iwuchukwu & Igbokwe, 2012). The harmonization of regional agricultural policies into a single national policy document enhanced the internal comparative advantage arising from agro-ecological specialization of the country as well as wasteful duplication of efforts (Ayoola, 2001). This invariably suggests that government policies are expected to stimulate, direct and in some cases even control private economic activities so as to ensure a harmonious relationship between the desires of private business operators and the social objectives of the central government.

The second trend as argued by Ayoola (2001) is the changing of agricultural philosophy gradually from the need to support the metropolitan British economy during colonial period to an inward-looking posture. The colonial agricultural policy is tilted towards extraction of surplus philosophy. The welfare of people at that period depended solely on the residual outcome of the surplus extraction process. As an independent state, government pursues inward-looking policies that will add positively to the welfare of its citizens (Ayoola, 2001). This is contained in the second development plan. The plan states that: “all government policies and actions should be guided solely by the best interests of the people of Nigeria”. These are similar to ideas of subsequent plans (Garba, 2000).

The agricultural policies in the development plans are supposed to target nutritional requirements of the population, production (food and export crops), rural employment, and institutional environment of private economic agents engaged in agricultural activities. Meanwhile, Garba (2000) observed that the plans do not quantify the agricultural policy targets. For instance, the second plan equally did not specify the numerical values of the nutritional targets. The third and fourth plans specified values for expected protein consumption, but only the fourth plan provided numerical values for calorie consumption. It could be observed that the expected value of protein intake in the fourth plan (49.7grams) is between 17.2 percent and 23.5 percent less than the target in the third plan (60 to 65 grams). It is not clear whether the expected protein intake in the fourth plan was adjusted downwards comparing with global nutritional standards.

Another stage is the deregulation of agricultural sector in Nigeria. The government at this point is expected to do away with highly subsidized agricultural production and encourage free-market agricultural economy. In this regard, the government embarked on the deregulation programme which eventually led to the abolition of the commodity boards. These boards, according to Ayoola (2001), were established by Decree No 29 of 1976 to protect the farmers against drastic falls in prices and pronounced fluctuations in prices in the world market as well as consumers against abnormal food price increases during scarcity. In the case of food commodity, the boards served only as buyer of last resort, fixed prices and held strategic or buffer stocks until the time of scarcity when they are resold to the consuming public. Efforts were made to improve infrastructures for storage, efficient transportation to reduced cost and development of appropriate technologies for processing food and cash crops (CBN, 1997, Eyo, 1997).

Under monetary policy, Central Bank of Nigeria (CBN) through its Monetary and Credit Guidelines compelled formal financial institutions to support agriculture. This was done through credit quota and portfolio ceiling which required banks to give a certain percentage of their loans to agriculture. The quota rose from 4% in 1970 to 15% in 1990. Before deregulation, interest rate on agricultural loan was put at a concessionary rate of 1 ½ % point above the minimum rediscount rate and 2 to 3 % below the prime lending rate. To reduce the risk faced by banks in agricultural lending, the Trust Fund Model was adopted by CBN (NIP, 2010). There was also another policy which required that certain percentage of rural saving mobilized by commercial banks be ploughed back as investment in agriculture (Balogun & Out, 1997).

The trade and exchange rate policies are a very important component of structural adjustment policies. The main focus of trade policies is on the measures to regulate export and import trade through such measures as tariffs, export and import quotas and prohibitions with the agricultural sector in view. Policies in this instance were meant primarily to diversify the economy in order to minimize dependence on oil and make agricultural produce more competitive in the external market. For instance, export tariff on agricultural produce and duties on imported machineries and equipment used in the sector were abolished (Ogiogio, 1996, Monye-Emina, 2007).

2.8 Food Insecurity and Its Implication on Society

The consequences of food insecurity are adversely affecting the well - being of a massive number of people and inhibiting the development of many poor countries (Gebremedhin, 2000). This is because hunger and poverty can provide a fertile ground for conflict, especially when combined with factors such as unequal difficulty in coping with disasters (United Nations, 2005). There will be no true peace if there is hunger in the society. When politically dominant groups fail to ensure that majority of culturally or economically marginalized groups, have access to food, violence will erupt. In African countries like Ethiopia, Rwanda, and Sudan for instance, lack of access to a sufficient amount of food, following the drought and mismanagement of agriculture, "led to rebellion and government collapse, followed by even greater food shortfalls in ensuing years of conflict" (Francesco & Pasquale, 2012).

Thus, many studies have shown that food insecurity to some extent contributed to social instability and political revolution in some developing countries. Timmer (2010) has also argued that riots, wars and revolution, which are ravaging in Africa today, are fueled by the environmental bankruptcy and food crisis. In Senegal and Mauritania for example, the high price of imported wheat and rice products brought people into the streets in late 2007. Also, in Cameroon protests against food prices in late February 2008 turned violent and on the 31st March, 2008, Cote D'Ivore also witnessed food riots in Abidjan where hundreds of protesters protested against rising food price (IRIN, 2008). Similarly, in 1980 an increase in the price of rice and subsequent riots led to the overthrow of the civilian President Tolbert in Liberia. In Egypt, Cairo riots of 1980 were also reportedly fuelled by food shortages and rationing with inevitable price hikes (Dunmoye, 1987).

Another way in which food can be linked to security is when it is used as a "weapon" or even a tool for gaining political recognition. In some cases, governments will use food as a weapon, by restricting its access, against segments of its own population, such as political opposition groups. In Zimbabwe, Mugabe's Zanu-PF party has withheld food where there is opposition in an election as a means of pressurizing voters and controlling the outcome of election (*Guardian, 2008*). Food was part of instrument used by Nigerian government to suppress the Biafra war. The Boko Haram insurgency was equally dislodged by Nigerian Army after cutting food supply channel. Similarly, some governments may ensure access to food in exchange for promises of political support. In Indonesia, for instance, the ruling Golkar Party has reportedly engaged in "food politicking" by handing out bags of rice and money in exchange for political support (*South China Morning Post. 1998b*). In the Nigeria political arena, food is used by Nigerian politicians in exchange for vote of the masses. As part of their campaign strategy politicians repackaged rice, sugar, beans and so on in nylon and with political party's logo and candidate's name and distribute to the voters in exchange for their vote. This action of Nigerian politicians clearly indicates that many households are not food secured.

Nation-states may also be tempted by the prospect of using food as an instrument of achieving national interest. Food can be a major determinant of relations among nation-states. Food may become an instrument for international economic sanctions that a major producer of the food items may refuse to sell to another country in order to assert its own power and perhaps even influence the policies of other countries. For instance, United States of America adopted "food for oil" policy in the gulf region in the post war years (Hassan & Omotola, 2006). Similarly, during President Carter administration, US used food as an enticement to achieve an Egyptian-Israeli peace accord. It was reported that US food aid to Egypt increased after Anwar Sadat signed the Sinai Peace agreement and the Camp David accords (Wodon & Hassan, 2010). Thus, a food exporting country might use its abundant food resources as a means of tempering relations with a foreign power that might otherwise be acrimonious (Paul, 1998).

Ebo (1997) notes that hungry populace represents a threat to the security of a nation in many respects. Food crisis became a threat when a country that has a viable and standby military force failed to fed them (Imobighe, 2003). As rightly observed by Philip, (1998) soldiers are probably more easily exhausted and demoralized by the absence of food (and water) than almost anything else apart from severe sleep deprivation. That is "food security for troops and their families must be at the fore point of any consideration" (Ebo, 1997). Therefore, governments that are eager to maintain their power and influence will probably ensure that their armed forces receive adequate food supplies, even when the entire country faces severe food shortages.

Moreover, food insecurity has impact on level of educational attainment of the society. It was observed that hungry children start school late, if at all, drop out sooner and learn less while they do attend, stalling progress towards universal primary and secondary education (Francesco & Pasquale, 2012). In the analysis of Central Bank of Nigeria, more than 18 percent of the children who attend primary school dropped out before their fourth year, while more than 43 percent had dropped out before completing the normal six years necessary to obtain a primary school certificate (CBN, 1997).

On the health of the society, food insecurity subjects many people to the problem of malnutrition. Malnutrition is described as the largest single contributor to the death of more than 2.6 million children each year. Between 1990 and 2010, the absolute number of stunted pre-school children has increased from 14.5 million to 60 million, out of which Nigeria, Ethiopia and Democratic Republic of the Congo account for 40 percent of all the stunted preschoolers in Africa.

Hunger and poverty force people to adopt risky survival strategies, and greatly increase the risk of infection and death from HIV/AIDS, malaria and other infectious diseases. It is reported by NACA that HIV is the leading cause of death and disease among women of reproductive age (15 –49 years). In sub-Saharan Africa, 60% of the People Living with HIV is female (while women make up 50% of the global epidemic). In Nigeria the prevalence among young women aged 15 –24 years is estimated to be three times higher than among men of the same age (NACA Factsheet, 2011).

2.9 Theoretical Framework

Incrementalism theory is going to serve as theoretical framework of analysis. The theory was first developed in 1956 by the American Political Scientist, Charles E.

Lindblom, in response to the prevalent conception of policy making as process of rational analysis culminating in a value maximizing decision. According to Lindblom policies are: “made and remade endlessly, a succession of incremental changes, building out from the current situations, step by step and in a small degree”. He, further posited that incremental theory is when “a policy is directed at a problem; it is tried, altered, tried in its altered form, altered again, and so forth. In short incremental policies follow one upon the other in the solution to a given problem (Lindblom, 1959; Obiajulu & Obi, 2004).

The theory believes that the policy maker does not search for completely new solutions that are different from previous decisions. Instead, they engaged in decisions that are improvements on previous decisions. Since the decisions are modifications of existing policies, the decision makers are expected to consider just a few alternative and their consequences and make a choice of the alternative which is an additional to previous decisions to solve the problem (Obiajulu & Obi, 2004). The theory is seen as a trial and error model. To Omuta & Onokerhoraye (1986), incremental theory is an approach which seeks quick fix answers to issues that cannot wait for a comprehensive analysis before action can be taken. That is why the theory does not aspire towards once and for all solution to identified problems. Instead, the theory is of opinion that one should start from the field, and observe the real situation before moving back to initiate policy and programme to solve these identified pressing problems. Since the proponents of the theory believes that remedy only supersedes the former situation that caused the problems, the incrementalist planner and administrator aim at remedies rather than solutions.

The basic tenets of the theory as highlighted by Lindblom in 1965 (Anyebe, 2017) are summarized as follows:

i. The decision maker focuses only in those policies which differ incrementally from existing policies.
ii. Only relatively small number of policy alternatives is considered.
iii. For each policy alternative, only a restricted number of important consequences are evaluated.
iv. The problem confronting the decision — maker is continually redefined.
v. Thus, there is no one decision or "right" solution but a "never— ending series of attacks" on the issues at hand through serial analysis and evaluation.

Incremental decision making has been described as corrective, geared more to the alleviation of present concrete social deficiencies than to the promotion of future goals. The theory’s flexibility in correcting identified problems makes the spectrum of operation so fluid, thereby conforming to and suitable for a dynamic system. While the incrementalist model is highly commendable and successful to disaster (emergency) situations, it may not be ideal to nations and organizations that cannot rapidly react to emergency situation. Therefore, it is not ideal in totalitarian system where the political environment is totally centralized. Since Nigeria is a fragmented system and a democratized society, incrementalist model is suitable.

In his work, Anyebe, (2017) was of the opinion that incremental theory has been suitable decision making due to the following summarized attributes:

i. The model implicitly recognizes that the planning domain is a system that is fragmented and loosely structured.
ii. The model argued that in real world of decision making, there are often no central attempt to synchronize and co-ordinate all attacks at all problems by all the organs.
iii. The incrementalist is believed to be concerned with one problem at a time.

iv. The model is less costly and faster.

v. The model also holds that in real life situation, selected policies and courses of action are not necessarily the best or the most rational, or the correct course of action. Rather, policies and programmes are taken because they are the ones on which agreement could be reached. Such agreement is often the result of negotiations, compromises and trade-offs.

When the new political environment of a democratic set-up is closely cross-matched with the attributes of the disjointed incrementalist model decision making process, the model seems to be ideal and suitable to all levels of government in Nigeria. It is a known fact that political officer holders (whether elected or selected) are more excited about strategies, projects and programmes that yield visible and tangible results in the shortest possible time, usually during the tenure of their offices. This is because, they need such quick- fix results of completed projects as baits for the next campaigns. In fact, the realities of the political environment in Nigeria do not accommodate long - term planning that will not yield desired results during the tenure of office.

Despite the well -articulated principles and advantages of the theory, several criticisms have greeted incrementalism. One it is believes that the theory is too conservative and an apostle of maintaining the status quo (Obiajulu & Obi, 2004). Two, the theory provides no guidelines for handling the tasks of decisions in crisis situations. Third, geared as it is to past actions and existing programmes and to limited changes in them, incrementalism may discourage the search for or use of other readily available alternatives (Anderson, 1997). Fourth, incrementalism does not eliminate the need for theory in policy-making, are some of the more enthusiastic advocates contend (Hayes, 1992:2).

Nonetheless, the theory is considered superior to any other decision -making method by emphasizing caution in discarding government policies especially by new regimes that may be in a hurry to impress the people and encourages continuity in government policies. By becoming more conscious in applying this method, administrators might use it with more skill, and be able to know when to extend or constrict its use. The theory has also makes it easy for the government to carry people along. These, to certain extent, address the problem of resistance and outright sabotage (Obiajulu & Obi, 2004).

In the application of the theory, the simplicity is based on the process by which values are handled when considering alternative policies and programmes. The process (by which values are handled when considering the various policies and programmes) can be distinguished into two aspects. In the first (1) aspect, evaluation and empirical analysis are such that one has to choose among values and among policies at the same time. In other words, the administrator simultaneously chooses a policy to attain certain objectives and also chooses the objectives themselves. In the second (2) aspects, the administrator focuses his attention on marginal or incremental value. In this aspect, whether he is aware of it or not, he does not find general formulation of objectives very helpful.

The relative value of the incremental theory can better be demonstrated and appreciated when policy-makers are left with options to improve on the existing policies in order to correct persisting societal problems. For instance, series of agricultural policies and programmes was introduced in Nigeria with the aim of increasing farmers' productivity and their general welfare. The overall assessment of all these policies and programme shows that majority of the beneficiaries of the said policies and programmes are food insecure despite the benefits they are expected to derive form the policies and programme (Iwuchukwu & Igbokwe, 2012). It was inability of these previous policies and programmes to address the problems of food security and rural poverty that the Nigerian government introduced the National Programme for Food Security (NPFS) in 2001.

The NPFS was introduced to cater for the area where previous policies were not covered. For instance, it was reported that in designing and implementing agricultural policies in Nigeria the interest of the beneficiaries are not always put into consideration. This problem of top-bottom approach, to certain extent, deprived most of the governmental policies and programmes the required cooperation needed from the beneficiaries of such programme. Based on this, the NAPFS gave high priority to the community in planning and implementation as well as the types of farming activities that each community has comparative advantage over. As a community driven programme, the NPFS was flexible to cater and accommodate beneficiaries' differences.

In area of ownership, the NPFS is bottom-top approach in nature. The beneficiaries were allowed to own and manage the programme at their level. The presence of the government is only in area of overall monitoring. The activities are taking place in each site, that is individual farmers are coordinated by both the primary and apex groups he/she belongs to. Unlike previous programmes, the NPFS allowed farmers to choose from available opportunities, identify needs according to priorities while the extension agents only act as facilitators. These groups are coordinated by the State Agricultural Development Project (ADP) and the federal government is coordinating the activities of the farmers through the State ADP.

The programme also aimed at diversifying the source of beneficiaries' livelihoods because many households are food insecure due to weak income. The beneficiaries that are previously rain-fed farmer or producer are encouraged via programme incentives to add irrigated farming system to their activities. To achieve this, the programme introduced high yield and disease resistant crop varieties that can grow in all the ecological zones for both rain-fed and irrigated production system.

In conclusion, the NPFS was of opinion that for households that depends on rain-fed farming would find it difficult to generate enough income that will pull them out of poverty and make them food secured.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

A scientific inquiry is driven by the search for the truth or at least truthful knowledge (Mouton, 2002). One of the most prominent purposes of all research is to arrive at the most valid findings and for this study to accomplish its desired objectives, appropriate research methods and procedures need to be selected for the study. In other words, it is only through the adoption of appropriate research methods and their correct application that valid research results can be guaranteed. The information about study area will be examined under this section. The research design which encompasses the typologies of data to be collected, methods of data collection as well as data analysis would be elucidated in this section.

3.2 Research Design

Once the problem to be investigated has been identified and clearly stated, the next step is to state the procedure of how data relating to problem under investigation would be collected and subjected to objective analysis. Obtaining relevant evidence entails specifying the type of evidence needed to answer the research question, to test the theory, and accurately describe some phenomenon. This, according to Umar (2011) would provide a solid framework for tackling a particular research problem. Therefore, for the purpose of this study survey designed was adopted. The design adopted helped in describing the relevant aspects of the phenomena under consideration and provided detailed information about each relevant variable.

3.3 Study Area

The study was conducted in Kwara, Jigawa and Osun States.

3.3.1 Kwara State

Kwara state was created on May 27, 1967 with its capital in Ilorin. It has sixteen Local Government Areas, six federal and twenty-six state electoral constituencies. The population of the state is 2,584,685 out of which 80 percent reside in the rural areas, 90 percent of them are farmers (NBS, 2010).

In the north, the State shares a boundary with Niger State; while in the east with Kogi State and Oyo; in the south, Ekiti and Osun States and in the west with the Republic of Benin. Kwara State is located within the North-Central geo-political zone of Nigeria. Agriculture is the mainstay of the economy because of the location and ecological configuration of the state. Kwara state is among the states that are located in Sub-humid region with annual rainfall ranging from 2000 mm to 1000mm (Vision 2020 Report, 2009). This region produces large quantity of yam, cassava, sweet potatoe, sorghum, maize and rice. Also, cowpea, soybean, groundnut and onion and sugar-cane are produced here.

3.3.2 Jigawa State

Jigawa state was created on Thursday, 27th August, 1991. It is bordered by Kano and Katsina states in the west, by Bauchi and Yobe States in the east, by the Republic of Niger (Jigawa Investor's Handbook, 2013). Jigawa state has 27 Local Government Areas, 30 state and 11 Federal electoral constituencies and 3 Senatorial Districts. It is located in the North West Geo-political zone of Nigeria. The state has a total landmass of about 25,000 square kilometers, 80 percent is certified as arable and cultivated during the short rainy season. Nearly 14 percent of the landmass is suitable for all year round agriculture. Currently, there are approximate 54,000 hectares put under irrigation (Jigawa Investor's Handbook, 2013).

The population of Jigawa state is 4,751,518 million (NBS, 2010). The state is the 8th most populous state in the Federation and 5th populous in the Northern Nigeria with almost 50 percent of economically active age (15-59) (Jigawa Investor's Handbook, 2013). With this favorable population, Jigawa is the 10th largest non-oil economy in Nigeria with Gross Domestic Product (GDP) of N 759,120 billion (Jigawa Investor's Handbook, 2013). The economy of Jigawa is largely driven by agriculture. As the 7th largest crop producer in Nigeria, the value of crops is estimated at N644, 41 billion.

The factor that enhanced this agricultural potential is the ecological zone of the state. Jigawa state is among the states located in the semi-arid region (Vision 2020 Report, 2009). This region occupies the northern part of Nigeria with about 35 million hectares of land. The semi-arid region has Sudan and Sahel savanna types of vegetation, mainly consisting of grasses and woody plants. With average annual rainfall which varies between 500mm to 1200mm per annum, and may be as low as 200mm in its northern limits; 90 percent of land in this region would require irrigation before it can be fully used for food production (Vision 2020 Report, 2009).

3.3.3 Osun State

Osun state was created on 27th August, 1991 with the capital in Osogbo. Osun State is bounded in the West by Oyo State; in the East by Ondo and Ekiti States, in the North by Kwara and Ogun States. It is located in the South-West geo political zone. The State runs an agrarian economy with a vast majority of the populace taking to farming. Osun state has thirty (30) Local Government Areas, twenty-six (26) electoral constituencies, three (3) Senatorial districts and nine (9) federal electoral constituencies. The state covers an area of approximately 14,875 sq. km with a total population of 3,755,596 (NBS, 2010).

The state runs an agriculture economy with a vast majority of the populace engaged in farming. There are two distinct seasons in Osun State, namely: the rainy season starting from late March and ending in October and the dry season from November to early March. The annual rainfall of the state ranges between 800mm in the savannah agro ecological zone to 1500mm in the rain forest zone (Lawal, 2007). With this amount of rain fall, Osun state is one of the states that belong to very humid and humid region (Vision 2020 Report, 2009). In the area of agricultural production, the land in this region is cultivable and suitable for the tree crops like cocoa, oil palm, rubber, kolanut, citrus, and plantain. Major arable crops are roots and tubers (yam, cassava and cocoyam), cereals (maize and rice) and grain legumes (cowpea and pigeon pea). The region provides about 79% of the exploitable timber of Nigeria (FMANR, 1992).

3.4 Population of the Study

Since it is impossible to cover all the entire population, for the purpose of this study, the target population was grouped into two. The first target population was beneficiaries of NPFS rural households. This population becomes relevant to this study because they are beneficiary of the programme. Each of the sites is made up of groups and the membership of each of the group varies across all the selected sites. The chairmen of these groups in each site formed an Apex Group that managed the activities of all the primary groups in all the sites. Therefore, there are about 231 groups in all the selected sites with a total population of 3346 farmers in all the three selected states. It is these 3346 farmers that would serves as first set of the population for this study. Based on a sample size determination method of Yamane (1967) a total of 355 household beneficiaries was sampled for both interview and administration of questionnaires across all nine sites in the study areas. Out of this figure, 355 respondents were sampled for questionnaire administration and 13 respondents were sampled for interview.

The breakdown of this population is as follows:

S/N	Sampled for Interview	No Sampled
1	NPFS's Coordinator in each sampled state	3
2	Apex Groups leader in each NPFS sites	9
3	National Coordinator NPFS	1
Total		13

Therefore, a total of 355 household beneficiaries were sampled for the study, out of which questionnaire was administered to 342 beneficiaries and 13 stakeholders for interview.

3.5 Types and Sources of Data

Data needed for the study was drawn from both primary and secondary sources. For this study, questionnaires and Key Informant Interview were used to extract information from sampled population to address research questions raised in the study. The questionnaire was divided into two parts; the first part deals with the socio-demographic characteristics of respondents while the second part of the questionnaire contains questions on the impact of NFSP programmes on food security from sampled households' respondents. The second part was further divided into four sections. The first section deals with questions on productivity and diversification followed by questions on income of beneficiaries, food security and last section was problem facing the beneficiaries. The questions were designed in close-ended and open-ended formats. The questions on productivity and diversification as well as income of the respondents was open-ended while that of food security status, level of access to farm elements and constraints facing the respondents was close ended. In a close-ended format, the respondents were asked to indicate their opinion by ticking any of the appropriate options. This technique was adopted because of the nature of the respondents, so as to attract responses easily from them (see Appendix I).

The administration of questionnaire was done with the support of research assistants in each of the sampled site. The research assistants were drawn from Extension workers of the Agricultural Development Programme (ADP) of the state(s). This to some extent caters for the technicality of questionnaire and linguistic nature of respondents.

Since Apex Group was targeted point for questionnaire administration, location of the members became paramount for the study. At Kwara Agricultural Development Project and Osun Agricultural Development E Project, we were told that all the Apex Groups were meeting once in a month. The meeting day was not the same in all the sampled sites in Kwara and Osun States. For instance, some of these Apex Groups meeting day are: first Wednesday of the month, first Saturday of the month, first Friday of the month and last Saturday of the month. These meeting days in Kwara and Osun made the administration of the questionnaire easy in all the sampled sites in Kwara and Osun states respectively. It was at these meeting that questionnaire was administered to the respondents. The list of the active members was collected from each Apex Group leader and sample size was drawn from it. Those sampled for questionnaire administration were told to wait. Face to face method of administration was used in order to facilitate higher questionnaire return and also cater for the peculiarity of the respondents.

In Jigawa state, after my interaction with the State coordinator of the programme, it was discovered that there is need to locate Apex Group Leaders of all the three sampled sites in the state. These leaders helped to arrange a special meeting with all their active members in their various sites. It was at this special meeting that questionnaires were administered to the respondents. Prior to the meeting day, the lists of the active members were collected from the Apex Group leaders and a sample size was drawn from it. Among the members, those that were sampled for questionnaire administration were told to wait. Face to face method of administration was used in order to facilitate higher questionnaire return and also to cater for the peculiarity of the respondents.

Another instrument for data collection adopted for the study was interview. This was conducted to corroborate the information gathered from the questionnaire. An interview guide was formulated and structured to ensure that the questions asked was capable of addressing the objectives of the study. The questionnaire comprises of both open-ended and close ended questions.

Out of the 13 respondents interviewed, twelve (12) were conducted through face-to-face interview, while one interview was done through e-mail correspondence because of interviewee's preference. The apex leaders and programme coordinators were interviewed face-to-face, while the national programme coordinator was interviewed through e-mail. The State coordinator interview was conducted before the administration of questionnaire while the Apex leaders were interviewed the same day questionnaires were administered in each site. The affiliations of the interviewees are listed in appendix iv.

The secondary source of the data for the study are information obtained from the State Agricultural Development Programme Report on NPFS, Textbooks, Journals, Newspapers; Seminar papers, and Conferences /Workshop paper related to this study.

3.6 Sample and Sampling Technique

Multi-stage sampling techniques were employed to select sample for this study. The first stage involves stratification of Nigeria into three zones using climatic conditions. These three strata are: Very humid and humid zone, Sub-humid zone and Semi-arid zone. This stratification was adopted from Vision 2020 Report (Vision 2020 Report 2009). Therefore, within each zone, selection of state was by simple random sampling technique. This was achieved by short listing the names of all the states on a piece of paper which was folded and put in a small bowl. After a thorough shuffling, the researcher picked a piece of paper to represent the state. This procedure was repeated to pick sample states in all three zones. The technique was adopted because it gives all the states in each zone equal chance of being selected. Therefore, in Very humid and humid zone, Osun state was selected, while Jigawa and Kwara states were selected from Sub-humid and Semi-arid zones respectively.

The second stage involved the selection of three sites in each of the sampled state using Simple Random Sampling. This gives a total number of nine (9) NPFS sites in all three states. The procedure of selecting these sample sites is the same as the one used in selecting sample states. But here, the selected element (site) after being recorded was put back in the bowl until the required number was obtained.

The third stage was selection of respondents in each site. Here, to give all sites equal representation, the total sampled population was divided by the total number of all the sample sites (i.e. $344/9 \approx 38$). Therefore, 38 respondents were drawn from each site (see table 6). Though, there are differences in the population size of the beneficiaries in each site, yet equal numbers of respondents, i.e. 38 were selected from each site across the nine sampled sites. This was done in order to create a suitable base for comparison process.

The fourth stage was selection of the respondents. A Simple Random Sample was used to select 38 beneficiaries from each selected sites. In each site, selection of beneficiaries was randomly done. This was achieved by writing out the names of the beneficiary in pieces of paper which was folded and put in a basket. After thorough shuffling, the researcher selected an element, recorded it until the required number was obtained. With this, three hundred and forty-four questionnaires were administered across all the selected sites and three hundred and twenty-three (that is 94%) were returned (see table 3.1). Since the percentage of returned questionnaires was high, the information derived from the returned ones was used in this study.

Table 3.1: Distribution of Questionnaire to Respondents

S/N	Sample States	Sites	Distributed	Retrieved
1	Jigawa	Haden Takwalgwai	38	38
2		Maikilili	38	36
3		Chiyeko/Burum	38	35
4	Kwara	Osi	38	35
5		Alapa	38	35
6		Agbamu	38	36
7	Osun	Osogbo Site1-Oke-Osun	38	35
8		Ede South Site	38	36
9		Aiyedade Ago-Owu site	38	37
	Total Households Surveyed		342	
	Total Households' Responses analyzed			323 (94 %)

Source: Field Survey (2016)

3.6 Analytical Techniques

The analytical tool employed for this study was descriptive statistics involving the use of frequency distribution tables, percentages and means. The t-test statistical analysis was used to test hypotheses. To determine the food security status of the beneficiaries, the study adopted USDA approach. The USAD method categorizes household using a constructed good security scale. The scale is numbered in a linear scale that ranges between 0 and 10. The scale measures the degree of food insecurity/hunger experienced by a household in terms of a single numerical value. The procedure that determines a household scale fundamentally depends on household responses to some structured survey questions. Questions 23-38 in appendix A have three options, namely “often true”, “sometimes true” and “never true”. For these options, both “often true” and “sometime true” are considered as affirmative responses because they indicate that condition occurred at some time during the year of the study. The distinction between the “often true” and “sometime true” is therefore not used in the scale. While “never true” is negative response.

In determining the household food security status on the food security scale, the food security scale was divided into a small set of four categories as in table 3.2

Table 3.2: USDA Household Food Security Scale

<table>
<tr><td>0 to 2.32</td><td>2.33 to 4.56</td><td>4.57 to 6.53</td><td>6.54 to 10.0</td></tr>
<tr><td rowspan="3">Food Secure</td><td colspan="3">Food Insecure:</td></tr>
<tr><td rowspan="2">Food Insecure
Without Hunger</td><td colspan="2">Food Insecure With Hunger:</td></tr>
<tr><td>(Less severe)
Moderate</td><td>(More severe)
Severe</td></tr>
</table>

Fakayode, et al, (2009) Adapted from USDA

These categories include:

Food Secure Households: - these are households that show zero or minimal evidence of food insecurity. The group’s value ranges between 0 – 2.32 on the food security scale.

Food Insecure without Hunger Households: - these groups show concern about the adequacy of the household food supply. They therefore, show adjustments in their daily food management. This group's value ranges from 2.33 – 4.56 on the food security scale.

Food Insecure with Hunger (Moderate) Households: - these groups of households have their food intake reduced such that the household adults have repeatedly experienced the physical sensation of hunger. This group's value ranges from between 4.57 - 6.53 on the scale.

Food insecurity with hunger (Severe) Household: - Households in this group have their children's food intake reduced to an extent that the children have experienced hunger. The group's value on the food security scale ranges from 6.54 – 10.0 (Fakayode et al, 2009)

Problem encountered was measured on a 3-point likert-scale model with value of 2, 1 and 0 to represent severe constraint, mild constraint and no constraint. Any factor with a variable mean score of 1 and above was considered a critical constraint while any factor with a variable mean score of less than 1 was considered a minor constraint.

Access to elements of National Programme for Food Security (NPFS), the respondents were asked to indicate and rank the accessibility of the elements. The scales used were: Yes (1) and No (0) and the ranking was Very accessible (2), Accessible (1) and not accessible (0).

CHAPTER FOUR

AN OVERVIEW OF NATIONAL PROGRAMME FOR FOOD SECURITY IN NIGERIA

4.1 Introduction

To examine the background of the National Programme for Food Security (NPFS), there is need to equally overview the previous government intervention policies and programmes to achieve the same objective in the country. Therefore, this chapter was divided into two. The first aspect deals with the previous intervention programmes and policies and its critiques. The second aspect shed more light on NPFS and how it intends to improve where the previous one was not covered.

4.2 Previous Intervention Programmes and Policies

Some of these policies and programmes are examined are:

4.2.1 The National Accelerated Food Production Project (NAFPP)

The desire to induce the masses of farmers to boost food production within the shortest possible time led to the establishment of The National Accelerated Food Production Project (NAFPP) in 1973. This programme was based on the green revolution concepts and experiences of Mexico, India, Philippines and Pakistan. Its main objectives are to accelerate the production of six major food crops, namely, rice, millet, sorghum, maize, wheat and cassava. This programme, according to initiators, targeted some crops for accelerated production. The crops are major staple foods of Nigerians and if produced in abundance, hunger and related food crisis will be put to check (Daneji, 2011). The project which has three components, namely research, extension and agro services, is divided into three phases namely the Mini kit, Production Kit, and Mass Production phases (Anyanwu, 1997).

The international Institute for Tropical Agriculture (IITA), Ibadan was the national coordinator of the project. The National Cereal Research Institute (NCRI), Ibadan housed the National Rice/Maize centre which guides and coordinates the activities of the NAFPP for rice and maize while the National Roots Crop Research Institute, Umudike was in charge of cassava. Another centre at Samaru in Zaria took charge of Sorghum, millet and wheat (Anyanwu, 1997; Eze et al, 2010).

4.2.2 The Nigerian Agricultural and Cooperative Bank (NACB)

Similarly, The Nigerian Agricultural and Cooperative Bank (NACB) were established in April 1973 to foster growth in the quantity and quality of credit to all aspects of agricultural production in Nigeria. The area covered by NACB included poultry, farming, fisheries, forestry and timber production, horticulture etc. it also aimed at improving storage facilities for agricultural products and the promotion of marketing of agricultural products. When it seemed that the effort of this financial institution was not encouraging, government went a step further in establishing specialist financial institutions specifically charged with the financing of agricultural activities alone. In year 2000, the Nigerian Agricultural Co-operative and Rural Development Bank (NACRDB) were established. This establishment follows the merger of Nigerian Agricultural and Co-operative Bank (NACB), the Peoples Bank of Nigerian (PBN) and the Family Economic Advanced Programme (FEAP). There are three main types of loan schemes operated by the Bank and they are:

1. Smallholder Loan Scheme: it is a subsidized credit scheme for small-scale resource poor farmers (UNESCO-Nigeria, 2010). The processing for this category of loan is expected to be initiated and completed within the period of two years with full payment of both the principal and accrued interest. Under small holder scheme, the demand for collateral are completely waved.
2. Large-Scale or Investment Loan Scheme: is designed for medium and large-scale farmers; requires collateral and a proper investment appraisal on the

farmer's side (UNESCO-Nigeria, 2010). The loan duration as well as the moratorium period varies depending on the gestation period of the project concerned; and it may be a medium or long term loan.

3. On-lending Scheme: it involves provision of wholesale credit to other on-lending agents (UNESCO-Nigeria, 2010). It also, involves channeling of loans through institutions mainly state governments and cooperative bodies against guarantees for on-lending to third parties. The loan is given to farmers, subject to the state government's acceptance to guarantee such loan. The loan is granted at a lower rate of interest to the state or its apex organization which in turn lends to the beneficiaries at a make-up rate (Onyenucheya and Ukoha, 2007; Ugbajah, 2014).

4.2.3 Agricultural Development Projects (ADP)

ADP, formerly known as Integrated Agricultural Development Project (IADP) was first established in 1974 in three pilot states, namely Funtua, Gusau and Gombe and later in all the then nineteen states. The operation of ADP was supported by two technical service agencies, which are Federal Agricultural Coordinating Unit (FACU) with headquarters in Ibadan and Agricultural Projects Monitoring and Evaluating Unit (APMEU) with its headquarters in Kaduna. The investment phase of the ADP was jointly raised by federal and states governments in addition to loan assistance from the World Bank. The key areas of ADP activities are: provision of infrastructure, farm service centers, the supply of farm inputs such as fertilizers, root crops/tubers, agro-chemicals and water pumps, and extension and training.

Daneji, (2011) posited that ADP is semi-autonomous and focuses on the small farmer. It adopted the integrated rural development strategy in its operations. ADP could not continue due to lack of funding from state governments as well as the withdrawal of funding by the World Bank rendered most, if not all the ADPs comatose as exemplified by serious management problems (Musa, 2013).

4.2.4 Operation Feed the Nation (OFN)

The programme was launched on 21st of May, 1978, mainly to increase food production and eventually to attain self-sufficiency in food supply (Ijere, 2001). The programme also aimed to encourage the section of population which relies on buying food to grow its own food including students, thereby making every person to be capable of partly or wholly feeding himself or herself. The objectives of youth participation, according to Obasi (2013) were spelled out in the policy documents as follows:

(a) As leaders of tomorrow, students should be made to work on farms and to appreciate the problems of the farming communities.

(b) Students should be made to appreciate the dignity of labour.

(c) Students should be involved in the mass mobilization now going on in the country for the production of food.

Thus, the agricultural sector was expected to benefit from the cheap labour offered by the students. While the farmers and students were to benefit from the interaction with one and other. The students are expected to develop an appreciation for the field and committing themselves to sustainable economic development (Obasi, 2013). Under the scheme, encouragement and material assistance were given to the people in the form of technical advice and supply of essential farm inputs such as improved seeds, fertilizer, chemicals, implements, livestock and livestock feed at subsidized prices.

4.2.5 Agricultural Credit Guarantee Scheme (ACGS)

The establishment of the ACGS was predicated on the unwillingness of commercial banks to give loans to smallholder farmers for reasons of high default rate on loan repayment. This was compounded by lack of collateral for bank to fall back on in case of default and the high cost of administering low unit value loans to farmers who remained widely scattered. The joint effort of the Central Bank of Nigeria and the Commercial Banks, focused on the current size and coverage of lending by the commercial banks to agriculture and the measures needed to improve the situation (Ijere, 2001). The Federal government in 1977 responded to this problem through the establishment of the Agricultural Credit Guarantee Scheme Fund. The authorized capital of the ACGS is contributed by the Federal Government (60 percent) and the Central Bank of Nigeria (CBN) (40 percent) (Anyanwu, 1997). The scheme came into operation in April 1978 with the objective of providing guarantees in respect of loans granted for agricultural purposes. The agricultural purposes in respect of which loans can be guaranteed by the fund are those connected with the establishment or management of plantations for the production of rubber, oil palm and similar crops, the cultivation of cereal crops, animal's husbandry, including cattle rearing and poultry and fish farming.

The scheme was designed to encourage commercial banks to increase lending to the agricultural sector by providing guarantees against inherent risk in agricultural lending. At inception, maximum loan to be guaranteed was one hundred thousand (₦100, 000) naira for individuals and one million naira for cooperatives and corporate bodies and such loans would require collateral. The collateral would however be waived for farmers borrowing from #20,000 and below. In case of default, the lending bank is expected to exhaust all forms of loan recovery, including the realization of any security pledged for loans, before the ACGS pays the 75% of guaranteed loans in default (CBN, 2000).Loans under the scheme were at concessionary interest rates. Until 1987, farmers like other borrowers were mandated to borrow at market interest rates following the adoption of the Structural Adjustment Programme (SAP) in 1986 and the subsequent deregulation of lending interest rates in 1987 (Sunday et al, 2012). The evidence that emerged is that Bank credits to this sector over the years have increased from about N 230 million (then about $233 million) in 1978 to over N 262 billion ($2.23 billion) in 2005, but then food imports cost have equally increased (CBN 2007).

The achievement of the scheme was hindered by some key macroeconomic factors in the country. This is anchored on the fact that the scheme is solely financed by the Federal government and its agency. Meanwhile, fluctuations in some fiscal financial and monetary policy, as observed by Sunday et al, (2012), will have a direct consequent on the statutory allocation to the scheme by the government. They further argued that other macroeconomic variables such as external debt, internal debt and exchange rate policy as well as oil revenue affected the economy of Nigeria. For instance, a number of loans granted rose steadily between 1978 and 1989, after which it started dropping (CBN nd). This fall could be attributed to the deterioration in Nigeria's economic environment, arising from the deregulation of the mid-1980s. A similar situation was witnessed in respect of the amount of loans granted. Since 1990, however, loan volumes have since increased and have even surpassed pre-1989 levels. The opposite holds for the average value of loan obtained by each farmer. It fell consistently from 1978 to 1990 before it started increasing to the average ₦25, 600 currently being lent to each farmer. This is a good development in the face of rising cost of farm inputs, and should be continued to the extent that borrowed funds can make substantial impact on farmers' activities and effect growth in their operations.

However, some of the problems in the implementation of the scheme include delays experienced by farmers in having their application processed by the banks. Another factor that hindered the achievement of the scheme is the issue of the defaulters. The rate of settlement is obviously too low to encourage lending to the sector. The effective percentage risk borne by lenders between 1978 and 2006 amount to 92.85 percent, though ostensible, the risk expected is 25 percent but the risk premium of 68 percent is carried by the banks investing in agriculture.

4.2.6 The Green Revolution Programme (GRP).

This is a programme introduced by Shagari administration in April 1980. The programme aimed at increasing production of food and raw materials as well as diversification of Nigeria's sources of foreign exchange (Okeke, 2001). To achieve this under the scheme, the new input procurement and distribution systems came into operation. Input subsidies and crop pricing policies were streamlined while constructions of rural physical infrastructures were embarked upon via massive federal funds allocation. Large, medium and small-scale farmers received a number of incentives to boost their production level during the implementation of the programme (Daneji, 2011).

National Committee and state Representatives were formed with the state co-ordination committees responsible for co-coordinating and implementing policies and programmes of various Federal Ministries concerned with the Green Revolution in the state. This programme, unlike other schemes, is built on some institutional foundations of the past including research institutions, the agro-service centers and other bureaucracies concerned with food production and agricultural extension. To see that the GRP succeeded, the grains boards were reorganized to enable them cope with the increasing challenges of production, packaging and sale. A Ministry of Water

Resources was set up to handle the project of water conservation, and a Ministry of Science and Technology was established as an umbrella body for research institutes and a conduit through which cutting-edge technology inclined information would reach and be adopted by the agricultural field. In the area of finance, the National Council on the Green Revolution had devised various incentives: commercial farmers were to receive loans through the Agricultural Credit Guarantee Scheme. They were also to enjoy free import duties on purchased farm machinery and tax relief on income and a risk-mitigating investment allowance of 10 percent (Obasi, 2013).

River Basin Development Authority was integrated into the programme. For instance, the Ogun-Osun River Basin were expected to embark on animal husbandry and inland fisheries schemes, while the Anambra-Imo River Basin were concerned with the production of rice and maize. Others are the Chad River Basin Development Authority for rice, sorghum, maize and cowpeas; the Cross River Basin Development Authority to produce yams, rice, cassava, vegetables and fruits; the Niger Basin and Niger Delta Basin Development Authorities which were primarily concerned with large-scale rice production buttressed by several irrigation projects; and the Sokoto River Basin Development Authority which focused on cowpea, rice, wheat, tomato, and millet production. . To complement integrated national development, housing units, drug control centres, laboratories, polytechnics and secondary schools were also set up (Obasi, 2013).

The programme covered all areas of agricultural production, food and export crops, livestock production, forestry and fishery. But this degree of achievement was short-lived due to shortage of fund, mismanagement and fraud, poor research and extension services, problems of land acquisition, inadequate data, inadequate executive capacity and lack of infrastructural facilities (Anyanwu, 1986).

4.2.7 National Economic Empowerment and Development Strategy (NEEDS)

NEEDS was initiated in 1999 with the aim of achieving 6 percent annual growth in agricultural GDP of US $ 3 billion per year on agricultural exports and 95 percent self-sufficiency in food. The programme offered farmers improved irrigation, machinery and crop varieties which would help the farmers to boost agricultural productivity and tackle poverty, since half of Nigerian's poor people are engaged in agriculture.

NEEDS was an improvement on government reforms programmes in the area of ownership, sustainability, scope, coordinator, attractiveness, problem solving and achievement oriented. The goal of NEEDS is to restore agriculture to its former status as leading sector in the economy in terms of its contribution to the attainment of food security.

4. 2.8 Root and Tuber Expansion Programme

Root and Tuber Expansion Programme was launched in 2000 with the aim of commercializing root and tuber crop production and improve living conditions, income, food security and nutritional health of the poorest small holder households.

4.2.9 National FADAMA Development Programme

This programme was also established in 1993 with the aim of increasing income of beneficiaries by at least 20 percent through use of simple and low cost improved irrigation technology under World Bank financing (Eze et al, 2010),. The programme was part of the method adopted by the government to reduce poverty in rural areas of Nigeria. The beneficiaries of the programme were expected to come as a group known as FADAMA community Association to the National FADAMA Development Programme. The programme empowered the associations with resources, training and technical assistance support to properly manage and control the resources for their own development. The programme is in its third phase due to its success in the states that adopted it.

4.2.10 General Assessment of the Previous Programmes and Policies

The overall assessment of these programmes and policies shows that none of them produced the desired output and were generally judged failures (Osamebo, 1992; Olaoye, 2010; Iwuchukwu & Igbokwe 2012). For instance, Garba (2000) observed that none of these programmes out lived the political regimes that introduced them, while each new regime put in place new programmes. These replacements, mostly, occurs without convincing reasons or out of ego of new regimes (Egonmwan, 2004). This has evidently led to insignificant progress in the nation’s quest for sustainable food production as well as standard of living of the beneficiaries.

The interests of these rural farmers, in most cases, were not considered the process of the implementations. In most of these programmes and policies, small scale farmers are subordinated, proletarianised and marginalized. These set of farmers were denied access to inputs, credits and services provided by the state (Beckman, 1988). He identified the beneficiaries of these programmes and policies as a new class of farm-owners, businessmen, civil servants, top layers within local society, and rich peasants instead of peasantry. These new set of beneficiaries prompted the World Bank to label them as “progressive farmers” (Beckman, 1988). It was based on this category of beneficiaries that Edelman, in Ujo (2011) argued that policy makers often formulate public policies that appear to meet public need but actually serve the material needs of narrow elite. According to him, some of these policies in Nigeria are squarely a reflection of the personal interest of the political class rather than the demand of the citizens, as such policies lack public support in terms of implementation.

As a development strategy, the impact of most of these programmes was not as profound as its initiators may want us to believe. Everybody irrespective of trade took to farming but this did not last long for after a while interest started waning. The success of the Operation Feed the Nation programme was limited because about two-third of the entire funds were spent on student wages, living little for farmers. The programme also collapsed because of timing related inadequacies (Edoumiekumo and Audu, 2009). Ikenna Numiro (in Beckman, 1988), perceived the Green Revolution programme as a revolution for the rich, the middlemen, compradors and kulaks.

Nkom (1989) observed that non-involvement of rural masses in policy formulation and implementation had become a common thread that consistently run through all government intervention since 1960. Most of this said intervention programmes failed to understand the pains of the people and how the policy will be of benefit to them along-side with proper channeling procedure (Dialoke; Ukah & Maduagwuna, 2017). The interest of these stakeholders was not always considered whenever the policy makers want formulate policy to address their problems. For instance, the condition for the disbursement of the Nigerian Agricultural Bank (NAB) loans was not designed enough to accommodate the nature of small scale farmers. The reason is that for small scale farmers to secured loan from the Bank, the government of his/her state of origin must act as security and guarantor, contrary to the requirement of the large scale and medium scale farmers with personal assets or rich relative to secure loans easily (Beckman, 1988).

Closely related to this is the problem of “mandate overlap.” Mandate overlap has undoubtedly resulted in duplication of efforts and avoidable waste of tax- payer’s money (Musa, 2013). In his overall assessment of agricultural policies and programmes in Nigeria, Idachaba (1989) noted that some of these intervention programmes lack of functional integration between Ministries of Agriculture at State and Federal levels, and also lack of horizontal integration and definition of appropriate roles between line ministries at the Federal level leading to institutional ambiguity and role confusion. This, to certain extent, explain why most policy goals in Nigeria are based on the personal rewards and interests of the political leaders with the result that a policy is judged more on its political merits than the real developmental gain (Dialoke, Ukah & Maduagwuna, 2017). This paves way for corruption both at the formulation and implementations stage. Endemic corruption among government officials and project contractors have also been identified as serious constraint to most of these programmes.

Over-dependence on donor agencies has made the nation reluctant at fashioning out home-grown programmes that would adequately address her peculiarities as an independent country (Obasi, 2013).

4.3 Special Programme for Food Security: Historical Overview

As part of the effort to end hunger in the World, Special Programme for Food Security (SPFS) was launched in 1994 by FAO and endorsed by World Food Summit in November 1996 as a strategy to reduce the number of hungry people by 2015 (FAO, 2005). The Special Programme for Food Security (SPFS) is an initiative unanimously approved by the 106th Session of Food and Agricultural Organization (FAO) Council between May and June 1994. This programme was designed mainly to assist Low-Income Food-deficit Countries (LIFDCs) that do not either have capacity to locally produce enough food to meet the demand of their people or have sufficient foreign exchange to buy food in the international market to close the gap (FAO, 1997).

It was on this note that the SPFS was designed to focus and empower small scale farmers to "achieve rapid increases in productivity and reduction in year to year variations in output" (FAO, 2005). Increase and stability of small scale farmer's production will contribute to their overall access to food within families, communities and society at large (FAO, 2005

4.3.1 Formation of the Special Programme for Food Security

Upon receiving a request from national government to participate in the Special Programme, a FAO expert visits the country to discuss assistance they can render to increase food production in line with national food security policy and needs of the host country. During the visiting period, FAO will initiate contacts with potential donors (partners) who are willing to provide support for the programme. A short document summarizing the understanding with the government on the national programme content and proposed follow-up, will be submitted to the government for endorsement. The implementation of the programme according FAO (1997) has two phases, namely a Pilot Phase usually three years' duration followed by an Expansion Phase.

At the preparation stage for implementation, the national team with support from FAO, is expected to prepare the National Programme Document outlining the strategic objectives and general approach for implementing the Programme in the interested country. This document will also contain Plan of Operation for the Pilot Phase, problem identification and planning, describes specific objectives, outputs and activities, and sets out the Plan of Work and Budget for this phase.

The Pilot Phase, according to FAO (1997), has four interrelated and complementary components. These components are planned and implemented by the Governments and rural communities concerned through the mobilization and training of local personnel and the supply of seeds, tools and equipment to the participants (beneficiaries). The four components are as follows:

i. Small-scale water harvesting: A reliable supply of water is required to maintain improvements in crop yields and prevent loss of livestock in drought years.

Low-cost irrigation and drainage systems will be introduced, together with better storage systems and land-use practices to conserve water. This will improve and secure production against the vagaries of the climate.

ii. Intensification of sustainable plant production systems with the transfer of adequate technologies accessible to all, including the effective use of high-yielding varieties, integrated plant nutrition systems, integrated pest management and appropriate post-harvest handling, storage and processing technologies, combined with appropriate marketing and credit schemes. These activities should inter-alia aim at income generation through value-addition.

iii. Diversification of production including aquaculture, small animal production and tree crops. Here also, special attention should be paid to relevant post-production activities to promote income generation through value-addition.

iv. Analysis of constraints to food security. Special attention is given to the analysis of socio-economic constraints to the extension of the pilot phase, by gender and by specific groups. This covers in particular the identification of constraints to farm level profitability and to access to technology, land, inputs, storage, marketing, processing and credit facilities and an assessment of institutional and human resources capacities to manage sustainable production systems. The analysis also includes an environmental impact assessment of the expansion phase. Such analysis will be carried out throughout the proce ss, not necessarily as a separate component but as an activity integrated in each of the three components above (FAO, 1997).

The expansion phase is made of two components:

1. A food security and agricultural sector policy programme to lift macro-level socio-economic constraints and provide an environment favourable to agricultural production, processing, marketing and trade and access to food;
2. An agricultural investment component of three years adjusted annually to overcome the physical constraints including infrastructure and to increase private and public financing of agricultural activities and services.

4.3.2 Programme Management and Monitoring

The participating country is expected to set up a steering committee that will have overall responsibility for the programme at national level. The membership of this national steering committee will consist of high-level representatives from government ministries, the private sector and donors. In-country monitoring and evaluation systems will be established and progress reports will be sent regularly to all involved.

A national team, headed by a co-ordinator, will be responsible for running the national programme. Farmers, NGOs, local officials, extension staff, scientists and representatives of the private sector will be involved in decision-making at the local level, supported when necessary by technical expertise from FAO or other sources. Within FAO, the Special Programme is managed by a small group in the Field Operations Division, able to mobilise the broad range of expertise available throughout the Organisation. This ensures that running costs are kept to a minimum and that FAO's technical divisions are fully involved in the Programme (FAO, 2007).

Representatives from FAO's technical divisions are members of supervisory bodies that have been established to guide and support in-country work. The highest supervisory body at FAO is a Committee chaired by the Director-General, which oversees and monitors the Special Programme. In addition, an external Oversight Panel, consisting of prominent independent experts on food and agriculture, provides advice and guidance.

The programme assessment, monitoring and evaluation were accepted to be done at periodically within the country and by FAO. The central aims of monitoring and evaluation of the programme was to ensure that any challenges that are capable of hindering the programme objectives will be quickly spotted for immediate corrective action. Periodic assessments, on the other hand, will assist in monitoring the programme's impact on farmers' productivity as well as ensuring that the programme investment and assistance is channelled to where it is most needed.

4.3.3 The Role of Partners in the Special Programme for Food Security

The first partner in Special Programme for food security is the participating country. This country carries responsibility in the area of planning, implementing, monitoring and evaluating of the programme. On the part of the donor, the participating countries are expected to work with the donor to identify, analyse and remove constraints, irrespective of their nature, in order to progress towards national food security. For instance, in a situation where financial constraint was going to hinder the programme, the affected countries can sought for help from the donor community, international financial institutions, NGOs and other UN agencies to ensure that the resources required are available. On this note, FAO will act as catalyst and a mentor that will bring together all the necessary partners and expertise needed to ensure that the programme runs smoothly. Technical and economic co-operation between developing countries will be encouraged and experience gained at the national level will be shared at the regional and global levels.

In the area of private initiative, the programme expect the universities and private research institutes to come in the area of research and training programmes on any issues that can lead to its success. The programme wants the business community to be encouraged towards it so that they can provide transport, marketing and credit services, and food processing facilities.

Another important partner in the Programme is the farmers. They are at the receiving end of the programme. They give meaning to the activities of the programme. The reason is that among the varieties of the farming practices put in place by the programme, farmers are responsible for selecting and managing the one suited to their needs. Their knowledge of local conditions and with the help of research and extension staff does influence their decisions on the best farming practices. Farmers are best placed to identify constraints to, and opportunities for, the wider adoption of innovations and, ultimately for taking action either directly or through their political leaders, to remove constraints and seize opportunities.

4.3.4 The Development of National Programme for Food Security (NPFS) in Nigeria

Considering the benefit accruing from the programme and effort to eradicate hunger, Nigeria requested for the assistance under the FAO's National Special Food Security Programme (NSFSP) in March 1998 to establish the programme in Nigeria. The programme was approved with a pilot phase of the NSFSP in 3 sites in Kano State by the Federal and State Governments with the technical support of the FAO (Daudu and Ajayi, 2007). The objective of the pilot phase was to identify, adapt, test and promote intervention packages that promote growth in the agriculture sector (ADF, 2006).

Based on the successful experience in Kano experimental stage, in 2001 the programme (NPFSP) was extended to 36 states of the federation including Abuja, the Federal Capital Territory for the period of five years between 2002 and 2006 (ADF, 2006; NFRA, 2007; Oruche, et al, 2012). With the expansion of the programme, three

(3) sites were selected in each state of the federation and one (1) in the Federal Capital Territory, making a total of 109 sites (that is one per senatorial District). The programme aimed at reaching about 30,000 farming households in each of the selected sites (FGN, 2006). The total cost of implementing the programme between 2002 and 2006 was USD 45.2 million which was solely funded from national resources (ADF, 2006).

Due to the success the programme recorded during the first phase between 2002 and June 2006, the programme was further up-scaled into another five years (2007-2011). The programme priority was to increase the number of beneficiaries by establishing 218 additional new sites in all states and the Federal Capital Territory (FCT) starting from July 2007 (that is additional six new sites in each state of the federation). The expansion phase covered 327 Local Governments Councils. These sites, according to the Programme Implementation Manual (PIM) (nd) and Taiwo (2014), served as platforms for development and outreach into communities not directly covered by the programme. The second stage of the programme aimed at reaching about 70,000 farm households that participated in the site development programme. With an average of 7 persons per household, this would result in improved livelihoods for 525,000 rural dwellers. Under the outreach, programme coverage would be about 785,000 farm families during the project period amounting to approximately 6 million rural dwellers, most of who are poor or even very poor (PIM, nd).

The estimated cost of implementing the expansion phase is $364 million. Unlike the first phase that was solely financed by the Federal government, the government requested financial support from donor agencies. On his part, the Federal government is committed to devote part of its annual budgets to the programme for five years while FAO will provide technical and administrative support. The Nigerian government is expected to contribute 60 percent of the required amount, while the donor agencies are equally expected to contribute the remaining 40 percent. The sharing formula among the three tiers of government is as follows: Federal government will contribute 47 percent, state governments 26 percent, Local governments 19 percent while the beneficiary communities would contribute 8 percent (PIM, nd).

For effective implementation, the following projects were brought under the umbrella of the NPFS:

1. Food Security Projects
2. Aquaculture and Inland Fisheries Project
3. Animal Diseases and Trans boundary Pest Control Project
4. Commodities and Food Stock Management
5. Soil Fertility Initiative

4.3.5 Objective of the NPFS in Nigeria

The government decision to expand NSPFS anchors on the need to improve smallholder food security, income and to reduce poverty through agricultural productivity. This decision, according to Taiwo (2014) also recognizes that:

(i) NSPFS comprises a broad variety of interventions that focus on areas most relevant for improving food security at both national and household levels;

(ii) In successfully implementing its core elements, NSPFS has been strategic in improving farmer's access to inputs such as fertilizers and seeds for both rain – fed and irrigated agriculture;

(iii) Irrigation made it possible for the farmer to have more than one cropping cycle, with the attendant doubling of net returns;

(iv) The project successfully demonstrated the potential for increasing income and improving livelihoods through well-managed and cost-effective livestock enterprises;

(v) The fisheries activities have demonstrated to the beneficiaries the potential for improving production, income and livelihood.

The objective of the NPFS is to foster the development of smallholder's agriculture and income generation in the rural areas, improve national food security and reduce poverty.

The specific objectives are to:

i. Improve household food security and incomes through increases in agricultural productivity, diversification and sustainable use of natural resources.
ii. Enhance food security of consumers through improved availability of food and access to a variety of foods and increase income of producers through more efficient marketing.
iii. Enhance farmers' and consumers' access to support services such as extension, credit nutrition and health education; and
iv. Foster participation of the power section of the rural population in the development of the community.

4.3.5 Rationale for Operation in Nigeria

The National Programme for Food Security (NPFS) adopted an integrated approach that covers several areas of production in the agricultural sector, namely; training and capacity building, improvement of rural access roads and markets for inputs and outputs, enhancement of crop production and diversification into livestock, fisheries and agro-forestry management among others (ADF, 2006). These are developed as intervention packages or modules with the participation of the beneficiary communities at consultative meetings, and are designed to respond to the community needs and production opportunities in the areas targeted by the NPFS. This will increase productivity in areas where Nigeria has a comparative advantage.

Nationwide implementation was assigned to the Project Coordinating Unit (PCU) of Federal Ministry of Agriculture and Rural Development (FMARD) through the Agricultural Development Projects/Programmes (ADPs) in the states and FCT.

Thus, to benefit from the programme activities, community are encouraged to form group with members' population range from 25-30 per group. An average 30 groups at each sites are expected to form an Apex Group that will comprise of the executives of the individual groups. The Apex Group will represent the farmer groups on issues related to the financing of inputs, provision of land preparation services, marketing and financial services (credit, saving etc). It was through this group that the beneficiaries assess the benefit of the programme.

4.3.6 Criteria for Selecting Participating Local Governments, Community and Beneficiary in Nigeria

Since the programme is not covering all local government areas in Nigeria, it is pertinent to examine the criteria for selecting the beneficiary's local governments. According to the Programme Implementation Manual (nd), to qualify, a local government must provide the following:

i. Written indication of interest and a commitment for regular payment of the counterpart funds to the project
ii. Evidence of operational and active economic interest groups who are willing and commitment to enabling a Community Apex Bodies
iii. Evidence of functional Local Management Committee

iv. Submission of the reports on Constraints and Needs Analysis and the Community (CPs) for the first year of the project

v. Equal representation of Senatorial Zones

Similarly, the programme came up with criteria for the community to meet before they can benefit from the programme. The NPFS eligibility criteria for community are:

i. Willingness of the community to put up a counterpart contribution

ii. Representativeness of the major two ecological zones

iii. Community must be within the selected participating Local Government Area

iv. Evidence of operational and active EIGs who are willing and committed to establish a legally recognized community apex body

v. The community apex bodies and other EIGs have opened a bank account, which is active and good standing

vi. Communities that are benefiting from similar programme are excluded.

This was done in order to encourage wide coverage and access of the needy communities and groups to NPFS support. The selection of the sites was based on the existing secondary data relating to potential of bringing about rapid improvement and the representative of major ecological zones. Subsequently, selection the sites was based on the Participatory Rural Appraisal and Needs Assessment conducted by States/Local implementation.

4.3.7 The Fund Management in NPFS Sites

The fund for NPFS Programme was in form of grant deployed to support tested and profitable agricultural enterprises in rain fed/irrigated crop production, livestock, animal traction, fisheries, agro-forestry and agro-processing in the 327 NPFS sites. The fund was jointly contributed by both the federal government and state /local government to the management of the programme. Thus, this fund was managed by the following accounts:

FGN/State Agricultural Enterprise Development Investment Account (AEDI). This account was designated to the FGN/State contributions for enterprise development and managed jointly by the State Ministry of Agriculture through the Agricultural Development Project (ADP) and the Federal Ministry of Agriculture and Water Resources through NPFS.

At the state level, each state is expected to open State Operational account for the operation and management of the project. This account will be solely managed by the ADP with audit and supervision by the State government. The State/LGCs counterparts fund is expected to be deposited into this account.

The third one is Sites Operational Account. Based on the approved work plan and budget for each site, fund for agricultural enterprise development will be transfer from FGN/State Investment account to the Site Operational Account for onward disbursement to beneficiaries account. This account is maintained at site level with the site manager and treasurer of Apex group in the site as co-signatories. The Apex Chairman was vested with mandated power to disburse the money.

The last account is Site Recovery Account. This account is used for lodgment of recovered loans and advance. This account is under the management of the Apex group and for farmers to access NPFS funds, they were required to make initial deposit of 10 % of the amount approved for individual farmers into this account. This payment will be returned to the individual farmer when he/she repays as at when due. In case of default, the farmer will forfeit all or part of the 10 % down payment according to the amount in default. Any unpaid balance will be recovered by the credit recovery committee.

This grant is given to beneficiaries in form of credit over a period of 1to 3 year(s) depending on the enterprise and thereafter will serve as a revolving fund where other beneficiaries will benefit. The enterprise was categorizing into short, medium and long term loans for the purpose of credit. The short term credit was assigned to the enterprise that has a production period of 3 to 12 months. The enterprises that fall within this category are: Broiler production, Ram fattening, and Cattle fattening in which the production is expected to cover 4 months. Other enterprises such as Pig fattening, irrigation and Rain fed farming will cover period of six (6) months, while community seed production and integrated Aquaculture will cover 12 months. Therefore, any farmer engaged in any of these enterprises is expected to complete repayment of the loan latest after 12 months.

The second category of the loan is Medium Term Credit. This consists of enterprise with production periods of 13 to 24 months. This include: Grass cutter and layer production with production period of 18 months, 16 months for Snail farming, while Community Nurseries, Sheep and Goat upgrading, Animal health, Animal traction, Artisanal fisheries production period is 24 months. The beneficiaries in this category of loan are expected to repay their loan fully after 24 months.

The last category of the loan is Long Term Credit. The beneficiaries of this loan are those who engaged in enterprise whose production period is between 25 to 36 months. The enterprise that are in this category are: Garri processing, Rice milling, Palm oil production, Groundnut processing, Livestock feed milling, Agro-forestry orchards and Grain milling with production period of 36 months except Grain milling with 30 months production period.

CHAPTER FIVE

DATA PRESENTATION AND ANALYSIS

5.1 Introduction

This chapter deals with presentation and analysis of the data obtained from the field. It also covers the socio-economic characteristics of the respondents, results as well as discussions of the findings.

5.2 Socio-Economic Characteristics of the Respondents

Table 5.1: Distribution of Respondents' Socio-Economic Characteristics in Three Selected States

Characteristics	Jigawa State		Kwara State		Osun State	
	Frq	**%**	**Frq**	**%**	**Frq**	**%**
Sex						
Male	80	73.4	77	72.6	68	63
Female	29	26.6	29	27.4	40	37
Total	**109**	**100**	**106**	**100**	**108**	**100**
Marital Status						
Single	4	3.7	6	5.7	6	5.6
Married	101	92.6	94	88.6	98	90.7
Widowed	4	3.7	4	3.8	4	3.7
Divorced	0	0	2	1.9	0	0
Total	**109**	**100**	**106**	**100**	**108**	**100**
Education Qualifications						
Primary	19	17.4	24	22.6	24	23.2
Secondary	24	22.0	36	34	32	29.6
Tertiary	8	7.4	29	27.4	35	32.4
Non-formal Education	58	52.2	17	16	16	14.8

Total	**109**	**100**	**106**	**100**	**108**	**100**
Age of household						
Less than 20	3	2.8	0	0	0	0
20-40	40	36.7	30	28.3	21	19.4
41-50	42	38.5	35	33.0	14	13
Greater than 50	24	22.0	41	38.7	73	67.6
Total	**109**	**100**	**106**	**100**	**108**	**100**
Household size						
1-4	24	22.0	25	23.6	44	40.7
5-9	51	46.8	53	50	44	40.7
10 and above	34	31.2	28	26.4	20	18.6
Total	**109**	**100**	**106**	**100**	**108**	**100**
Non- Farming Activities						
Yes	69	63.3	70	66	64	59.3
No	40	36.7	36	34	44	40.7
Total	**109**	**100**	**106**	**100**	**108**	**100**
Sources of Information						
Radio	7	6.4	10	9.4	20	18.6
Friend	10	9.2	16	15.2	9	8.3
Political Meeting	2	1.8	14	13.2	6	5.6
Television	1	0.9	7	6.6	9	8.3
Extension Agents	80	73.4	51	48.1	55	50.9
Mosque/Church	9	8.3	8	7.5	9	8.3
Total	**109**	**100**	**106**	**100**	**108**	**100**

Source: Author Field Survey, 2016

Table 5.1 showed that the socio-economic characteristics of the beneficiaries of the NPFS programme across all the sampled states. Out of all respondents sampled in Jigawa State, 73.4 percent were male while 26.6 percent were female. 72.6 percent of the male and 27.4 percent of the female were sampled in Kwara State while 63 percent of the male and 37 percent of female were sampled in Osun State. The result revealed that there were more male in NPFS programme than female and this confirms the usual domination of males in farm enterprise. The male-headed households are expected to have higher food security status than their female counterparts because it is assumed that male-headed households are in a better position to supply more labour to do farm work (Anne Vander Veen and Tagel, 2011).

Table 5.1 equally revealed that in Jigawa state about 92.6 percent of the respondents were married while others were either single (3.7 percent) or widowed (3.7 percent) or divorcees (0 percent). Similarly, in Kwara State 88.6 percent were married, followed by single (5.7 percent), widowed (3.8) and divorced (1.9) while in Osun state, 90.7 percent were married, followed by single with 5.6 percent, widowed with 3.8 percent and divorced with 0 percent. This status implies that majority of sample beneficiaries are married. Adegeye and Dittoh (1985) declared that small scale farmers could only be successful if they were married especially when they had to rely on family to supply labour to work on the farm.

Considering the educational level of the beneficiary in all the sampled states, the table revealed that non-formal education accounts for 52.2 percent in Jigawa State, followed by secondary with 22 percent, while 17.4 and 7.4 percent had primary and tertiary education respectively (table 5.1). In Kwara state 30 percent of the respondents had secondary education, 27.4 percent had tertiary education, 22.6 percent had primary education and 16 percent had non-formal education. The trend of analysis in Osun state also reveals that 32.4 percent had tertiary education, followed by secondary education with 29.6 percent, while 23.2 and 14.8 percent of respondents had primary and non-formal education respectively. This indicates that beneficiaries with the exemption of Jigawa state where 52.2 percent had non-formal education, from Kwara and Osun states have good potentials to acquire and interpret messages relating to their farming activities. This, to some certain extent, may have significant impact on their productivity and their ability to effectively adopt and utilize NPFS's packages that could improve productivity and income for food security.

Age is another important factor to be considered in determining the quality of labour employed particularly in small scale farming. In Jigawa state, 38.5 percent of the beneficiaries were between age of 41-50 years, followed by 20-40 years with 36.7 percent compared with Kwara where 38.7 percent and 33 percent of the respondents are from between age bracket of 41-59 years and Greater than 50. While in Osun state Greater than 50 years of respondents accounted for 67.6 percent. This was followed by 20-40 with 19.4 percent, while 41-50 years accounted for 13 percent. In Osun and Kwara states, none of the respondents fall within the age bracket of less than 20 years.

The size of household is important in peasant agriculture. The family size, according to Oni and Yusef (1999) is a very important socio-economic characteristic, since in most cases family labour constitutes the main source of labour to rural dwellers. This is because availability of labour for farm production is determined by the size of farm household. The result of the analysis in table 5.1 showed that in Jigawa state, 46.8 percent of the respondents have between 5-9 household sizes, followed by 10 and above with 31.2 percent and 1-4 with 22 percent. Similarly, in Kwara state, 50 percent of respondents have between5-9 household sizes, followed by 10 and above with 26.4 percent and 1-4 household with 23.6 percent. While in Osun state, 40.7

percent each of the respondents have 1-4 and 1-9 household sizes, followed by 10 and above with 18.6 percent. This implies that majority of the household size in the study area was not above 9.

The table 5.1 further revealed that 63.3 percent of the respondents in Jigawa state, 66 percent in Kwara state and 59.3 percent in Osun state engaged in other non-farm activities to complement the household earning from farming activities. Other income-provider activity, according to this finding, includes Okada riding, trading, and hunting. This becomes necessary for respondents to support their livelihood in order to meet the food demand of their family. This is in line with the position of Ellis (1999) that farming alone is not sufficient to cater for household needs in the rural African setting.

Table 5.1 finally revealed how the information about the programme got to the beneficiaries. The result of analysis shows that 73.4 percent in Jigawa state, 48.1 percent in Kwara state and 50.9 percent in Osun state of beneficiaries received information about the programme through “extension agents” followed by “friend” with 9.2 percent in Jigawa state, 15.2 percent in Kwara state, while the radio became second source with 18.6 percent. The pertinent issue here is that “extension agents” still remain viable in the process of disseminating information about government programmes in the area of agriculture.

5.3 Testing of Assumptions

5.3.1: That the National Programme for Food Security has significantly differed from previous food security programmes in Nigeria

On the question of difference between the NPFS and previous programmes, the study found out that NPFS is a community-driven programme. This is because the programme gave high priority to the community in planning and implementation as well as the types of farming activities that each community has comparative advantage over. As a community driven programme, it was revealed that the community and the farmers are at liberty to identify critical areas of intervention, thereby creating local level participation for ownership to enhance project sustainability. NPFS was designed in a flexible way in order to cater for beneficiaries' differences. In Jigawa State, for instance, all modules on fisheries allocated to sites such as aquaculture, rich fish, poultry fish and fish processing were changed to either animal traction or small ruminant modules as requested by the farmers in all sites. The reason given is that animal rearing is more easy and profitable than fish in Jigawa state. The programme believed that once a community is allowed to determine what they need most with little supervision of the government, they can effectively organize to address local problems.

As a community driven programme, NPFS took cognizance of the peculiarity of each community into consideration. The strategy is aimed at utilizing the rural people to develop themselves through their own self initiative and motivation, with minimum assistance from government. As part of the strategy to achieve its objectives, the NPFS programme regards poor people as assets and partners in the development process, building on their capacity and resources. This was done in order to correct the past mistake of previous programmes. Nkom (1989) noted that one thread that has consistently run through all government intervention programmes, since 1960, is the non-involvement of the rural masses in policy formulation and implementation. The programme gave high priority to the community in planning and implementation of different NPFS packages as well as types of farming activities that each community has comparative advantage over. The empowerment of the community became paramount. They were involved in the projects based on their felt needs, priorities and plan by themselves, implementation, monitoring and evaluation by themselves with outsiders as facilitators. It was designed in a flexible way in order to cater for both beneficiaries' and communities' difference. The programme designers believed that once a community is involved, the food insecure households can effectively organize themselves to address the problems. The NPFS programme had realized that the only sure way of improving household food security was through the exploitation of community endowments and investment in human resources at local level.

Similarly, the result of interview conducted also revealed that the programme was owned by community. The government intervention in the programme came in form of grant and deployed to each site to support the farmers to increase his/her farming activities. Once the grant is released from government it becomes the property of the Site and its members. Out of this grant, the credit is given to the farmer in form of loan to use for over a period of time (depending on type of farming activities) and returned to the account of the Group. This credit was attached to module of intervention components. The module where beneficiaries farming activity fall determines the amount of loan each farmer is entitled to in the Site. This module also determined repayment period of loan of each beneficiary. Once the loan is repaid, it then revolves among all beneficiaries in each site. It is not that either the Apex Group or the beneficiaries will return the money back to the government. It was gathered from the field work that the rate of repayment was not encouraging in most of the Sites except in Osogbo Site 1 where the rate of repayment was about 85 percent. Other Sites recorded very low loan recovery due to what the interviewed sites' leaders attributed to absconding of the members after collecting the loan. The success recorded in Osogbo Site 1 was as a result of recovery measures adopted and agreed upon by all the site members. The site has internal rules guiding disbursement of the loan as well as loan recovery committee with motorbike fuel from site money. This committee has the record of all those who collected loan and when they are expected to pay back. Failure of any member to comply with repayment agreement, there is punishment in form of either fine or delayed in getting another loan. The repayment of loan (as at when due) in the site was also attributed to level of commitment on the part of members. The secretary of the site stated that: "Everybody believed that he/she is a stakeholder in the site because the grant released by government belongs to all members in the site".

Other sampled Sites' operation was based on the soft conditions spelt out in the guideline that established the programme. "The reason is that in the rules that guide the operation of the programme there is no serious penalty on defaulters". This flexibility or silence of the programme on loan recovery was adopted by all associations and responsible for low loan recovery. In Jigawa state there was no loan recovery from all association for a period of three years. The interview conducted with the State Coordinator reveals that hardly a farmer who took credit of about "N100 000:00 would repay back up to N10, 000. The death of members also constituted another serious challenge to loan recovery in sampled sites. Once a member passes away there is no way to reclaim the loan he/she collected. The programme does not have solid legal procedure for repayment after death. The Apex leader in Alapa, attributed low loan recovery to high level of poverty among the beneficiaries. He said that farmers cannot finance their activities leading to over dependence on NPFS fund.

It was also revealed during the interview that the implementation of the NPFS encourages grass-root participation. After the introduction of the programme, most of its activities were carried out through the bottom-up approach, that is individual farmers are coordinated by both the primary and apex groups he/she belongs to. The programme allowed the farmers to choose from available opportunities, identify needs according to priorities while the extension agents only act as facilitators. These groups are coordinated by the State Agricultural Development Project (ADP) and the federal government is coordinating the activities of the farmers through the State ADP.

In the area of participation, the programme allowed wider participation in the decision and management of the resources the government voted for the programme in each site. This invariably explains why the farmers, most especially in the rural area, resist change once their interest is not integrated into the programme where their needs and aspirations are prioritized. Thus, NPFS took note of this problem by allowing the communities and individuals to participate in the decision as well as management of the programme. The programme empowers the beneficiaries, through collective decision making, to effectively and efficiently allocate and manage the programme resources for their livelihood activities. The role of the government will be limited to providing appropriate regulatory system. This explained why majority of the people interviewed wanted the government to sustain the programme. To demonstrate the level of autonomy enjoyed by the beneficiaries, the leader of Osi site wanted the government to increase the grant allocation to the site because the site had admitted additional members apart from the pioneer members. The current chairman of the site (Osi site) was among the newly admitted members.

As part of the diversification packages to improve household food security, the NPFS designed small scale water scheme for farming activities in order to ensure access to water all year round. The general goal of the programme was to extend the farming season beyond the rainy season through small scale irrigation facilities with appropriate technologies. This, according to the programme, will increase and ensure stability of the high yield crops production all year round. The annual increment in crops production and it stability would increase the income of the farmers and improve in food security. Other package to diversify source of income according to the NPFS is by encouraging the farmers to engage in livestock rearing. The farmers are expected to engage in domestic rearing of livestock that is capable of fetching them additional income. Once the farmer experience increase and stable income, there is high tendency for such farmer's household to be food secure because they will have enough to spend, most especially on food they don't either have or produce.

The outcome of this finding also revealed that the programme has different components for production enhancement and diversification. The first component is intensification of crop production. The NPFS was designed to first of all increase the crop productivity of beneficiaries' household through crop intensification. To achieve this, the programme introduced high yield and disease resistant crop varieties that can grow in all the ecological zones for both rain-fed and irrigated production system. The farmers were encouraged to adopt improved cultivated varieties of crops that will improve human nutrition as well as their income.

The second component is farm diversification. The farmers were encouraged to diversify their production activities. Through this component, farmers (most especially those that are concentrating on crop production) are expected to add either livestock or fishery to their activities. The farmers were exposed to knowledge and innovations (that are necessary) for livestock that are adapted to each local condition, custom and available resources.

Another reason for diversification advanced by the Osun state coordinator is that many households are food insecure because they are engaged in rain-fed agriculture which render them less busy (unemployed) during the dry seasons. Meanwhile, the programme believed that the only way for beneficiaries to have stable income is to diversify sources of his/her income. By diversification, they will have strong economic power that will pull them out of poverty and increase their access to nutritious food. But the inability of the programme to diversify the beneficiary's source of income may form part of the factors that hindered food security status of the beneficiaries.

Farm diversification was another activity that the NPFS gave high priority. The reason, according to the programme, is that many households are food insecure because they are engaged in rain-fed agriculture which renders them less busy (unemployed) during the dry seasons. The programme believed that the only way for a beneficiary to have stable income is to diversify sources of his/her income. By diversification, they will have strong economic power that will pull them out of poverty and increase their access to nutritious food. But the inability of the programme to diversify the beneficiary's source of income may form part of the factors that hindered food security status of the beneficiaries.

On the trend of funding, majority of interviews conducted revealed that the first phase of the programme (2001-2006) received uninterrupted released of fund from the government. This development, according to Osun state coordinator, is as a result of the fact that the first phase of the programme was financed solely by Federal Government. The inclusion of the state governments and other partners during the expansion phase (2007-2011) to pay counterpart fund created problem of untimely release of fund as and when due. When the Federal government realized the persistence failure of state governments to pay their counterpart fund, they insisted on seeing the evidence of payment from the state governments before they would release their fund. This to a certain extent had negative impact on the programme.

5.3.2: That the National Programme for Food Security (NPFS) has not significantly increased agricultural productivities and diversification of the beneficiaries in Jigawa, Kwara and Osun States

On the level of agricultural productivity, the analysis of the programme's impact on productivity revealed that there is increment in production of the beneficiaries before and after the programme. Using the mean scores of yield, table 5.2 shows that after participation the production of crops and livestock increased. The table equally reveals that the mean score of yield varies among the sample states. In Osun State, for instance, the percentage change in beneficiaries' crops and livestock yield after participation is 78.1 and 68.02 percent respectively. Jigawa State recorded 11.4 percent in crops and 6.23 percent in livestock while Kwara State recorded 10.5 percent change in crops and 25.75 percent change in livestock.

This indicates that NPFS beneficiaries in Osun state produced more of both livestock and crops compared to Jigawa and Kwara States respectively.

Table 5.2: Mean of Yield before and After NPFS Participation for Crops and Livestock

	State(s)	A Mean Before	B Mean After	B – A Difference	C % Change
Crops	Jigawa	2821	4107	1196	11.4
	Osun	14707	22918	8211	78.1
	Kwara	4185	5292	1107	10.5
	Total			10514	100
Livestock	Jigawa	7.37	12.5	5.13	6.23
	Osun	32.93	88.95	56.02	68.02
	Kwara	26.36	47.57	21.21	25.75
	Total			82.36	100

Source: Author's Field Survey (2016)

On the impact of NPFS on agricultural productivity of the beneficiaries, table 5.3, revealed that significant difference was recorded in the production of the crops and livestock after participation in NPFS. The result of t-test analysis, therefore, shows that the programme so far had positive effect on output of participants after participating in the NPFS. The t-cal (9.379, $p < 0.05$) is significant for crops production before and after the programme. The study also recorded significant difference in livestock production (t-cal 4.536, $p < 0.05$) before and after NPFS. The mean of crops production before participation (5.78201) is less than the mean after participation (11.23692). Similarly, the mean of livestock production before participation (35.09708) is also less than the mean after participation (53.57679). This implied that the National Programme for Food Security (NPFS) has significantly increased agricultural productivity of beneficiaries in all sampled sites.

Table 5.3: t-test Analysis of Change in Production of the Beneficiaries before and After NPFS Participation

Variable		Mean	N	DF	Std Deviation	Std Error Mean	t-Value	P-Value	Decision
Crops	Before	63.6734	323	322	103.91545	5.78201	9.379	0.000	S
	After	1.2043	323	322	201.95223	11.23692			
Livestock	Before	1.2897	323	322	630.77178	35.09708	4.536	0.000	S
	After	2.1417	323	322	962.89275	53.57679			

Source: Author's Field Survey (2016)

In the area of productivity, the study revealed that NPFS's beneficiaries experienced increment in production due to participation in the programme. The result of the T-test analysis shows that the NPFS has significant impact on productivity of the beneficiaries after participating in the programme. To a certain extent, this increase in production recorded after participation was not fully based on the available and access to high yield seeds and other complementary farm elements. According to the finding, beneficiaries did not have adequate access to required elements such as improved seeds, fertilizer, pesticides, improved animal breeds that can ease farming activities and double their yield. In all the three sites sampled in Kwara state (Agbamu, Osi and Alapa) and two site in Osun (Aiyedade Ago-Owu site and Ede South), to get these elements the beneficiaries had to travel (in most cases) to the state capital. The analysis of the overall level of accessibility of these elements in all sample sites was very low. For instance, only 39 percent of the respondents found improved seeds very accessible, 3.4 percent for pesticides, 6.2 percent for improved animal breeds, 12.7 percent found fertilizer more accessible. Low accessibility was also recorded in access to tractor (5.3 percent), direct water pumping (28.2 percent) and small water scheme with 3.7 percent (see appendix ll).

Similarly, the record of the States' Agricultural Development Project buttressed the outcome of this finding. In Kwara, for instance, agricultural production survey results between 2001 and 2011 shows that the experience of increased crops production was as a result of increased in the area cultivated. The ton of yam production in 2008 was 948.58 tons, the area cultivated (HA) was 76.13 and the yield per HA was 12.46. In 2009, production ton was 1006.065, the area cultivated was 80.724 and yield per HA was 12.46 (Kwara ADP, 2014). This implies that increase in productivity experienced by beneficiaries was not completely based on the available and access to farm elements.

Furthermore, state by state analysis of the programme impact on productivity of the beneficiaries revealed that percentage change in beneficiaries' crops and livestock after participation in all sample states varied. Osun state has the higher percentage change in mean of both crops (78.1 percent) and livestock (68.02 percent), followed by Jigawa state in crops with 11.4 percent in crops and Kwara State in livestock with 25.75 percent. The degree of variation in the production can be linked to the level of autonomy enjoyed by the sites in each state. In Jigawa state, state monitoring team, in some cases, supply beneficiaries with their needs at the price higher than open market price.

In the area of diversification, State by state analysis reveals that 55.6 percent of the beneficiaries from Jigawa State diversify their productivity followed by 21 percent in Kwara state and 13 percent in Osun state (see table 5.4). This indicated that beneficiaries from Jigawa state enjoyed highest level of diversification incentives compared to those of Kwara and Osun States respectively.

Table 5.4: Cross Tabulation of the Respondents to Productive Diversification

Site Name	**No**	**Yes**	**Total**
Jigawa %	48 44.4 %	60 55.5 %	108 100 %
Osun %	94 87%	14 13%	108 100%
Kwara %	84 78.5%	23 21.5%	107 100 %
Total	**226 (70%)**	**97 (30%)**	**323**

Source: Author's Field Survey (2016)

Further analysis (in table 5.5) reveals that majority of the beneficiaries were unable to diversify their productivity through diversification incentive provided by the NPFS. As in the table, only 97 (30 percent) of the respondents (beneficiaries) has the benefit of diversifying their production activity, while the remaining 226 (70 percent) said the programme had no impact on their product diversification. This result is against one of the programmes objectives which expect the beneficiary to diversify their productivity after participation.

Table 5.5: The Frequency of Respondents to Production Diversification

Variable	**Frequency**	**Percentage**
Yes	97	30
No	226	70
Total	**323**	**100**

Source: Author's Field Survey (2016)

The study also found out that 70 percent of the beneficiaries were unable to access diversification packages of the programme. To diversify, the NPFS made provision for dry season farming to augment the raining season farming. Most of these provisions (elements) were not accessible to the beneficiaries. For instance, direct water pumping and small water scheme that was designed to boost production during dry season was only accessible to few beneficiaries in Maikilili and Chiyeko/Burum sites in Jigawa state. While in Kwara state (Alapa, Osi and Agbamu sites), majority of beneficiaries did not have access to water scheme. Similarly, improved animal breed which was expected to serve as additional source of income was also accessible to few beneficiaries. In Chiyeko/Burum, it was revealed that a she-goat was given to a household at the rate of twenty five thousand naira payable back in three years. The amount the beneficiaries claimed was higher than the market price. This contradicts how the programme intends to empower the beneficiary. The programme, according to the Osun State coordinator of the programme, has fixed amount for module of farm activities. For instance, beneficiaries who engaged in maize/cassava is entitle to N114, 200 loans, while those that engaged in Okro or tomato are entitle to N80000 each.

The overall assessment of this programme in all sampled sites revealed that 42 percent of the beneficiaries have access to improved animal breeds, 47.1 percent to direct water pumping, and 32.5 percent to small water scheme (see appendix ll).

5.3.3: That the National Programme for Food Security (NPFS) has not significantly increased income of beneficiaries in Jigawa, Kwara and Osun States

In the area of beneficiaries' income, the research found out that the programme had positive impact on the income of the beneficiaries. The percentage of mean difference shows that the income of beneficiaries from Osun state was higher than those of Jigawa and Kwara states respectively. The percentage of change in income of beneficiaries in Osun state was 67.08 percent, followed by beneficiaries from Kwara state with 16.54 percent while the income of the beneficiaries from Jigawa state was increased by 16.38 percent (see table 5.6).

Table 5.6: Mean of Income Before and After NPFS Participation

State(s)	**A** **Mean Before**	**B** **Mean After**	**B – A** **Difference**	**C** **% Change**
Jigawa	67111.53	138292.5	71180.97	16.38
Osun	226.277.78	517,814.81	291537.03	67.08
Kwara	89202.80	161070.96	71868.16	16.54
Total			**434586.16**	**100**

Source: Author's Field Survey (2016)

On the income of beneficiaries after participating in the NPFS, table 5.7 shows the difference between the mean income of beneficiaries before and after participation in NPFS as well as calculated t-test statistics. The results of analysis shows that the annual mean income for beneficiaries before participating was 8540.54 while after participating was 19537.50. This shows that the mean annual income after participating was greater than income before participating. The t-cal (11.340) was significant at 0.05 level. This implies that the National Programme for Food Security (NPFS) has significantly increased income of household beneficiaries after participating in the programme.

Table 5.7: t-test Analysis of the Beneficiaries Income Before and After NPFS Participation

Variable		Mean	N	DF	Std Deviation	Std Error Mean	t-Value	P-Value	Decision
Income	Before	1.2858	323	322	1.53492	8540.53900	11.340	0.000	S
	After	2.7274	323	322	3.51132	19537.50329			

Source: Author's Field Survey (2016)

The findings also reveal that beneficiaries recorded significant increase in incomes due to participation in the programme. This was an indication that they produced more and have goods to offer for sale. The sales value expended on productive resources after joining the programme constitute an injection of capital into households' income. This was expected to inject capital into rural economy and help the beneficiaries to break the vicious poverty circle as well as to improve their access to food.

3.3.4: That the National Programme for Food Security has not significantly improved food security status of the beneficiaries in Jigawa, Kwara and Osun States.

On the food security status of the beneficiaries, the result of analysis derived using USDA approach (2000) shows that none of the beneficiaries is in the scale range of food secure. This implies that among the sampled beneficiaries none have access to sufficient, safe, stable and nutritious food for an active and healthy life. Also, majority of households are food insecure. The degree of their food insecurity is as follow:

Also, 0 percent of the beneficiaries are food secure, while 30.65 percent of the beneficiaries are food insecure without hunger; 60.68 percent of the beneficiaries are food insecure with moderate hunger and 8.67 percent of the beneficiaries are food insecure with severe hunger (table 5.8). This invariably tells us that none of the beneficiaries attained full status of food security.

Table 5.8: Beneficiaries' Food Security Status after Participation

Food Security Status	Frequency	Percentage	Value Scale
Food Secure	0	0	0-2.32
Food insecure without Hunger	99	30.65	2.33-4.56
Food insecurity with Hunger (Moderate)	196	60.68	4.57-6.53
Food insecurity with Hunger (Severe)	28	8.67	6.54-10.0
Total	323	100	

Source: Author's Field Survey (2016)

On food security status of the beneficiaries, the finding reveals that none of the beneficiaries attained full status of food security. Though, the beneficiaries, according to the finding, recorded an increase in income but none can be regarded as food secure household. The reasons that can be deduced from the analysis are that increment in production and income was not strong enough to improve the purchasing power of beneficiaries to access food. Other factors that is responsible for beneficiaries' none attainment of fully food security status was failure of the programme to diversify their source of income. This implied that beneficiaries concentrated mainly on single source of income. It was also found out that other domestic need both in the house were seriously competing with the available income of the beneficiaries.

5.3.5: That the beneficiaries of the programme are facing problems

Table 5.9 showed the mean score distribution of beneficiaries based on constraints encountered in Jigawa State. The most prevalent constraint which was ranked first was loan repayment problem. This was considered as the greatest obstacle among the beneficiaries. Other problems are listed in a descending order with their mean scores: Unstable Government Policies (1.331), followed by high cost of labour and farm inputs (1.321). the fourth ranked constraint was irregular loan disbursement with 1.234 mean score, followed by difficulty in marketing of produce 1.023.cost of registration was ranked sixth with mean score of 0.538, absence of facilitator from duty post was ranked seventh with mean score 0.525, while leadership problem within the group was ranked eighth with mean score of 0.513.

Table 5.9: Mean Distribution of Beneficiaries Based on Constraints Encountered in Jigawa State

Constraints	Mean	Rank
Cost of Registration	0.538	6
Absence of Facilitator from Duty Post	0.525	7
Unstable Government Policies	1.331	2
Leadership Problem within the Group	0.513	8
Loan repayment problem	1.961	1
Irregular loan disbursement	1.234	4

Difficulty in marketing of produce	1.023	5
High Cost of labour and farm inputs	1.321	3

Source: Author's Field Survey (2016)

Table 5.10 showed the mean score distribution of beneficiaries based on constraints encountered in Kwara State. The loan repayment problem among the beneficiaries was ranked first with mean score of 1.852 followed by high cost of labour and farm inputs (1.679). Other problems were listed in a descending order with their mean scores: Unstable Government Policies (1.331), followed by high cost of labour and farm inputs (1.321). The fourth ranked constraint was irregular loan disbursement with 1.234 mean score followed by difficulty in marketing of produce 1.023. Cost of registration was ranked sixth with mean score of 0.538, absence of facilitator from duty post was ranked seventh with mean score 0.525 while leadership problem within the group was ranked eighth with mean score of 0.513.

Table 5.10: Mean Distribution of Beneficiaries Based on Constraints Encountered in Kwara State

Constraints	Mean	Rank
Cost of Registration	0.462	8
Absence of Facilitator from Duty Post	0.531	7
Unstable Government Policies	1.506	3
Leadership Problem within the Group	0.625	6
Loan repayment problem	1.852	1
Irregular loan disbursement	1.251	4
Difficulty in marketing of produce	1.105	5
High Cost of labour and farm inputs	1.679	2

Source: Author's Field Survey (2016)

As shown in table 5.11, in Osun State, high cost of labour and farm inputs was ranked first (1.896) followed by loan repayment problem among the beneficiaries with mean score 1.527. Other constrained according to the findings are listed in a descending order with their mean scores: Unstable Government Policies (1.111), followed by difficulty in marketing of produce (1.031). Irregular loan disbursement was ranked fifth with mean score 1.025 while the leadership problem within the group, cost of registration and absence of facilitator from duty post, which constituted less constrained, were ranked sixth, seventh and eighth position with mean score 0.821, 0.521 and 0.578 respectively.

Table 5.11: Mean Distribution of Beneficiaries Based on Constraints Encountered in Osun State

Constraints	Mean	Rank
Cost of Registration	0.578	7
Absence of Facilitator from Duty Post	0.521	8
Unstable Government Policies	1.111	3
Leadership Problem within the Group	0.821	6
Loan repayment problem	1.527	2
Irregular loan disbursement	1.025	5
Difficulty in marketing of produce	1.031	4
High Cost of labour and farm inputs	1.896	1

Source: Author's Field Survey (2016)

The general trend of the analysis of the three states shows that loan repayment problem is the most serious problems in Jigawa and Kwara States, while high cost of labour and farm inputs was ranked serious in Osun state. Unstable government policies which was ranked second in Jigawa state, ranked third in Kwara and Osun States. This implies that these constraints are there, but the level of its negative impact varies across the sampled states.

The study also revealed that the most prevalent problem in the study area was high cost of labour and farm inputs. Since farming in Nigeria and other developing countries depends on human labour, for beneficiaries to secure labour is a problem. According to this finding, the labour supply for farm activities is influenced by both off-farm commitments and unavailability of hired labour on regular seasonal basis. The general believe of the people is that family size forms part of the labour that will work in the farm. This belief, to a certain extent does not hold because most of the farmers' children are engaged in off farm activities. In all sampled sites in Osun and Kwara states, beneficiaries complained that their children are not interested in farming; they preferred to learn trade if they can't go to school. The Apex leader in Ede south states that majority of our wives preferred to engage in petty trade rather than follow us to the farm.

On the other hand, it was equally gathered from Alapa, Osi, Ede south, Osogbo and Aiyedade Ago Owu sites that most of those called hired labours at the beginning to farming (raining) season preferred to work on their farm before exchanging their services for money. The few that are available (hired labour) at the beginning of raining season rendered their services at exorbitant price.

Similarly, access to farm inputs also constituted problem to the beneficiaries. Most of the needed inputs such as fertilizers, insecticides are not easily accessible for the farmers. This could be that most of these inputs subsidized/provided by the federal government did not get to the farmers or they were inadequate. The study finds out that to access some of these inputs, the beneficiaries had to travel to far distance before they can get them. And in some instances, they had to pay high prices for some of these inputs. For instance, distribution of respondents by level of access to NPFS elements revealed that only 39 percent of the beneficiaries have high access to improved seeds, 11percent for pesticides, 6 percent to improved animal breeds, 12.7 percent have access to fertilizer and 5.3 percent have access to tractor (see appendix ll).

Also, the study revealed that unstable government policy is another constraint to the realization of the NPFS objectives. It was gathered from this study that inconsistent government policies, to a certain extent, hindered the benefit of the programme to the beneficiaries. For instance, the programme had smooth operation between 2001 and 2006 when the federal government was the sole financier of the programme. But with the involvement of the state governments and other beneficiaries to co-fund the programme, the programme started experiencing late and non-payment of counterpart funds from both federal and state government.

The third constraint according to the findings is irregular loan disbursement. Despite that NPFS is a credit revolving programme, it was observed that loan in most cases did not get to the beneficiaries as at when due. Inconsistence in the loan disbursement was attributed to failure of beneficiaries to refund their loan as at when due. In Alapa and Osi sites, their records showed that substantial parts of the repayment always come towards the commencement of farming season. Untimely disbursement of loan had negative effect on repayment because farming activities is a time bound programme. The reason is that the beneficiary ends up spending the money on other issues outside agricultural production.

The next constraint is difficulty in marketing of farm produce. This problem cut across all the sampled sites. The beneficiaries were facing serious setback in the hand of the middleman. Most of the farm produce were bought off before harvesting. To many farmers, this deprives them opportunities to sell their product at market price.

5.4 Major findings

i. The programme allowed the beneficiaries to manage the programme and take vital decisions on the activities
ii. The result of finding revealed that the productivity of the beneficiaries increased as a result of their participation in the NPFS
iii. In the area of diversification, the study revealed that only few beneficiaries had opportunities of diversifying their sources of income as a result of their participation
iv. The study also revealed that the income of beneficiaries increased after their participation in the programme
v. In the area of food security, the study revealed that all the beneficiaries were below full food security status. Majority of the beneficiaries were food insecure with moderate hunger

5.5 Contribution to knowledge

Literature on the subject of the study concludes that government intervention policies and programmes failed due to poor formulation and implementation on the part of the agency that will implement it. Literature has shown that the focus of past studies was on policy formulators and executors towards process of formulation and mode of implementation. However, little was done on attitude of the beneficiaries towards such policies and programmes. This is a missing link which this study shall fill with a view to shed light on the level of programme benefits utilization by beneficiaries.

Another contribution to knowledge is using USDA approach to establish the level of food security of the beneficiaries. The approach was used by Fakayode etal (2009) to assess food security situation of farm households in Nigeria. This study used this approach to assess control population, which are beneficiaries of NPFS. The reason is that the USDA approach tells us more about the degree of each beneficiary level of food security.

Similarly, the study also contributes to knowledge by establishing the attitude of the beneficiaries towards governmental intervention policy and programme. The reason is that, it is one thing is for government to initiate programmes to address certain social problem; it is another thing for the targeted beneficiaries of such programme to share the same view with the government on the said issue. The outcome of the study will establish whether the beneficiaries share the same view with the government on agricultural policy and programme or not.

CHAPTER SIX

SUMMARY CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

This chapter presents the summary of the previous chapters, especially the research problems, objectives and the major findings of the study. Conclusion and recommendations were drawn based on the results of data analyzed and the study objectives.

6.1 Summary

The development of a nation, to some certain extent, depends on its ability to ensure food security. As a basic necessity of life, adequate intake of quality food is a key requirement for healthy and productive life as well as the survival of the society. Meanwhile, the available evidence shows that food insecurity is currently one of the challenges facing the world today. This problem is said to be most critical in low income food deficit countries in Africa which Nigeria is one. Though, in Nigeria there is remarkable increase in the production of staple food in the country, but there is still an observable gap between food demand and food supply.

In relation to the above, Nigeria national expenditure data showed that almost two third of the total expenditure of most households was spent on food items. The pattern of the spending varies from rural to urban areas, but the interesting thing is that there was no area that spent less than 50 percent of their income on food. The percentage change in price index also translates to sharp reduction in the consumers' ability to access available food. This invariably shows that the concept of food insecurity goes beyond the simplistic idea of a country's ability to make food available to all at national level. The above argument confirms that even if food available at national level, it does not guarantee people accessibility and stability at household level.

As part of the global efforts to reduce hunger, Nigeria government had made conscious policy efforts to see that Nigeria is food secured both at the national and household level. National Programme for Food Security (NPFS) is one of the programmes designed by the government to reduce hunger in the country. It is against this backdrop that the study assessed the contribution of the National Programme for Food Security to household food security and income through increase in agricultural productivity. To asses this contribution, five research questions were raised and two hypotheses were set aside for testing.

In chapter two, the concept of food security as well as concept of household was reviewed. The study also reviewed the trend of food security in Nigeria and the relationship between the state and food security. Under the trend, Ayodeji, (2010) posited that the hungry people in Nigeria constituted about 30 percent (over 53 million) of the country's total population of roughly 150 million; and 52 percent of this population live under the poverty line. The above figure was substantiated with some studies carried out at the household level. For instance, Olatidoye, Jimoh and Adebusuyi (2010) assessed the determinant of household food security and nutritional status of children from low income households in Oyo state. Result of their finding shows that majority of the children studied were underweight (70.0%). Similarly, Olorunfemi, Aderinnola and Ajibefun (2009) examined factors that influenced household food security in Southwest Nigeria. The study revealed that out of three sample states (Ekiti, Osun and Ondo), only Ekiti state is food secured in the Southwest when compared daily household per caput calories and protein intake of 2.676.73 kcal and 70.44g with the FAO minimum daily per caput requirements for food security.

On the other hand, for households to be food secured, they must have the means to produce or purchase the food that is needed and ensure that the dietary requirements of all family members are met. Acknowledging this, means ensuring food security at household level becomes an obligation for the state.

As a provider of public good, it is the duty of the state to ensure that the public goods needed by the societies to remain peaceful and prosperous are available (Paarlberg, 2002) and part of these public goods is food. Then, the State has the primary obligation to protect and promote as well as to improve this right to food. The core obligation of the state is to take necessary action to ensure hunger free society. Every state is expected to ensure that everyone under its jurisdiction have access to the minimum essential food which is sufficient, nutritionally adequate and safe and to ensure their freedom from hunger. These obligations are defined and guaranteed by both local and international laws. The state obligation, according to FAO (2010) is divided into three categories, namely “the obligations to respect, protect and fulfill”.

States have to respect people’s existing access to food and means of obtaining it. This means that any measure or action aiming at preventing and hindering access to food should be prohibited. This obligation requires states not to take any measures that would hinder or preventing individuals from having access to adequate and nutritious food (Manitra *et al*, 2011). The right holder, that is member of society, is at liberty to lawful and safe food. This can only be ensuring via regular review of national policies and programmes related to food to ensure that they effectively respect the equal right of everyone to food (Manitra *et al*, 2011).

Secondly, states have to protect individual enjoyment of the right to food against violations by the third parties. In addition to state prevention of third parties from destroying sources of food, it is also the obligation of state to ensure that food in the market is safe and nutritious. States must therefore, establish and enforce food quality and adherence to safety standards. A state must also take into account its international legal obligations regarding the right to food when entering into agreements with other states or with international organizations (FAO, 2012).

Lastly, on the obligation to fulfill the right to food, the states must be proactive in strengthening people's access to and use of resources and means of ensuring their livelihoods, as that include food security. Typical measures include the implementation of agrarian reform programmes or minimum income regulations. When adopting food policies, government is expected to balance support for domestic food crops. Meanwhile, in a situation where individual or groups are unable due to reason above their power, to enjoy the right to food by the means at their disposal, states have the obligation to fulfill by providing enable environment that will guarantee it.

In a bid to see that Nigerians are food secured, Nigerian government had initiated different programmes over the years aimed at addressing food production as well as ensuring food security in the country. For instance, under the Obasanjo Government in May 21st, 1976, Nigerian state launched the Operation Feed the Nation (OFN). The aim of this programme was to make the nation self-sufficient in basic food needs of the people. In 1979, the Green Revolution was launched by the Shehu Shagari administration. There was also the Directorate of Food, Roads and Rural Infrastructure (DFRRI) established in 1986 by Babangida administration. The desire to encourage farmers to boost food production within the shortest possible time led to various government interventions in terms of policies and programmes. One of such programmes was the National Accelerated Food Production Project (NAFPP) launched in 1973. This programme was borrowed from countries like Mexico, India, Philippines and Pakistan, with the objective of accelerating production of six major food crops namely; rice, millet, sorghum, maize, wheat and cassava (Daneji, 2011). All these programmes for one reason or the other, failed to meet their target objectives.

To correct the challenges that rendered previous programmes ineffective as well as to improve food security of households in the country, in 2001 Nigerian government introduced the National Programme for Food Security (NPFS) with the broad objective of fostering the development of smallholders' agriculture and enhancing income generation in the rural areas, improving national food security and reducing poverty.

The study applied Entitlement Approach as a theoretical framework of analysis. The basic assumption of the approach is that hunger and food insecurity is not a food production issue. Food insecurity occurs only when people lack the opportunity or face denial of opportunity to earn enough income to meet their basic needs. The approach also holds the view that the enormous growth in global food production and increase in per capital availability of calories, are necessary but not sufficient condition for eliminating hunger and malnutrition.

In chapter three, the study carefully presented the procedure and method used in collecting data, sources of data as well as the method of analyzing data collected in three states namely: Jigawa, Osun and Kwara states. To answer the research questions, a total of three hundred and fifty-seven populations were sampled for the study based on Yamane sample size determination method. Going by the nature of data required for this study, data was derived from both primary and secondary sources. The instrument used to collect the primary data is questionnaire and in depth interview. Three hundred and forty-four (344) questionnaires were administered across all selected sites out of which three hundred and twenty-three (323) questionnaires were returned. Thirteen people were interviewed based on their outstanding knowledge on the subject matter. Documents from Programme sources and journals formed part of our secondary sources.

To administer questionnaire, the study employed multi stage sampling techniques. This range from random selection of sites in all three sampled states to the final stage where 38 respondents were randomly selected in each sampled sites. In the final section of the chapter, the study adopted mean, simple percentage and t-test to analyzed the collected data as well as to test the research assumptions while USDA approach was used to determine the food security status of the beneficiaries.

The fourth chapter deals with historical background of National Programme for Food Security. This was done in order to understand what led to the programme and how it intends to improve the beneficiaries' food security. In the first portion of this chapter, the study undertook a historical survey of the NPFS in addition to further identifying factors leading to the establishment of the programme. This is followed by the principles that essentially guide the programme. The basic requirements to participate in the NPFS were also examined. This includes expectation from host country's government; the assistance FAO can render; and contact with donors who are ready to provide support for the programme.

Implementation of the programme was in two phases, namely the pilot phase and the expansion phase. The pilot phase usually had duration of three years. The operation of these two phases relied on the following components: small scale water, intensification of sustainable seeds, diversification of production, and analysis of the constraints to food security. The programme was under the coordination of the participating country on one hand, the donors, the FAO, private institutes as well farmers on the other hand.

Further to the profile and benefit attached to the NPFS, Nigeria also requested for assistance under the FAO's Special Food Security Programme in March 1998. The programme was approved with pilot phase in 3 sites located in Kano state. Due to the success the programme recorded in Kano experimental sites, in 2001 the programme was extended to 36 states of the federation including Abuja for the period of five years with 3 sites in each state. Based on additional recorded successes in expansion period of five years, the programme was furthered extended in June 2006 with additional five years. This period also witnessed the launching of additional 6 sites to the 3 existing one in each state, bringing it to a total of 9 sites in each state.

In chapter five, the data collected was analyzed and presented in line with the stated objectives of the study. The identified areas of improvement, according to the finding, are as follows: NPFS is a community-driven programme, which reflected community and individual ownership and need. The community retained the ownership of the grant deployed to each site and revolved it among the beneficiaries. The programme also encouraged wider participation in both decision making and implementation. The bulk of the decision as regard the programme was taken and implemented at group level. The farmers were left with varieties of opportunities to identify and prioritize their needs while the extension agents only act as facilitators.

On the productivity of the beneficiary, the study established that the agricultural production in terms of crops and livestock production of Osun state was higher compared with Kwara and Jigawa state. The percentage change mean of production in Osun state was 78.1 for crops and 68.02 for livestock, while that of Kwara state was 10.5 for crops and 25.75 for livestock and Jigawa state was 11.4 for crops and 6.23 for livestock. Furthermore, the study revealed that significant difference was recorded in the production of both the crops and livestock after participating in the programme. The t-cal for both crops (9.379, $p< 0.05$) and livestock (4.536, $p< 0.05$) is significant after participating in NPFS. This implied that National Programme for Food Security has significantly increased agricultural productivity of the beneficiaries.

In area of diversification, the study finds out that 70 percent of the beneficiaries were unable to diversify even through diversification incentives provided by the programme. In the further analysis, the study find out that in Jigawa state the level of diversification among the beneficiaries is high compared to that of Kwara and Osun states respectively.

On the income of the beneficiaries, the result of analysis reveals that the NPFS also has significantly improved the annual income of beneficiaries. The t-cal (11.340) was significant at 0.05 level. This implies that the National Programme for Food Security has significantly increased the income of beneficiaries after participating in the programme.

The food security status of the beneficiaries was derived using USAD approach. On the scale of the analysis, none of the beneficiary falls within the range of food security. This followed by 30.65 percent of beneficiary's household in the scale food insecure without hunger. Also, 60.68 percent of food insecure with hunger (moderate) while 8.67 percent of the food insecure with hunger (severe). This implies that among all sampled beneficiaries none of them was secured in terms of food.

The constraints encountered by beneficiaries were ranked in order to determine their seriousness. This was done in each of the selected state by comparing the calculated mean scores of the variables with critical mean of 1. Based on this, the most serious problem which ranked first in Jigawa and Kwara states was loan repayment problem with the mean score of 1.961 and 1.852 respectively while high cost of labour and farm inputs ranked first in Osun State with the mean score of 1.896. The second serious constraint in Jigawa state was unstable government policy with the mean score of 1.331, while the second serious constraint in Kwara and Osun States are high cost of labour and farm inputs and loan repayment problem respectively. The general trend of analysis of the three states revealed that these constraints are there, but the level of its negative impact varies across the sampled states.

6.2 Conclusion

From the forgoing, it is clear that the central theme of this study was to assess the contribution of the National Programme for Food Security to household food security and income through increase in agricultural productivity. This becomes pertinent in order to assess the effort of the Nigerian government to see that Nigerians are food secured as well as to identify areas where such effort is derailed. But the fundamental question is: in what area has the programme recorded success and where has it derailed?

With regards to productivity, the beneficiaries after participating in the programme experienced some increase in agricultural production. The outcome of this study revealed that beneficiaries produced more agricultural produce due to NPFS intervention. This equally has positive impact on the income of the beneficiaries. The reason is that each of the beneficiaries has more goods to offer for sale. On this note, the study concludes that the programme is friendly to beneficiaries.

On food security status of the beneficiaries, there was remarkable improvement after the programme intervention. Though, the scale of measurement revealed that none of the beneficiaries was completely food secured among the sampled beneficiaries, but majority of them are between food insecure without hunger and food insecure with moderate hunger. This implied that there was relatively positive contribution of the programme to both the productivity and income of beneficiaries' households.

Thus, the inability of the programme to see adequate food security of beneficiaries, according to the findings, is as a result of the little access to diversification opportunities of the programme by the beneficiaries and other identified constrained like loan repayment problem and high cost of labour and farm inputs.

Finally, from the outcome of the study, it was cleared that effort Nigerian government to correct the lapse of the previous intervention programmes in area of ownership, bottom-top approach, had played a significant role in productivity and income of the income of the beneficiaries. Though, the government needs to adjust in the area of implementation, but the beneficiaries needs to share the share the same view with government policies and programmes and show high level of commitment to government programmes.

6.3 Recommendations

In the light of our findings and conclusions as stipulated above, the following recommendations have become most imperative:

i. In order to improve food security and achieve objectives of other governmental programmes and policies, there is need for the government to allow an independent monitoring body, such as NGOs to monitor the activities of the programme executors and beneficiaries against the expected objectives of such programme.

ii. Government should embarked upon a comprehensive public enlightenment in the form of campaigns, publicity, talks and seminars in order to change the attitude and mind set of the people towards the government and its programmes.

iii. Details of all grants and related incentives that may be enjoyed by beneficiary households should be adequately made public, thus, all relevant media as well as other vehicle of effective information transfer within farming area should also be adopted for the said purpose. This could facilitate better understanding on the part of beneficiaries in addition to assist the scheme in attaining the objective of effective mobilization.

iv. The issues of untimely released of funds should be given proper attention through adequate budgeting arrangement among the various promoters and supporters of such programmes. Like the previous programmes, it was discovered in the course of the study that state government on many occasion failed to remit their contribution quota to the programme as at when due.

v. For programme like this, the government needs to initiate a comprehensive method of sustaining it for a particular period of time.

vi. A stable macro-economic policy formulation and honest implementation should be a sine-qua-non to government before food security can be achieved. By doing this, the economy will witness stability and the beneficiaries of such programmes would have confidence in what they are doing.

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Appendix I

Department of Political Science and International Relations,

Ahmadu Bello University Zaria, Zaria

Dear Sir/Ma,

I am PhD student of the Department of Political Science and International Relations, Ahmadu Bello University Zaria. I am conducting research on: State and food Security in Nigeria: An Assessment of the National Programme for Food Security (NPFS). Therefore, I am soliciting for your objective response to the entire questions here. All information provided will be treated confidentially and be used solely for academic purpose.

Thank you for your cooperation

Lamidi Kamal Olaniyi

Section A: Demographic Information

1. Site Name:
2. Sex: Male [ ] Female [ ]
3. Marital Status: Single [ ] Married [ ]
   Widowed [ ] Divorced [ ]
4. Age: Below 20 years[ ] Between 20 – 40 [ ]
   Between 41-50 [ ] 51 and above [ ]
5. What is the size of your household? 1- 4 [ ] 5 – 9 [ ]
   10 and above [ ]

6. Level of education: Quranic: [ ] Primary [ ]

Secondary [ ] Tertiary [ ]

Others [ ]

7. How you get to know about the programme: Through Radio [ ]

Through Friend [ ] Through Political Meeting [ ]

Through TV [ ] Through Extension Agents [ ] Church/Mosque [ ]

8 do you engaged in any other trade/profession apart from farming? Yes [ ]

No [ ]

Section B: Increase in Agricultural Productivity and Diversification

Please you are requested to tick (v) in the appropriate box that contains the option you consider appropriate.

Elements		Access		Frequency of Accessibility		
		Yes	No	Very Accessible (3)	Accessible (2)	Low Accessible (1)
1	Improved seeds					
2	Pesticides					
3	Improved animal breeds					
4	Farm gate market					
5	Middlemen					
6	Government buying agents					
7	Training on production					
8	Training on processing					

9	Government owned processing centre					
10	Privately owned processing centre					
11	Credit facilities from bank					
12	Credit facilities from government					
13	Tractor machines					
14	Processing machines					
15	Direct water pumping					
16	Small water scheme					
17	Use of compost fertilizer					
18	Use of mineral fertilizer					

19 What was your yield before participation in NPFS?

From crops (in bags or tones or kg): ……………………………………………

From livestock (number of animals).……………………………………………

20 What is your yield after participation in NPFS?

From crops (in bags or tones or Kg): …………………………………………..

From livestock (number of animals): …………………………………………..

21 After your participation in NPFS, do you diversify your productivity? Yes or No

Section C: Impact on the Income

22 What is your disposable income accrued to you from farm business

Before NPFS (amounts) ……………………………………………………

After NPFS (amounts) …………………………………………………..

Section D: Structured Survey Questions on Food Security of the Household

S/N	Questions	Response		
		Often true	Sometimes true	Never true
23	Do you worry if your food stock will run out before you get another to eat?			
24	Do you have enough resource to acquire enough food?			
25	Could you afford to eat balanced meals?			
26	Do you supplement your children's feed with low cost foods?			
27	Can you afford to feed your children balance meals?			
28	Were your children not eating enough because you couldn't afford enough food?			
29	Do adults in your household skip meals or cut the size of their usual meals?			
30	Do you eat less than you feel you should?			
31	Were you ever hungry but didn't			

	eat?			
32	Did you loose weight because there wasn't enough food to eat?			
33	Did you or other adults in your household ever not eat for a whole day because there wasn't enough money for food?			
34	How often did this happen?			
35	Did you ever cut the size of any of your children's meal because there wasn't enough money for food?			
36	Did any of the children ever skip meals because there wasn't enough food to eat?			
37	Did any of the children ever not eat for a whole day?			
38	Were the children ever hungry but you just couldn't afford more food?			

Section D: Constraints Faced by Beneficiaries

39 Please indicate and rank the constraints faced in NPFS

Constraints	Severe Constraint	Mild Constraint	Not a Constraint
Cost of registration			

Absence of facilitator from duty post			
Unstable government policies			
Leadership problem within the group			
Irregular loan disbursement			
Difficulty in marketing of produce			
Cost of labour and farm inputs			
Others Specify:			

Appendix II

Distribution of Respondents by Accessibility of Elements of National Programme for Food Security

Elements	Yes	Level of Accessibility		
		Very Accessible	Accessible	Low Accessible
Improved seeds	304 (94.1)	118 (39)	11 (3.4)	175 (57.6)
Pesticides	301 (93.2)	11(3.4)	129 (43)	161(53.6)
Improved animal breeds	137 (42.4)	20(6.2)	122(37.8)	181(56)
Farm gate market	199 (61.6)	63(31.6)	77(38.7)	111(56)
Middlemen	151 (46.7)	51(34.1)	17(51.7)	21(14.2)
Government buying agents	85 (26.3)	13(14.9)	23(26.6)	50(58)
Training on production	310 (96)	160(51.7)	136(44)	13(4.3)
Training on processing	248 (76.8)	97(39)	90(36.2)	62(24.8)
Government owned processing centre	117 (36.2)	43(25.1)	38(22)	90(52.9)
Privately owned processing centre	130 (40.2)	14(10.8)	67(51.4)	49(37.8)
Credit facilities from bank	49 (15.2)	0	0	49(100)
Credit facilities from	213 (65.9)	26(12.4)	126(58.8)	61(28.8)

government				
Tractor machines	119 (36.8)	6(5.3)	36(30)	76(64.7)
Processing machines	179 (55.4)	48(26.6)	86(48.3)	45(25.1)
Direct water pumping	152 (47.1)	43(28.2)	24(16.1)	85(55.7)
Small water scheme	105 (32.5)	4(3.7)	33(31.6)	68(64.7)
Use of fertilizer	278 (86.1)	35(12.7)	23(8)	220(79.3)

Source: Author Field Survey (2016)

Appendix III

Interview Guide

1. What is National Programme for Food Security (NPFS)?
2. What does NPFS aim to achieve in Nigeria?
3. To what extent has the program achieved these aims and objectives?
4. In what areas have this program differs from previous food security programme in Nigeria?
5. Does the programme have life span or period to be terminated?
6. How the program has intends to increase the productivity of the beneficiaries?
7. Do you think the productivity of the beneficiaries has increased with intervention of the programme?
8. Do you think the beneficiary has diversified their productivity?
9. Do you think the program has impact on the income of the beneficiaries?
10. Do you think the food security of the beneficiaries has improved with the intervention of the NPSF?
11. What are the challenges faced by the program?
12. What suggestions do you have to bring about food security through agricultural development?

Appendix iv

Location(s)	Interviewee	Designation	Date
Abuja	Prof V.O. Chude	National Coordinator NPFS	04/6/2016
Osun	Alhaji Ganiyu Gbolagade Kamil	OSADEP (E & M)	01/03/2016
	Baba Supper	Ede South site 4	04/03/2016
	Mutiu Secretary	Osogbo site 1- Oke Osun	04/03/2016
	Elder Joshua Olayiwola	Aiyedade Ago-Owu site	03/03/2016
Jigawa	Alhaji Aliyu Sale Garki	State Coordinator	02/02/2016
	Isa Tela	Hadin Takwalgwai	13/02/2016
	Mutari Muhd	Maikilili	11/02/2016
	Malam Muazu Haruna	Chiyako/Burum	09/02/2016
Kwara	Alhaji Salami Olarewaju	Kwara ADP (E & M)	07/03/2016
	Mr Lawrence Owolabi Bale	Osi site	09/03/2016
	Shehu Jimoh	Alapa Site	27/02/2016
	Mr M.J Afolayan	Agbamu site	10/03/2016

LIST OF TABLES

ACRONYMS

CBN	Central Bank of Nigeria
FAO	Food and Agricultural Organization of the United Nations
GDP	Gross Domestic Products
IFPRI	International Food Policy and Research Institutes
IITA	International Institute for Tropical Agriculture
LIFDCs	Low-Income Food-Deficit Countries
MT	Metric ton
NBS	National Bureau of Statistics
NEEDS	National Economic Empowerment Development Strategies
NPC	National Population Commission
NPFS	National Programme for Food Security
SPFS	Special Programme for Food Security
UNDP	United Nations Development Programme
WFS	World Food Summit
USDA	United States Department for Agriculture