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NSSP Report 3

Knowledge Review on Poverty and Rural Development in Nigeria

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THE NIGERIA STRATEGY SUPPORT PROGRAM (NSSP)
BACKGROUND PAPERS

ABOUT NSSP/APSF

The Agricultural Policy Support Facility (APSF) is an initiative established to strengthen evidence-based policymaking in Nigeria in the areas of rural and agricultural development. Facilitated by the Nigeria Strategy Support Program of the International Food Policy Research Institute (IFPRI) in collaboration with the Federal Ministry of Agriculture and Water Resources and funded by the Canadian International Development Agency, APSF supports the implementation of Nigeria's national development plans by strengthening agricultural-sector policies and strategies through:

- Enhanced knowledge, information, data, and tools for the analysis, design, and implementation of pro-poor, gender-sensitive, and environmentally sustainable agricultural and rural development polices and strategies in Nigeria;
- Strengthened capacity for government agencies, research institutions, and other stakeholders to carry out and use applied research that directly informs agricultural and rural polices and strategies; and
- Improved communication linkages and consultations between policymakers, policy analysts, and policy beneficiaries on agricultural and rural development policy issues.

ABOUT THESE REPORTS

The Nigeria Strategy Support Program (NSSP) reports contain information that has been gathered and discussed but is not analytical. They are circulated in order to stimulate discussion and critical comment.

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Knowledge Review on Poverty and Rural Development in Nigeria

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Acronyms

ADP	Agricultural Development Programs
APSF	Agricultural Policy Support Facility
CAPPA	Community Action Program for Poverty Alleviation
CDC	Community Driven Development
CDPA	Community Driven Participatory Approach
CPRP	Community-based Poverty Reduction Project
CGE	Computable General Equilibrium
DFID	Department for International Development
ETF	Ecological Trust Fund
EIG	Economic Interest Groups
EAs	Enumeration Areas
FUG	Fadama user groups
FEAP	Family Economic Advancement Program
FSP	Family Support Program
FGLS	Feasible Generalized Least Squares
FOS	Federal Office of Statistics
FUMTP.	Federal Urban Mass Transit Program
FEI	Food Energy Intake
GHS	General Household survey
LDPs	Local Development Plans
LLIs	Local-level institutions
MPCHE.	Mean Per Capita Household Expenditure
NALDA	National Agricultural Land Development Authority
NASC	National Agricultural Survey Census
NCS	National Consumer Survey
NDE	National Directorate of Employment
NFDP	National Fadama Development Project
NISH.	National Integrated Survey of Households
NPIRD.	National Policy on Integrated Rural Development
NAPEC	National Poverty Eradication Council
NAPEP	National Poverty Eradication Program
NOA	National Orientation Agency
OFN,	Operation Feed the Nation
OLS,	Ordinary Least Squares
ODA	Overseas Development Administration
PCE	Per Capita Expenditure
PAP,	Poverty Alleviation Program
PAPDC.	Poverty Alleviation Program Development Committee
PAP	Poverty Alleviation Program,
PHC	Primary Health Care
RDA	Recommended Dietary Allowance
RBRDAs	River Basins and Rural Development Authorities
SAP	Structural Adjustment Program
UNICEF,	United Nations Children's Fund
UBE	Universal Basic Program

Executive Summary

- The Nigerian situation presents a paradox because the country is rich but the people are poor, with the poverty experienced by Nigerians being pervasive, multifaceted and chronic, affecting the lives of a large proportion of the populace.
- On the average, the incidence of poverty in Nigeria has been on the increase since 1980. NBS (2007) reveals that the incidence of poverty increased sharply both between 1980 and 1985 (from 28.1 percent to 46.3 percent) and between 1992 and 1996 (from 42.7 percent to 65.6 percent) though there were declines between 1985 and 1992 (from 46.3 percent to 42.7 percent) and between 1996 and 2004 (from 65.6 percent to 54.4 percent). And despite the reduction in poverty incidence between the two periods, the absolute number of the poor in Nigeria has been on the rise.
- Essentially, poverty is a rural phenomenon, as the majority of those in poverty are disproportionately located in the rural areas, where they are primarily engaged in agricultural production and allied activities. Rural poverty incidence, therefore, was higher than urban poverty between 1980 and 2004.
- The report is made up of six sections. These are the context of the study, review of the literature on rural poverty in Nigeria, review of the various methodologies that have been used by the various studies, the synthesis of the poverty profiles, the determinants of poverty and vulnerability, and the principal policies and programs of government to address poverty and vulnerability over time.
- The studies reviewed were national in outlook and only four studies exclusively focused on the rural areas while the rest focused on both rural and urban. In addition, quantitative poverty analysis in Nigeria was principally undertaken using cross-sectional research design, and even with the availability of National Consumer Survey (NCS) data for 1980, 1985, 1992 and 1996 and the National Living Standards Survey (NLSS) data for 2004, they were not in any way longitudinal (panel), making it impossible to track changes in poverty at household levels.
- Most quantitative poverty studies have relied on the relative poverty line of 1/3 or 2/3 mean per capita household expenditure (MPCHE). Only a few, however, have used the food energy intake for absolute poverty analysis.
- Two analytical techniques have been prominently used in the poverty literature in Nigeria. These are the Foster-Greer-Thorbecke (FGT) weighted poverty index and variants of regression tools. Other less prominently used ones include the computable general equilibrium and participatory poverty tools.
- Among studies reviewed, poverty and vulnerability to poverty were higher among households whose heads were males, polygamous, northern residents, uneducated, lacking access to credit, rural-based and involved in farming as a major occupation. The level of poverty and its vulnerability among rural and farming households is directly related to the household size and age of household head.
- Generally, social capital reduced poverty. But the impact of its various dimensions was mixed. While cash and labor contributions, meeting attendance, decisionmaking, and density of membership in local-level institutions (LLIs) reduced the impact on poverty, the effect of heterogeneity in characteristics of members of LLIs was inconclusive.
- Poverty was less among farmers who used improved seeds than among farmers who used pesticides and fertilizers in that order. Extreme poverty incidence among farmers who used fertilizers was about 50 percent compared to 38 percent for those who used improved seeds. This was because the wealthiest quintile were much more likely to use modern improved agricultural inputs; including inputs such as inorganic

fertilizers, insecticides, petrol, purchased seeds and hired labor than those in the poorest quintile.

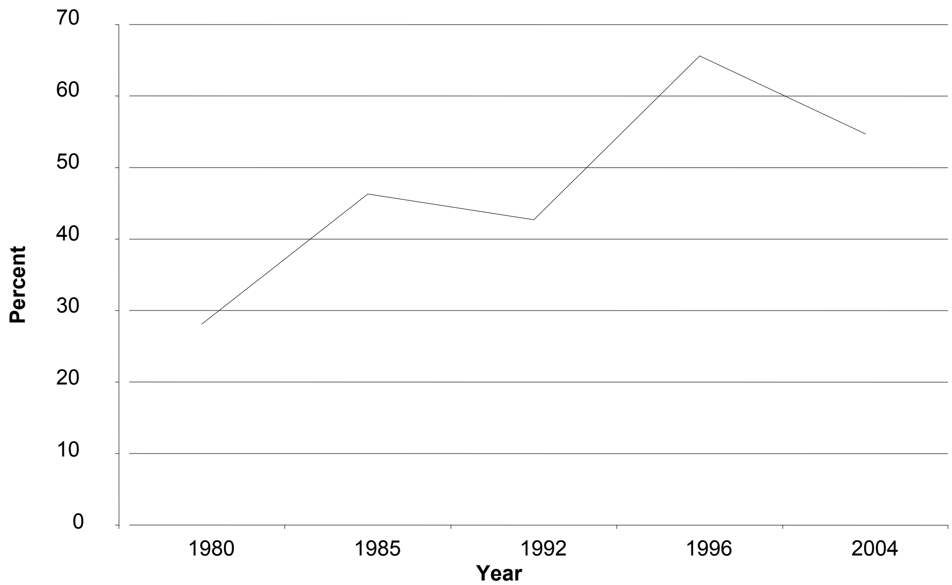
- Although farming was the dominant activity among rural communities in Nigeria, there were relatively few households for which agriculture was the exclusive source of income. Instead, men, women and often young children were also involved in a variety of nonfarm activities for longer or shorter periods at different times of the year. A study found that 54 percent of rural households were headed by persons engaged primarily in farming while the remaining 46 percent were primarily engaged in nonfarming activities.
- A farmer's choice of farm enterprise has poverty implications. Poverty incidence was highest among farmers growing primarily fruits and vegetables while those farmers with the lowest levels of poverty were those growing commercial crops. Also, the poverty level among livestock producers was highest among those producing poultry and pigs and lowest among the producers of cattle, rabbit and fish respectively.
- Rural households without safe water, improper waste disposal, and safe toilet facilities had a slightly higher poverty incidence, depth and severity. In addition, households with smaller number of persons per room living in the house had a lower poverty incidence, depth, and severity.
- There are many shocks that rural households face in Nigeria. They include seven broad groups: natural risks, health risks, life cycle risks, social risks, economic risks, political risks, and environmental risks. Most of the risks happen over time (repeated) and generally happen in conjunction with other risks. Examples of repeated risks events include tempest, criminal offence (e.g., armed robbery), land disputes, income drop, gangsterism, and epidemics. The following risks were bunched (generally happening with other risks): pest infestations, failed harvest, access to good road, job loss, mass lay-off and rising food prices.
- Since the 1970s, the Nigerian government, and more recently, nongovernmental organizations and community-based organizations have put up development programs and projects that were aimed at raising the living standard of the people. Most of the early programs and projects were never tagged as poverty reduction programs or projects because as at the time of inception of such programs, poverty was not yet a common and prominent phenomenon in Nigeria. But because these programs and projects were aimed at the rural areas and low-income earners such as farmers, they were later, with increasing poverty situation in Nigeria, referred to as poverty reduction programs and projects.
- Prior to 2001, Nigeria had no known national policy on integrated rural development that could help to reduce poverty even though such policy and agricultural development has many implications for poverty reduction in the rural economy of Nigeria. However, in 2001, the Federal Ministry of Agriculture and Rural Development in collaboration with all relevant national and international development partners operating in the rural sector developed a National Policy on Integrated Rural Development. This has remained the most comprehensive rural development policy document to date in Nigeria.
- The overall policy objective of the National Policy on Integrated Rural Development is drawn from the national objectives of developing the rural areas, raising the quality of life of the rural people, alleviating rural poverty, and using rural development as a basis for laying a solid foundation for national development. In order to achieve integrated and even development on a sustainable basis, the policies to be adopted are intended to empower rural dwellers through the development of productive employment, enhancing their income, ensuring protection of the environment, promoting gender responsiveness, and ensuring adequate care for vulnerable group.

- Many programs and projects have been put in place in Nigeria to impact positively on the poor, but few have had success. Nigeria has had problems with poor implementation and lack of political will that have made programs that have succeeded elsewhere fail in Nigeria. This has been especially true of the government programs. In the recent past, some programs that have been funded in part by international organizations have achieved tremendous success. This is the case of the Fadama II program.
- Poverty reduction programs and projects have targeted the following sectors: agriculture, health, education, transport, housing, and finance.
- The three-pronged approach to poverty reduction—1) macroeconomic growth with equity, 2) human capital development and targeting, and 3) safety nets for the poor that generate employment—that has been used in Nigeria needs to be strengthened.

Introduction

The poverty experienced by Nigerians is pervasive, multifaceted, and chronic, affecting the lives of a large proportion of the populace. The Nigerian situation presents a paradox because the country is rich[1] but the people are poor. This has been captioned, 'poverty in the midst of plenty' by the World Bank (World Bank 1996). The incidence of poverty in Nigeria has been on the increase since 1980. The National Bureau of Statistics (NBS)[2] (2007) revealed that the incidence of poverty increased sharply both between 1980 and 1985 (from 28.1 percent to 46.3 percent) and between 1992 and 1996 (from 42.7 percent to 65.6 percent) though there were declines between 1985 and 1992 (from 46.3 percent to 42.7 percent) and between 1996 and 2004 (from 65.6 percent to 54.4 percent).

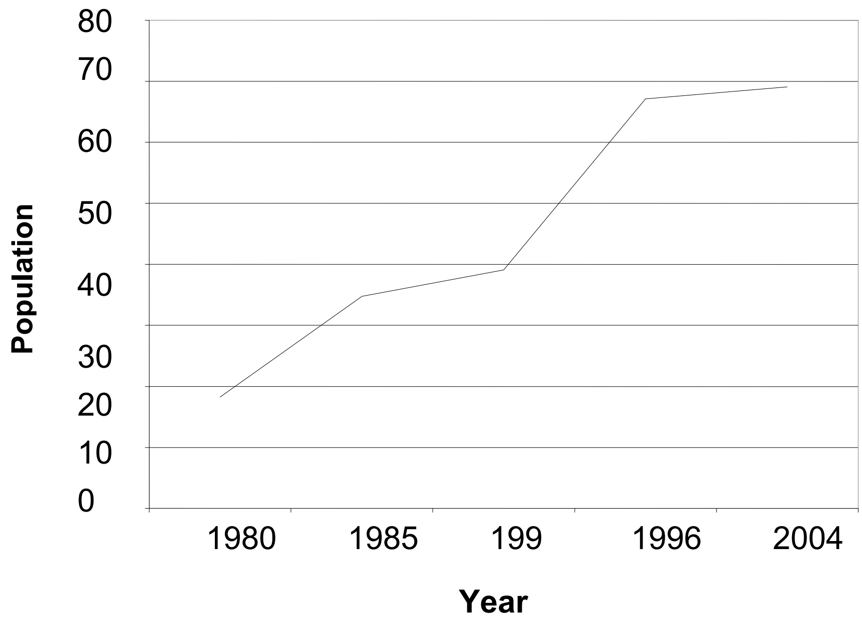
Figure 1. Trends in poverty incidence in Nigeria (1980–2004)



[1]Nigeria is a country that is richly blessed with vast amounts of human, physical, and natural resources. The natural resource endowment of the country includes petroleum, gas, and several solid mineral resources. There is a wide range of climatic, vegetation, and soil conditions that are suitable for rich agricultural production. The diversity of species of plants and animals is indispensable for both domestic consumption and export. The country is also blessed with a vibrant population, a large proportion that is highly educated, active, and talented.

[2] NBS is the National Bureau of Statistics, formerly known as the Federal Office of Statistics (FOS).

Figure 2. Population in poverty (1980–2004)



The 28.1 percent figure for 1980 translated to 17.7 million poor persons whereas there were 34.7 million poor persons in 1985. Despite the drop in poverty level in 1992, the population in poverty was 39.2 million, while by 1996, the number of poor persons in the country had increased sharply to 67.1 million. However, while the poverty incidence rate reduced from 65.6 percent in 1996 to 54.4 percent in 2004, the number of poor people increased significantly from about 67 million people to about 70 million people. This large-scale poverty has led to great deterioration in human conditions.

The reasons for the worsening poverty situation between 1980 and 1985 were multiple according to World Bank (1996). Some of these include:

- the falling oil revenue arising from sharp decreases in the international price of oil coupled with decreased production—oil revenue crashed from US$26 billion in 1980 to US$6 billion in 1986;
- the Nigerian government seeing these declines as temporary and continuing to borrow externally against the expectations of a return of higher oil prices, resulting in debt overhang; and
- the slow, even negative, growth in the economy, especially in agriculture, which resulted from government policies that induced adverse relative price changes, encouraged imports, including food, thereby stifling nonoil production.

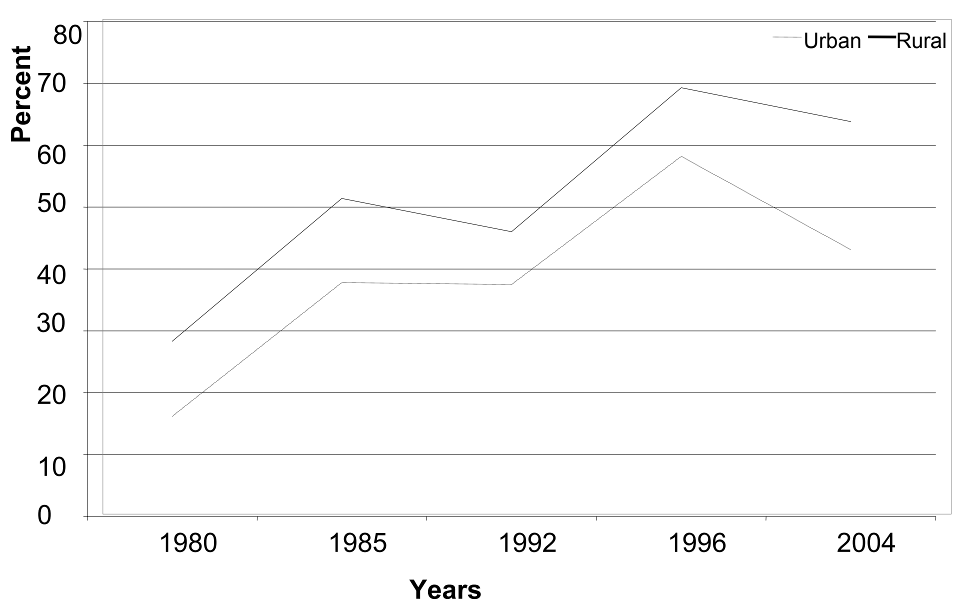
The decline in poverty incidence between 1985 and 1992 was the product/outcome of the Structural Adjustment Program (SAP) that was initiated in 1986. Some of Nigeria's earlier anti-export bias in manufacturing disappeared with the producers in agroprocessing and textile manufacturing switching from imported to local inputs. This made the manufacturing industry that had declined annually by 4.8 percent on average between 1981 and 1986 to grow by 5 percent per year from 1987 to 1992. Within the same period, production of traditional food crops and cash crops increased and agricultural output grew at 3.5 percent per year on average, compared with only 0.6 percent between 1981 and 1986. In addition, by 1992, Nigeria was spending only one-fifth of what it had spent in 1986 on food imports.

The increase in poverty incidence between 1992 and 1996 was the outcome of the reversal of many of the policies that contributed to growth and poverty reduction during the 1986-1992. Real gross domestic product (GDP) and consumption per capita fell by 5 percent between 1992 and 1994 while the resumption of rapid inflation further eroded many of the earlier benefits—from 49 percent in 1992 to 77 percent in 1994. In fact, the country returned during the 1992-94 period to the exchange rate, fiscal and monetary policies that were operated before 1986 (the onset of SAP).

The decline in poverty incidence that was again witnessed between 1996 and 2004 was among others the product of rationalization and streamlining of the activities of poverty alleviation institutions and agencies in order to among other things enhance effective performance and reduce overlapping functions. In addition, the establishment, for the first time, of the National Poverty Eradication Program (NAPEP) in 2001 to replace the ad hoc Poverty Alleviation Program (PAP) of the year 2000 also accounted for the reduced poverty incidence within the period.

Poverty in Nigeria is essentially a rural phenomenon—the majority of those in poverty are disproportionately located in the rural areas, where they are primarily engaged in agricultural production and allied activities.

Figure 3. Trends in rural and urban poverty incidence in Nigeria (1980–2004)



NBS (2007) revealed that rural poverty incidence increased by 22 percent points in the period 1980-1985 (from 29.3 percent to 51.4 percent), decreased slightly during the period 1985- 1992 from (51.4 percent to 46.1 percent) but soared by 23 percent in the following four-year period 1992-1996 (from 46.1 percent to 69.8 percent). However, in the period 1996-2004, rural poverty incidence decreased from 69.8 percent to 63.8 percent. On the other hand, urban poverty incidence at 17.2 percent in 1980 rose to 37.8 percent in 1985 and remained relatively stable up to 1992 from where it rose to 58.2 percent in 1996 and again dropped to 43.1 percent in 2004. Rural poverty incidence, therefore, was higher than urban poverty between 1980 and 2004.

This is a reflection of the disparities in the access to opportunities and infrastructure among the different households. For instance, infrastructure such as roads, water and sanitation, education, and electricity are not readily available in the rural areas of the country. In the same vein, opportunities such as off-season employments, credit availability, and access to timely agricultural inputs are not commonplace in the rural areas. The drastic rise in urban poverty incidence is connected with the declining state of infrastructure such as roads, water and sanitation, education, and electricity.

The majority of the rural poor in Nigeria derive their livelihood from subsistence agriculture and from the provision of services such as blacksmithing, tailoring, carpentry etc. The areas where the poor live are served with bad roads, making them to lack access to productive inputs as well as the output market arid other facilities like health clinic/hospitals in the nearby urban centers. Consequently, they have small sized farms, use traditional farming inputs, and face food insecurity during the rains just before harvest. This period is characterized by the simultaneous prevalence of malnutrition (as diets are limited to starch based ones), poor food availability, sickness, indebtedness, hard work, and discomfort. All these make the chronically poor in Nigeria to eat stale food and leftovers. The chronically poor has been described by World Bank (1996) as one that do not have access to adequate shelter (manifested in poor houses and overcrowding), have only one or two pairs of clothing worn at all times, do extensive physical work either in the farm or in other occupations and the children in poor households cannot afford school uniforms and fees and/or transportation costs to and from school. Therefore, they resort to doing menial jobs like collection and sale of firewood, hawking of ready to eat food and load carrying in the markets and other public places.

However, poverty, which has become pronounced and widespread in Nigeria, was not so until after the end of the oil boom era which started with the collapse of oil prices in the international market in the early 1980s. The emergence of oil in the Nigerian economy in the 1970s made the agricultural sector, which hitherto was the mainstay of the economy, to be neglected. This was attributed to the shift in the terms of trade together with the heavy spending in unviable investments, designed to raise the economy's productive capacity and human capital. Consequently, farm resources (most especially labor) migrated to the urban areas to supply the much-needed labor in construction works at a wage higher than what was obtainable on the farms. Hence, agricultural production fell considerably making Nigeria (an almost food self-sufficient nation) to become a net importer of food. Oil also turned Nigeria to a mono-export product economy. In addition, when oil prices fell (leading to a fall in revenue and per capita income), the government increased borrowing abroad to sustain its pre-oil shock expenditure pattern instead of cutting them. As a result, foreign debt accumulated which led to the short fall in social sector expenditure and consequently, a fall in social services, making the welfare system to fall apart.

Though the military government of 1983 introduced across the board budgetary cuts and administrative restrictions on import and foreign exchange transactions, the welfare status of the people only increased marginally. This is because of their failure to address the economy's structural weakness of low productivity in the agricultural sector, uncompetitive manufacturing sector, significant trade distortions, and cumbersome regulatory framework. In 1986, a further collapse in oil prices to US$14 per barrel made the government adopt the Structural Adjustment Program (SAP) supported by the World Bank and International Monetary Fund. This program was coupled with exchange rate and trade policy reforms aimed at revitalizing the nonoil economy especially agriculture with stabilization policies designed to restore price stability and balance of payment equilibrium. This policy change brought mixed feelings. The farmers and agro-allied industries gained from the rise in the prices of food and cash crops and so were other industries competing with imported goods. However, other industries depending on imported raw materials suffered (World Bank undated). Furthermore, it was claimed by World Bank (undated) that the adjustment brought about a decrease in poverty with 1.3 million people moving out of poverty and mean per capita household expenditure rose by 34 percent between 1985 and 1992.

Since 1992, the country witnessed the expansion of fiscal deficit, mismanagement of public resources and half-hearted implementation of structural reforms leading to economic crises. But the new government in 1994, instead of tackling the causes of the mounting economic crises, attempted to suppress its symptoms by centralizing all foreign exchange transactions, maintaining an increasingly over-valued official exchange rate, setting up of committee to ration foreign exchange to the private sector, and placing a ceiling on interest rates significantly below the prevailing inflation levels made poverty to be on the rise again.

The consequent drastic fall in human welfare conditions made the federal government in 1994 to launch a poverty assessment in partnership with the World Bank, United Nations Children's Fund (UNICEF), and the Overseas Development Administration (ODA) now Department for International Development (DFID). The results of the poverty assessment led to the development of a strategy for poverty relief by setting up a Poverty Alleviation Program Development Committee (PAPDC). A draft national strategy called Community Action Program for Poverty Alleviation (CAPPA) was formulated. By 1997, the Family Economic Advancement Program (FEAP) was started with Decree No. 11 of August to reduce poverty in Nigeria. The FEAP was established to stimulate economic activities by providing loans directly to Nigerians as the capital required to set and run cottage industries. The design and manufacturing of appropriate plants, machinery, and equipment of the industries are to be sourced locally. Since 1997, the federal government has allocated a sizeable chunk of resources to this program. In 1997 and 1998, a sum of N7.6 billion[3] loanable fund was allocated to the program. By 1997, the program's loanable fund was boosted by N1.1 billion, bringing the total loanable find at its disposal to N8.7 billion. According to Ilori (1999), a total of N 1.675 billion has been disbursed as loans to cooperative groups. Despite this huge allocation to FEAP, it has not produced the needed relief. This is probably due to the hijacking of the program by unintended beneficiaries who are not poor but are able to comply with the guidelines for the award of the credit. In addition, one can conclude that the program (FEAP) was not conceived on any rigorous analysis of poverty in Nigeria.

The country since the inception of democratic government in 1999[4] has not left out the effort to reduce poverty. An *ad hoc* poverty reduction program, Poverty Alleviation Program, (PAP) was implemented in 2000 basically to provide jobs for the poor unemployed for a time period. However, this was replaced by the National Poverty Eradication Program (NAPEP) in 2001 to coordinate and monitor all poverty eradication efforts at federal, state, and local government levels. It also assists the federal government to formulate poverty reduction policies nationwide, and intervenes in specific poverty reduction areas to provide social protection through economic

[3] In 1997 and 1998, USD1 = N21.8861. Hence, N7.6 billion was approximately equal to $347,252,365.70; N1.1 billion was equal to $50,260,211; while N8.7 billion was equal to $397,512,576.00.
[4] A lot has happened since 2004 but there is no study yet to capture these. The NBS is in the process of starting the collection of the 2008/2009 Harmonized National Living Standard Survey in Nigeria so that the changes in poverty between 2004 and 2009 can be tracked.

empowerment as may be needed. However, despite all these, poverty has continued to be on the increase in Nigeria.

Rural Nigerians principally draw their livelihoods from agriculture. However, many rural households cannot earn sustainable livelihoods based on their incomes from agriculture or from many of the other economic activities they pursue. According to Omonona (2006), those rural households in the lowest quintile group receive about 49 percent of their total per capita income from nonfarm employment and about 51 percent from farm employment (see table below). In specific terms, the percent of total per capita income, among the poorest quintile, from farm self-employment is highest (34 percent). This is followed by nonfarm wage employment (28 percent), nonfarm self-employment (21 percent) and farm wage employment (17 percent). However, as one moves from the lowest to the highest quintile, nonfarm employment becomes a more important source of income than the farm employment as the percent contribution of nonfarm employment increased to 59 percent while those of farm employment have decreased to 41 percent as we move from the lowest to the highest quintile. The share of nonfarm wage employment in total per capita income increased from 28 to 33 percent while that of nonfarm self-employment increased from 21 percent to 25 percent. As for farm income, the share of total per capita income from farm wage employment decreased drastically from about 17 percent to about 9 percent. That of farm self-employment decreased marginally from 34 to 33 percent.

Table 1. Sources of rural income in Kogi State ranked by quintile on the basis of total per capita household income (2006)

Total per capita income quintile	Average total per capita income	Percent of total per capita income from Nonfarm wage employment	Nonfarm self-employment	Farm wage employment	Farm self-employment
First	368.51	28.33	21.10	16.95	33.62
Second	669.90	29.34	17.19	13.43	40.04
Third	909.22	29.25	21.58	16.69	32.49
Fourth	1268.41	23.89	17.58	19.52	39.89
Fifth	2757.32	33.28	25.37	8.73	32.61

Source: Omonona (2006).

Broad efforts to enhance the productivity, profitability, and sustained growth of the rural economy of Nigeria will be necessary to enhance the resilience of Nigerian agricultural households and to lift them out of poverty, hunger, and malnutrition.

Work under the Agricultural Policy Support Facility (APSF)[5] aims to ensure that vulnerable rural households benefit from agricultural and rural development and economic growth. The focus of the research is vulnerable households that pursue agricultural livelihoods. The sources of vulnerability such households face includes physical, related to health and nutritional status, and economic, related to the sustainability and efficacy of the rural livelihood strategies pursued by household members. The characteristics of these households, as well as the shocks they face and the resources they can draw upon, will differ across Nigeria.

IFPRI's Poverty, Health and Nutrition Division supported the APSF's objectives by commissioning a review of knowledge on poverty and rural development in Nigeria. The report aimed not only to help identify the knowledge base, but also the gaps in information needed to support evidence-based policymaking.

[5] APSF is the Agricultural Policy Support Facility.

This report is made up of six sections. It begins with an analysis of the context of the study. It then presents a review of the various methodologies used for analyzing poverty and provides a synthesis of Nigeria's poverty profile. This is followed by a review of the determinants of poverty and vulnerability to poverty in Nigeria. Lastly, the principal policies and programs of government to address poverty and vulnerability are discussed.

Methodology of Rural Poverty Studies

This section looks at the various poverty studies included in this review. Items considered include the research designs and data collection methods, the sampling procedure, and the poverty profile. General information about the studies used in this knowledge review is presented in the table below.

Table 2. Coverage of the studies used in this review

S/N	Studies	Date of study	Coverage	Sector
1	World Bank	1996	National	Both rural and urban
2	Canagarajah et al.	1997	National	Both rural and urban
3	Ayoola et al.	1999	National	Both rural and urban
4	Federal Office of Statistics (FOS)	1999a	National	Both rural and urban
5	Federal Office of Statistics (FOS)	1999b	National	Both rural and urban
6	Olaniyan	2000	National	Both rural and urban
7	Aigbokhan	2000	National	Both rural and urban
8	Okojie	2001	National	Both rural and urban
9	Alayande and Alayande	2004	National	Both rural and urban
10	Olaniyan and Bankole	2005	National	Rural
11	Okunmadewa et al.	2005	National	Rural
12	Oni and Yusuf	2007	National	Rural
13	National Bureau of Statistics (NBS)	2007	National	Both rural and urban
14	Oyekale and Oyekale	2008	National	Both rural and urban
15	Omoke	undated	National	Rural

Source: Author's compilation.

As shown in Table 2, all the studies reviewed were national in outlook and only four studies exclusively focused on the rural areas while the rest focused on both rural and urban. In addition, since our focus is on the rural areas, only the sections that were related to the rural areas were discussed.

Table 3 provides information concerning the research design, data collection methods, nature and sources of data, and the type of data used for the various studies reviewed.

Table 3. Summary information about the data used by studies

S/N	Studies	Publication date	Research design	Data collection methods	Nature of data	Sources of data	Type of data	Data collected
1	World Bank	1996	Cross-sectional	Survey, focus group discussion, semi-structured interview and Individual case studies	Secondary primary	Federal Office of Statistics, individuals in poor communities	National Consumer Survey 1980, 1985 and 1992	Demographics, income, expenditure, etc. Perceived priorities and problems of the poor and safety nets and coping strategies.
2	Canagarajah et al.	1997	Cross-sectional	Survey	Secondary	Federal Office of Statistics	National Consumer Survey 1985and 1992	Demographics, income, and expenditure, etc.
3	Ayoola et al.	1999	Cross-sectional	Focus group discussion , semi-structured interview and Individual case studies	Primary	Individual respondents and participants in FGDs, SSI and case studies		Perception, pattern and trends of poverty, causes of poverty and vulnerability, priorities of the poor, etc.
4	Federal Office of Statistics (FOS)	1999a	Cross-sectional	Survey	Primary	Federal Office of Statistics	National Consumer Survey 1980, 1985, 1992 and 1996	Demographics, income, expenditure, locational data, etc.
5	Federal Office of Statistics (FOS)	1999b	Cross-sectional	Survey	Primary	Federal Office of Statistics	National Consumer Survey 1980, 1985, 1992 and 1996 National Agricultural Sample Census 1993/94	Demographics, income, expenditure, locational data, farm-level factors, credit access, cropping system, etc.
6	Olaniyan	2000	Cross-sectional	Survey	Secondary	Federal Office of Statistics	National Consumer Survey 1985, 1992 and 1996	Demographics, income, expenditure, locational data
7	Aigbokhan	2000	Cross-sectional	Survey	Secondary	Federal Office of Statistics	National Consumer Survey 1985, 1992 and 1996	Demographics, income, expenditure, locational data
8	Okojie	2002	Cross-sectional	Survey	Secondary	Federal Office of Statistics	National Consumer Survey 1980, 1985, 1992 and 1996	Demographics, income, expenditure, locational data, etc.
9	Alayande and Alayande	2004	Cross-sectional	Survey	Secondary	Federal Office of Statistics	Merged data of National Consumer Survey and the General Household Survey in 1996/97 under the National Integrated Survey of Households (NISH).	Demographics, income, expenditure, locational data, etc.
10	Olaniyan and Bankole	2005	Cross-sectional	Survey	Secondary	Federal Office of Statistics	Merged data of National Consumer Survey and the General Household Survey in 1996/97 under the National Integrated Survey of Households (NISH)	Demographics, income, expenditure, locational data, etc.
11	Okunmadewa et al.	2005	Cross-sectional	Survey	Primary	Individual respondents		Demographics, income, expenditure, locational data,

S/ N	Studies	Publication date	Research design	Data collection methods	Nature of data	Sources of data	Type of data	Data collected
								social capital etc.
12	Oni and Yusuf	2007	Cross-sectional	Survey	Secondary	Federal Office of Statistics	Merged data of National Consumer Survey and the General Household Survey in 1996/97 under the National Integrated Survey of Households (NISH).	Demographics, income, expenditure, locational data, etc.
13	National Bureau of Statistics (NBS)	2007	Cross-sectional	Survey	Primary	National Bureau of Statistics	National Consumer Survey 1985, 1992 and 1996 National Living Standards Survey 2004	Demographics, income, expenditure, locational data etc.
14	Oyekale and Oyekale	2008	Cross-sectional	Survey	Secondary	National Bureau of Statistics	National Living Standards Survey 2004	Demographics, income, expenditure, locational data etc.
15	Omoke	Undated	Time series Cross-sectional	Survey	Secondary	Federal Office of Statistics	Social accounting matrix (SAM), Annual abstract of statistics, International financial statistics, and Central Bank of Nigeria's statistical bulletin National Integrated Survey of Households (NISH).	Inputs, outputs and use of labor and capital by production sectorexport and import data, income, expenditure

Source: Author's compilation.

As shown in Table 3, the studies were characterized by the following:

- use of cross-sectional research design;
- no longitudinal (panel) analysis, even with the availability of National Consumer Survey (NCS) data for 1980, 1985, 1992, and 1996 and the National Living Standards Survey (NLSS) data for 2004, making the tracking of changes at the household level between one year and another impossible; and
- reliance on the survey methodology—only one study (Ayoola et al. 1999) exclusively used qualitative methods such as the focus group discussions and key informant interviews, and the World Bank (1996) study used focus group discussions to explain the results of the quantitative analysis.

The studies reviewed in this paper made use of many different types of data, as summarized in **Error! Reference source not found.** below.

Table 4. Types of data used by studies

S/N	Studies	Date of study	1980 NCS	1985 NCS	1992 NCS	1996 NCS	2004 NLSS	1996 GHS	1994 NASC	FGD & KII	Other surveys	Other sources
1	World Bank	1996	X	X	X					X		
2	Canagarajah et al.	1997		X	X							
3	Ayoola et al.	1999								X		
4	Federal Office of Statistics (FOS)	1999a	X	X	X	X						
5	Federal Office of Statistics (FOS)	1999b	X	X	X	X		X	X			
6	Olaniyan	2000		X	X	X						
7	Aigbokhan	2000		X	X	X						
8	Okojie	2002	X	X	X	X						
9	Alayande and Alayande	2004				X		X				
10	Olaniyan and Bankole	2005				X		X				
11	Okunmadewa et al.	2005									X	
12	Oni and Yusuf	2007				X		X				
13	National Bureau of Statistics (NBS)	2007	X	X	X	X	X					
14	Oyekale and Oyekale	2008					X					
15	Omoke	undated				X		X				X

Source: Author's compilation.

As seen in Table 4, the NCS data were mostly used among the researchers. However, the data used by Okunmadewa et al. (2005) were obtained from the six pilot states of the World Bank assisted Community-based Poverty Reduction Project (CPRP)[6] in Nigeria. The states were Abia, Cross River, Ekiti, Kebbi, Kogi, and Yobe. Following the Federal Office of Statistics (FOS) framework, and given the available budget, 10 enumeration areas were selected from three local government areas (LGAs) in each state. These LGAs are in the rural area of the states. Ten respondents were selected from each enumeration area, making 100 respondents for each state. However, these respondents belonged to at least one social organization. Further, only 582 questionnaires of the total 600 for all the states were processed for the study. This gave a response rate of 97 percent. The data were collected by trained enumerators who spoke local languages in each of the states between July and September 2003.

[6] This was the only study in which data was collected by individuals in lieu of the national government.

Derivation of the Poverty Line

A *poverty line* is often defined as a predetermined or well-defined standard of income or consumption, which is deemed to represent the minimum, required for a productive and active life or even survival (Okunmadewa 1999). However, there is no official poverty line[7] in Nigeria, and as such, many earlier studies used poverty lines, which were set as proportions of the average per capita expenditure (see Canagarajah and Thomas 2001; FOS 1999a).

The kind of poverty line that is obtained for any poverty study depends on the kind of analysis that the researcher is interested in. In quantitative analysis, most poverty lines are objective while for qualitative, it is mostly subjectively determined. Objective poverty lines are usually of two types. These are relative and absolute poverty lines. It is very easy to see many studies using the relative poverty line approach due to its ease of computation. The studies reviewed here did not show any exception.

Aigbokhan (2000) was the first to use an absolute poverty line on national data. He used the food energy intake (FEI) method to generate an absolute poverty line. This approach relied on actual food consumption expenditure and the calorie content of the food consumed. The recommended dietary allowance (RDA) used was 2,030 calories. This amount of calories was far below the 2900 calories used by the NBS (2007), which also used the FEI method in determining the absolute poverty line using the NLSS data of 2004. The computation of the absolute poverty line based on daily intake of 2,900 calories resulted in a food poverty line of N21,743.00 per annum while the food plus nonfood poverty line was N30,128.00 per annum. The choice of calorie level determines the number of people in poverty. The level of 2900 calories per adult equivalent used was higher than in many studies. According to NBS (2007), choosing a calorie requirement closer to those used for the Burkina Poverty Assessment of 2005 (2283 calories) and the Jordan Poverty Assessment of 2004 (2309 calories) would have given a much lower percentage of the population in poverty. For example, 2300 calories would have produced a poverty incidence of 41.4 percent and which would have been lower than the poverty incidence obtained using the relative poverty line.

Olaniyan and Bankole (2005), Okunmadewa et al. (2005), Canagarajah et al. (1997), World Bank (1996), and FOS (1999) used the relative poverty line of 1/3 or 2/3 mean per capita household expenditure (MPCHE). The 1/3MPCHE was referred to as the core poverty line while the 2/3MPCHE was the moderate poverty line. The NBS (2007) apart from using the 2/3MPCHE also used the absolute poverty line required to meet 2900 calories and a minimum nonfood items, US$1 per person per day as poverty lines and subjective poverty measure using a self-assessment of poverty where households were asked to say if they were poor or nonpoor[8]. Olaniyan (2000) derived a poverty line from the relative poverty line obtained from the 1985 NCS data as contained in FOS (1999a) by multiplying the 1985 relative poverty line of N359.4 with a raising factor obtained from a ratio of the composite price index of 2000 to that of 1985. The FOS (1999b) also used the raising factor approach to derive relative poverty lines for 1980, 1992, and 1996 by multiplying the1985 poverty live with the respective ratio of composite price indices of the particular year in question (1980 or, 1992, or1996) to that of 1985 consumer price index (CPI).

Those studies that have analyzed vulnerability to poverty or expected poverty generated their own vulnerability to poverty lines or expected poverty lines differently from those that

[7] The government has not come up with its own poverty threshold, and until 2004, all the poverty lines used were relative ones. Only the 2004 NLSS data set provided the opportunity to compute an absolute poverty line.

[8] The mere fact that an agency of government used a poverty line does not make it that government's poverty line. A government poverty line should be accepted by all the arms of government, especially the legislatures at the federal level of governance. In addition, the absolute poverty line that was calculated by the NBS (2007) based on the 2004 NLSS dataset used 2900 cal per day, which is far above the RDA of even an actively working male adult in Nigeria. This fictitious 2900 cal was selected in order to be able to achieve almost an equal poverty incidence generated from using the two-thirds mean per adult equivalent expenditure as the poverty line.

conducted traditional poverty analysis. Typically, in such studies, the per capita expenditure of each household was converted into an index ranging from greater than zero to less than one using the principle of normal distribution in statistics. And thereafter, the mean of the sum of the possible index was taken to be the vulnerability index (Alayande and Alayande, 2004; Oyekale and Oyekale 2008; Oni and Yusuf 2007). However, Oni and Yusuf (2007), and Oyekale and Oyekale (2008) used the vulnerability level of 0.5 as the threshold since the equation for the estimated vulnerability followed a normal distribution. After the vulnerability indices were generated for each household, those with indices equal to or above 0.5 were termed vulnerable while those below 0.5 were termed non-vulnerable. This allowed the generation of the proportion of the population that was vulnerable both in the total population of rural households at large and within various segments of the rural households

Subjective poverty lines were also used by some studies. Among those studies with national coverage, Ayoola et al. (1999) and NBS (2007) used the perception of the individuals concerned to determine their poverty levels. The NBS (2007) reported a self-assessment of poverty in which households were asked to say if they were poor or non-poor. This gave a national poverty incidence of 75.5 percent. Self-assessed poverty was much higher in all regions with much less variability across regions. There was also little variation across expenditure quintiles[9], with 17 percent of the households in the wealthiest quintile feeling they were very poor compared to 24 percent of the households in the poorest quintile. Apparently 70–80 percent of the population felt poor regardless of their actual expenditures.

The study by Ayoola et al. (1999) was carried out in 16 communities in 13 states—8 urban and 8 rural sites—and provided perspectives of poverty from the four zones of Nigeria included in the study. The study teams also explored key issues that emerged by culture, social group, gender, age, occupation and other dimensions of difference which were locally significant to an understanding of poverty.

Finally, those studies (Omoke undated) that used the computable general equilibrium (CGE) to study the impact of a change in a policy on the poverty level of the households did not estimate any poverty line. They simply relied on either income or expenditure of the households. Their assumption was that any increases in income or expenditure would likely bring down poverty rate.

Analytical Techniques Used for Poverty Measures and Determinants

In the studies reviewed for this paper the Foster-Greer-Thorbecke (FGT) weighted poverty index and regression tools were used often. Others include the computable general equilibrium, index, scale, and participatory poverty tools.

Poverty Profile

This section presents a review of the poverty/vulnerability to poverty status of households in Nigeria based on the decomposition of poverty indices by various characteristics of the households such as demographics; location factors; human, financial and social capital variables, farm factors, etc.

Demographics

This sub-section discusses age, gender, marital status of household head, household size, etc.

[9] The NLSS 2004 data in addition from collecting actual data on income and expenditures among others also asked the respondents within each household if they considered their households to be poor or non-poor. And so, with the consumption data, it was possible to see whether each quintile perceived that they were poor.

Gender of Household Head

Typically, poverty is higher among rural male-headed households than rural female-headed ones (Olaniyan and Bankole 2005; Okunmadewa et al. 2005; Aigbokhan 2000; Olaniyan 2000). This may be because in most parts of rural Nigeria, female- headed households are always involved in many other occupations like trading in addition to farming. They also have a higher mean per adult equivalent expenditure than their male counterpart because they always have a smaller household size. They are always monogamous as compared with so many male-headed households that are polygamous, which is synonymous with large family size. Even when these female-headed households are divorced or widowed from a polygamous household, such new female heads have the responsibility of taking care of their own immediate family, which arc normally small sized. However, Okojie (2001)[10] showed that this was not the case before 1985, since in 1980, poverty was higher among female-headed households than male-headed households. Since 1985, however, poverty has been higher among male-headed households than among female-headed households. Olaniyan and Bankole (2005) found that poverty incidence was higher for male-headed households (62.8 percent) and that of female-headed households was 56.0 percent while Okunmadewa et al. (2005) revealed that the male-headed households contributed between 92 and 94 percent of poverty experienced by the households while the female-headed households contributed between 6 and 8 percent of the poverty experienced by the households. Olaniyan (2000) noted that although the gap between the male and female-headed households was reduced between 1985 and 1992, it further widened by 1996. This was explained by the fact that while poverty incidence was reduced by 8.88 percent among male-headed households between 1985 and 1996 it increased among female-headed households by 3.37 percent. Incidentally, between 1992 and 1996, the incidence of poverty rose astronomically in both types of households by 54.3 and 46.6 percent for the male-headed and female-headed households, respectively. This hike in poverty incidence was, according to World Bank (1996), the product of the general worsening welfare conditions of the people between 1992 and 1996 caused by the erosion of the positive changes and reversal of many policies that contributed to growth and poverty reduction between 1986 and 1992. It should be noted that both depth and severity of poverty reduced between 1992 and 1996 among female-headed households compared with male-headed households in which only the depth of poverty reduced.

In rural households, the poverty level is also typically higher among male-headed households than their female counterparts. NBS (2007) showed that about 46 percent of male farmers were poor while about 45.7 percent of female farmers were poor. This result further confirmed the earlier findings of FOS (1999b), based on the 1993/94 National Agricultural Survey Census[11] (NASC), that close to 77 percent of male holders were poor while about 73 percent of female holders were poor. A breakdown of poverty into moderate and core poverty showed that the proportion of extreme poor among male farmers/land holders was also higher than that of their female counterparts, while the reverse was the case for moderate poverty.

On the vulnerability[12] of rural households to poverty/expected poverty, Oni and Yusuf (2007) showed that rural female-headed households had lower poverty levels than their male counterparts. They revealed that both male and female-headed households were vulnerable

[10] The difference in figures was due to the use of different datasets for different years as seen in Tables 3 and 4.
[11] The 1993/94 NASC is still the most recent agricultural census in Nigeria. Efforts are being made to conduct another in 2009.
[12] Vulnerability to poverty within the framework of poverty reduction is defined as the *ex-ante* risk that a household or individual will, if currently non-poor, fall below the poverty line, or if currently poor, will remain in poverty. The concept of poverty is not the same as vulnerability to poverty, even though several researchers have used these synonymously. While poverty is essentially a static concept, vulnerability to poverty is more dynamic and better captures change processes as people move in and out of poverty. While some researchers prefer vulnerability to poverty, others prefer to use expected poverty because of the ex-ante approach to poverty analysis.

to poverty but male-headed households were more vulnerable. Male-headed households had lower mean consumption (0.77371 versus 0.81569) and higher consumption variance (0.02293 versus 0.0085) compared with female-headed households. Logically therefore, consumption smoothening strategies were key to mitigating against expected poverty of male-headed households.

Age of Household Head

Generally, there is an increase in poverty as the age of the household increases. Since most of the rural households are involved in farming either as secondary or primary occupation, the ability to do hard and difficult work, of which farming is one, decreases with increase in age. In addition, the number of household members available to work on the farm decreases as the head's age increases because of schooling and training that must be received by the children and younger household members. This reduces the farm size and consequently the income of such households. Nevertheless, there are some exceptions to these trends. Olaniyan and Bankole (2005) found that households headed by old people who were 65 years and above had the highest poverty incidence in Nigeria followed by household whose heads were 35–44 years old. The poverty among the elderly in Nigeria could be traced the fact that most of the rural dwellers operate in the informal sector where there is no pension cover. Hence, when they become too old to engage in farming activities, they find it difficult to generate income and slide into poverty. In addition to household headed by old people, households headed by people 35–44 years old also had a very high poverty incidence of 63.7 per cent. However, the poverty gap and severity was higher for household whose head was 25 years or younger. This might be due to the fact that these were households that developed after the economic crisis of the 1980s and the attendant problems. Okunmadewa et al (2005) observed that poverty incidence, depth, and severity were lowest for those households whose heads were between 21 and 40 years and highest for households headed by persons aged 60 and above. NBS (2007) found that household heads aged 15–24 years were the least poor while those in the middle age groups 35–64 years were the poorest. Farmers in the middle groups have more dependants. As the household head ages, the likelihood of receiving remittances increases In addition, FOS (1999b) based on the NASC 1993/94 data found that farmers between 16 and 30 years of age had relatively lower proportions of poverty—less than 67 percent—whereas farmers within 41–56 years of age had close to 80 percent poverty incidence.

Typically, the level of expected poverty/vulnerability to poverty increases with the age of the household head. Oni and Yusuf (2007) found that among households headed by persons aged between 21 and 40 years, fewer numbers of households were expected to be poor in the future while more households in the other age groups were expected to be poor in the future. In addition, household heads that were 20 years old or younger had the lowest mean consumption (0.76069) and the highest consumption variance (0.02495). Household heads above 60 years had the highest mean consumption (0.78992) and the lowest consumption variance (0.01269). Households headed by people within the age ranges of 21–40 and 41–60 had almost the same level of expected poverty relative to the reference household. However, the expected poverty of households headed by those within 21–40 was more of high consumption variance (0.0244 versus 0.02052) compared to their 41–60 counterparts.

Household Size

It is often observed that the level of poverty among rural and farming households is directly related to household size (Olaniyan and Bankole 2005; Okunmadewa et al. 2005; NBS 2007; FOS 1999b; Oni and Yusuf 2007). This could be as a result of the fact that increased household size is synonymous with more dependants (child and adult) that hardly contribute to the income of the household. The children either go to school or learn a trade/vocation, on which part of the household income is expended, while adult dependants are perpetually at home to be attended to nutritionally and otherwise. In addition, large household size depresses the amount of expenditure per adult equivalent leading to an increased poverty level. However, Olaniyan and Bankole (2005) found that while the headcount index for smaller households was 59.4 percent, it increased to 64.1 percent for larger households. Okunmadewa et al. (2005) also asserted that rural households with highest household size were the poorest and they contributed most to poverty while those with the smallest household size were the least poor.

Often among the farming households, the level of poverty is also directly related to the size of the household. NBS (2007) showed that poverty incidence was highest (100 percent) for farmers with more than 20 persons in the household and lowest for those households with only one person in the household (22.5 percent). On other hand, FOS (1999b) based on the NASC of 1993/94 showed that households with more than 20 members had poverty counts of 85 percent, while those with not more than 4 persons had poverty count of about 65 percent and household with only one member had 27 percent poverty incidence. This demonstrates that a large farming household does not necessarily translate into more family labor or that other inputs are lacking to take advantage of the available labor.

Oni and Yusuf (2007) found out that households with large family size were more prone to being poor in future. Households with more than six members have more members becoming poor in the future. Specifically, for every 100 poor households, 14 and 54 more households will become poor for households size ranges from 7–10 and above 10, respectively, in the future. The result of the decomposition of expected poverty with respect to household size shows that households with 2–6 members had the highest mean consumption and had one of the lowest consumption variance. Conversely, households with more than 10 members had the lowest mean consumption and the highest variance of consumption. The key mitigating strategies against high level of predicted poverty among households with more than 10 members were raising per capita consumption and stabilizing consumption.

Number of Wives

Olaniyan and Bankole (2005) revealed that while households headed by unmarried persons had the lowest poverty incidence of 34 per cent, households whose heads had at least four wives had a poverty incidence of 97 percent. In the rural sector of the Nigerian economy, it is common to find male-headed households with more than one wife. The most quoted reason for this is that since most of the farming activities were not mechanized, an extra wife is an extra hand in the farm and more children in the household. The results show that the argument of more cheap laborers with an extra wife may not be plausible as the higher the number of wives of the male household head, the higher the poverty incidence in the household.

Location

This sub-section discusses geographic and agro-climatic conditions such as elevation, slope/roughness, soil type, type of land cover, rainfall amount, variation, and distance of farms to cities/towns among others).

Geopolitical Zone

Nigeria is a federal country with 36 state and 778 local government areas. Because of the multiple ethnic, locations, tribes, the country is often divided into six geopolitical zones for ease of policy and analysis. Poverty is higher in the northern part of the country than the south. Specifically, Olaniyan and Bankole (2005) revealed that rural poverty is highest in the North East and lowest in the South East. Aigbokhan (2000) observed that the southern zones experienced an improvement in poverty incidence in the 1990s, while the northern zones experienced deterioration, particularly in the rural areas. This pattern is connected with the differences in the agro-climatic conditions in the southern and northern parts of the country. The south produces the primary export crops, including cocoa, palm kernel and palm oil as well as maize while the main agricultural produce of the north are mainly staples such as sorghum, millet, cowpea, groundnut, and livestock, and also rice and wheat in limited wetland areas. The export crops enjoyed increased prices because of the liberalization of cocoa marketing and the improvement in the real effective exchange rate. The incidence of poverty is not uniform even within the zones. For example in 1996, whereas head count was 36 percent in the South South zone, Akwa-Ibom, Delta and Edo states had poverty incidence levels higher than 50 percent. Similarly, the North Eastern zone had 0.61 poverty incidence, whereas Bauchi, Jigawa, and Yobe states each had over 0.80 as poverty incidence. According to Aigbokhan, this was applicable to earlier periods as well. This evidence underscores the need to pay attention to within-zone differentials when designing policy interventions. On the depth and severity of poverty, the pattern remained largely the same. That is, the depth and severity of poverty increased in the period covered. However, by geo-political zones the pattern was not uniform. For example, the depth increased in the northcentral, North East and North West, while it declined in the southern zones in the 1990s. The increase was more pronounced in the rural areas.

According to Ayoola et al. (1999), the proportion of the rural population that fell into the poorest category was again given by the various groups of people participating in the focus group discussions across the eight rural sites. As in the urban communities, there were wide variations in the proportion perceived to be in poverty, not only from site to site but also from one group to another in the same site. For example, in Bamikemo, a village in Ondo state, men gave the proportion as 65 percent, women estimated theirs as 60 percent, boys mentioned 81 percent, and girls said it was 50 percent. This gives an approximate average of 64 percent for the rural site. The averages for the four regions are as follows (with an overall average of 53.32 percent):

- South West: 57.37 percent
- South East: 54.57 percent
- North West: 49.95 percent
- North East: 50.00 percent

The participants from seven out of the eight rural communities surveyed indicated that poverty or ill-being had been on the increase during the past 10 years. It was only in Ikot-Idem in Akwa Ibom State that rural people indicated that there was no change in poverty or well-being in comparison with the previous 10 years.

Among the farming households, too, poverty is typically higher among the northerners than the southerners. NBS (2007) showed that poverty among agricultural households was much less severe in the south with 10 percent or less being core poor compared to 28.8 percent or more in the north. Similar findings had earlier been obtained in 1993/94 by FOS (1999b), who showed that the South West had the lowest proportion of poor farmers (62 percent) while the North East has the highest proportion (85 percent).There were however, more moderate poor in the southern region than in the northern region and the reverse was the case for extreme poverty.

With respect to vulnerability to poverty, this is higher among rural households in northern zones than those in the southern regions of Nigeria. Oni and Yusuf (2007) showed that the North East had the highest level of predicted/expected poverty while the South South had the least predicted poverty level. The relativity of predicted poverty to the observed poverty level showed that for every hundred poor people in the North East, 27 more were expected to be poor in the future. The same trend was observed in the North West, South West and north central part of the country. On the other hand, people were expected to move out of poverty in the South East and the South South in the future. The decomposition by geographical zones shows that the North Eastern part of the country has the least expected consumption with the second highest variance of expected consumption. By contrast, the North Central had the highest expected consumption (0.84645) and the least consumption variance (0.00945). Both the South West and the South East had almost equal expected poverty level. However, a review of the sources of expected poverty indicated that the variance of consumption explained the predicted poverty more in the South Sest than in the South Cast. Following from this, the variance of consumption in the South West was 1.6 times more than that of the South Eastern part of the country. The appropriate policy for mitigating against expected poverty will be more of consumption smoothening strategies in the South West, while that of South Cast will involve more of raising per-capita consumption. Also, the North East had a relatively high consumption variance as well as lowest mean consumption. This suggests that both consumption smoothening and increased per capita consumption strategies should be the key policy focus to mitigate expected poverty.

Rural-Urban Divide

Traditionally, the households residing in the rural areas of Nigeria are poorer and more vulnerable to poverty than their urban counterparts (Okojie 2001; Canagarajah et al. 1997; Olaniyan 2000; NBS 2007; and Oyekale and Oyekale 2008). Okojie (2001), however, showed that poverty was higher in rural households, whether headed by a male or female. In 1996, the incidence of poverty was about the same in both male and female-headed households in urban areas. Olaniyan (2000) found that poverty among rural households decreased slightly between 1985 and 1992 before soaring by 50.65 percent between 1992 and 1996. However, urban poverty remained virtually the same between 1985 and 1992 before increasing as much as 55.2 percent between 1992 and 1996. According to him, even with the rate of increase in urban poverty, the incidence, depth, and severity of poverty remained higher among the rural households. Between 1985 and 2004 these two indicators were higher among rural households than the urban households. Incidentally, the gaps, which appeared to have been bridged by 1996, indicating that many urban poor households had become poorer, again widened. In 2004, there was a 20-percentage point gap between the poverty incidence of the urban and rural households, confirming that poverty in Nigeria was predominantly a rural phenomenon seen in the table below.

Table 5. Relative poverty by sector (urban and rural)

Year	Urban %	Rural %
1980	16.2	28.3
1985	37.8	51.4
1992	37.5	46.0
1996	58.2	69.3
2004	43.1	63.8

Source: NBS 2007.

Vulnerability to poverty/ expected poverty is usually higher among the rural households than their urban counterparts (Alayande and Alayande 2004; Oyekale and Oyekale 2008). Alayande and Alayande (2004) found out that 89 percent of households in the rural areas were vulnerable compared to 70.9 percent for the urban areas in 1996. In addition, the rural households had a higher mean vulnerability of 70.2 compared to those urban households, estimated at 65.7 percent. In addition, the rural households had higher poverty and vulnerability differences (33 percent) than the urban households (23 percent). Oyekale and Oyekale (2008) also showed that rural areas displayed more vulnerability because while poverty was expected to decline by 44.90 percent in the urban areas, it would increase by 7.71 percent in the rural areas. In addition, more people were never poor and escaped poverty in the urban areas, while the larger portion of rural population was either chronically poor or expected to be poor.

Human Capital

This sub-section discusses education, employment status, and occupation of household heads.

Educational Level of Household Head

It is generally accepted that those households headed by persons without a formal education always have higher levels of poverty and expected poverty/vulnerability to poverty than those households that are headed by educated persons (Olaniyan and Bankole 2005; Okunmadewa 2005; NBS 2007; FOS 1999b; Canagarajah 1997; Oni and Yusuf 2007). Nevertheless, when we see the impact of the various levels of educational attainments on poverty/expected poverty, there seem to be some variations. For example, Olaniyan and Bankole (2005) revealed that contrary to expectations that the higher the education level, the lower the poverty status, their findings revealed that the axiom was true only to some extent. While poverty level decreased with additional educational attainment, this stopped at the secondary education level where they found that the headcount index for postsecondary education was higher than that of secondary education although poverty status of postsecondary education headed household was still better than those households whose heads only attained primary education or had no formal education at all.

Even among farming households, the pattern was not different, despite that agricultural households were less well educated than non-agricultural households. In addition, on average and among agricultural households those with less education were more likely to be poor. The prevalence of poverty among farmers without education was 68 percent, while for farmers with tertiary education it was 34.5 percent. In addition, FOS (1999b) based on the NASC 1993/94 data reported that the prevalence of poverty among farmers with below primary education was about 82 percent, while for farmers with post secondary education was less than 42 percent.

With respect to vulnerability to poverty, Oni and Yusuf (2007) revealed that fewer people were expected to be poor relative to the observed (actual) poverty for households with primary, secondary, and tertiary educations respectively. Household heads without education were prone to poverty. Indeed, an additional 20 households in this category were expected to be poor with every 100 currently poor ones. The decomposition of expected poverty with respect to educational status of household heads showed that household heads with no formal education had the lowest mean consumption level while those with tertiary education had the highest mean consumption. In general, mean consumption increased with the level of educational status. On the other hand, the consumption variance was highest for households headed by secondary school leavers. This was followed by those with primary education. However, the variance of consumption for primary school leavers was 2.3 times higher than those households with tertiary education heads. This suggests that the predicted poverty of heads of households with primary school was driven more by high consumption variance.

Occupation of the HeadS of Household

Traditionally, rural households whose heads are engaged primarily in farming are poorer than those who are primarily engaged in other occupations[13](Olaniyan and Bankole 2005; Okunmadewa et al. 2005; NBS 2007). Olaniyan and Bankole (2005) found out that poverty incidence was 64.4 percent for households headed by people engaged in farming and 53.9 percent for their non-farming counterparts. Okunmadewa et al. (2005) revealed that farming households contributed at least three-fifths of the poverty experienced by households in rural Nigeria.

Oni and Yusuf (2007) found that vulnerability was higher among those households whose heads are primarily engaged in farming than all others. They found that farming households have lower mean consumption and higher variability in consumption compared with their non-farming counterparts. This points to the need for increasing mean consumption and smoothening consumption strategies to mitigate against expected poverty among farming households.

Financial Capital (Availability of Credit)

Use of credit seems to be a critical factor in poverty consideration among farmers. According to FOS (1999b) based on the NASC 1993/94 data set, farmers with no access to credit had poverty incidence of close to 77 percent and the extreme poverty incidence of 49 percent. Poverty was lowest among farmers with access to credit through commercial banks (62 percent), cooperatives (64 percent), local money lenders (69 percent), agricultural credit banks (69 percent), friends (73 percent) and community/peoples banks (75 percent) in that order. The unusually high incidence of poverty among farmers that had access to credit points to the fact that unless a loan/credit is properly utilized, it can even plunge households into greater poverty. Extreme poverty incidence was also lowest among farmers using credit from cooperatives and traditional contributions.

NBS (2007) revealed that almost 20 percent of households in the poorest quintile reported that lack of access to credit/capital was one reason they were poor. Few households in rural areas reported taking loans (2.4 percent). Households in the poorest quintile were half as likely to take a loan as those in the wealthiest quintile (1.5 percent versus 3.5 percent), but this difference was less striking than the very low use of credit overall. Of those households taking loans, the poorest households were twice as likely to take loans from an informal moneylender (14 percent versus 6 percent). No household in the poorest two quintiles reported taking a loan from a government agency, suggesting that existing government loan programs do not reach the poor. Overall, only 10 percent of loans were from formal sector sources, with the percentage of loans from the formal sector varying very little across quintiles.

Social Capital

Local level institutions have been understood to play a major role in sustaining development process. These institutions, traditional and modern; at the community, local regional and national levels; and in the public, private and civil sectors, are the vehicles through which social change and social action occur. Social capital is the network of horizontal connections, which leads to mutual commitment and trust and enables people and their

[13] Until recently, the rural areas were synonymous with farming. But recent studies (Omonona, 2006) have shown that nonfarm income is a major source of income in rural Nigeria. Apart from paid employments that are tied to the level of education, there are traders, artisans, and commercial motorcycle riders among others that are in the rural areas.

institutions to function effectively. It is often understood to be a social resource, which is created through formal and informal relationships between people within a community.

Social capital has been found to have great impact on the income and welfare of the poor by improving the outcome of activities that affect them. It improves the efficiency of rural development programs by increasing agricultural productivity, and facilitating the management of common resources in both rural and urban areas. It is a key factor from recovering from ethnic conflict and coping with political transition. Finally, it can reduce poverty through micro and macro-channels by affecting the movement of information useful to the poor and by improving growth and income redistribution at the national level.

The profiling of poverty status of a sample of households based on social capital factors can be seen in Table 6.

Table 6. Poverty and social capital variables

Variables	N	Poverty incidence	Poverty depth	Poverty severity
Cash contribution (Naira)				
Below 1000	135	0.6148	0.2260	0.1162
1000-9999	216	0.5278	0.1728	0.0716
10000-29999	136	0.1764	0.0316	0.0108
30000-49999	48	0.2708	0.0543	0.0259
50000 and above	47	0.2340	0.0473	0.0201
Labor contribution (days)				
Below 10	355	0.4225	0.1342	0.0607
10-29	119	0.4288	0.1536	0.0771
30-49	54	0.4259	0.1047	0.0481
50-69	25	0.3600	0.0519	0.0105
70 and above	29	0.4138	0.1419	0.0756
Decision making index				
Below 10	39	0.3590	0.0913	0.0349
10-29	35	0.4571	0.1265	0.0502
30-49	67	0.4627	0.1196	0.0429
50-69	271	0.4797	0.1728	0.0846
70 and above	170	0.3176	0.0831	0.0405
Meeting attendance index				
Below 10	7	0.5126	0.1481	0.0628
10-29	32	0.4589	0.1639	0.0819
30-49	119	0.3030	0.0697	0.0261
50-69	292	0.2500	0.469	0.0200
70 and above	119	0.2857	0.1137	0.0453
Heterogeneity index	30	0.3667	0.0994	0.0421
Below 10	77	0.6364	0.2551	0.1302
10-29	119	0.3277	0.1083	0.0575
30-49	190	0.3579	0.0913	0.0372
50-69	166	0.4699	0.1452	0.0638
70 and above				
Number of members belonging to LLIs				
Below 3	65	0.4769	0.1422	0.0717
3-4	307	0.4560	0.1563	0.0747
5 and Above	210	0.3524	0.0940	0.0391

Source: Okunmadewa et al. (2005).

Note: These figures are proportions except N which is the frequency of each group.

Cash Contribution Index[14]

The findings of Okunmadewa et al. (2005) showed that the extent of poverty was indirectly related to the level of cash contribution. Those households whose cash contributions to their various local-level institutions (LLIs) were smallest had the highest poverty incidence (0.6148), depth (0.2260) and severity (0.1162).

[14] This was obtained by adding the total cash contributed to the various associations to which the household belonged. The actual cash contributions for each household was rescaled by dividing this amount by the maximum fee amount in the data and multiplying the resultant fraction by 100.

Labor Contribution Index[15]

Okunmadewa et al. (2005) revealed that the number of days of labor contributed to the LLIs did not show much marked difference in poverty among those studied. However, it was observed that poverty was lowest among those households that contributed between 50 and 69 days of labor.

Decisionmaking Index[16]

According to Okunmadewa et al. (2005), there was no clear and direct link between household poverty and the decision-making index. The decision-making index of the households in the LLIs showed that those households with the lowest and highest decision-making indices were in lower poverty than those households with an intermediate (10 to less than 70 percent) index for decision-making. This may be because those with a very high decision-making index were likely to be most committed to the success of the LLIs. As for those with a very low value of decision-making index, they seemed not to have been committed to the activities of the LLI, and hence, had lower social capital, leading to higher levels of poverty.

Meeting attendance index[17]

Okunmadewa et al. (2005) revealed that being a member of LLIs was a necessary but not sufficient condition to fully benefit from the association. This study found that it was not just enough to be a member of an association but attending meetings was more important for poverty reduction. It showed that the higher the meeting attendance index by members, the more the participation in the LLI activities, hence an increase in social capital leading to a reduction in poverty. In addition, households with lower attendance index at meetings contributed more to poverty than those with higher index for meeting attendance.

Heterogeneity Index[18]

Okunmadewa et al. (2005) found that the heterogeneity index and poverty did not follow a definite pattern. While those households with less than 10 percent of heterogeneity index had low poverty levels, those with 10–29 percent had the highest poverty. Thereafter, there was a drastic drop in poverty levels as the heterogeneity of the members of LLIs increased.

Number of Members of Household Belonging to LLIs[19]

Okunmadewa et al. (2005) showed that households with fewer number of members belonging to LLIs had higher poverty incidence and vice versa. Hence, as the number of members of households belonging to LLIs increased, the poverty incidence decreased. The

[15] This is the number of days that household members belonging to institutions claimed to have worked for their institutions. This was also rescaled to 100 using the same process as for cash contribution.
[16] This was calculated by summation of the subjective responses of households on their rating in the participation in the decision making of the three most important institutions to them. The responses were averaged across the three groups and multiplied by 100 for each household.
[17]This is obtained by summing up the attendance of household members at meetings and relating it to the number of scheduled meetings by the associations they belong to. This value was then multiplied by 100.
[18] This is an aggregation of the responses of each household to the questions on the diversity of members of the three most important institutions to the households. On each of the three associations, each household answered questions on whether members lived in same neighborhood, were in the same kin group, same occupation, of same economic status, of same religion, same gender, same age group, and same occupation. Hence, for each of the factors a yes response was coded 0 while a no response was coded 1 A maximum score of 10 for each association represented the highest level of heterogeneity. The scores by the three associations for each household were then divided by the maximum score of 30 to obtain an index. This index was then multiplied by hundred (a zero value represents complete homogeneity while 100 represents complete heterogeneity).
[19] This was captured by adding the total number of associations to which each household belonged.

pattern for poverty depth and severity was not clear based on the number of members of households belonging to LLIs. While poverty depth and severity were lowest for households with five or more members belonging to LLIs, they were highest for those with less than three members. This shows that the higher the number of members belonging to LLIs, the more likely it was for such households to have more social capital, thereby reducing poverty.

Farm-related Factors Especially Production Practices

Use of Modern Agricultural Inputs

NBS (2007) revealed that households in the wealthiest quintile were much more likely to use modern improved agricultural inputs than those in the poorest quintile, including inputs such as inorganic fertilizers, insecticides, petrol, purchased seeds, and hired labour. In addition, households in the poorest quintile were more likely to report cost and access to agricultural inputs as a reason for poverty than households in the wealthiest quintile. In fact, however, even among the wealthiest agricultural households, fewer than 25 percent used inorganic fertilizers, insecticides, or herbicides. Somewhat surprisingly, agricultural households in the poorest quintile were slightly more likely to use herbicides and veterinary services than households in the wealthiest quintile. There was, however, no marked difference in the use of agricultural inputs by gender.

Evidence from the FOS (1999b) based on the NASC 1993/94 data set showed that poverty was less among farmers who used improved seeds at 67 percent than among farmers who used pesticides (73 percent) and fertilizers (78 percent) in that order. Extreme poverty incidence among farmers who used fertilizers was about 50 percent compared to 38 percent for those who used improved seeds. Therefore, the use of fertilizers does not portend improved welfare for the farmers.

Sales of Produce

According to NBS (2007), households in the poorest quintile were the least likely to sell produce, indicating that they were least able to grow enough for their own consumption. In the peasant production system, satisfying the food consumption needs of the household are paramount and it is only when they are met or assured that the farmer would offer its produce for sale. A household which cannot produce enough for itself will not offer anything for sale, as the same quantity of what is sold at harvest will be at relatively higher price since prices of food items increases from the time of harvest period, and the farther the time is from the harvest period, the higher the price of such products. Even in the wealthiest quintile, only 31 percent of households sold part of their produce. However, given that crop sales are seasonal, the numbers here underreport the number of households that sell produce at some time. Female-headed households were much more likely to sell produce. There is no clear explanation of why the difference should be so substantial even taking into consideration those female-headed households were on average less poor.

Land Tenure

In the rural areas of most parts of Nigeria, land owners are peasants. The landowners are faced with a lack of adequate access to credits and other inputs to put a large area of its land under cultivation. Usually, these landowners are local people who are primarily engaged in farming. On the other hand, those operating on rented lands are not indigenes who are primarily employed in other sector of the economy like education e.g., primary school teachers who take farming as a secondary occupation to supplement income from their primary occupation. According to FOS (1999b) based on the NASC 1993/94 dataset, poverty incidence among farm land owners and those operating on family land were quite high at about 80 percent and 75 percent respectively. Whereas incidence among farmers operating on rented land was about 66 percent and those who were squatters was 67 percent. Extreme poverty incidence was also higher among the direct owners and operators of family land. This was a surprising result, as loose and unstable land tenureship tends to portend a more productive and welfare rewarding process for operators.

Diversity of Income Sources

Although farming is the dominant activity among rural communities in Nigeria, there are relatively few households for which agriculture is the exclusive source of income. Instead, men, women, and young children are also involved in a variety of nonfarm activities for longer or shorter periods at different times of the year. The idea that rural areas are synonymous with agriculture is fast changing courtesy of the results of rural budget surveys. There is a growing recognition that the rural nonfarm activities in government, commerce, manufacturing, and services play a vital role in the economies of many rural households. In a study of income sources among rural households in Kogi State, Nigeria, Omonona (2006) reported that about 54 percent of rural households were headed by persons engaged primarily in farming while the remaining 46 percent were primarily engaged in non-farming activities. Such non-farming activities include crafts and artisans (such as local tailoring, bricklaying, carpentry and furniture making, commercial motor vehicle driving and motorcycle riding, motorcycle and vehicle mechanics, etc.), trading in agricultural produce, and other nonagricultural products such as clothing, soaps, confectionaries, and bakery products etc.. In addition, he further revealed that a typical rural household in Nigeria obtained income from several sources, as shown in the table below.

Table 7. Income sources of rural households in Kogi State, Nigeria

Source of income	Proportion of households receiving income from source*
Nonfarm wage employment	0.4619
Nonfarm self-employment	0.5762
Farm wage employment	0.2143
Farm self-employment	0.95

* Responses are multiple and will not add to 1.0.

Source: Omonona 2006.

As seen above, about 95 percent of the rural households got their income from farm self-employment while about 21 percent derived income from farm wage employment. In addition, about 46 and 58 percent of the households derived their income from nonfarm wage and self-employment respectively.

According to NBS (2007), the average income generated from farming activities was higher among male farmers while the average income from other sources was higher among their female counterparts. The average total income of male farmers was higher than that of female farmers while the per capita income of female farmers was significantly higher due to the smaller household size of female-headed households.

The amount of income from farming was highest for the South West (N57,238.30) and lowest for the South East (N29,431.8). This may be due to the very low land to man ratio of the South East, coupled with the poor technology of production. On the other hand, the South South had the highest income from other sources (N13,602.2) while the north central had the lowest (N4,158.0). The highest per capita income came from the south-west while the smallest came from the North East. The differences in geographical distribution of income could also be explained by availability/quality of land, access to market and credit facilities, farming techniques, types of crops planted, etc. On the other hand, the geographical distribution of income by state revealed that Lagos and Bayelsa recorded the highest income and Sokoto the lowest. In the absence of data on the composition of income from farming activities, it might be speculated that the high income of Lagos and Bayelsa was due to substantial earnings from fishing activities. Bayelsa is a riverine state where the main occupation is fishing and Lagos state has a large coastal area and lagoons. Fishing products are known to attract high values.

In order to obtain the various sources of income and their relative importance in total income, NBS (2007) presented empirical findings from Kogi state using Omonona (2006).[20] The study revealed that nonfarm income sources[21] were clearly important, as nonfarm income accounted for about 53 percent of total per capita rural household income in Kogi State. This was made up of nonfarm wage and self-employment, each respectively constituting 32 and 21 percent. A clearer picture of the rural income was seen when the income sources were presented by income quintile groups (See Table 1). At all income levels, households depended on a mix of income sources. No income level depended on agricultural production for more than 40 percent of total household income. The poorest three quintiles split their income sources more or less evenly between farm and nonfarm sources. The fourth quintile received almost 60 percent of income from farm sources, while the fifth quintile received almost 60 percent of income from nonfarm sources.

It should be noted that the diversification of households into various income sources is a risk management strategy, so that if one income source fails, the others can become a fall position. Also, most of the farming income sources that are from crops are seasonal since most of the farmers are into rain-fed agriculture.

Farming Household's Crop Enterprise Choice

NBS (2007) showed that a farmer's choice of farm enterprise had poverty implications. Poverty incidence was highest among farmers growing primarily fruits and vegetables [onion (83.1 percent), okro (72.2 percent), pineapple (68.6 percent), pepper (63.2 percent), Guinea corn (60.3 percent), and beans (59.6 percent)] while those farmers with the lowest levels of poverty were those growing commercial crops such as coffee (15.9 percent), Kola nut (26.4 percent) and cocoa (29.4 percent).

The table below shows the poverty incidence among the farming households in Nigeria.

Table 8. Poverty incidence of farmers by primary crop grown in the last 12 months

	Poverty incidence %	Nonpoor %
Avocado pears	51.6	48.4
Bananas	41.1	58.9
Beans	59.6	40.4
Peas	50.7	49.3
Coconut	34.1	65.9
Coffee	15.9	84.1
Cotton	36.3	63.7
Cocoa	29.4	70.6
Cassava	53.2	46.8
G'nut/peanut	55.6	44.4
Guinea corn	60.3	39.7
Millet	53.3	46.7
Kola nut	26.4	73.6
Mango	37.2	62.8
Maize	52.9	47.1
Oil palm	53.3	46.7
Okro	72.2	27.8
Other vegetables	16.1	83.9
Other crops	61.0	39.0
Onion	83.1	16.9
Oranges	32.2	67.8
Pineapple	68.6	31.4
Plantain	55.7	44.3

[20] This study focused on the analysis of rural income sources and inequality in Kogi State, Nigeria; utilizing a two stage sampling procedure to collect primary data from 210 rural households with the aid of questionnaires.
[21] This includes income obtained form private and public sectors jobs, artisans and crafts, trading, remittances and interest, and rents.

Pepper	63.2	36.8
Potatoes	24.9	75.1

Source: NBS 2007.

The higher poverty incidence among farmers growing fruits and vegetable may be connected to the lack of adequate processing and storage facilities that are available to process and store produce during the peak of harvest during which farmers sell their produce at give-away prices in order to prevent total loss of their crop. On the other hand, the poverty level is lowest among the producers of commercial crops because there are facilities to process such crops, especially cocoa and coffee, which must be processed before they can be marketed. In addition, once cocoa and coffee are properly processed, they have a longer shelf life, and stay fresh for long periods of time. This makes it possible to release products as market prices get better.

Livestock Enterprise Choice

According to NBS (2007), the poverty level among livestock producers was highest among those producing poultry (71.0 percent) and pigs (62.2 percent) as seen in the table below. On the other hand, the producers of cattle, rabbit and fish had the lowest incidence at 52.4 percent, 54.6 percent and 55.5 percent respectively.

Table 9. Poverty incidence of livestock/fish farmers

	Poverty incidence	Nonpoor
Draught animals	58.2	41.8
Cattle	52.4	47.6
Sheep	56.6	43.4
Goats	56.7	43.3
Pigs	62.2	37.8
Rabbits	54.6	45.4
Chicken	61.9	38.1
Other Poultry	71.0	29.0
Fish	55.5	44.5
Total	56.6	43.4

Source: NBS 2007.

Usually, crop farmers are poorer than their livestock counterparts and with the exception of poultry and piggery farmers, most livestock producing households have lower poverty incidence than those households whose heads are into fruits and vegetables. It must be noted that those households whose heads are into commercial crop have lower poverty incidence than their livestock counterparts.

Community Factors and Assets

Source of Drinking Water

NBS (2007) showed that as high as 47.3 percent of the food poor obtained their water from unprotected well/rain water and lakes, rivers and ponds, while the corresponding proportions of the moderate poor and nonpoor that sourced their water from unprotected well/rain water and lakes, rivers and ponds were 45.1 and 39.6 percent, respectively, as seen in the table below. These were high percentages considering that the water sources were considered unsafe for human consumption.

Table 10. Source of drinking water

Source	Food poor %	Moderate poor %	Nonpoor %
Pipe-borne water treated	10.30	11.32	16.67
Pipe-borne water untreated	2.51	3.25	2.30
Borehole/Hand pump	16.34	16.09	17.91
Protected well	18.72	19.19	16.43
Unprotected well/rain water	25.53	21.88	14.55
River, lake, pond	21.80	23.24	25.04
Vendor, truck	2.41	3.02	4.28
Others	2.40	2.01	2.83
Total	100.00	100.00	100.00

Source: NBS 2007.

A distribution of the source of drinking water along the lines of whether the sources were improved/unimproved[22] showed that among the food poor, improved water (55.29 percent) was the dominant source of drinking water. However, among the moderate poor and the nonpoor, improved sources of drinking water constituted 60.92 and 65.60 percent, respectively, as shown in the table below.

Table 11. Source of drinking water by improved and unimproved

Sources	Food poor (%)	Moderate poor (%)	Nonpoor (%)
Improved Water	55.29	60.92	65.60
Unimproved Water	44.71	39.08	34.40
Total	100.00	100.00	100.00

Source: NBS 2007.

A further analysis along the line of rural/urban dichotomy shows that for rural residents in all categories of the poor, unimproved source was the major source of drinking water, accounting for over 50 percent. However, in the urban areas, unimproved sources accounted for far less percentage less than 20 percent in the three categories of the poor.

On the relationship between access to safe water and poverty of rural households, Olaniyan and Bankole (2005) showed that rural households without safe water had slightly higher poverty incidence, depth, and severity than those who had access to safe water as shown in the table below.

Table 12. Poverty profile by access to safe water among rural households

Access to safe water	Headcount	Poverty gap	Severity	Population (%)
Yes	0.622	0.300	0.183	41.10
No	0.629	0.299	0.176	58.90

Source: Olaniyan and Bankole 2005.

Despite the fact that more than 58 percent of rural Nigerians had no access to safe water, 62.9 percent of them were also poor by the poverty headcount ratio. Poverty was also more severe among those households without access to safe water, as seen in the table above.

[22] Improved water includes pipe borne water (treated and untreated), borehole/hand pump, and protected well. Unimproved water source includes water from unprotected well, rivers, lakes, ponds, and others. Rainwater is usually included among improved sources of water, however, in the NLSS, rain water and unprotected well water were combined.

Refuse Disposal

According to NBS (2007), the pattern of refuse disposal among all income groups in Nigeria (rural and urban) was similar, as the majority of them disposed of their refuse within their compounds or in unauthorised heaps nearby. A government facility for disposal was among the least used option as seen in the table below.

Table 13. Refuse disposal by the poor and nonpoor

Refuse collection	Poor (%)	Moderate poor (%)	Nonpoor (%)
Govt. collection	4.88	9.90	0.92
Private collection	7.68	16.15	0.99
Government bin	1.98	3.88	0.47
Disposal within compound	41.53	25.61	54.10
Unauthorised heap	40.48	41.02	40.05
Others	3.45	3.44	3.46
Total	100.00	100.00	100.00

Source: NBS 2007.

Among the likely reasons for this were unavailability and/or distance to residence. The trend was similar for the urban and rural dwellers. Surprisingly, however, government collection was among the top three methods of waste disposal in the rural areas as revealed in Table 14. This pattern is because waste disposal facilities in most urban areas are overstretched due to population in relation to the available facilities, so urban residents resort to various disposal methods like disposal within compounds and unauthorized heaps. However, the pattern in rural areas is not quite different from that of urban areas; government refuse collection facilities in rural areas are not as overstretched as in urban areas and these account for a higher percentage of usage of these facilities than in the urban areas.

Table 14. Refuse disposal by urban/rural categorization

	Urban	Rural
Government Collection	4.48	11.10
Private Collection	3.90	9.98
Government bin	1.44	3.20
Disposal within compound	52.77	39.00
Unauthorized heap	34.17	32.12
Others	3.25	4.59
Total	100.00	100.00

Source: NBS 2007.

No doubt the refuse disposal within compounds and unauthorized heaps constitutes the major health hazards. Even where government bins are provided, they also often easily constitute health problems, as the bins soon become over filled and unattended to.

Olaniyan and Bankole (2005) showed that those households with better access to proper waste disposal had lower poverty headcount, depth, or severity as shown in the Table 15 below. In addition, 23 percent of the households had access to safe waste disposal facilities.

Table 15. Poverty profile by access to waste disposal facilities among rural households

Access to waste disposal facilities	Headcount	Poverty gap	Severity	Population (%)
Yes	0.618	0.303	0.181	23.00
No	0.629	0.297	0.177	77.00

Source: Olaniyan and Bankole 2005.

Health Consultations

NBS (2007) showed that there was not much difference in the pattern of use of medical services by poor and nonpoor people in Nigeria.

Table 16. Health consultations by poverty levels (%)

Who was consulted	Core poor	Moderate poor	Nonpoor	All
Hospital	28.1	37.0	47.0	40.1
Dispensary	17.8	13.4	9.0	12.2
Pharmacy	7.7	12.9	8.2	8.9
Clinic	11.9	12.4	16.6	14.6
Maternity Home	1.6	1.7	1.8	1.8
MCH Post	0.5	0.6	0.6	0.6
Consultant's Home	7.8	4.9	4.8	5.6
Patient's Home	7.0	8.4	4.6	5.9
Other	17.7	8.6	7.4	10.5
All	100	100	100	100

Source: NBS 2007.

The largest proportion of each category patronized the hospital, although for obvious reasons more of the nonpoor consulted hospitals. Nevertheless, a larger proportion of the core poor consulted dispensaries compared to the nonpoor, more of whom consulted clinics. Thus, the hospital needed to be targeted for greater access of the poor to health services.

Toilet Facilities

Olaniyan and Bankole (2005) also revealed that those Nigerian households with better access to improved toilet facilities had lower poverty incidence, depth, and severity as seen in the table below. In addition, a larger proportion (about 57 percent) of the rural households did not have access to safe toilets[23].

Table 17. Poverty profile by access to safe toilet among rural households

Access to safe toilet facility	Headcount	Poverty gap	Severity	Percent of population
Yes	0.610	0.286	0.170	42.80
No	0.635	0.309	0.188	57.20

Source: Olaniyan and Bankole 2005.

Persons Per Room

Olaniyan and Bankole (2005) showed that the number of persons per room matters in rural poverty. Their study revealed that there was a positive relationship between the number of persons per room and the incidence of poverty. Households with smaller number of persons per room living in the house had a lower poverty incidence, depth, and severity. From Table 18, while only 42.4 percent of persons living in households with less than an average of 1 person per room were poor; the poverty incidence for households with at least 6 persons per room was 66 percent.

[23] Toilet facilities such as the water closet and covered pit latrines are referred to as safe toilets while the use of pail, defecating in bushes and on waste dump sites are not safe use of toilets.

Table 18. Poverty profile of rural households by persons per room

Persons per room	Headcount	Poverty gap	Severity	Population (%)
1 person or below	0.424	0.204	0.119	38.10
1.1 - 3	0.594	0.279	0.165	41.80
3.1 – 6	0.611	0.300	0.185	18.10
Above 6 persons	0.660	0.313	0.187	2.10

Source: Olaniyan and Bankole 2005.

Relevant Shocks

World Bank (2004) asserts while links between poverty, vulnerability, and risk (uncertain event or shock) exist, they are different concepts. Vulnerability is the exposure of households to contingencies and stress, and the difficulty in coping with them. When households are exposed to repeated risks—uncertain events or shocks—they become more vulnerable. While poverty is not having enough to meet one's basic needs at a given point in time, vulnerability is the probability of not having enough at some point in the future. While poverty is static, vulnerability is dynamic. Both the poor and non-poor are exposed to shocks (natural and man-made) with negative consequences, but the poor are less able to cope and are, therefore, more vulnerable. This vulnerability may render the poor risk-averse and unwilling to engage in high risk/high return ventures, leading to poverty traps. Identification of risk management strategies is needed.

Households can be affected by different types of risk. As shown in Table 19, risk can be individual, idiosyncratic, or "micro," such as an illness, the loss of a job, or the death of a household breadwinner. Risk can also be communal as in the case of floods, landslides, and many forms of violence. Finally, risk can be national, such as in the case of war, terrorism, a financial currency crisis, a large consumer price change, or a coup d'état. Idiosyncratic household-level risk affects people most directly. Some idiosyncratic risks affect a household's ability to support and feed their members temporarily (for example, unemployment or the loss of property); others have permanent consequences (for example, disability, a business failure, or skill obsolescence). Covariate risks can also be temporary or permanent in their effect on groups of people. One difference between idiosyncratic and covariate risk is that idiosyncratic risk can be insured within a community while covariate risk cannot because when everyone is affected, the risk cannot be shared.

Different risks affect different groups of households. Natural risks affect primarily the poor and the well-to-do in rural areas. The poor who reside in rural areas are more vulnerable to environmental risk (consider fishermen and crop farmers in the Niger Delta). Poor adults and female youths in rural areas are more prone to gender-related risks. Risks arising from conflict and criminal activity affect both the poor and the well-to-do in urban areas more than in rural areas. The poor in urban areas are more vulnerable to labor-market risk. Risks related to life events and macroeconomic policies are sometimes more pronounced among the urban poor. Risks sometimes occur in bundles because they are related to each other, as shown in studies of the North East. For example, suffering from harvest loss can make a farmer susceptible to other risks, such as an income drop, which can then lead to malnutrition and other attendant problems. Vulnerable families are characterized by a lack of assets and an inability to use the assets they do have to withstand the shocks. A lack of education can also reduce one's ability to deal with risks, as can a lack of formal and/or informal solidarity networks on which families and communities rely.

Risk can be classified according to frequency of occurrence. Some risks occur once in a lifetime (for example, drought, death of a spouse, loss of land, resettlement, war). Others occur every month (for example, child labor and irregular payment of pension and/or salary), or once a year or every few years. Some risks can be catastrophic even though they are not frequent. Non-catastrophic events may occur with higher frequency but with less severe consequences (for example, temporary unemployment and/or transient illness such as malaria or diarrhea.) Table 19 provides an overview of the sources, types, and frequency of risks encountered in Nigeria and suggests that both permanent and ad hoc strategies for social protection are needed to deal with frequent and infrequent risk. Implementation of preventive actions to mitigate the negative impact of risks that occur frequently and infrequently is the purpose of risk management strategies of households, communities, and nations.

Table 19. Source of risk and classification by type of risk and frequency

	Type of risk Idiosyncratic ⟷ Covariant			
Source of risk	Micro: Household	Meso: Village/ Community	Macro: National	Approximate frequency of the risk
Natural Drought, flood, erosion, rainstorms.	✓	✓		Once in 10 years for drought; yearly or once in 5 years otherwise
Environmental Deforestation, desertification, bush burning, over-grazing, oil spillage		✓		Yearly or once in 5 years
Gender Lack of inheritance rights, burial rites of widows		✓		Once in a lifetime
Sexually transmitted disease, divorce, rape, unwanted pregnancy	✓			Yearly; once in a lifetime for divorce
Conflict/Crime/Violence Separation of family members, child abuse, armed robbery and lack of access to justice	✓			Once in a lifetime for separation, yearly otherwise
Ethnic conflict, indigene/settler problems, religious riots		✓		Once in 5 years
Labor Market Job loss, reduced income, unemployment, lack of unemployment compensation, displacement from place of business, child labor	✓			Once in 5 years, monthly for child labor
Life Events Death of spouse, old age, loss of land.	✓			Once in a lifetime
Macroeconomic Political corruption, declining economic growth, unstable economic policies, price volatility			✓	Monthly, or yearly
Irregular payment of salaries, delay or non-payment of pension.	✓			Monthly
Child Human Development Dropping out of school, failing to learn in school, infant and child mortality, malnutrition, illness	✓	✓		Various frequencies, depending on risk
Other Epidemics, food losses owing to pests, displacement due to government projects	✓			Once in 5 years; yearly for some displacements
Chronic illness, disability	✓			Monthly

Note: The child human development risk in education and health has been added after the field work was completed since the coverage for this report has been extended to cover these areas.

Source: World Bank staff based on qualitative field work.

Apart from risks related to the livelihood of households, there are also risks related to human development, especially in children. Many social indicators in Nigeria have worsened during the 1990s, as shown in Table 20. Less progress has been made in Nigeria in reducing infant mortality (IMR) and child mortality (U5R) rates than has been made in Sub-Saharan Africa (SSA) as a whole (UNICEF 2001), and overall life expectancy, which was 51 years in 1990, has declined to 47 years in 2000, due in part to the increase in HIV/AIDS prevalence, estimated at over 5 percent. School enrollment rates are low, as is the quality of education, with Nigeria at or near the bottom of rankings for subsets of African countries. Access to adequate water and sanitation facilities, as well as good transportation and communication networks, is also low. These issues are made more difficult to manage due to the rapid population growth rate of about 2.8 percent per year. In addition, government officials at all levels and, particularly in the social sectors, have difficulty planning and making decisions due to the lack of reliable data—social, economic, and financial. Data are also insufficient to provide adequate monitoring and evaluation. In a broad risk management framework, individuals and children subject to some probability of failing at school or of dying from an illness can be considered at risk.

Table 20. Selected social sector indicators in Nigeria, 1990 and circa 1999-2000 (in percentage, unless otherwise stated)

Selected Indicators	1990	Latest data
Primary school enrollment ratio (gross)		
Male	70.9	80.8
Female	76	81.2
Literacy rate of 15-24 year olds	73.5	85.9
Ratio of girls to boys in education	75.8	79.9
Life expectancy at birth (years)	51	47
HIV sero-prevalence rate (adult)	<1.0	5.4
Number of children orphaned by HIV/AIDS		1.4 million
Under five mortality rate (per live births 1,000)	136	151
Infant mortality rate (per 1,000 live births)	86.4	83.3
Maternal mortality rate (maternal deaths per 100,000 live births)	1,000	700
Measles vaccine (12-23 months)	46	35
All vaccines (12-23 months)	29.6	13.3

Source: World Bank Estimates, UNICEF/FOS MICS 1999, UNICEF/NPC 2001, NDHS 2003, HIV Sentinel Survey 2003.

Onu (2003) working in the rural North Eastern Nigeria categorized individual risks into seven major groups as follows: natural risks, health risks, life cycle risks, social risks, economic risks, political risks, and environmental risks. In addition, he provided the responses of the rural households to the risk factors as shown in the table below. All the responses of the rural households were either informal or public interventions[24].

Table 21. Risk factors and responses in rural North East, Nigeria

	Informal responses	Public responses
A. NATURAL RISK		
Landslide	None	None
Flood	Drainage, clearing gutters, construct embankments, and use of sandbags.	Ecological Trust Fund (ETF)
Drought	Timing of farm operations, and planting improved and early maturing variety	None
Tempest	Planting wind breaks (Trees)	Reforestation program and National tree planting campaign
Pest infestation	Spraying of insecticide on stored products, Local bird scaring, and use of local herbs.	Pest Control Services of Federal Ministry of Agriculture
B. HEALTH RISK		
Illness	Visit clinic or hospital or traditional healers, personal hygiene	Hospital, clinic
Chronic Illness	Traditional healers/herbalist	Hospital, clinic
Injury/accidents	Take precautionary measures such as construction of speed breaks, Helping children when crossing roads, and use of traditional bone specialists	Construction of speed breaks FRSC regulating road traffic Hospital, Clinic
Disability	Family support	None
Famine	Wild fruits, local brewer bran and wild grasses	Strategic grain reserve
C. LIFE CYCLE RISK		

[24] The study was carried out in Adamawa, Bauchi and Taraba States. In each state, an urban and a rural site were selected for the study. In all, a total of six sites were selected for the study. It is important to bear in mind that this study did not attempt to generate a representative sample for the 6 sites. The sample size is too small to claim any representation.

Birth/maternity	Traditional birth attendants (TBA)	Hospital, clinic (maternity)
Accident/death of breadwinner	Take precautionary measures, Family support, and sharing of children among relations	None
Accident/Death of other household members	Provision of assistance and sharing of children to relations	Government hospitals
D. SOCIAL RISK		
Crime	Vigilante groups Yan banga/ Hunters	Police anticrime patrol
Terrorism	Vigilante groups Yan banga/ Hunters	Police anticrime patrol
Gangs	Vigilante groups Yan banga/ Hunters	Police anticrime patrol
Civil strike (public protest)	Traditional rulers/community and religious leaders	Police anticrime patrol
Violence	Traditional rulers/community and religious leaders	Police, anticrime patrol
Mugging in the street	Vigilante, Yan banga	Police, anticrime patrol
Widowhood rites	Religious bodies	None
Inheritance	Sharia courts, and family elders	Customary and sharia Courts
Family dispute	Family elders/church and mosque	None
Access to good roads	Communal effort in rehabilitating bad roads by development association	Ministry of Works
Ethnic conflict	Enlightenment by religious/community and traditional leaders.	Police and other security agencies
E. ECONOMIC RISK		
Unemployment	Engage in menial jobs, self-reliance and depend on relatives and neighbors	National Directorate of Employment
Job loss	Seek assistance from friends and unions, take up other jobs	None
Mass lay off	Seek for other job such as farming	None
Harvest failure	Assistance from relations and friends, depend on livestock and other occupations	None
Business failure (risk)	Trade unions	None
Enterprise closure	Friends/relatives	None
Rising food prices	Adjust way of feeding and engage in farming	National Grain Reserve
Social inequality	Public orientation and community and religious leaders	National Orientation Agency
Land disputes	Traditional institutions – local chiefs and ward heads	Courts
Income drop	Diversify/create income generating vocations	None
Bankruptcy	Business associates and trade unions	None
F. POLITICAL RISK		
Ethnic discrimination	Enlightenment by Traditional rulers/community and religious leaders Relocation (migration)	Public enlightenment
Gender discrimination	Community and religious leaders	Public enlightenment
Religious discrimination	Relocation (migration) and Enlightenment by community and religious leaders	Inter-religious council and Public enlightenment
Riots	Enlightenment by community and religious leaders	Police and military
Political and election instability	Enlightenment by community and religious leaders	NOA (National Orientation Agency)
G. ENVIRONMENTAL RISK		
Pollution	Proper waste disposal	Ministry of Environment and Environmental protection Agency
Deforestation	Communal planting of trees	Ministry of Environment
Forest fire	Public enlightenment, fire terracing round the community, and environmental cleaniness	Mass media and Ministry of Environment
Fire disaster	Precautionary measures – putting out fire after cooking and putting off electrical appliances	Fire service

Source: Onu 2003.

Most of the risks identified happen over time (repeated) and generally happened with other risks (bunched). Examples of repeated risks events included tempest, criminal offence (e.g. armed robbery), land disputes, income drop, gangsterism, and epidemic. The following risks were bunched: pest infestations, failed harvest, access to good roads, job loss, mass layoffs, and rising food prices.

The main sources of risks and the degree of covariance ranged from purely idiosyncratic (micro or individually specific) to regionally covariant (meso) to nationwide covariant (macro) events as seen in Table 20.

Table 19. Classification of identified risks in North East zone, Nigeria

Micro (Idiosyncratic Event)	Meso (Regionally covariate Event)	Macro (National or internally covariate Event)
Illness	Tempest pest infestation	Flood
Chronic illness	Famine	Drought
Injury/accidents	Epidemic	Criminal offence, e.g., robbery
Disability	Terrorism	Access to good road
Birth/maternity risks	Gangs	Unemployment
Death of breadwinner	Violence	Rising food prices
Death of household head	Widowhood rites	Religious discrimination
Mugging	Inheritance	Political and election instability
Family dispute	Ethnic conflict	Deforestation
Abandonment by breadwinner	Job loss	Forest fire
Harvest failure	Land disputes	
Business risk	Ethnic discrimination	
Enterprise closure	Gender discrimination	
Lost remittances	Pollution	
Income drop		
Bankruptcy		
Fire disaster		

Source: Onu (2003).

Households are exposed to a variety of risks that affect differently various groups and require different risk management strategies. Risk management strategies usually take the form of risk prevention, risk mitigation, and risk coping interventions. Risk prevention involves interventions aimed at reducing the probability of a shock or negative fluctuation before a shock occurs. For an individual, this could entail pursuing an education, acquiring skills, or receiving all vaccinations. Risk mitigation consists of interventions aimed at reducing the impact of shocks after they occur, with implementation of the strategy taking place before the shock. Health insurance, crop insurance, crop diversification are examples. Risk coping is aimed at relieving the impact of shocks after the shock. This includes selling assets, finding a new job or relying on income transfers. Some strategies used by households to deal with shocks can have long-term negative consequences, for example when parents are forced to take their children out of school, or when child trafficking and prostitution occur. Strategies can be implemented by individuals and households, by community-based formal and informal groups, or by a government. Strategies used in Nigeria include mutual community support arrangements, kinship arrangements through marriage, selling and buying of real assets (such as cattle, land, farm produce) informal savings, borrowing and lending, crop and field diversification, the use of safer production technologies (such as growing less risky crops), and buying food or other goods for storing. Table 22 gives a number of options categorized in terms of risk reduction, risk mitigation, and risk coping. As explained in the World Bank's Social Protection Strategy (World Bank, 2000), risk reduction strategies are implemented before a risk occurs. One example is labor market policies to limit unemployment, underemployment, or low wages. Another example would be the reduction in the volatility of public spending. Risk mitigation addresses the potential consequences of risks before the shocks actually occur. The idea is to help households reduce the likely negative impact of these shocks before the fact, for example through insurance mechanisms. Risk coping deals with what can be done after a shock in order to cope with the impact of the shock. In poor countries such as Nigeria, the majority of mechanisms actually used by households to deal with shocks belong to the last category.

Table 22. Selected risk management strategies practiced by households in Nigeria

Type of risk	Risk management strategy
Risk reduction	Self Insurance e.g. (precautionary savings, becoming member of informal group, group risk sharing and assets management) Migration, Maintaining a clean environment and sanitary habits, Investment in human/physical assets Investment in social capital
Risk mitigation	Income diversification- combining activities with low positive covariance Income skewing- taking up low-risk activities (even at low returns)
Risk coping	Look for assistance from friends and relations Turn to God in prayer for assistance Embrace fate Sell assets in order to raise funds, and seek advice from more experienced fellows in the society Borrow money from friends, money lenders and relatives Relying on one's or one's spouse's savings that may be available Seek assistance from one's grown-up children that are already working Out-fostering of children

Source: World Bank (2004).

Further, the World Bank (2004) revealed the risk management mechanisms used by households, whether formal or informal, as shown in Table 23. Examples include mutual community support arrangements, kinship arrangements through marriage, selling and buying of real assets (such as cattle, land, farm produce) informal savings, borrowing and lending, crop and field diversification, the use of safer production technologies (such as growing less risky crops), buying and storing, etc. There are variations in the strategies used in different areas. In Oyo State, short-term adaptations to poverty included buying food on credit, engaging in other jobs, firewood cutting and load carrying, petty trading, cassava peeling and frying and prostitution. The study indicated the widespread resort to borrowing from family, cooperatives and friends in the urban areas of the South West. Those interviewed noted the declining usefulness of cooperative societies due to the poor level of loan repayment. Carrying out odd jobs and engaging in multiple economic activities were also common in the area. In the South East, the strategies were similar except that housing was a major problem. The poor responded to this by squatting and sought additional income by moonlighting and borrowing from family unions, thrift societies and age grade members. In the South East, the poor also sold farm animals, processed palm products, ate their seed yams and processed coco yam. It was not unusual for the poor to reduce food intake and explore other skills such as soap making, mat and basket weaving, distillation of local gin and digging latrines. The strategies listed in the North East included diversification of income generation activities, migration, raising the prices of food stuffs, selling poultry and dairy products rather than eating them, begging and stealing.

Table 23. Sources of risk, at-risk groups, and informal responses

Key Risks	Key at risk groups	Informal responses
Natural	Well-to-do, poor, rural male, rural female, rural male youth, rural female youth	Social action for construction of gutters, dikes and terraces; planting trees by NGOs and CBOs; adjusting time of planting; diversification of income sources; hunting of game; scouting for water; acquisition of land in other locations, use of organic fertilizers e.g. FYM, child labor, reduced food consumption, sales of assets, loan from associations, healthy livestock management practices, sales of carcass of dead livestock in local market, processing of carcass for family consumption etc.
Environment	Poor, rural male, rural female, rural male youth and rural female youth.	Social action for planting of trees, wind breaks, enlightenment campaign
Labor market	Poor, urban male, urban female, urban male youth, urban female youth.	Child labor and trafficking, income diversification, reduced food consumption, prostitution/robbery, contact the highly placed members of religious organizations for jobs, investment in human capital, skill acquisition, joining cooperative societies and rotating savings, farming, loan from money lenders, participate in community road projects, water supply and shelter, causal labor in community, motorcycle transport services (Okada)

Social	Well-to-do, poor, rural male, rural female, urban male, urban female, urban male youth, urban female youth, rural male youth and rural female youth.	Praying in religious houses, awareness campaign/education to prevent disease, treatment of ailments with local herbs, preventive health practices, taking care by relatives and church members, reduced food consumption, begging for alms, joining associations, support from spouse and extended family, prostitution, robbery, community self-help efforts to build schools and award scholarships, rotating savings, sales of assets, sending children out as house-helpers or to relatives in towns on condition that they will attend school,
Gender	Poor, rural female, rural female youth.	Early marriage, child labor/hawking, rotating savings, social networks, religious organization, sending female children as house-helpers, reduced food consumption, prostitution and robbery
Life events	Well-to-do, poor, urban male, urban female, rural female youth.	Infants, widows and aged are taken care of by relatives and churches, and in burying the dead, support by members of extended family, reduced food consumption,
Conflict	Well-to-do, poor, rural female, urban male, urban female, urban male youth, urban female youth, rural female youth.	Local security groups – Ethnic militias.
Macro-economy	Poor, urban male, urban female, urban male youth, urban female youth.	Child labor and trafficking, income diversification, prostitution, armed robbery, reduction in spending on food, loan from money lenders, cooperatives and merchants.

Source**:** World Bank 2004.

Other location and problem-specific coping strategies have been identified in the literature on Nigeria. These strategies include prostitution, trafficking in women and girls, stealing and robbery, and advance fee fraud in Edo and Delta States (Afonja 2001). In their analyses of risk management strategies of poor women and children in Osun State, Odebiyi et al. (1993) identified coping mechanisms such as skipping meals, buying food on credit, obtaining cooked food from vendors near their residences, hawking, picking leaves and firewood for sale to obtain additional income. Women also used their personal savings for working capital or obtained loans from friends, their spouses and esusu savings clubs. The only formal means available to them were cooperatives. In the same community, children went to school without food, without money for their midday meals and bought food on credit. The children were sent home from school because they were unable to pay school fees and provide school materials. Sometimes, they sold their personal belongings and took on odd jobs such as picking leaves and firewood and fetching water for sale.

Quantitative data suggest that households work more, consume less, and request help before selling assets or retrieving children from school when they feel poor. The 2003 state-level CWIQ surveys include a question for the household heads on the coping mechanisms used by households to deal with poverty. This question was asked only those household heads who state that their household was poor. The results are presented in table 24 Working more (which includes piecework on another household's farm, other piecework, petty trading, and working on food-for-work programs) is the first line of defense of households when they face difficult conditions. This is especially the case for poorer households, such as those in the bottom quintile of the distribution of wealth. The second line of defense consists in consuming less (reducing the number of meals, reducing the consumption of other consumption items, substituting ordinary meals with mangoes, etc.), but these coping mechanisms are used to a lower extent by the poor, perhaps because they are already consuming the bare minimum they need to survive. A third coping strategy consists in borrowing from friends, receiving help from relatives, or borrowing from a bank. Again, these solutions tend to be more available to wealthier than to poorer households. Apart from the possibility of working in food-for-work programs, some households benefit from relief or free food from the government or NGOs, as well as from Church charity, but these households remain a small minority. Also, relatively few household sell assets or retrieve their children from school when they face difficulties, which is good news since such actions would likely undermine the long-term productivity of the households and children.

Table 24. Coping mechanisms of households subjectively poor, 2003 CWIQ surveys

	Wealth quintile					
Did your household have to rely on any	1	2	3	4	5	Total
of the following in the last 12 months?	%	%	%	%	%	%
Piecework on farms belonging to other households	31.83	27.59	22.53	16.83	9.43	21.98
Reducing number of meals	9.63	12.59	16.41	20.9	21.58	16.07
Other piecework	11.04	11.03	11.97	12.03	10.36	11.31
Informal borrowing, e.g., from friends	6.88	8.08	8.37	9.31	11.45	8.74
Petty trading	2.68	5.12	6.86	9.18	10.05	6.69
Other coping mechanisms	7.35	6.75	5.75	4.35	4.58	5.79
Asking from friends, neighbors, relatives	5.37	4.51	5.45	4.25	4.35	4.80
Reducing other household items, e.g., soap	2.78	3.12	3.4	4.55	5.12	3.76
Eating wild food only	2.99	2.88	3.5	4.72	4.58	3.71
Sale of assets such as cattle, fridge, car, etc.	5.27	4.58	2.96	1.94	1.82	3.36
Substituting ordinary meals with mangoes	2.38	2.95	3.46	3.3	2.87	3.00
Working on "food-for-work" program	3.42	3.9	2.62	2.35	1.86	2.86
Unknown category	1.74	1.83	1.95	2.18	5.98	2.65
Relief food, free food from government/other bodies	3.89	3.16	2.72	1.67	1.55	2.63
Formal borrowing in kind or cask, e.g., bank	1.41	0.92	1.01	1.56	3.49	1.63
Withdrawing children from school	0.34	0.44	0.64	0.37	0.27	0.42
Church charity	0.3	0.24	0.3	0.44	0.54	0.36
Begging from the streets	0.7	0.31	0.1	0.07	0.08	0.26
Total	100	100	100	100	100	100

Source: World Bank (2004).

In addition, there are a lot of institutions/organizations that the poor rely on in time of crisis in Nigeria. The Voices of the Poor study in 1999 indicated the existence of a broad range of coping strategies: income generation including agricultural diversification, resort to extended family rights and obligations, formal and informal associations and individual initiatives. Individuals resorted to religious protection by praying to God, diversified into other economic activities, depended on contributions and loans from churches and other associations. Some returned to the rural areas to farming, borrowed from others, sold farm products reserved for consumption and make themselves available as hired labor in other employment opportunities. Semi-formal financial institutions are also common in urban areas. They provide support for income generation/employment creation and also for widows, orphans and other disadvantaged members. Unfortunately, many did not survive under the military regime and stopped providing credit towards the end of the 1990s.

Table 25 provides a synthesis of different organizations that are involved in informal risk management strategies. Popular institutions supporting the poor include cooperative societies, community associations, occupational groups and religious institutions. Many of these organizations have very limited funding however, which leads to a lack of regularity in the help they can provide. Other problems relate to management and governance. For example, cooperative societies suffer from poor rates of repayment of loans, leadership problems, poor attendance at meetings and a lack of adequate access to credit. While many interventions are designed to cope with shocks when they have occurred, some can be considered as risk mitigating strategies. Many communities set up self-help groups to provide services, repair houses damaged by storms, maintain water points, organize credit and savings schemes and harvest water. In Osiok community in Akwa Ibom State, for example, self-help groups are organized by age. There is an elders' forum, a men's group, a married women's association and youth groups. In the absence of formal institutions to provide basic services and in the context of the risks typical of oil producing areas, there is a division of labor based on age in the management of risks. The elders' forum constitutes the policy making arm and meets regularly to discuss the community's problems. The association of married women provides the labor on the farms and clears the bush near roads entering the community. The youths clear the streams and rivers and recently they formed the Osiok Apprentice and Students Association (OSIOSA) to support skill acquisition and income generation. Each family in the community is levied to collect funds for specific projects. In many areas however, communities set up emergency groups whose services are temporary.

There are also regional variations in coping strategies. In Oyo state, South West region of the country short-term adaptations to poverty included buying food on credit, engaging in other jobs, firewood cutting and load carrying, petty trading, cassava peeling and frying and prostitution. The study indicated the widespread resort to borrowing from family, cooperatives and friends in the urban areas of the South West. Those interviewed noted the declining usefulness of cooperative societies due to the poor level of loan repayment. carrying out odd jobs and engaging in multiple economic activities were also common in the area. In the South East, the strategies were similar except that housing was a major problem. The poor responded to this by squatting and sought additional income by moonlighting and borrowing from family unions, thrift societies and age grade members. In the South East, the poor also sold farm animals, processed palm products, ate their seed yams and processed coco yam. It was not unusual for the poor to reduce food intake and explore other skills such as soap making, mat and basket weaving, distillation of local gin and digging latrines. The strategies listed in the North East included diversification of income generation activities, migration, raising the prices of food stuffs, selling poultry and dairy products rather than eating them, begging and stealing. Other location and problem specific individual coping strategies identified in the literature include prostitution, trafficking in women and girls, stealing and robbery and advance fee fraud in Edo and Delta states (Afonja 2001).

Religious organizations have increased their support to the poor, especially in the south. The Catholic Church, the Christ Apostolic Church, and other protestant dominations extend services to poor members. There is an increasing tendency to organize service delivery in large mosques or churches. Religious organizations hardly dabbled into loans and credits, but they provide food and shelter, pay school fees and give small sums for subsistence. Some denominations or congregations are able to resort to donor support and thereby to operate on a large scale. The Anglican and Catholic Churches in most states provided such services, while the Christian Health Council of Nigeria has experience in maternal, child and reproductive health programs.

Table 25. Selected types of informal bodies managing different types of risk in various areas of the country

Informal groups of bodies involved in risk management	**Types of risk management strategies** **South West**	**South East**	**South South**	**North West**	**North East**	**North Central**
Multi purpose Cooperative, Thrift and Credit Limited	Assisting in extending loans to members and increasing production. of members					Forestalling Clashes between farmer and herdsman
Young Farmers Club	Training members to adopt new farming technologies			Development of agriculture		
Mechanic/Panel Beaters' Association	Extending loans to members, creating a sense of direction and unity of purpose among members	.				
Religious bodies Churches and Mosques	Charity settling hospital bills. Awarding scholarship. Helping Orphans and Widows	Providing relief support and during bereavement accident and disasters. Settling communal and family conflicts. Giving talks on AIDS. Supporting members in illness	Supporting the poor (less privileged)	Supporting the poor (less privileged)		Supporting the poor (less privileged)
Community Development Council	Provision of public Infrastructure	Giving talks on AIDS. Promoting self-help Program among members	Self help activities (such as opening up of roads, clearing the streams and rivers all year round. Provision of infrastructure. Helping one another to build houses & repairing leaking roofs.	Creating awareness among members about developmental activities and functions such as civic responsibility. Provision of Social Infrastructure such as clinics, dispensary and roads	Providing first and treatment and control of crowd during Friday prayers. Providing Adult education and vocational training to members	.
Chief-in-Councils	Assisting community to cope	Providing relief support and during bereavement accident and disasters. Settling communal and family conflicts. Being a link between the poor and Government. Providing varied forms of assistance to the poor within limits of available resources	.	.	Assisting one another to carry out farm activities; Assisting member during period of hardship and fire disasters.	Forestalling clashes between farmer and herdsman. Divorce and prostitution. Political conflict. Religious crisis
Market Women Association			Supporting the poor (less privileged)	Improving status of women especially in trades such as knitting, tailoring and cottage milling industries		.

Sources: Afonja (2002), Garba (2003), and Onu (2003).

Ecosystems, Especially Rainfall

Ayoola (1999) found that participants listed the following as causes of poverty and vulnerability: low or declining soil fertility, flooding, drought, pests, lightning, and erosion linked to poor yields. A lack of cash for buying capital inputs (such as agrochemicals, tractors and other mechanical devices), of storage facilities, of transport, and other economic infrastructure, combined with fluctuating and declining demand or lack of regular markets (in some case linked to the decline of the national economy) was also seen to be an important cause of food and livelihood insecurity. Lack of forests and farm lands emerged as an important causal factor in Atan, Okpuje, and Ikot-Idem. This is understandable in the light of the fact that Atan is partly a hunting village while Okpuje and Ikot-Idem belong to the South Eastern region of Nigeria where land is very scarce and population density is abnormally higher than in the other regions of the country.

In concluding this chapter, it is important to note that in profiling poverty and its correlates in Nigeria, there is the capacity to undertake this analysis in Nigeria using the commonly used analytical techniques. There is even the capacity to adapt recent approaches to poverty profiling and determinants, especially using multidimensional approaches to poverty studies. The only noticeable gap is in the right kind of data. For instance in this chapter, we could not review studies on a national or regional basis that used the following kind of data.

1. Geographic and agro-climatic zone and conditions such as elevation, slope/roughness, soil type, type of land cover, rainfall amount and variation, and distance of farms to cities/towns.

2. Employment status whether a person heading a household is permanently employed or transitorily employed or not employed at all.

3. There are virtually very few studies that have studied the impact of social capital on the welfare and poverty levels of a household at the national and regional levels. More work is therefore needed in this area in order to properly understand the nexus between belonging to local level institutions/associations and poverty.

4. One had expected that the NASC data of 1993/94 should have been fully explored to see the impact of the farm size on poverty level among farming households. Though this kind of studies exists at the states and local government levels, this is not the case with the national and regional data. One only hopes that the NASC of 2009 contains this vital information about the farmers. The same is true for output commercialization, diversification of farm enterprise particular crop or livestock production patterns, and use of technologies especially irrigation and drainage facilities, agrochemicals, fertilizers, pesticides, drugs, and vaccine for livestock producers that might raise or lower incomes. Information about production / income risks is virtually nonexistent in our data set nationally.

5. Even though the information on the diversity of income sources is available in the data, not much as these affect poverty situation has been done. This may be the problem of capacity on the part of the researchers.

6. As for transport facilities, roads, irrigation, health and educational facilities, agricultural extension; marketing systems (efficiency of transport links and market information systems, competition among buyers); and connection to larger (urban) and export

markets; the information is lacking in the data set. The same is true of the following kind of information: i) sources and distribution of macroeconomic growth; ii) relevant shocks (household- and community-level, such as conflict, illness (especially HIV), or weather); iii) seasonal effects (on income, production, consumption); and iv) ecosystems, especially rainfall.

Determinants of Poverty

In the previous chapter, efforts were made to review studies that had the poverty profile of the rural Nigerian households by various set of factors. In this chapter, efforts are made to see the causal relationships between poverty and the various factors that determine it. Hence, the regression coefficients of the various regression analyses that were run in the various studies are discussed here.

In doing this, we have followed the earlier categorization of the factors/correlates that were used in Section III.

Demographics

Gender of Household Head

Almost all the studies reviewed (Olaniyan and Bankole 2005; Oni and Yusuf 2007), except Okunmadewa et al. (2005), indicated that belonging to a male-headed household was associated with higher level of welfare (proxied by per capita expenditure) than that of an individual belonging to a female-headed household. Olaniyan and Bankole (2005) revealed that the coefficient for female-headed household was significant indicating that the per capita expenditure of female-headed households (-0.1387) was significantly lower than that of the male-headed households.

Even for expected log of per capita consumption, Oni and Yusuf (2007) revealed that male headship of a household was associated with higher level of autonomous consumption by 0.1159 above that of the female-headed ones.

All the studies (Olaniyan and Bankole 2005; Olaniyan 2000) under consideration showed that being a member of a male-headed household was associated with lower level of poverty than their female counterparts. The exception to this finding was noted in the study by Okunmadewa et al. (2005). Okunmadewa et al. (2005) found that an individual belonging to a female-headed household had a lower probability of being poor poverty (-0.0545) than male-headed households.

Olaniyan and Bankole (2005) revealed that the positive and significant sign of the coefficient for female-headed households (0.03897) showed that a female-headed household had a higher probability of being poor than the male-headed households. Olaniyan (2000) from his findings pointed that among rural households, there was a higher probability (0.33885) that a poor rural household would be headed by a woman than a man in 1992 but that the reverse was the case in1996 where there was a reduced likelihood (-0.2406) that a person belonging to a female-headed person would be poorer than its male counterpart.

Age of Household Head

Theoretically, the level of welfare increases with the age of the head of the household up to a particular point in the life cycle after which it begins to fall. There is a general consensus about the influence of the age of the household head on the welfare of the household members. Olaniyan and Bankole (2005), and Oni and Yusuf (2007) all agreed that as the age of the household head is rising, the welfare of an individual within such household will be rising until a point where it begins to decline.

Olaniyan and Bankole (2005) found that the age of the household head showed the expected life cycle effect. Household welfare increased (0.01135) with age of the household head. But the negative sign of the quadratic of age of household head which was statistically significant showed that welfare declined (-0.0001155) after some period. This reflects the situation where there is higher earning capacity with greater experience and age thereby leading to consumption smoothening over the life cycle. The magnitude of the quadratic parameter was however very low. Oni and Yusuf (2007) showed that the expected log per-capita consumption of rural households in Nigeria increased by 0.0049 with every 1 year rise in the age of the household head.

Following from the analysis of the influence of the age of household head on welfare of the households, its impact on the poverty level of the rural households should be consistent. Olaniyan and Bankole (2005) found that the poverty level of an individual in a household decreased with the age of the head of the household. But Olaniyan (2000) had mixed findings.

Olaniyan and Bankole (2005) found that the age of the household head was a significant determinant of the probability of being poor. This was further reinforced by the marginal effects of the probit regression. The age of the household head initially reduced the probability of being poor while the age squared was positive indicating that at later years; there was the possibility of increase in age increasing the probability of being poor. However, the life cycle effect was very minimal judging by the value of the marginal effect. The result showed that a unit increase in age and age squared of the household head would bring about a reduction and increase in poverty by 0.002337 and 0.0000463 respectively. The results revealed that there was a life cycle effect of age to rural poverty, as the predictors were significantly different from 0. Also, the findings of Olaniyan (2000) were similar to those above for 1992 NCS data set. But those of 1985 and 1996 were conflicting. For instance, an increase in the age of the household head decreased the probability of being poor in 1992 while the reverse was the case in 1985 and 1996. Also, while the age squared showed that at a later year, the poverty level would rise judging by the 1992 NCS data set, those of 1985 and 1996 showed that this would bring about a reduction.

Household Size

The poverty literature is unanimous about the direction of causation between welfare and household size irrespective of the type of households—rural, urban, or farming. As the size of a household increases, the welfare level of that household decreases. Olaniyan and Bankole (2005), Okunmadewa et al. (2005), and Oni and Yusuf (2007) all agreed that the household size has a depressing impact/effect on the welfare of the households, indicating that the larger the household size, the lower the per capita expenditure and though it is possible to have economies of scale for large households, this is not the case with the rural households.

Olaniyan and Bankole's (2005) result conformed with many earlier studies on the impact of household size. The quadratic form of the household size was also significant but negative. They further found that household composition matters. And that an increase in either the number of children or old people in the household would reduce the overall welfare level of the household given the negative significant values of the parameters of the variables. A comparison of the coefficients of the adults and children indicated that an additional adult in the household reduced per capita expenditure less than an additional child in the household all ceteris paribus. While an extra child reduced per capita expenditure by 16.5 percent, an extra adult in the household reduced per capita expenditure by 3.5 per cent. Oni and Yusuf (2007) revealed that the expected log per-capita consumption of rural households in Nigeria would be reduced by 0.0181 for every addition al rise in the size of a household.

The likelihood of a household to be poor increases as the size of the household is increased as obtained by Olaniyan and Bankole (2005), Okunmadewa et al. (2005), and Olaniyan (2000). Olaniyan and Bankole (2005) found that household structure also significantly affects the probability of being poor in the rural areas. According to them, the presence of more adults and children increases the probability of the household being poor. However, while the parameter of the extra child is statistically significant, the parameter of the extra adult is not significant. Along the same vein, Okunmadewa et al. (2005) revealed that a unit increase in household size would further aggravate the poverty situation of the households by 3.1 percent. Olaniyan (2000) asserted that the size of the household was a positive indicator of the probability of being poor. The higher the household size, the higher the probability of being poor. This shows the quality of the household members. The reason is that either many of them were not working or they were being remunerated poorly which in the totality leads to a reduction in the per capita expenditure which was the basis of measuring welfare.

Dependency Ratio

Usually, the higher the dependency ratio[25], the lower the welfare and the higher the poverty level of the household. Oni and Yusuf (2007) found that the expected log per-capita consumption of rural households in Nigeria decreased in 1996 by 0.487 for every unit increase in dependency ratio of rural households.

Location

Geopolitical Zone

Oni and Yusuf 2007 found that the North East, North West and all southern zones were associated with lower levels of expected log per-capita consumption relative to the control zone (north central). Specifically, the North East, North West, South East, South South, and South West would have their expected log per-capita consumption reduced by 0.1541, 0.1581, 0.1497, 0.1951, 0.2075, respectively relative to the north central. While these results were expected for the North East and North West, it was against the *a priori* expectation for the southern zones (South East, South South, and South West).

Human Capital

Education

The literature points to the fact that higher levels of education of the household head is associated with higher level of welfare and hence, lower levels of poverty. Olaniyan and Bankole (2005), Okunmadewa et al. (2005), and Oni and Yusuf (2007) all agreed that belonging to a household headed by an educated person significantly improved the welfare of such individuals. According to Olaniyan and Bankole's results, the acquisition of primary school

[25] Dependency ratio is the number of household members that are not working divided by those that are working.

certificate brought about 0.1613 unit rise in the level of autonomous level of welfare. In the same vein, the completion of secondary and tertiary education respectively brought about 0.0554 and 0.0541 units rise in the level of autonomous level of welfare. Okunmadewa et al. (2005) revealed that an increase in the years of formal education of the household head would bring about 0.0057 percent rise in welfare.

Oni and Yusuf (2007) revealed that among rural households, only attainment of tertiary education by the head of the households was significant in enhancing the expected log per-capita consumption by 0.2102 above those households headed by persons without formal education. The attainment of primary education by the head of the household though rightly signed was not significant while that of the secondary education did not carry the right sign in addition to being insignificant.

As for the effect of educational attainment on the poverty of household, Olaniyan and Bankole (2005), Okunmadewa et al. (2005), and Olaniyan (2000) showed that the more educated a household head was, the lower is its poverty level. Olaniyan and Bankole (2005) revealed that all the predictors of human capital variables represented by the educational level of the household head had estimates that were significantly different from zero as judged by the size of the coefficient relative to the asymptotic standard error, and further by the size of p-values. The results indicated that education reduced the probability of being poor in a household and judging from the marginal effects, the largest impact was for those who have up to post-secondary education (-0.2053), which was followed by those with primary education (-0.1904) and secondary education in that order (-0.1858). In addition, human capital had a decreasing effect on the probability of being poor among all rural households whether they were engaged in farm activities or engaged in nonfarm activities. The marginal effects indicated that the effects were significant both in magnitude and sign. For example, having up to primary level of education reduced the probability of being poor by the rural households by as much as 19.0 percent while for households with education up to secondary school decreased the probability of being poor by 18.6 percent. Okunmadewa et al. (2005) found that the magnitude of the reduction in poverty level as a result of a unit increased in educational attainment was about 0.0161 percent.

Occupation

It is widely acclaimed that the level of welfare of an individual in farming household is usually lower than those of other households. But Olaniyan and Bankole (2005) in their study revealed that the economic activity of the household head, whether in the nonfarm sector or the farming sector does not have any significant impact on the welfare of the households in rural Nigeria. But on the contrary, Okunmadewa et al. (2005) reported tat the economic activity of the head of households is a significant determinant of welfare and poverty. They found that the level of autonomous welfare of a person belonging to farming households will be reduced between 0.2377 and 0.2636 relative to the nonfarming households in the rural areas of Nigeria.

As for the association between poverty and sector of employment of head of households, there is an agreement among the studies that being engaged in farming is associated with higher levels of poverty. Olaniyan and Bankole (2005) showed that households whose head were engaged in farming activity had a higher probability (0.01653) of being poor. Also, Olaniyan (2000) also found that being a farmer was positively related to the probability of being poor because in 1985, 1992 and 1996, the levels of autonomous poverty were increased by 0.5580, 0.2760 and 0.1126 respectively above those in nonfarmers. And judging by the coefficients, the effects have been reducing over the years.

Social capital

Okunmadewa et al. (2005) revealed that a unit increase in social capital index[26] (that is, 7.8 percent rise) would increase household per capita expenditure by 0.57 percent. According to them, a unit increase in the heterogeneity index would lead to 0.27 percentage increase in household welfare while a similar increase in meeting attendance would lead to 0.24 percentage increase in welfare. They found that the heterogeneity index and meeting attendance were complimentary. This is because as pointed out by some authors, heterogeneity can enhance flow of information as people of diverse background come together in a group. Further, the dissemination of information to members can only be easier when members of associations attend meetings. In addition, a unit rise in both cash contribution score and labor contribution score induced a very low (0.9 and 0.7 respectively) but significant improvement in per capita expenditure. In addition to the significant variables, the index of participation brought about an 0.0278 increase in per capita expenditure.

Okunmadewa et al. (2005) also revealed that four of the social capital dimensions had significant effect on poverty. These were heterogeneity index, meeting attendance, cash contribution score and labor contribution score. Accordingly, a unit increase in meeting attendance would lead to a 1.0 percent reduction in poverty while a corresponding rise in heterogeneity index, cash contribution score and labor contribution score led to a 0.55 percent, 0.82 percent and 0.33 percent reduction in poverty. It is instructive that both heterogeneity index and meeting attendance index came up as important variables for poverty reduction just as they were found to be welfare enhancing. Hence, diversity of members and membership attendance at meetings were key social capital factors for reducing rural poverty and enhancing rural welfare. The diversity of members allow for the exchange of knowledge and information that occur among members with diverse background. As for attendance of members at meetings, there can not be any active participation in the association's activities unless meetings are regularly attended.

Diversity of Income Sources

Olaniyan 2000 realized that income whether wage, nonwage, or others was important contributors to the reduction of rural poverty. It is important to note that wage income was more important than any nonwage income and other income sources in 1985 and 1992. But with the general increase in poverty incidence in Nigeria to an unprecedented level in 1996, there was a change in the relevance of the income sources. While the other income sources took over as the greater contributor to rural poverty reduction, and followed by the nonwage income, the wage income became insignificant factor in determining the rural poverty in Nigeria.

Community Factors and Assets Such As Infrastructure Availability

Assets

Oni and Yusuf (2007) found that a person living within a household that owned a flat type of residence and whole building were associated with higher levels of expected log per-capita consumption relative to those living in single room apartments. However, the effect of flat type of house was higher (0.1630 versus 0.1157) than the whole building. But it is surprising to note

[26] Social capital index is a multiplicative social capital variable arrived through the combination of the density of memberships in associations, heterogeneity index, and the active participation index. The resultant index is renormalized to maximum value of 100.

that an individual in a household living in a duplex was associated with a reduction (-0.3597) in expected welfare.

Olaniyan (2000) revealed that household physical assets were also significant correlates of the probability of being poor. The ownership of a house and other business enterprises by an individual within a household had strong influence on reducing the probability of being poor. Throughout the three survey years, ownership of other business enterprises led to a 1.5, 0.02, and 0.005 percent reduction in rural poverty in 1985, 1992 and 1996 respectively. Incidentally, an examination of the three years of analysis shows that this influence has been reducing, judging from the value of the coefficients in the three years. As for house ownership, this brought about 33 and 0.2 percent, respectively, fall in the rural poverty over those households that did not have houses.

Health

As for access to water type and the type of toilet facilities, Oni and Yusuf's (2007) findings were rather against the *a priori expectation*. They found that a person living within a household with treated piped water, untreated piped water, or boreholes was associated with a reduction in expected log per-capita consumption. In the same way, households using uncovered pit and pail-kind of latrine were found to be associated with an increase in their expected log of per capita expenditure.

Sources and Distribution of Macroeconomic Growth

Omoke (undated)[27] observed that total savings (both private and public), which can be effectively translated into investments, were essential for growth and poverty reduction. This is because employment and per capita urban wage could increase, leading to less extensive rural activity. Tariff reform was observed to have reduced rural real wage and per capita rural income with adverse impact on rural inequality. Currency devaluation was observed to increase the domestic price of imports leading to resource allocation to the production of urban goods. This translated to higher labor demand in the urban sector which aggravated the rural-urban migration process. The rural agricultural sector also enjoyed better domestic terms of trade due to devaluation. However, rural real wage declined raising employment and at the same time increasing the level of inequality. By relaxing the assumption of rigid urban wage, rural inequality did not abate. Omoke concluded that trade policy reform had not impacted positively on rural inequality. In terms of policy implications, he suggested that complementary macroeconomic and sectoral policies would be required to ensure that gains from liberalization be more equitably distributed.

Omoke observed that trade policy in itself may not ensure poverty alleviation and a more equitable distribution of income. Since the simulation was based on relative price reforms, it was observed that the emphasis on excess relative price reform in the reform package (getting prices right) may have ensured efficient resource allocation but could not guarantee poverty reduction in the rural areas. In addition, though trade policy increased growth performance, the expected "trickle-down" effect was not broad based. The rural sector still witnessed worsening inequality. Therefore, for trade policy to be effective in welfare improvement, it needs to be accompanied by institutional and sectoral reforms that are directly targeted at reducing poverty

[27] This study is limited in several respects. First, the quality of data used several assumptions for which data could not be found. Second, not all instruments of adjustment reform were considered. The assumption about real wages being rigid for the rural area could also be seen as a restriction that may not be empirically tenable.

and inequality. In other words, support programs targeted at the rural agricultural sector may be more efficient in reducing poverty, even though they may distort resource allocation. The direct observation is that market oriented resource allocation (relative price adjustment) and poverty reduction are not necessarily complementary. Tradeoffs, however, exist suggesting in part a need for strong policy intervention in the rural agricultural sector in the form of infrastructural development and price support. Unguided and unbridled deregulation can boost economic growth, but at the expense of poverty reduction.

In concluding, one notices that some analysis of the effect of some variables on the poverty situation and even on the vulnerability to poverty could not be done due to the lack of data, as has been earlier highlighted in the concluding remarks of Section III. The human capacity to undertake the determinants of poverty using the ordinary least squares, maximum likelihood estimates, and other methods of estimation exist in Nigeria in abundance. What seems to be limiting is the data that are required to undertake such analysis that is not available at the national level. On a small scale, say at the level of LGAs, and communities, some studies have collected this kind of information and used them.

The kinds of data for which information are needed, in order to be able to undertake determinants of poverty and vulnerability to poverty include the following:

1. Geographic and agro-climatic conditions such as elevation, slope/roughness, soil type, type of land cover, rainfall amount and variation, and distance of farms to cities/towns among others.

2. Employment status whether a person heading a household is permanently employed or transitorily employed or not employed at all.

3. Financial capital especially the availability and amount of credit among rural and farming households in Nigeria.

4. Very few studies at the national and regional levels on social capital and its various dimensions have been conducted in Nigeria. These dimensions include the following: cash contribution, labor contribution, decision-making index, meeting attendance index, percent of household members belonging to LLIs and the heterogeneity index. Others include membership of local level institutions, strength of social ties, and availability of coping mechanisms. In fact, it has not been possible undertake the determinants of social capital that will utilize data collected by national data collection agency, the National Bureau of Statistics (NBS).

5. Farm-related factors especially production practices such as farm size, land tenure, output commercialization, diversification of farm enterprise particularly crop or livestock production patterns, and use of technologies (improved seeds and planting materials, irrigation and drainage facilities, agrochemical fertilizers and pesticides, drugs and vaccine for livestock producers) that might raise or lower incomes and production / income risks, extension access, etc. have not been exploited in estimating the determinants of poverty at the national level in Nigeria, due to the non-availability of dataset on these set of variables.

6. One had expected that the NASC data of 1993/94 should have been fully explored to assess the impact of the farm size on poverty level among farming households. Though these kinds of studies exist at the states and local government levels, this is not the case

with the national and regional data. One only hopes that the NASC of 2009 contains this vital information about the farmers.

7. Even though the information on the diversity of income sources is available in the dataset at the national level, not much analysis of the relationship of this to the poverty situation has been done. This may be the problem of capacity on the part of the researchers. Also, data on community factors and assets such as infrastructure availability (transport facilities, roads, irrigation, health and educational facilities, agricultural extension); marketing systems (efficiency of transport links and market information systems, competition among buyers); and connection to larger (urban) and export markets are not available at the national level. The same is true of the following kind of information: i) sources and distribution of macroeconomic growth; ii) relevant shocks (household- and community-level, such as conflict, illness (especially HIV), or weather); iii) seasonal effects (on income, production, consumption); and iv) ecosystems, especially rainfall.

Government Policies and Programs Addressing Poverty and Vulnerability

The Government of Nigeria since the 1970s, and lately, nongovernmental organizations and community-based organizations have implemented development programs and projects that were aimed at raising the living standard of the people. Most of these earlier programs and projects were never described as poverty reduction programs or projects because as at the time of inception of such programs, poverty was not yet a common and prominent phenomenon in Nigeria. But because these programs and projects were aimed at the rural areas and low-income earners such as farmers, they were later, with the increasing poverty situation in Nigeria, referred to as poverty reduction programs and projects.

Approaches for Reducing Poverty in Nigeria

A three-pronged approach to poverty reduction has been used in Nigeria. These are: macroeconomic growth with equity, human capital development and targeting, and safety nets that involve the poor and generate employment.

At independence in 1960 and some years later, the government placed much emphasis on economic growth, as documented by the four national development plans covering the period between 1962 and 1985. The assumption was that the benefits of economic growth would trickle down to the various sectors of the economy thereby increasing the level of welfare and indirectly reducing poverty. But this was found not to be true, as the benefits of economic growth were never evenly distributed. The first three national development plans did not contain objectives that could be linked with poverty reduction. But the fourth national development plan emphasized among other things increased real income of the average citizen and more even distribution of income among individuals and social-economic groups (Ukpong 1998). Rapid economic growth is indeed important for poverty reduction. The World Bank (1996) showed through an analysis of poverty between 1980 and 1996 that about 90 percent of poverty increases were due to fall in real incomes. The poverty reduction experienced between 1985 and 1992 showed that even modest growth on its own could help reduce the number of poor people. But broad-based growth was only a necessary condition and not a sufficient condition for poverty reduction. This is because the extent of equity in the distribution of such benefits of growth is very essential. The World Bank (1996) revealed that national poverty would have fallen by 13.6 percents compared to 8.9 percent achieved only by growth had it been that the distribution of income did not worsen between 1985 and 1992. It is widely acknowledged that growth must be deliberately accompanied with equity, promoted by participation for sustainable poverty reduction. According to Okunmadewa (2001), giving out money without coordinated efforts does not alleviate poverty, and that Nigerians did not experience considerable poverty reduction even in periods of economic growth. In 1985-1992, there was a slight increase in the gross domestic product and per capita income, and there was a slight drop in aggregate poverty headcount level. But inequality worsened, and the core poor did not share in the growth as the depth and severity of poverty did not improve significantly.

In order to be able to get the benefit of growth directly, the poor need to participate in the growth process. The improvement of human capital allows this. The human capital development must be such that allows the poor to effectively and productively participate in the growth process. Sustained long-term growth depends critically upon increasing the poor people's access to quality social services and essential infrastructure to enable them to increase their human capital and make adequate use of their main asset (labor).

A large proportion of the poor and disenfranchised people cannot participate directly in the growth process. They may also be incapacitated in using social and economic infrastructure provided to improve human capital. Hence, targeting delivery of services and resources to reach this group of people is very essential. This group of people includes the women and street kids, people living in remote and marginalized areas, destitute and disables, small farmers, culturally disenfranchised people etc.

Review of Policies for Poverty Reduction[28]

In Nigeria, development policy has had three fundamental objectives: economic growth and development; price stability, and social equity. These objectives were to be achieved through national development plans (NDPs) which were designed to alleviate poverty by achieving an improvement in real income of the average citizen, equitable distribution of income, and a reduction in the level of unemployment and underemployment[29]. It is therefore, within different theoretical models for development that past policies aimed at bringing development to the rural areas of Nigeria are designed. Realizing that approximately 70 percent of the poor live in the rural areas, where they depend largely on agriculture, public policy on agriculture has been therefore expected to impact positively on the rural poor.

From the standpoint of time, the policy-development trends with serious implications on rural poverty in Nigeria can be examined from two main perspectives: before independence and post independence era. The colonial administration prepared and implemented the Ten-Year Plan of Development and Welfare for Nigeria: 1946–1956, essentially with the sole objective of improving cash crop production and urban infrastructure, particularly roads and communications. Little attention was paid to rural development as it had little relevance to the imperial interests. The period before 1954 witnessed the development of the regional export economies-cotton and groundnut in the north; cocoa and rubber in the west, and oil palm and kernel in the east. The 1954 Federal constitution and the process of regionalization placed rural development as a residual item and it was therefore treated as a regional responsibility, just like agriculture, education, etc. Nevertheless, the autonomy associated with regionalism gave each of the three regions a free hand to set its own pace for development. Since revenue came mostly from agricultural exports, the regional governments tried to provide basic infrastructures particularly roads to haul commodities from the rural areas. Since the population was largely

[28] This section relies much on Oyeranti and Olayiwola (2005)
[29] See the Third National Development Plans: 1975-1980 and Fourth National Development Plans: 1981-1985.

rural, and the regions were largely supported by the wealth of the rural areas, educational facilities, potable water, as well as health facilities were put in place in the rural areas. Although these were inadequate, they marked a humble beginning and a conscious attempt to improve the lot of the rural people.

After independence, Nigeria, like other developing countries, saw industrialization as the key to attaining the economic successes of the developed world. Rural development was thus narrowed down to sectoral policies particularly in the areas of agriculture, which today has led to the intractable problems of the rural areas. However, the confusion that accompanies such negative development philosophy manifests itself in the failure of the development strategy to recognize the linkages between rural and agricultural development on one hand, and between rural development and the development of the total economy on the other. Thus, in the early years of independence, the rural areas were largely neglected owing to the adoption of economic dualism strategy model. In addition, the nation also adopted an import substitution industrial strategy, which mainly involved the substitution of local technology with imported ones rather than the substitution of imported components with local raw materials. These theories in their adoption and implementation did not yield the desired results of achieving the greatest socio-economic benefit for the majority rural dwellers. Situations deteriorated and the gap between the urban and rural areas widened more.

During this period of internal self-government, which lasted until 1968, the various regional governments operated and based their development plans on the assumptions of perfect knowledge of the problems of the rural people. Some of the schemes undertaken during this period include the farm settlement/school leavers farms by the three regional governments; the tree crop plantation (developed through the Development Corporations) of the astern and western governments and the small farmer credit scheme.

With the attainment of independence in 1960 however, the subject of rural areas assumed greater importance in the scheme of national development. Thus the First National Development Plan: 1962-1968 allocated 13 percent of the gross capital outlay to agriculture and primary production. However, whatever gains made were wiped off by the civil war. By 1965, the new Federal Ministry of Agriculture was very cautious not to mention agriculture in its plan so as not to hurt the spirit of the 1963 constitution yet, the political powers of the old regions brought out the need to coordinate agriculture at the centre. Consequently, three areas were identified for federal assistance to agriculture in the second National Development Plan- 1970-74:

- Grants for the development of agriculture, forestry, and livestock and fishery;
- Establishment of a national credit institution; and
- Special agricultural development schemes in which the federal government enters into both financial and management partnership with state governments in carrying out projects.

The Third National Development Plan: 1975–1980, which allocated 7.2 percent of the N43.36 billion budget estimates to agriculture and rural development sector was essentially a continuation of the development process and policies begun in the preceding plan. The post-1975 period witnessed series of rather panic measures embarked upon by the Federal Goverment, including the Operation Feed the Nation (OFN), Agricultural Development Programs (ADPs), River Basin and Rural Development Authorities (RBRDAs), and the Green

Revolution Program. Of all these, the ADPs received better attention and a systematic approach to project planning while the other schemes mentioned above remained as political slogans.

By the second half of the 1970s and early 1980s, the trickle down development strategy started to wane. The emphasis shifted towards addressing development and poverty issues at the grassroots in rural areas with the belief that the rapid growth in the rural economy was the most promising way to reduce poverty and check rural-urban drift. Several Programs were initiated with varying degrees of successes.

Olaniyan et al. (2003), as captured by Oyeranti and Olayiwola (2005), observed that prior to 2001, Nigeria had no known national policy on integrated rural development that could help to reduce poverty even though such a policy and agricultural development have many implications for poverty reduction in the rural economy of Nigeria. However, in 2001, the Federal Ministry of Agriculture and Rural Development in collaboration with all relevant national and international development partners operating in the rural sector developed a National Policy on Integrated Rural Development (NPIRD). This has remained the most comprehensive rural development policy document to date in Nigeria.

The overall policy objective of the National Policy on Integrated Rural Development was drawn from the national objectives of developing the rural areas: raising the quality of life of the rural people, alleviating rural poverty, and using rural development as a basis for laying a solid foundation for national development. In order to achieve integrated and even development on a sustainable basis, the policies adopted (to empower rural dwellers through the development of productive employment, enhancing their income, ensuring protection of the environment, promoting gender responsiveness, and ensuring adequate care for vulnerable groups) involved the following:

- Community Driven Participatory Approach (CDPA) in project identification design, implementation, monitoring and evaluation;
- Rationalization and realignment of public sector rural development institutions;
- Heavy reliance on the private sector to lead investment in the rural sector to promote economic growth;
- Collaborative efforts between government and other stakeholders for input delivery and marketing of agriculture and other rural products; and
- Promotion of equitable development as a cardinal objective of integrated rural development.

The policies implemented through the National Policy on Integrated Rural Development lay special emphasis on five priority areas. These are:

1. Promotion of rural productive activities

In this regard, emphasis is on employment and income generating opportunities and activities and includes the following policy areas:

a. Agriculture, fisheries, animal husbandry, and forestry
b. Mineral resources development
c. Manufacturing and industry

d. Marketing and distribution
e. Rural financial systems

2. Supportive human resources development and utilization

Under this activity, the emphasis is on recognition of the critical and dynamic role of the total man in rural and national development and includes the following policy areas:

f. Health and population
g. Culture and social development
h. Education, technology and skills development
i. Research and extension services
j. Information and communication

3. Enhancement of enabling rural infrastructure:

This emphasizes the government taking adequate measures to promote the development and improvement of rural infrastructure with a view to stimulating and promoting sustainable growth of rural productive activities and includes the following policy areas:

k. Transport infrastructure and facilities
l. Communications infrastructure
m. Housing
n. Environment
o. Energy, and
p. Water and sanitation

4. Special programs for target groups

This is premised on the fact that the powerless, marginalized, and deprived rural people deserve special attention and includes the following policy areas:

q. Women
r. Youth
s. Children
t. The elderly and retired
u. Beggars and destitute
v. Emergencies and national disasters
w. Economically disadvantage areas
x. Border areas

5. Rural community organization and mobilization

This policy recognises the fact that the need for full participation of members of the rural communities in the development process is critical to the quality and sustainability of the development efforts of government. The strategy to be employed in achieving this priority policy area is through special and appropriate provision for the support of community initiatives and Programs through managerial, technical, financial, and other appropriate assistance.

It is important to underscore the fact that some anti-rural and poverty reduction practices are noticeable in Nigeria. They include:

- persistent and massive denial of physical and social infrastructure;
- poor transport linkages by road, rail, water or air;
- poor access to development resources like land, credit, and technology;
- concentration of industries in urban centers;
- bias of even agricultural expenditure towards influential and rich urban dwellers;
- bias of domestic terms of trade against agriculture and other rural activities with relatively low producer prices for food, agricultural exports and other rural produce;
- poor incentives to the rural economy and to economic activities in rural areas;
- denial of political power to the rural majority (even with local government reforms) so that the rural population is under-represented in decision-making organs at all levels of society; and
- relative neglect of the informal sector.

In the light of continuous government's concern for poverty reduction, in 1994, the government set up a broad-based Poverty Alleviation Program Development Committee (PAPDC) under the aegis of the National Planning Commission. The primary objective of PAPDC was to advise government on the design, coordination, and implementation of poverty reduction policies and programs. The work of PAPDC contributed immensely to the emergence of a new approach in 1996 known as the Community Action Program for Poverty Alleviation (CAPPA). Current efforts at poverty reduction include the launching of the Universal Basic Program (UBE) and the Poverty Alleviation Program (PAP), the constitution of the Ahmed Joda Panel in 1999 and the Ango Abdullahi Committee in 2000 with the mandate to streamline and rationalize existing poverty alleviation institutions. These led to the emergence of the National Poverty Eradication Program (NAPEP) and the National Poverty Eradication Council (NAPEC) in early 2001. Last was the launching of the Poverty Reduction Strategy Paper in 2003. To have a holistic approach to poverty reduction in the country, and because of the little success achieved in terms of selective approach to fighting poverty in the past, the paper attempts an intersectoral strategy to fighting poverty in Nigeria. In specific terms, the strategies include:

- bottom-up and demand-driven identification and prioritization of project in order to allow for community ownership. Community participation would be enhanced in aspects of project circles, by decentralizing decision-making.
- capacity building and empowerment: This involves grassroots decision making; provision of access to productive inputs and assets, such as credit and land; relevant and effective training and education; exposure to and adoption of appropriate technology; access to adequate infrastructure and social services; and integration of informal sector into the main stream of economic activities.
- service delivery comprising of: (1) targeted intervention and building on existing safety-nets of the poor; (2) building mechanisms into a poverty reduction plan; (3) provision of a support mechanism to finance projects which are initiated by intended beneficiaries; and (4) emplacement of pro-poor national growth strategies.
- coordination, monitoring, and evaluation, which involves streamlining and networking of existing poverty reduction programs into the support mechanism.
- use of appropriate monitoring and evaluation mechanisms for poverty reduction and its eventual elimination.

Poverty Reduction Programs and Projects

Below are a list of some programs and projects put in place in Nigeria to impact positively on the poor.

Multisectoral Programs[30]

National Directorate of Employment (NDE)

The objectives of NDE include: to design and implement programs to combat mass unemployment; and articulate policies aimed at developing work programs with labor intensive potentials. Given that poverty manifests itself in the form of unemployment and underemployment, the schemes/Programs of NDE could be said to have poverty alleviation focus. Hence, this was a skill formation and credit-granting scheme with consequences on accelerating entrepreneurship development. The Directorate was set up in 1986 with the underlying philosophy of self-enterprise, which emphasized self-employment in preference to wage employment. The NDE has had some success regarding the reactivation of public works, the promotion of self employment, and the organization of artisans into cooperatives, for example. Funding is provided by the federal government and in some cases by international organizations (for example, the ILO helped solve financial problems in 1991 due to low repayment of loans by beneficiaries). Because several NDE programs functions through loans whose repayment rates are not always high, the sustainability of the programs depends on the commitment of the federal government. The Directorate implements four core programs namely, Vocational Skills Development Program (VSDP), Special Public Works (SPW), Small Scale Enterprises (SSE) and Rural Employment Promotion Program (RPP). The Vocational Skills Development Program is a skill acquisition program, which consists of 80 trades spread through its four ancillary schemes:

1. The National Open Apprenticeship Scheme (NOAS): This scheme emphasizes on the-job training by which apprentices are attached to master craftsmen or women, companies, ministries, and parastatals for periods varying from six months to three years.

2. The School on Wheel Scheme: This involves the use of a mobile workshop to take vocational training to the rural areas.

3. The Wealth-to-Waste Scheme: Under this scheme, interested youths are trained to convert discarded materials to useful and valuable products such as jewelry, flower vase, key holders, etc.

4. The Resettlement Scheme: The scheme was set up to assist selected NOAS graduates who lack the means to set up own businesses and cannot get wage employment. The scheme also provided management support services to young entrepreneurs who may be in need of professional advice.

The NDE's sub-programs, objectives and target groups are summarized in the table below.

Table 26. NDE—Programs, objective and target groups

Program	**Sub-programs**	**Objectives of the program**	**Target groups**
Vocational Skills Development	* National Open Apprenticeship Scheme (and Saturday Theory Classes) * The School-on-Wheels Scheme * Waste to Wealth Scheme * The Disabled Scheme	* Create employment through the provision of marketable skills * Create employment through resettlement of trained beneficiaries	*Primary and Secondary School leavers, *Disabled Youths in the

[30] Timeframe of these programs are contained in the summary table at the end of this section.

			rural areas
Small Scale Enterprises Program	Awareness Creation National Youth Service Corps/Entrepreneurship Development Program and Business Demonstration Start Your Own Business Scheme and Women in Business Training	Create jobs for unemployed persons through enterprise creation Provide start-up capital for trained beneficiaries Assist retired persons to start self employment	*Primary and Secondary School leavers, *Disabled Youths in the rural areas
Rural Employment Promotions Program	Integrated Farming and Training Scheme Livestock Training and Production Scheme Crop Processing/Crop processing training Scheme	Generate employment through the establishment of integrated farms Generate employment through provision of knowledge Create employment through crop processing training	*Primary and Secondary School leavers, *Disabled Youths in the rural areas
Special Public Works Program	Labor-intensive projects (e.g. road construction and maintenance) Environmental beautification Scheme	Create employment opportunities in the areas of construction/maintenance of Urban/rural roads	States, Local governments and Local Communities

Source: Olaniyan et al. (2003).

Available evidence shows that NDE has achieved remarkable progress in respect of its various programs:

- Over 766,783 persons (including the disabled) were trained in the National Open Apprenticeship Scheme between 1987 and 1996.
- Over 106, 854 benefited from the Resettlement Scheme at the end of 1996.
- The School on Wheels Scheme engaged youth 15,317 unemployed youths as at the end of 1994.
- The Special Public Works Program created jobs for over 154,910 persons between 1987 and 1996.

As one of the institutions that survived the Structural Adjustment Program era, NDE has continued to articulate development policies and programs with labor intensive potentials aimed at solving the unemployment problems in the country.

According to Olaniyan et al. (2003), NDE beneficiaries were satisfied with the opportunities received to explore new areas and acquire new skills. Beyond the gain in experience and training, participants also valued the ability to feed their family by using the proceeds from their projects. But there was less satisfaction with the amounts of the loans received to start the projects, and the level of monitoring of their progress and advised received from the agency.

The Directorate of Food, Roads, and Rural Infrastructure (DFRRI)

The Directorate of Food, Roads, and Rural Infrastructure (DFRRI) was created in January, 1986 as an integrated approach to rural development. DFRRI was designed to act as a policy catalyst for the development of the rural areas of the country. The establishment DFRRI was not only a radical departure from the previous programs, but also recognized the complementarity associated with the provision of basic needs such as food, shelter, potable water, etc.

DFRRI had tremendous impact on the rural areas. For instance, between the time of inception in 1986 and 1993, DFRRI had completed over 278,526 km of roads. Over 5,000 rural communities benefited from its rural electrification Program. It particularly emphasized the provision of water and the construction, rehabilitation and maintenance of an effective rural feeder road network. The integrated approach to rural development provided for the necessary basic infrastructures that can stimulate the growth of agro-allied small-scale enterprises in rural areas.

The directorate had the following objectives:

- Promote a framework for grassroots social mobilization
- Mount a virile program of development, monitoring and performance evaluation
- Provide rural areas with access roads and potable water
- Improve rural sanitation, literacy and technology

DFRRI had two main tasks. First, it was to make rural areas more attractive to live in (through the provision of improved, well-maintained rural infrastructure such as roads, water, and electricity) in order to stem the migration to urban areas. Secondly, it was to change for better, the rural ways of life and modes of production in order to meet the challenges of increased agricultural and industrial production, and raise income thereby reducing urban-rural disparities. It was involved in the production and distribution of improved seeds and other planting materials; the promotion of rural and urban fish farming, storage, and processing of grains as well as encouraging the production of small animals such as sheep and goats. The Directorate operated through its coordinating officers in the states and in each local government.

However, DFRRI could not achieve many of its objectives due to many factors which included lack of standards for project harmonization and effective mechanisms for co-ordination among the three tiers of government and DFRRI. Hence, with time DFRRI could not sustain the tempo with which it started, and it ended up not living up to expectation and became defunct in 1993.

Better Life Program (BLP)

The BLP was set up in 1987, to enhance the quality of life of rural women, among other objectives. The Better Life Program tried to harness the potentials of rural women and thereby impact positively on their economic activities and incomes The BLP improved the quality of life of many women through the distribution of various inputs, granting of easy credits, and the establishment of various educational/enlightenment programs. The Better Life Program was first introduced as a program mainly for rural women by the then First Lady. The program was generally aimed at complementing the existing Federal Government policy to develop the rural areas. The program's objectives were to:

- stimulate and motivate women in rural areas towards achieving a better and higher standard of life, as well as sensitize the general populace to the plight of rural women;
- educate women on simple hygiene, family planning, importance of childcare and to increase literacy;
- mobilize women for concrete activities towards achieving specific objectives, including seeking leadership roles in all spheres of national life; and
- raise the social consciousness of women about their rights, as well as social, political, and economic responsibilities.

As the implementation of the program progressed, it was realized that the scope of the program had to be widened to include urban women and cooperatives where men were members. Thus, the name was changed from Better Life Program for Rural Women to Better Life Program (BLP). The program generally covered many areas that relate to enhancing labor productivity and entrepreneurship development. Areas covered include: health, agriculture, education, social welfare, and cooperatives. The formation of cooperatives in the program had direct bearing to entrepreneurial development. Numerous fishing, farming, marketing, weaving, and sundry craft cooperatives were set up. The cooperatives were supported in terms of access to credit facilities from People's Bank, which owes its existence partly to the Better Life Program. Thus, a linkage was effectively created between the two agencies.

This program was not only hijacked by position–seeking individuals but the resources allocated for the program were diverted and used for personal enrichment.

The Family Support Program (FSP) and Family Economic Advancement Program (FEAP)

During the regime that lasted from 1993 to 1998, the BLP was re-named the Family Support Program (FSP) with greater emphasis on the health component. In essence, the program was set up to provide health care delivery, child welfare, youth development, and improved nutritional status to families in rural areas. However, in an attempt to create a more embracing socioeconomic poverty alleviation program by the regime, a new agency called Family Economic Advancement Program (FEAP) was established. The FEAP was established to stimulate economic activities by providing loans directly to Nigerians through cooperative societies and informal associations, and to provide credit facilities to cooperative societies to support the establishment of cottage industries in both rural and urban areas. The program was also designed to create employment opportunities at ward levels, encourage the design and manufacture of appropriate plants, machinery and equipments, and provide opportunities for the training of ward–based business operators. Although the FSP recorded several remarkable achievements, such as the establishment of many nursery and primary schools, construction of many public toilets, and the setting up of many vocational schools, many of these projects were not properly executed and could not be sustained and many of the poor in several communities did not actually benefit from these projects while they lasted.

Agricultural sector programs

The Agricultural Development Programs

The Agricultural Development Programs (ADPs) were introduced in 1975 as three enclave projects in Funtua, Gombe, and Gusau in present Katsina, Gombe, and Zamfara States of Nigeria. But now the program has evolved into state-wide projects covering the whole country. The main objectives of the ADPs are to promote agricultural and rural development especially among small scale farmers. The distinguishing characteristics of ADPs include:

- an input and credit supply system through a network of farm service centers which ensure that no farmer travels more than 5-15 km to purchase needed farm inputs;
- a massive feeder road network that has opened up new areas for cultivation and has facilitated rapid evacuation of farm produce and prompt delivery of inputs;
- a revitalized unified extension and training system backed up by timely input supply and adaptive research services;
- joint state-federal collaboration for project implementation; and
- solid project management together with built-in project monitoring and evaluation.

The ADPs represent a truly innovative approach to agricultural and rural development both in their integrated supply of farm inputs and infrastructural support and in their efforts to revamp and revitalize extension services. Along with the implementation of the ADPs, some states initiated a variety of new schemes to deal with new and old problems. For example:

- The Lagos State Government embarked on the Agricultural Input Credit Scheme to promote mechanized farming, while its Graduate Farming Scheme was to tackle the twin problems of graduate unemployment and food shortages through the provision of land, equipment, and all necessary inputs for cropping. In addition, its School Agriculture Program was designed to popularize agriculture in schools.

- The Niger State's Back-to-Land and the Small Scale Farmers Programs guaranteed loans to various categories of farmers.
- The Bauchi State's Graduate and School Leavers Farming Schemes were similar to those in Lagos State.
- The River State's School-to-Land Program was designed to reduce unemployment among school leavers as well as act as a catalyst to revolutionize agriculture, while its Community Block Farms was to encourage farming cooperatives in the state.
- The Oyo State's Integrated- Self-Employment and the Graduate Self-Employment Schemes were designed to solve the unemployment problems of school leavers and graduates respectively in the state.
- The Shell Company of Nigeria also had the Community Land Development Program in the oil producing states. This was designed to provide alternative means of livelihood to the original landowners of oil well sites.

The Operation Feed the Nation Program

The OFN which was launched on 31st March 1976 with the main objective of attaining self-sufficiency in agriculture through self-reliance was winded up in September 1979 at the end of the regime that instituted it. The payment of lip service to the importance of agriculture has been a pastime with successive regimes in Nigeria before the introduction of OFN. The Head of state demonstrated, for the first time, his personal identification with the food problem, by actually doing some farming in the States House. The specific objectives of the program were to:

1. mobilize all Nigerians towards self-sufficiency and self-reliance in food production;
2. stimulate all sectors of the population which rely on buying food to grow their own food;
3. inculcate in the generality of Nigerians the pride in agricultural employment through the realization that a nation that cannot feed its population losses its respect; and,
4. encourage balanced diets which will consequently produce a healthy nation.

The national committee of OFN served as the secretariat of the national council on the OFN. Corresponding state councils and committees of OFN were responsible for the grassroots implementation of national policies. According to Idachaba (2006), the main achievements of the OFN program include:

5. the viable, symbolic and practical involvement of the military leadership at the highest level with the food and agricultural situation within the country;
6. the creation of supraministerial institutions to handle the multisectoral aspects of food production and distribution in place of the historical sectoral approach to food and agriculture;
7. heavy input subsidies especially on fertilizers, livestock products, seeds, etc., together with improved input distribution across all local government areas within the country;
8. development of mass awareness of the growing strategic importance of food and the danger posed by excessive dependence on other countries for our food supplies; and
9. the identification of the enormous potential in human and physical resources for meeting the nation's needs for food and fiber as well as the highlighting of the enormous market opportunities.

Some of the drawbacks of the program include the following: incomplete and inadequate conceptual underpinnings, operational drawbacks especially with sequencing of fertilizer procurement orders, lack of an overall food strategy from where the OFN should have taken its roots and lack of monitoring and evaluation procedures, making performance monitoring difficult/impossible.

The River Basins and Rural Development Authorities

The River Basins and Rural Development Authorities (RBRDAs) (formerly known as the River Basins Development Authority) was established primarily to boost food production through irrigation in order to reduce dependence on rain-fed agriculture. The Niger River Basin Development Authority was established by the decree No. 25 of June 1976 and by 1977, 11 other River Basin Development Authorities were established to undertake food production and the provision of rural infrastructure. However, the Decree No. 35 of 1987, in line with the prevailing and changing needs of the people, reorganized and directed the RBRDAs to focus on the following:

- undertake comprehensive development of both surface and underground water resources for multipurpose use with particular emphasis on the provision of irrigation infrastructure and control of flood an erosion and for watershed management;
- construct, operate, and maintain dams, dykes, polders, well, boreholes, irrigation, and drainage systems and other works necessary for the achievement of the Authority's functions and hand over all lands to be cultivated under the irrigation schemes to the farmers;
- supply water from the Authority's completed irrigation schemes to all users for a fee to be determined by the Authority;
- construct, operate, and maintain infrastructural services such as bridges, and roads at project sites, provided that such infrastructural services are included and form an integral part of the list of approved projects; and
- develop and keep a current, comprehensive water resources master plan, identifying all water resources and water requirements in the Authority's area of operation through adequate collection and collation of water resources, water use, socioeconomic and environmental data of the river basins.

The target beneficiaries are small scale farmers including women who are required to apply and be registered. Funding is mainly from the Federal Government of Nigeria's annual budgets. Additional revenue comes from internally generated revenue from the participants' payment for services.

Land Reform Measures (Land Use Decree)

In 1978, the government of Nigeria embarked on the first major land reform when it enacted the Land Use Decree of 1978. The Land Use Decree was meant to free land from the bottleneck of institutional constraints among other things, enable landless but enterprising farmers have access to productive land. The decree sought to take over ownership of land from individuals and vest power of control over such lands from the state governors. In current practice, however, especially in the countryside, the customary tenure is still widely adhered to. Except for rich land speculators, the accessibility of poor peasants to productive farmlands have remained as difficult as ever. The unintended fallout has been incessant warfare over land by adjoining communities. That must have been the reason why one of the current federal government's seven-point agenda[31] is on land reforms.

[31] The current government's seven point agenda include: i) power and energy, ii) food security and agriculture, iii) wealth creation, iv) mass transportation, v) land reforms, vi) security, vii) qualitative and functional education.

National Agricultural Land Development Authority (NALDA)

To solve the problems of low utilization of farmlands, increase farm sizes, and hence productivity to alleviate rural poverty, the federal government initiated a national agricultural land development program under the National Agricultural Land Development Authority (NALDA) in 1991. NALDA as an executing agency was empowered to develop between 30,000 and 50,000 hectares of land in each state of the federation during the 1992–94 National Rolling Plan period. It was also to see to the placement of at least 7,500–12,500 farmers within the area developed such that each participating farmer member lived within 3–5km radius of his farmland. The program on the whole was to:

- provide strategic public support for land development;
- promote and support optimum utilization of the nation's land resources for the accelerated production of food;
- encourage and support economic size farm holdings and promote the consolidation of fragmented farm holdings;
- encourage the evolution of economic size villages;
- provide gainful income and employment opportunities for rural people;
- address the special problem of the nation's rural majority;
- expand production capacity in agriculture;
- contribute significantly to the attainment of national food and self-reliance; and
- facilitate the appropriate cost-effective mechanization of agriculture.

In the agricultural sector, NALDA expanded its outreach and infrastructural development programs by developing 24,350 hectares of farmland.

National Fadama Development Program

Fadama is a Hausa word for low-lying flood plains, usually with easily accessible shallow groundwater. Fadamas are typically waterlogged during the rainy seasons but retain moisture during the dry season. These areas are considered to be of high potential for economic development through appropriate investments in infrastructure, household assets, and technical assistance.

The desire to realize the full potential of Fadama resources in Nigeria led to the design of the National Fadama Development Project (NFDP), mainly funded by the World Bank, with counterpart funding by the Federal and benefiting state governments. Fadama I (Phase I of the National Fadama Development Project) was implemented during the 1993–99 period. The first NFDP was launched in some selected states ADP with the aim of encouraging and facilitating resource poor farmers to embark on dry season cropping in order to generate increased income and alleviate poverty. The project had three components: Fadama Users Association, irrigation engineering, and Fadama infrastructure. Fadama I focused mainly on crop production and largely neglected downstream activities such as processing, preservation, and marketing. The emphasis of Fadama I was on provision of bore bores to crop farmers through simple credit arrangements aimed at boosting aggregate crop output. The design of Fadama I did not allow for rural infrastructure to ensure the efficient transportation of farm output to markets. The project did not take into consideration other resource users such as livestock producers, fisher folks, pastoralists, hunters, etc. This focus on crop producers contributed to increased conflicts among the users of fadama resources. Increased crop production increased the surplus but the project did not support post-harvest technology, contributing to reduced crop prices and increased storage losses.

Fadama II is a follow-up to the implementation of Fadama I, and seeks to address the noted shortcomings in the design and implementation of the Fadama I. Fadama II's strategy represents a shift from public sector domination to a community-driven development approach. The project activities are centered on fadama user groups (FUG) having common economic interest–termed *economic interest groups* (EIG). This is one of the unique features of the project since collective action helps to overcome many problems that face poor farmers in production and marketing. The major productive sectors that Fadama II supports include crops, livestock production in general, pastoralism, agroforestry, fishing and fish farming (fisher-folk). Addressing one of the weaknesses of Fadama I, Fadama II also supports nonproductive activities that are closely linked to the productive activities. These include agroprocessing and service providers such as rural marketing. As part of its targeting strategies, Fadama II also provides special preferences to groups of youth, women (especially widows), physically challenged, the elderly and people with HIV/AIDS. The targeted groups can belong to any of the productive or service sectors supported by the project. Since the project uses a community driven development (CDD) approach, beneficiaries are given the chance to choose the kind of activities that they want to pursue. However, there are some activities that the project does not support, such as activities that could lead to degradation of natural resources or large-scale change of land use. Under the CDD approach of Fadama II, all users of Fadama resources are encouraged to develop participatory and socially inclusive Local Development Plans (LDPs).

The 12 states benefiting under the World-Bank assisted aspects of Fadama II are Adamawa, Bauchi, Gombe, Federal Capital Territory, Imo, Kaduna, Kebbi, Lagos, Niger, Ogun, Oyo, and Taraba.[32] Fadama II was designed to operate for six years (2004 – 2010) with a goal of contributing to poverty reduction in Nigeria. Actual implementation did not begin until September, 2005, however.

The project set targets to achieve the following outcomes at the end of its six-year period:

- 50 percent of male and female fadama resource users who benefit from the project supported activities should increase their average real income by at least 20 percent compared to the baseline.
- At least 60 percent of Fadama Community Associations (FCA) should successfully implement their LDPs and other project supported activities.
- Conflict among fadama users should be reduced by at least 50 percent compared to the baseline.

To achieve these outcomes, the project has five components to achieve these outcomes. These include:

- capacity building, to support measures that would build the capacity of FCAs and their constituent EIGs and FUGs, so that they are equipped to access project advisory services and financing;
- rural infrastructure investment, to support creation of economic infrastructure and local public goods that would improve the productivity of fadama user households. Under this component, beneficiaries are required to pay 10 percent of the costs of constructing rural infrastructure, including rural roads, culverts, market stalls, cold storage, bore holes, irrigation infrastructure, and other infrastructure;

[32] An additional six states are benefiting under a version of the project supported by the African Development Bank.

- pilot productive asset acquisition support, to enhance the improvements in fadama users' productivity and income by facilitating the acquisition of productive assets by individuals or FUGs. Under this component, fadama users are required to pay 30 percent of the cost of the assets acquired;
- demand-responsive advisory services, to support advisory services that will enable fadama users to adopt output enhancing techniques and more profitable marketing practices in their fadama enterprises;
- project management, monitoring and evaluation, to support new or existing institutional entities and mechanisms at the federal, state and local levels of government for overall project coordination and supervision that would help to strengthen the effectiveness and quality of project operations.

The evaluation, according to Nkonya et al. (2008), shows that when compared to all nonbeneficiaries, and nonbeneficiaries within and outside communities, the value of privately owned productive assets of Fadama II beneficiaries increased significantly due to participation in the project. Similar comparisons in the dry savannah and moist savannah and between men beneficiaries and men nonbeneficiaries also showed significant increase in value of productive assets. However, the increase in privately owned productive assets was generally less than that observed in productive assets owned by Economic Interest Groups (EIG). This is due to the Fadama II support of asset acquisition through EIG groups rather than individual fadama users. Even though Fadama II did not support individuals to acquire productive assets, FUG members were able to acquire such assets through their group. The individual acquiring the private asset would pay the entire beneficiary contribution in the name of the FUG. Fadama II did not interfere with the ownership of the productive assets. This could explain the significant increase in the value of privately owned assets for beneficiaries. It is also possible that FUG members were required to buy complementary inputs to support the jointly owned productive assets. For example, FUG members owning irrigation equipment may have needed to buy pesticide sprayers in order to grow irrigated vegetables. What is interesting is the nonsignificant impact of participation in the project on privately owned assets for beneficiaries in the poorest tercile and for women beneficiaries. This suggests that the poor and vulnerable were not able to finance both the privately owned productive assets and to pay for the beneficiary contribution of EIG group assets.

In addition, Fadama II project realized significant increases in the income of beneficiaries. The impact of the increase in income of beneficiaries in Fadama II was different across agroecological zones, poverty groups, and gender. The impact of Fadama II on income was not statistically significant in the humid forests and moist savannah zones and across gender, although increases in mean incomes of Fadama II beneficiaries were estimated in all cases.[33] Beneficiaries in the lower and upper poverty tercile also did not realize statistically significantly different income growth due to participation in the project. The impacts of the projects are not fully captured by this study since the project had operated for only one year when the survey was done and hence does not capture the lagged impacts, especially those related to the productive assets and rural infrastructure. The study has provided a good baseline data that could be used to conduct follow up studies to capture the lagged impacts of the project.

[33] The lack of statistical significance of impacts in the estimation sub-samples is in part due to reduced sample size, which reduces statistical power, and doesn't necessarily mean that Fadama II had no impact in these cases. A larger survey sample would have been required to identify impacts in such sub-groupings with statistical confidence.

The National Special Program for Food Security

This program was initiated by the federal government in late 2001 with the aim of ensuring national food security by increasing food production and productivity, thereby improving the income and standard of living of the resource poor farmers and their households in an environmentally and economically sustainable basis. The focus was on raising the productivity of small farmers, thereby improving their household security, while at the same time contributing to local and national food security. The project was implemented in one site per local government area per senatorial district. This made it a total of 108 sites in all the states of the nation and one site in the FCT made it 109. The pilot phase which was implemented between 2002 and 2006 cost the federal government the sum of USD 45.24 million and an additional USD 22.25 million on the South South cooperation component of the program. The program is nationally by the Federal Ministry of Agriculture and Water Resources through its Projects Coordinating Unit, now National Food Reserve Agency. At the state level, the Agricultural Development Programs (ADPs) coordinated the program and appointed site officers (site managers and extension agents) who coordinated the implementation of NSPFS activities at the site per LGA.

The main implementation strategy under the NSPFS was to empower small farming communities with timely provision of credit, agricultural inputs and technical support services to increase farmers output, productivity and income on sustainable basis. The participating farmers were formed into groups for ease of coordination and management of credit and inputs received on behalf of the farmers. The officers (chairman, secretary and treasurer) of various groups constitute an apex committee in each of the sites for overall management and coordination of activities. Credits are disbursed to farmers after approval of the work plan and budget for the sites by the national coordinating office through the state coordinating agencies (state ADPs) to the different site's apex committee who in turn disbursed to the farmers' groups and finally to the individual farmer beneficiaries. The NSPFS places the farmers at the driver's seat, by allowing them to be in charge of their own development agenda. They were able to determine what they want and how through a participatory community driven development approach.

Health Sector Programs

Primary Health Care (PHC) and Disease Program

This program started in 1982 as a program of the Directorate of Primary Health care and Disease Control in the Ministry of Health. It was established to improve the delivery of health services to the people with special preference for children and women of reproductive age and state.

The target population is reached through the local government coordinators of the PHC who send emergency reports to the headquarters whenever there is any outbreak of any disease in any LGA in the country. The major component of this program is the immunization against some diseases such as cerebrospinal meningitis.

UNICEF-Assisted Water and Sanitation Project

This project started in 1982 in Imo state as a pilot scheme but later was extended to Gongola (now Adamawa and Taraba States), Kwara and Niger States in 1983, 1984, and 1986, respectively. Due to the resounding success achieved in these states, it was further extended to Ondo, Oyo, and Ogun States under the 1991-95 UNICEF/FGN country program of cooperation.

The program has four components: portable water supply through provision of boreholes, sanitation through construction of ventilated improved pit latrines, hygiene education through information dissemination, and Guinea worm eradication through disease management and production of improved clay pots/plastic containers with plastic taps filled with monofilaments filter cloth for the hygienic management of drinking water in homes and public places. The target population is the rural people especially where Guinea worm infestation was prevalent.

The Guinea worm eradication scheme reduced the incidence of Guinea worm infection from 653,620 cases in 1987 to about 16,374 cases in 1995.

Women in Health Development Project

This project was established to improve the health and socioeconomic status of women in the rural areas. Specifically, it is made up of the following aspects:

- Promotion of awareness and increased use of family health services among women in the rural areas and to improve on their socioeconomic status through income-generating activities, adult literacy, and home economics education
- Improvement of the general welfare of women and children in the participating villages and entire population

Nutrition and Household Food Security Projects

This is a UNICEF-assisted program supervised jointly by the Ministry of Agriculture and Natural Resources and Ministry of Health in some states of the country. The project was established because of the noticeable deficiencies of essential nutrients, elements, and vitamins in the diets of the people. It aims to educate the people on how to fortify foods with relevant minerals and vitamin supplements so as to reduce the occurrence of nutrition-related diseases.

The target populations are children (under-5), women, especially pregnant and nursing mothers. These beneficiaries are reached through various community groups, nutritional coordinators in each LGA, and state nutrition committee. The major component of the program includes distribution of nutritional supplements/ORT sachets, educating target groups in preparing fortified diets, and raising vegetable gardens.

National Health Insurance Scheme

The mandate of the National Health Insurance Scheme is to improve the health of Nigerians at an affordable cost. Presently, the scheme has the following programs: Formal Sector Social Health Insurance Program (FSSHIP); Urban Self–Employed Social Health Insurance Program (USSHIP); Rural Community Social Health Insurance Program (RCSHIP); Children under Five Social Health Insurance Program (CFSHIP); Permanently Disabled Persons Social Health Insurance Program (PDPSHIP); and Prison Inmates Social Health Insurance Program (PISHIP). The NHIS was only launched in March 2002 and the program started with the Rural Community Health Insurance Program with direct funding by the government. Judging from experience in other countries, it could have been more appropriate to start from the formal sector where companies and individuals are able to pay premiums for the insurance. Since government is expected to pay the premium on behalf of rural dwellers, the sustainability of the program may be compromised in the medium to long-term.

Education Sector Programs

Nomadic Education Project

This project was established to provide formal/informal education to the transhumant nomads in Nigeria, who are a productive segment of the society. The targeted beneficiaries—nomadic Fulanis and Arabs as well as fishermen—are identified through surveying. Teachers are recruited and trained to go about with the nomads and teach them in the process.

Women Education Project

The persistently low enrolment of females in schools in Nigeria relative to their male counterparts led to the establishment of this project in all the states of the federation in 1986. This project has the aim of raising the educational consciousness of women, encouraging parents to train their female children in schools, stimulating female students' interest in science-based subjects, as well as providing training in different vocational and income-generating skills for female school drop-outs and non-literate women. The target population are women who missed school and require skills in various vocational aspects to make a living and girls of school age but are not in school.

Universal Basic Education (UBE)

This was launched in 1999 aimed to provide both intellectual and non-intellectual competencies to all Nigerians for learning or trade. The basic components are; nine years of schooling (primary and junior secondary), nomadic education, out-of-school literacy, and nonformal education for children, youths and adults. The Universal Basic Education Program aims to prescribe minimum standards for basic education and make education compulsory and universal up to junior secondary. Financing for UBE is provided by the Federal Government with some support from donors. This leads to an issue of both fiscal sustainability and impact, both of which depend in part on the level of commitment of state and local authorities. So far, only some states have implemented complementary initiatives in order to boost enrollment and completion rates; Kano State for example has introduced a primary school feeding program. Another issue is the quality of implementation. Current problems include the abandonment of classroom construction work by some contractors after collecting mobilization fees; the risk of a decline in government revenue, leading to backlog of unpaid teachers' salaries; lack of funds for research, evaluation and monitoring; and lack of funds to settle retirement and other benefits of retired staff; and litigation underway. In terms of impacts as well, the evaluation of UBE since its inception in 1999 is mixed. Enrolment increased by only 5 percent in 2000 in both primary and secondary schools. Some schools have been rehabilitated, and new ones established, but the total number of schools by only one percent in 2001, which is below target. The student-teacher ratios remain high and well above the targets of 40 pupils per teacher in primary school and 30 in secondary school.

Though these objectives sound quite laudable like those of other programs, the program may not be sustained due to problems of inadequate infrastructure, inadequate relevant manpower, and inadequate funding which characterize the Nigerian economy.

Transport Sector Program

Federal Urban Mass Transit Program (FUMTP)

In order to cushion the effect of the Structural Adjustment Program on the masses, the government rolled out buses for mass movement of people from one location to another. In the transport sector, FUMTP has led to the acquisition of buses, spare parts, ownership tools, and equipment. Buses were donated to the universities and other tertiary institutions, labor unions and private sector operators.

Housing Sector Program

In the housing sector, the National Housing Policy has brought about the national housing fund managed by the Federal Mortgage Bank of Nigeria. The Federal Housing Authority and various state governments have been involved in the direct construction of housing units. However, despite the efforts put in place in the housing sector, it is a common knowledge that many Nigerians do not have decent accommodation. Many people live in congested rooms. Indeed, many Nigerians lack adequate accommodation and some are homeless as they sleep under bridges at night in many parts of the country (like Lagos) due to lack of adequate housing facilities or high cost of accommodation. The National housing scheme needs to be refocused so as to make it accessible to majority of Nigerians.

Financial Sector Programs

The Agricultural Credit Guarantee Scheme

In 1977, the Agricultural Credit Guarantee Scheme Fund Decree, whose objective was to provide cover in respect of bank loans granted for agricultural purposes, was promulgated. It was believed that this would encourage commercial banks to loan investment funds to the agricultural sector including the small-scale rural dwellers. However, the main beneficiaries of this program were the large scale and educated farmers.

People's Bank of Nigeria (PBN)

The People's Bank of Nigeria (PBN) was a specialized development bank established by Decree No. 22 of 1990 of the federal government to target the poorest of the poor by providing small loans for micro enterprises and to inculcate savings habit among the population. The bank has the following mandates:

- The provision of basic credit requirements to the under privileged Nigerians who are involved in legitimate economic activities in both rural and urban areas and who cannot normally benefit from the services of orthodox banking systems due to their inability to provide collateral securities; and
- The acceptance of savings from the same group of customers and make repayment of such savings together with any interest thereon, after placing the money, in bulk sums, on short-term deposits with commercial and merchant banks.

Arising from the mandate are the following specific objectives:

a) Extension of credit facilities to the less privileged members of the society who cannot normally benefit from the services of the conventional banks

b) Provision of opportunities for self-employment for the vast unutilized and underutilized manpower resources in the country
c) Complementing of government's efforts in improving the productive base of the economy.
d) Inculcating banking habits at the grassroots and reducing the rural-urban migration.
e) Eradication of poverty and provision of succor to the poor
g) Bringing relief to the financially marginalized groups in the society

By implication, the People's Bank is to serve as an alternative banking institution providing easy credit access to the poor who otherwise would not have had access to credit and other banking services at affordable rates of interest and without the complicated requirement of collateral security. It has become the most significant financial institution providing microcredit as part of poverty alleviation program with special focus on small-scale enterprise development. Although the banking scheme had some success stories, many of their goals and objectives have never been realized.

Community Bank

In spite of the various credit policies and programs of governments, commercial banks have failed to meet the credit needs of millions of small borrowers including small farmers. The government in an attempt to solve this problem established the community banks in 1991. The community banking idea was an institutional attempt at modernizing the age-old traditional system of credit and loan administration in the rural areas based on the well-known practice of community self-help and self-reliance.

A community bank is a self-sustaining financial institution owned and managed by a community or a group of communities for the purpose of providing credit, deposit, and provision of other banking and financial services to its members largely on the basis of their self recognition and credit worthiness. These other services include: cooperative and group activities, assisting in the marketing of agricultural and nonagricultural produce, and providing extension services to the community members. It does not operate sophisticated services such as foreign exchange transactions, issuance of letters of credit and corporate financing, which are rendered by the conventional banks. The community bank was set up to encourage communities to pull resources together for investment purposes. The belief was that this framework would provide avenue for small-scale enterprises that hitherto has limited access to finance from formal banking institutions to have access to credit. Community banks are located all over Nigeria with more than 60 per cent in rural areas. Community banks are jointly owned by community development associations, co-operative societies, clubs, and private individuals in the locality. Most of the lending of community banks in Nigeria is directed at micro-enterprises and SSEs.

Any application for loan by a customer is appraised by the credit officer and then by the manager who determines the viability of the project for which the loan is sought and the credit worthiness of the proposed borrower. The application is then accepted or rejected before the lapse of 2 weeks after application. At inception, a minimum amount of N1000 and a maximum loan amount of N50000 can be granted at a time. Loan repayment is at the convenience of the borrower as this can be done daily, weekly, fortnightly, or monthly. Monitoring the use of the loan is done by regularly visiting the business premises of the borrowers to ensure better utilization of loans.

All the community banks in Nigeria have been mandated to register as a microfinance bank with strict rulers and regulations under the central Bank of Nigeria. And those who are able to meet these guidelines are now registered as a microfinance bank

Nigerian Agricultural, Co-operative and Rural Development Bank (NACRDB)

In order to further strengthen the delivery of credit to small-scale entrepreneurs and the poor as part of the current effort at poverty alleviation, the activities of People's Bank of Nigeria, FEAP and Nigeria Agricultural and Cooperative Bank was rationalized in 1999 to avoid duplication and overlapping of functions. Thus, a new institution called the Nigerian Agricultural, Co-operative and Rural Development Bank (NACRDB) was established mainly to do what these institutions were created to do with a more clearly defined focus.

The bank targeted the poor, widows, women, unemployed, disabled, farmers, and the sick. Beneficiaries are targeted through enlightenment campaigns in the host communities, persuading them to open accounts as customers of the bank. All funds are used for poverty alleviation activities and beneficiaries were expected to make initial commitments to the project for which funds are required. To qualify for such loan, a customer must have operated the account for at least 6 months. All applications for loan were vetted by the People's Bank Credit Regulatory Committee. And their recommendations were sent to the zonal office which ensured proper documentation was carried out. The zonal office then forwards the application to the head office for approval.

Direct Poverty Programs

The Poverty Alleviation Program (PAP)

Convinced that poverty and unemployment had assumed unacceptable dimensions socially, economically, and politically, to eradicate poverty, the government earmarked the sum of N10 billion for the creation of 200,000 job opportunities in the year 2000. The objectives of the Program included, among others, setting in motion effective economic empowerment of the people in urban, sub-urban and rural communities; and stimulating economic growth through engagement of semi-skilled and unskilled labor in productive activities.

In order to achieve these objectives, direct jobs were to be created through some labor-intensive activities. Areas slated for these activities include highways, environmental sanitation, a forestation, hospitals, schools and other public places, public utilities and facilities, as well as construction of low cost houses, and assistance in food production. Though the program was an ad-hoc one pending the introduction of a more sustainable one, it provided jobs to 214,367 people with a monthly stipend of N3,500 per person. The program was criticized on the ground that stemming the high level of poverty and rising unemployment requires better action than mere paying of stipends to beneficiaries. Worse still, this stipend approach was hijacked by some privileged members of society who confiscated the fund and denied the intended beneficiaries access to such fund.

The government also recently tried to reduce poverty through the upward review of salaries and wages. For example, those who were pushed into temporary or transitory poverty, especially in the civil service and during SAP, are gradually being moved out of poverty through this process. However, the inflationary trends which often accompany such increases in wages need to be checked by ensuring that aggregate supply of goods and services is increased. This calls for incentive structures that can encourage adequate investment in the real sectors of the economy.

National Poverty Eradication Program (NAPEP)

In 2001, the government introduced the National Poverty Eradication Program (NAPEP) to replace the ad hoc Poverty Alleviation Program (PAP) of 2000. The National Poverty Eradication Program (NAPEP) was set up to help ensure mass participation in the economic development process, empowering the poor to have a voice, and therefore a way of expressing their ideas. The program seeks to involve communities, cooperatives and individuals, by enhancing their capacity to become more productive. The program has offices in all 36 states, the Federal Capital Territory, and all 774 local government areas of the Federation. It has a national coordinator that coordinates the activities of the program.

The Program serves as the secretariat for a body called the National Poverty Eradication Council (NAPEC). The body focuses is on the formulation and evaluation of policies for poverty eradication and social protection in the country. It is chaired by the President and includes 17 Ministers, the Economic Adviser to the President and a few other top government officials.

To be specific, the NAPEP acts as the primary government agency to coordinate and monitor all poverty eradication efforts at federal, state and local government levels. It also assists NAPEC and the federal government to formulate poverty reduction policies nationwide, and intervenes in specific poverty reduction areas to provide social protection through economic empowerment as may be needed.

NAPEP has developed some schemes to help in poverty reduction. These include the following.

1. Micro finance Coordination Scheme (MFCS)

   This scheme is designed to mobilize financial resources from the three tiers of our government (federal, state and local), commercial banks the donor community and other parties for on lending to Nigerians who cannot otherwise gain access to credit.

   In Nigeria, as is likely the case in other countries, poor people have limited access to capital and when they do, are faced with extremely high interest rates. Recognizing this, our poverty alleviation program is charged with the responsibility of developing various micro-finance schemes to help address the situation. Many of these schemes are designed to include both saving and credit components.

2. Youth Empowerment Scheme (YES)

   A scheme to assist young adults in building capacity through training and other apprenticeships. In this scheme, the youth are provided with access to capital and information and are also helped to ensure that markets are available or are developed for their goods and services.

3. Community Economic Sensitisation Scheme (COMESS)

   This scheme is a collection of programs that employ various media to take the message of modest public support for self-help and active participation in poverty reduction and wealth creation activities to communities. Without education, skill acquisition and other information, even access to capital may produce limited results.

NAPEP has therefore designed a variety of schemes to help provide skill acquisition and other sensitization to the poorer Nigerians.

4. Social Welfare Service Scheme (SOWESS)

   This scheme is designed to promote projects that improve the social and personal well being of Nigerians, helping various agencies to provide health, educational and even recreational facilities.

5. Rural Infrastructure Development Scheme (RIDS)

   This scheme is designed to encourage and support infrastructure development in rural areas to help stabilize markets for our vulnerable groups.

6. Natural Resources Development and Conservation Scheme (NRDCS)

   In this scheme the preservation of a clean environment is the objective.

7. Capacity Enhancement Scheme (CES)

   This scheme is designed to empower adults, especially women to better utilise their skills for enhanced productivity. The scheme provides access to tools and information needed for increased productivity for farmers, micro and small-scale agrobusiness workers and others in the same general category.

The Youth Empowerment Scheme (YES) is made up of Capacity Acquisition Program (CAP), Mandatory Attachment Program (MAP) and Credit Delivery Program (CDP). The CAP is a short-term skill acquisition program aimed at empowering all unskilled and unemployed Nigerians through hands-on training on creative activities and services. This will equip Nigerians for both formal and productive employment within the public and private sectors of the self-employed to provide affordable quality services and create wealth through a secondary program of micro-credit. Participants are to be trained for a limited period of 3 to 6 months depending on the trade of interest. Participants are to be encouraged through the payment of N3,500 monthly allowance. On the other hand, MAP is a medium-term work experience acquisition and training program only for graduates of tertiary institutions. Participants shall be logically attached to construction companies, manufacturing companies, financial institutions, etc. for a period of 2 years. Each participant is expected to receive N10,000 monthly allowance for the period of attachment.

NAPEP was allocated N10 billion in 2000 by the federal government, but this declined to N5 billion in 2001 and N2 billion in 2002. Table 5.7 presents the expenditure on different programs of NAPEP as at the end of 2002. Most interventions of NAPEP are in the area of risk mitigation. Since 2000, NAPEP has embarked on activities aimed at reducing job and income insecurity. However, most programs have very limited reach. For example, the Poverty Alleviations Program (PAP) reaches only 0.3 percent of the poor in the country. Also, there is a large degree of overlap between the programs of NAPEP and those of the NDE. More than half of the expenditure of NAPEP has been spent on MAP, a program whose impact on poverty is not obvious, and that has suffered from implementation issues (payments to attaches were suspended after it was realized that funds were inadequate to pay them for the entire period of the program.) There is a clear need to better focus and design NAPEP's interventions.

Table 28. NAPEP—Main programs, objectives, target groups, and funding

Program	Objectives of the program	Target groups	Funding	Share
Capacity Acquisition Programs	* To train primary/secondary school leavers in vocational trades; * To settle some program graduates with micro-credit	* Primary and Secondary school leavers, * Disabled youths	N1.9 billion	33 %
Mandatory Attachment Program	* To attach graduates of tertiary institutions to public/private sector organizations for 2 years to enable them practice their profession and to enhance their employability in the labor market	Graduates of Tertiary Institutions	N2.9 billion	50 %
Credit Delivery program	* Give cash micro-credit to small scale entrepreneurs * Create employment	Unemployed youths	Small	0%
Keke NAPEP	* Create employment for drivers * Improve urban mass transit * Create market for spare parts dealer * Create jobs for mechanics	Drivers and unemployed youths	N 0.1 billion	2 %
Vesico Vaginal Fistulae (VVF) Programa	* Treatment of VVF patients * Create awareness for prevention * Establish skill acquisition centers in the VVF centers	Women	N0.8 billion	14 %
Total			N5.7 billion	100%

Source: Olaniyan et al. (2003).

It was found out by Olaniyan et al. (2003) that NAPEP beneficiaries derived satisfaction from the improvement in their living standard as a result of their allowances. Some participants also mentioned gains in term of experience, satisfaction with the fact of being busy for the duration of the program (i.e., improving their social status from unemployed to worker, even on a temporary base), and the opportunity to socialize with different types of people. However, many beneficiaries scored NAPEP low in terms of coordination, monitoring and supervision, and the fact that the program, which was supposed to last for three years, abruptly ended after two years without pay to participants for the third year. In the words of a Lagos State beneficiary: *"The program is now a bit shoddy. Firstly, the graduate category will expire by December 2003 and the original design was that loans would be made available to us so that we can become employers of labor too. But as at now, individuals have not been asked to submit proposals on how much they need, talk less of being short listed. There has (sic) been no visitation assessments".* Beneficiaries also suggested that the program should be devoid of politics in the selection of candidates.

In addition, according to World Bank (2004), Table 29 highlights some of the constraints that have been identified in the review of the performance of various agencies and which tend to reduce their effectiveness.

Table 29. Problems reducing the performance of formal risk management institutions

Institution	Problems	
NAPEP NDE NACRBD	Poor infrastructure Poor funding Political interference Poor targeting Too many objectives Overlapping objectives	Lack of commitment of beneficiaries Poorly decentralized Corruption Poor skills at all levels Gender discrimination
PHC NHIS UBE	Budgetary constraints Poor infrastructure Poor technical and human resources base Lack of equipment Dependence on donor funding Professional rivalries Inability of the poor to pay for health	Cumbersome administrative procedures Inefficiency of government institutions. Cultural and religious constraints Poor motivation Declining quality No legal instruments Gender discrimination

Source: World Bank (2004).

The table below shows the summary information of the various programs and projects implemented over the years in Nigeria and discussed above.

Table 30. General information on poverty reduction programs and projects in Nigeria

S/N	Program	Year established	Objectives	Target group	Nature of intervention	Focus	Status of execution
1	Directorate for Food, Roads and Rural Infrastructures	1986	Promote a framework for grassroots social mobilization, mount a virile program of development, monitoring and performance evaluation, provide rural areas with access roads and potable water, and improve rural sanitation, literacy and technology	Rural Areas	Feeder roads, rural water supply and rural electrification.	Infrastructure and Environment	Disbanded
2	National Directorate of Employment	1986	Design and implement programs to combat mass unemployment; and articulate policies aimed at developing work programs with labor intensive potentials	Unemployed youths	Training, finance and guidance.	Employment	Ongoing
3	Better Life Program	1987	Stimulate and motivate women in rural areas towards achieving a better and higher standards of life; educate women on simple hygiene, family planning, and to increase literacy; mobilize women for concrete activities towards achieving specific objectives, including seeking leadership roles in all spheres of national life; and raise the social consciousness of women about their rights, as well as social, political and economic responsibilities.	Rural women	Self – help and ruraldevelopment programs, skill acquisition, and health care.	Gender	Disbanded
4	People's Bank of Nigeria (PBN)	1989	Extension of credit facilities to the less privileged,	Underprivileged in rural and	Provision of basic credit requirements to the under	Finance and credit	Disbanded and merged with

S/N	Program	Year established	Objectives	Target group	Nature of intervention	Focus	Status of execution
			provision of opportunities for self-employment, improving the productive base of the economy, inculcating banking habits at the grassroots, eradication of poverty, bringing relief to the financially marginalized.	urbanare as	privileged Nigerians and the acceptance of savings from the same group of customers		NACB[34] and FEAP to form NACRDB
5	Community Banks	1990	To encourage communities to pull resources together for investment purposes, to meet the credit needs of millions of small borrowers including small farmers.	Rural residents, micro enterprises in urban areas	Providing credit, deposit, and provision of other banking and financial services	Finance and credit	Transformed into microfinance banks
6	Family Support Program	1994	Provide health care delivery, child welfare, youth development, and improved nutritional status to families in rural areas	Families in rural areas	Health care delivery, child welfare, youth development, etc..	Gender	Disbanded
7	Family Economic Advancement Program	1997	Provide credit facilities to cooperative societies to support the establishment of cottage industries in both rural and urban areas; create employment opportunities at ward levels, encourage the design and manufacture of appropriate plants, machinery and equipments, and provide opportunities for the training of ward	Rural areas	Credit facilities to support the establishment of cottage industries	Gender and finance	Disbanded and merged with NACB and PBN to form NACRDB
8	Agricultural Development Programs	1975	to promote agricultural and rural development especially as related to the small scale farmers	Small scale farmers	input and credit supply system; massive feeder road networks; unified extension and training system; timely input supply and	Agriculture	Ongoing

[34] NACB is Nigerian Agricultural Cooperative Bank while NACRDB is the Nigerian Agricultural, Cooperative and Rural Development Bank.

S/N	Program	Year established	Objectives	Target group	Nature of intervention	Focus	Status of execution
					adaptive research services;		
9	Agricultural Credit Guarantee Scheme	1977	Provide cover in respect of bank loans granted for agricultural purposes	Farmers	Up to 75 percent of bank loan is guaranteed	Agriculture and finance	Ongoing
10	Land Reform Measures (Land Use Decree	1978	Free land from the bottleneck of institutional constraints among other things, enable landless but enterprising farmers have access to productive land	All users of land	Take over ownership of land from individuals and vest power of control over such lands in the state governors	Agriculture	Ongoing
11	The National Agricultural Land Development Authority	1991	Provide strategic public support for land development; promote and support optimum utilization of the nation's land resources for the accelerated production of food and fiber; encourage and support economic size farm holdings and promote the consolidation of fragmented farm holdings; encourage the evolution of economic size villages; expand production capacity in agriculture; and facilitate the appropriate cost-effective mechanization of agriculture	Small farmers in villages and rural areas	Parceling of land; joint land clearing; input provision	Agriculture	Disbanded
12	The River Basins and Rural Development Authorities	1976	Undertake comprehensive development of both surface and underground water resources; construct, operate and maintain dams, dykes, polders, well, boreholes, irrigation and drainage systems; supply water to all users for a fee; construct, operate and maintain infrastructural services such as bridges, and roads at project sites;	Farmers	Provision of irrigation infrastructure, control of flood and erosion, water-shed management, collection and collation of adequate water resources, water-use, socioeconomic and environmental data of the river basins	Environment and agriculture	Ongoing

S/N	Program	Year established	Objectives	Target group	Nature of intervention	Focus	Status of execution
			develop and keep an up to date comprehensive water resources master plan; identify all water resources and water requirements in the area of operation				
13	National Fadama Development Project	2004	Increase average real income of farmers; ensure Fadama user groups implement their local development plans and reduction of conflict among Fadama users.	Fadama user groups	capacity building, rural infrastructure investment, pilot productive asset acquisition support, demand-responsive advisory services, project management, monitoring and evaluation	Agriculture	Ongoing
14	Primary Health Care and Disease Program	1982	To improve the delivery of health services to the people with special preference for children and women of reproductive age and state.	Children, women	Sending of emergency reports from the local level to national headquarters	Health	Ongoing
15	UNICEF-Assisted Water and Sanitation Project	1982	Eradicate Guinea worm pandemic, provide portable water supply through provision of boreholes, and improved sanitation through construction of ventilated improved pit latrines	Rural people	Hygiene education, and Guinea worm eradication through disease management and production of improved clay pots/plastic containers with plastic taps filled with monofilaments filter cloth for the hygienic management of drinking water in homes and public places	Health	Ongoing
16	Women in Health Development Project	1989	Improve the health and socio-economic status of women in the rural areas through income generating activities, adult literacy and home economics education, and improvement of the general welfare of women and children in the participating villages and entire population	Women	Promotion of awareness and increased use of family health services among women in the rural areas	Gender	Ongoing

S/N	Program	Year established	Objectives	Target group	Nature of intervention	Focus	Status of execution
17	Nutrition and Household Food Security Projects	1990	Eradicate deficiencies of essential nutrients, elements and vitamins in the diets of the people and hence reduce the occurrence of nutrition-related diseases, educating the people on how to fortify foods with minerals and vitamin supplements	Children women, (pregnant and nursing mothers)	Distribution of nutritional supplements, educating target groups in preparing fortified diets and raising vegetable gardens	Gender	Ongoing
18	Nomadic Education Project	1986	Provide formal/informal education to the transhumant nomads as well as fishermen	Farmers (old and young)	Teachers are recruited and trained to go about with the nomads and teach them in the process	Education	Ongoing under the Universal basic education program
19	Women Education Project	1986	Raising the educational consciousness of women, encouraging parents to train their female children in schools, stimulating female students' interest in science-based subjects as well as providing training in different vocational and income generating skills for female school drop-outs and nonliterate women	Women and girls	Teaching of women in their area of interest	Education and gender	Ongoing
20	Universal Basic Education	1999	Provide both intellectual and nonintellectual competencies to all Nigerians for learning or trade	Children, youths and adults	Nine years of primary and junior secondary education, and out-of-school literacy and nonformal education	Education	Ongoing
21	Federal Urban Mass Transit Program	1986	Mass movement of people from one location to another	All people	Acquisition of buses, spare parts, tools and equipment, donation of buses to tertiary institutions, labor unions and private sector operators	Transport	Ongoing
22	The Poverty Alleviation Program	2000	Setting in motion effective economic empowerment of the people in urban, sub-urban and rural communities; and stimulating	Poor adults	Direct jobs to be created through some labor-intensive activities	Poverty reduction(multisectoral)	Disbanded and replaced with NAPEP

S/N	Program	Year established	Objectives	Target group	Nature of intervention	Focus	Status of execution
			economic growth through engagement of semi- skilled and unskilled labor in productive activities				
23	National Poverty Eradication Program (NAPEP)	2001	Help ensure mass participation in the economic development process, empowering the poor to have a voice, and therefore a way of expressing their ideas; involve communities, cooperatives and individuals, by enhancing their capacity to become more productive	Poor individuals	Micro finance Coordination Scheme, Youth Empowerment Scheme , Community Economic Sensitization Scheme, Social Welfare Service Scheme, Rural Infrastructure Development Scheme, Natural Resources Development and Conservation Scheme, Capacity enhancement Scheme	Poverty reduction (multisectoral)	Ongoing
24.	The National Special Program for Food Security	2001	Ensuring national food security by increasing food production and productivity, thereby improving the income and standard of living of the resource poor farmers and their households in an environmentally and economically sustainable basis. Attaining self-sufficiency in agriculture through self-reliance	Resource poor farmers and their households	provision of credit, agricultural inputs and technical support services to farmers	Agriculture	Completed in 2007
25.	The Operation Feed the Nation Program	1976	Improve the health of Nigerians through access to healthcare services at an affordable cost.	All Nigerians		Food production	Disbanded in 1979 after the expiration of the tenure of the founder
26.	National Health Insurance Scheme	2002		All Nigerians	Mass mobilization/awareness of importance of farming and the need for all to be involved in it and subsidization of inputs especially fertilizers. Regular payment of	Health	Ongoing

S/N	Program	Year established	Objectives	Target group	Nature of intervention	Focus	Status of execution
					health insurance premium to access good healthcare		

Source: Author's compilations.

In concluding this chapter, Nigeria had implemented many laudable programs that should have reduced the level of poverty drastically, but this has not been the experience. Nigeria's problems with programs and project are not rooted in design, planning, or preparation but of poor implementation that had resulted in failure. This is especially true of the government programs. In recent past, some programs that have been funded partly by some international organizations have achieved tremendous success. This is the case of Fadama II program.

Strengthening Poverty Reduction Strategies

Having identified the three approaches to poverty reduction in Nigeria, there is the need to strengthen the performance of these approaches.

Economic Growth and Development

Since there is a strong linkage between economic growth and development and poverty reduction, there must be a rapid and broad-based growth by removing price distortions, deregulation of economic activities (including liberalization of trade, privatization of state-owned enterprises producing basic goods and services such as power, petroleum products and telecommunication) and investment in basic infrastructure and physical capital. Other factors include reliance on informal and formal private sector to increase capital investment, improved land tenure and property rights laws, improved access to credit, technology and materials, and finally facilitation of access to domestic and foreign market as an incentive for increased output and income.

Access to Social Services and Infrastructure

The key social services and infrastructure include health, education, water supplies and sanitation, rural roads, urban transport, and electricity. This will no doubt require commitment in term of policy and funding by the government, and community and private sector's participation in the development and maintenance of social infrastructure

Targeting

Targeted resource transfer to those who remain poor should complement the other two strategies in Nigeria. The government can target the delivery of some services and resources to reach poor households, areas and communities, building on existing community-based organizations where possible.

Okunmadewa (2001) has suggested that some element of targeting should be introduced into public expenditure—particularly for social sector spending. Over the years, the share of defense and security in the budget has consistently been higher than health and education which touch the lives of the poor more than most of other public expenditure. The redirection of public expenditure is highly necessary for poverty education in Nigeria.

Conclusion

This review presented the nature, extent, and determinants of rural poverty and the various policies, projects and programs that have been implemented to reduce poverty in Nigeria from other studies. It was revealed that in spite of the different approaches and attempts to reduce poverty in Nigeria, poverty has risen. While the poverty incidence dropped between 1996 and 2004, there was however more poor persons in Nigeria in 2004 than in 1996. Most of the less privileged, who are supposed to benefit from targeted interventions, never get the benefits that accrue to the unintended beneficiaries who are not poor. In addition, this increasing trend in poverty may be connected with the lack of self-will by the government to execute its programs, continuity, and sustainability, and corruption among government officials. Finally, good governance is required for macroeconomic growth and stability to be achieved, the development of human capital, and adequate targeting of interventions. Hence, this present civilian regime must strive at providing a transparently honest and good leadership that will cooperate and support all agencies concerned with poverty reduction in Nigeria.

References

Afonja, Simi. 2001. *An assessment of trafficking in women and girls in Nigeria: A research report*. Ibadan, Nigeria: Centre for Human Development.

________. 2002. Social Risk Assessment for Nigeria: Risk Prevention, Mitigation and Coping Strategies. Consultant Report for the World Bank/NPC Social Risk Assessment Exercise.

Aigbokhan, Ben E. 2000. *Poverty, growth and inequity in Nigeria: A case study*. AERC Research Paper 102. Nairobi: African Economic Research Consortium.

Alayande, B., and A Olayinka. 2004 A quantitative and qualitative assessment of vulnerability to poverty in Nigeria www.csae.ox.ac.uk/conferences/2004-GPRaHDiA/papers/4p-Alayande-CSAE2004.pdf.

Amemiya, T. 1977. The maximum likelihood estimator and the nonlinear three stage least squares estimator in the general nonlinear simultaneous equation model. *Econometrica*, (45): 955–968.

Ayoola, G.B., Aina, B. Mamman, N. Nweze, T. Odebiyi, F. Okunmadewa, D. Shehu, O. Williams, and J. Zasha. 1999. Nigeria: Voice of the poor - Country Synthesis Report. <www.worldbank.org/INTPOVERTY/Resources/335642-1124115102975/1555199-1124138866347/nigeria.pdf>.

Blackwood, D.L., and R.G. Lynch. 1994. The measurement of inequality and poverty: A policy maker's guide to the literature. *World Development* (224): 567–578.

Canagarajan, S., J. Ngwafon, and S. Thomas. 1997. *The evolution of poverty and welfare in Nigeria, 1985–1992*. Policy Research Working Paper 1715. Washington, D.C.: World Bank.

Chaudhuri, S. 2000. Empirical methods for assessing household vulnerability to poverty. *Mimeo.* New York: Department of Economics, Columbia University.

Chaudhuri, S., J. Jalan, and A. Suryahadi. 2002. *Assessing household vulnerability to poverty: A methodology and estimates for Indonesia*. Columbia University. Department of Economics Discussion Paper No. 0102–52. New York: Columbia University.

Ellis, F. 1998. Household strategies and rural livelihood diversification. *The Journal of Development Studies* 35(1): 1–38.

Garba, Salamatu. 2003. Risk and Vulnerability Assessment in Four North Central States of Nigeria–Consultant Report on World Bank/NPC Risk Assessment Exercise.

Grootaert, C. 1999. *Social capital, household welfare and poverty in Indonesia. Local level institutions study*. Working Paper No. 6. Washington, D.C: The World Bank.

Grootaert C., G.T. Oh, and A. Swamy. 2002. Social capital, household welfare and poverty in Burkina Faso. *Journal of African Economies* 11(1): 4–38.

Ilori, B. 1999. Policies and measures for poverty alleviation. *Bullion* 23 (4).

Nigeria. Federal Office of Statistics (FOS). 1999a. *Poverty profile for Nigeria*, 1980–1996. Abuja: Federal Office of Statistics.

________.1999b. *Poverty and agricultural sector in Nigeria.* Abuja: Federal Office of Statistics.

________. National Bureau of Statistics. 2007. *Nigeria poverty assessment (Harmonised)*. Abuja: National Bureau of Statistics.

Nkonya, E., D. Phillip, T. Mogues, J. Pender, K. Yahaya, G. Adebowale, T. Arokoyo, and E. Kato. 2008. From the Ground Up: Impacts of a Pro-Poor Community-Driven Development Project in Nigeria. Agriculture and Rural Development Discussion Paper 40. Washington, D.C.: World Bank.

Odebiyi, A. et al. 1993. The Situation of Poor Women and Children in Osun State. Nigeria: World Bank.

Okojie, C.E.E. 2001. Gender and education as determinants of household poverty in Nigeria. Discussion Paper No. 2002/37. Paper presented at WIDER Development Conference, 25–26 May 2001. Helsinki.

Okunmadewa, F. 1999. *Overview of the measurement of poverty and inequality*. Ibadan Nigeria: Centre for Econometric and Allied Research, University of Ibadan.
Okunmadewa, F. 2001.*Poverty Reduction in Nigeria: A Four-Point Agenda*. Ibadan, Nigeria: University of Ibadan.
Okunmadewa, F.Y., S.A. Yusuf, and B.T. Omonona. 2005. Social capital and poverty reduction in Nigeria. Research Report Submitted to the African Economic Research Consortium AERC), Nairobi for the Second Phase Collaborative Poverty Research Project.<http://www.sarpn.org.za/documents/d0002275/index.php>
Olaniyan, O. 2000. The role of household endowments in determining poverty in Nigeria. <www.csae.ox.ac.uk/conferences/2000-OiA/pdfpapers/olaniyan-95.PDF>.
Olaniyan, O., O. Oyeranti, A. Bankole, and O. Oni. 2003. Evaluation of Risk Management Agencies in Nigeria – Consultant Report on World Bank/NPC Risk Assessment Exercise.
Olaniyan, O., and S. Abiodun. 2005. Human capital, capabilities and poverty in rural Nigeria. Research Report submitted to the African Economic Research Consortium (AERC), Nairobi for the Second Phase Collaborative Poverty Research Project.<www.sarpn.org.za/documents/d0002272/index.php>.
Omoke, P.C. 2008. Trade policy reforms and rural poverty in Nigeria. <www.gtap.agecon.purdue.edu/resources/download/2456.pdf>.
Omonona, B.T. 2006. *Source income determinants and inequality among rural households in Kogi State, Nigeria*. 2005IFRGA05 Research Report. Ibadan, Nigeria: F.S. Idachaba Foundation for Research and Scholarship.
Oni, O.A., and S. A. Yusuf. 2007. Determinants of expected poverty among rural households in Nigeria. <www.csae.ox.ac.uk/conferences/2007-EDiA-LaWBiDC/papers/434-Oni.pdf>.
Onu, J.I. 2003. Nigeria: Risks and vulnerability assessment in North East zone. Abuja: World Bank Country Office.
Oyekale, A.S., and T.O. Oyekale. 2008. An assessment of income shocks and expected poverty dynamics in Nigeria. Paper submitted for presentation at the 9th Annual Conference of the Global Development Network held at Brisbane, Australia, 28th January to February 2nd, 2008.www.gdnet.org/pdf2/gdn_library/annual_conferences/Ninth_annual_conference/Oyekale_paper_parallel_session_2.2.pdf.
Oyeranti, O., and K. Olayiwola. 2005. Policies and programs for poverty reduction in rural Nigeria. Research report submitted to the African Economic Research Consortium (AERC), Nairobi for the Second Phase Collaborative Poverty Research Project.<www.sarpn.org.za/documents/d0002274/index.php>.
Tobin, J. 1958. Estimation and relation for limited dependent variables. *Econometrica* 26: 26-36.
World Bank. 1996. *Nigeria - Poverty in the midst of plenty. The challenges of growth with inclusion.* Report No. 14733 UNI. Washington, D.C.: World Bank.
________, Undated. *Poverty and welfare in Nigeria.* FOS, NPC and the World Bank.
________. 2004. Nigeria—Poverty and Vulnerability: A Preliminary Diagnostic. Human Development and Poverty Reduction and Economic Management Sector Units, Sub-Saharan Africa Region. May 11, 2004.

Appendix 1: Research Designs

Quantitative poverty analysis in Nigeria has been principally undertaken by using the cross-sectional research design (see Olaniyan and Bankole 2005; Okunmadewa et al. 2005; NBS 2007; Aigbokhan 2000; Omoke undated; Oyekale and Oyekale 2008; Canagarajan et al. 1997; World Bank 1996; FOS 1999a; FOS 1999b; Oni and Yusuf 2007; Okojie 2001; and Olaniyan 2000). This is principally due to the inadequate financing on the part of researchers. As such, they have relied on the poverty status of the people to generate poverty profiles (ex-post) rather than an ex-ante approach that would have been made possible through the panel data. Even the poverty profiles and determinants obtained from the data collected by the National Bureau of Statistics in 1980, 1985, 1992, 1996, and 2004 used a cross-sectional design. The agency has not been able to collect longitudinal (through panel) data through which changes in poverty status could be tracked for the households included in their surveys. This lack of panel data had limited the kind of poverty analysis that can be done.

On the data collection methods, poverty analysis have relied more on the survey methodology than observation and focus group discussion. Most quantitative poverty studies (see Olaniyan and Bankole 2005; Okunmadewa et al. 2005; NBS 2007; Aigbokhan 2000; Omoke undated; Oyekale and Oyekale 2008; Canagarajan et al. 1997; World Bank 1996; FOS 1999a; FOS 1999b; Oni and Yusuf 2007; Okojie 2001; Olaniyan 2000; and Alayande and Alayande 2004) have used surveys while qualitative poverty studies such as Ayoola (1999) have used focus group discussion, observation, and a host of other data collection methods.

Sampling Procedures of the Studies Reviewed

Virtually all the quantitative poverty studies(Olaniyan and Bankole 2005; NBS 2007; Aigbokhan 2000; Omoke undated; Oyekale and Oyekale 2008; Canagarajan et al. 1997; World Bank 1996; FOS 1999a; FOS 1999b; Oni and Yusuf 2007; Okojie 2001; Olaniyan 2000; and Alayande and Alayande 2004) that are national in outlook made use of the household data collected by the Nigeria's statistical body, the National Bureau of Statistics (NBS) formerly known as the Federal Office of Statistics (FOS). Others had to collect their data by themselves for the purpose of their studies. Hence, one can say that most poverty studies that are national in outlook made use of secondary data. Even the earlier consumer surveys of 1980 and 1985 were collected not for the primary aim of analyzing poverty situation but were designed to generate data for assessing income and expenditure patterns of Nigerian households, computing weights for consumer price index (CPI), and preparation of some aspects of the national accounts.

Olaniyan and Bankole (2005) and Oni and Yusuf (2007) made use of the merged data from the 1996 General Household Survey (GHS) and National Consumer Survey (NCS) modules of the National Integrated Survey of Households (NISH). NBS (2007) made use of the 1980, 1985, 1992 and 1996 NCS and the 2004 National Living Standards Survey (NLSS) to trace the evolution of poverty in Nigeria while the FOS (1999a) used the 1980, 1985, 1992 and 1996 NCS. In addition, FOS (1999b) made use of the data from three different modules of the NISH: the GHS, NCS, and National Agricultural Sample Census (NASC). All of the following used the NCS exclusively: Aigbokhan (2000) and Olaniyan (2000) used 1985, 1992, and 1996; Canagarajah et al. (1997) used 1985 and 1992; World Bank (1996) and Okojie (2001) used 1980, 1985, 1992, and 1996; and Alayande and Alayande (2004) and Anyanwu (2005) used 1996. Oyekale and Oyekale (2008) used the 2004 NLSS. Finally, Omoke (undated) used the social accounting matrix (SAM) and some time series data in addition to using the NCS of 1996.

However, Okunmadewa et al. (2005) had to generate their data themselves, meaning that their data was primary in nature. The data used by Okunmadewa et al. (2005) were obtained from the six pilot states—Abia (South East), Cross River (South South), Ekiti (South West), Kebbi (North West), Kogi (North Central), and Yobe (North East)—of the World Bank-assisted Community-based Poverty Reduction Project (CPRP) in Nigeria.[35] Following the Federal Office of Statistics (FOS) framework, and given the available budget, 10 enumeration areas were selected from three local government areas (LGAs) in each state. These LGAs were in the rural area of the states. Ten respondents were selected from each enumeration area, making a total of 100 respondents for each state. However, these respondents belonged to at least one social organization. Further, only 582 questionnaires of the total 600 for all the states were processed for the study. This gave a response rate of 97 percent. The data were collected by trained enumerators who speak local languages in each of the states between July and September 2003.

The instrument used for data collection included the following items:

- Consumption expenditure, i.e., the amount spent on food, clothing and foot wear, housing, energy, education, health care, transport and communication by the household;
- Demographic characteristics of household members;
- Participation in local level institutions;
- Perceptions of community trust and collaborations; and,
- Household economy and coping strategies.

Essentially, the data used for these poverty studies (Olaniyan and Bankole 2005; NBS 2007; Aigbokhan 2000; Omoke undated; Oyekale and Oyekale 2008; Canagarajan et al. 1997; World Bank 1996; FOS 1999a; FOS 1999b; Oni and Yusuf 2007; Okojie 2001; Olaniyan 2000; and Alayande and Alayande 2004) came from the National Integrated Survey of Households (NISH) run by the NBS. The NISH is an ongoing Program of household surveys enquiring into various aspects of households such as housing, health, education, and employment. The Program started in 1981 after a pilot study in 1980.

The General Household survey (GHS), which is the core module of the Program, collects basic data on most aspects of the households and runs every year. There are supplemental modules, each of which concentrates on a specific aspect, elaborating on it beyond what is covered in the GHS. In view of the importance of agriculture to the country and the fact that agricultural production in Nigeria is household based, a supplemental module on agriculture runs annually too; but the coverage is restricted to households based in traditional agriculture. Most other supplemental modules run at less frequent interval of 3–5 years. It has also been found necessary to run quarterly surveys on some aspects such as labor force and family planning. The basic components of these surveys have been integrated into GHS such that the quarterly results are still produced.

Another important module of the NISH is the National Consumer Survey (NCS). Although consumer expenditure surveys used to run prior to the initiation of NISH, the latter often

[35] This study was national in outlook and did not suffer from any form of bias. The CPRP was implemented in the poorest states (according to the NCS data of 1996, which was the latest assessment at the time of commencement of the project in 2001) of each of Nigeria's six geopolitical zones. It was the only collection of national information not conducted by a data collecting agency of the Nigerian government.

streamlined the surveys by developing a national sample and drawing a regular program for them. The NCS data for 1980, 1985, 1992, and 1996 were analyzed to provide poverty assessment to Nigeria under a technical assistance Program with the World Bank.

The national consumer surveys (NCS) have been part of FOS activities for a number of decades, the first was in 1953. Surveys were conducted on an ad hoc basis until 1980 when the first National Consumer Survey was conducted as part of NISH. In 1985, another enlarged survey was carried out, others followed in 1992 and 1996, respectively. The NISH Program is run with the United Nations Household Survey Capability Program. The design of the national consumer surveys follows the general NISH design.

The main objective of the data set is to provide periodic information to revise the consumer price index. The data on income is used to prepare a system of national accounts. The expenditure data and socioeconomic information are used to assess the impact of policy on general consumption patterns. The coverage of the data set is not as wide as one would wish, for detailed welfare and poverty analysis. For example, the surveys do not gather data to help analyze the production patterns of the poor, for the rural areas, the crop mix, the quality of their land, the value of their assets such as livestock, or even the degree to which they rely on wage labor compared to better off farmers. There is no information on the asset base typical of the poor and the sort of assets the poor lose first, when coping with survival crises. The lack of these indicators makes it difficult to build up a comprehensive picture of the capabilities and resources of the poor in terms of physical assets and human resource endowment.

Each NCS covers all the states in the federation, including the federal capital territory (Abuja). In each state, 120 enumeration areas (EAs) are covered annually, with 10 EAs randomly allocated to each month of the survey. From the selected EAs, a sample of households (10) is covered each month for the general household survey (GHS), with five households subsampled for the NCS. A national household sample of 10,000 is aimed at. By 1996, however, with the number of states increasing to 30, the sample size was increased.

The 1985-1986 sample was designed to be nationally representative. A two-stage stratified sample design was used. In the first stage, 1224 enumeration areas (EAs) were selected with probability proportional to the number of census households in the area. Stratification was done on rural/urban and state of residence basis. A total of 70 EAs comprising 40 urban and 30 rural were selected. From each EA, 20 households were selected. In the second stage, sampled areas were randomly allocated to each month with 4 urban and 3 rural EAs.

The 1992–1993 sample was based on the sample design of 1987 which had 22 states. In each state a total of 120 EAs, 48 urban, 12 semi-urban, and 60 rural, were studied. These 120 EAs were allocated over the 12 survey months of the year covering 10 EAs in the ratio of 5:4:1 for rural, urban, and semi-urban respectively in each state. Otherwise the sample was similar in design to the 1985-1986 survey. The sample was weighted on the basis of the probability of selecting an EA within a state and choosing a household within an EA. A diary was given to each household to record flows of income to and expenditure from the household within the reference period or reference month. Field staff usually made daily visits to each household to ensure quality of entry and also to help those households who have no one literate to fill in the diary. This information was then transferred on a daily basis to the enumerator's memo book. The enumerator's book was then deposited in the field office where it was checked for quality and consistency by the supervisor. The survey collected information on the following items on each household:

- household demographic statistics: age, gender, location and type of housing of the household;
- household expenditure: expenditure on all goods and services incurred by the household during the survey period and all monetary transactions (savings, donations and daily contribution operated by individuals who get commission from the contributors for helping keep their money (Esusu);
- imputed rent on owner-occupied and rent-free dwelling; and
- cash income: income from wages, overtime, bonuses, professional fees that is received by the household.

The 1996 NCS was the last in the series of regular NCS that started in 1980. The 1996 survey made use of the same design as the previous ones except for minor changes. The survey covered 120 EAs in each state, except Abuja, where 60 EAs were selected. The 120 EAs were randomly allocated to the 12 months of the survey, so that each month, a total of 10 EAs was studied, interviewing 5 housing units in each EA. A total sample of 18,300 households was expected.

Adjustments for Price Differentials

Adjustments were usually made for differentials over time and for regional price differentials as follows:

Differentials Over Time

If poverty situations were to be compared over time, price indices reflected temporal differences. The poverty line at the base year (1985) was kept constant while expenditure data for other years were deflated to base year prices, thus permitting analysis of poverty trends.

Regional Price Differentials

In order to use total expenditure as the basis of measurement of standard of living, it was necessary to correct for regional price differences or differentials across states. One point in the country was taken as the base, and data from other points in the country were deflated to the price level of the base point. Lagos State was taken as the base and deflation was done separately for urban and rural areas. Separate deflators were also computed for food and nonfood items where information was available (FOS 1999a). Adjustment was made for seasonal price differentials.

Weighting Procedure

An important consideration in the data cleaning process was the weighting procedure, which is described in the report by the Federal Office of Statistics (FOS 1999a). The weight used in the analysis (*wta*) was computed at the World Bank. Using this weighting factor amounted to using population figures as auxiliary variables, an accepted procedure for improving survey estimates (FOS 1999a).

The current NISH master sample of 2003-2004 was used for the NLSS. Thus, the sample design for the survey was a two-stage stratified sample design. The first stage was the cluster of housing units called enumeration areas (EAs) while the second stage was the housing unit.

The Nigeria Living Standard Survey[36] was an extensive survey and detailed in its coverage and scope of topics, which served as a good basis for in-depth analysis of living standards in the country and also lent itself to the monitoring, evaluation, and analysis of poverty in its various ramifications. The Nigeria Living Standard Survey was part of the effort of the Federal Government to provide statistical information on the eradication poverty in the country. The survey was designed to collect information needed to identify and classify target groups and provide basic welfare indicators for monitoring poverty alleviation programs. The specific objective*s* were stated below:

(i) Provide valid and reliable data for the development of effective interventions and provision of important tools for designing, implementing and monitoring of economic growth and poverty reduction.

(ii) Generate qualitative and quantitative data on poverty and welfare situations at the Federal and sub-national level (state).

(iii) Collect baseline information on the character and nature of poverty for monitoring and evaluating the impact of poverty reduction programs.

(iv) Identify priority indicators of living standards for the households and household members.

(v) Establish a qualitative and quantitative database for a poverty monitoring system that will be updated on a continuous basis through the establishment of poverty survey systems that include the core welfare indicator questionnaire and multiple indicator cluster surveys.

(vi) Provide a comprehensive analysis for identification and targeting of the poor by different localities.

(vii) Present and disseminate a National Poverty Report, giving the highlights of statistical findings and results of in-depth analysis, thereby enhancing the knowledge and understanding required to promote a sustainable campaign against poverty at both the National and State levels.

(viii) Produce poverty statistics for time series data that will facilitate the assessment of impact and effectiveness of policies and actions on poverty eradication and the formulation of improved policies and schemes for poverty eradication.

(ix) Give in-depth enquiry into the structure and distribution of incomes and expenditures of Nigeria households.

(x) Provide comprehensive benchmark data on worker's compensation and conditions of work of the country's labor force.

To achieve the above stated objectives, in-depth data were collected on the following key elements: demographic characteristics, education, skills and training, employment and time use, housing and housing conditions, social capital, agriculture, income consumption expenditure, and nonfarm enterprises.

[36] Table 4 summarizes key information about the various surveys that have been done in Nigeria.

The survey covered both the urban and rural areas of all the 36 states of federation including the Federal Capital Territory. Ten enumeration areas (EAs) were studied in each of the 36 states every month, while 5 EAs were covered in Abuja. One hundred and twenty (120) EAs were selected in 12 replicates in each state from the NISH master sample frame. However, 60 EAs were selected in the Federal Capital Territory. Five (5) housing units (HUs) were scientifically selected in each of the selected EAs. One replicate consisting of 10 EAs in the state and 5 EAs in the Federal Capital Territory were covered every month. Fifty (50) HUs were covered in each state and 25 HUs in the Federal Capital Territory per month. The survey had an anticipated national sample size of 21,900 HUs for the country for the 12-month survey period. Each state had a sample size of 600 HUs while the Federal Capital Territory has a sample size of 300 HUs. The sample size was robust enough to provide reasonable estimates at national and subnational (state) levels.

Ayoola et al. (1999)[37] relied heavily on a participatory and qualitative research methodology. A facilitated training/orientation workshop was organized in April 1999 for the research teams and invited government officials on the research methodology and tools as well as key principles of participatory research. The study guide was also discussed at the orientation with a view to grounding it in the Nigerian context. A short field trial was undertaken as part of the workshop. The fieldwork was conducted between April and May 1999. The fieldwork was undertaken by dividing the country into four zones, namely: the South West, the South East, the North West and the North East. States were selected in each zone to reflect as much as possible the geographical, ethnic and other distinctive characteristics of each zone. A site was purposively selected in each of the states while ensuring two rural and two urban sites in each zone. In all, 16 sites were chosen, in 13 states of the federation. Four research teams, each with four members operating in a zone, facilitated local analysis in each of the sites. The research teams' site reports were discussed with the participants at each site for feedback and necessary corrections before being synthesized into regional reports. There were four regional reports. The participatory approach of the research explicitly encouraged study teams to cross-cut key issues that emerged by social variables such as culture, social group, gender, age, occupation and other dimensions of difference of local importance. The methods used included focus group discussion, and the semi-structured interview.

[37] Many qualitative studies have been done at the local and state levels, but this is one of the few at the national level.

Appendix 2: Poverty Analytical Techniques

This appendix contains the analytical methods used in the studies reviewed in this paper. Most of the studies (Olaniyan and Bankole 2005; Okunmadewa et al. 2005; NBS 2007; Aigbokhan 2000; Canagarajah et al. 1997; World Bank 1996; FOS 1999a; FOS 1999b; Oni and Yusuf 2007; Okojie 2001; and Olaniyan 2000;) used the Foster-Greer-Thorbecke (FGT) weighted poverty index. The choice of the FGT index was due to, among other things, its additive decomposability into sub-groups. The FGT measure for the ith subgroup ($P_{\alpha i}$,) is given below

$$P_{\alpha i}^{i} = \frac{1}{n}\sum_{i=1}^{q}\left[\frac{(z-y)}{Z}\right]^{\alpha}$$

$$when \quad \alpha = 0, \quad P_0 = \frac{1}{n}\sum_{i=1}^{q}\left[\frac{(z-y)}{Z}\right]^{0} = \frac{q}{n} \quad \rightarrow Poverty\ incidence\ or\ head\ count$$

$$\alpha = 1, \quad P_1 = \frac{1}{n}\sum_{i=1}^{q}\left[\frac{(z-y)}{Z}\right]^{1} \quad \rightarrow Poverty\ gap\ or\ depth$$

$$\alpha = 2, \quad P_2 = \frac{1}{n}\sum_{i=1}^{q}\left[\frac{(z-y)}{Z}\right]^{2} \quad \rightarrow Poverty\ severity$$

where

n	=	number of households in a group
q	=	the number of poor households
z	=	poverty line
y	=	the per capita expenditure (PCE) of the ith household; and,
α	=	degree of poverty aversion

The FGT measure for the whole group or population was obtained using:

$$P_{\alpha} = \sum_{i=1}^{m} P_{\alpha i}\, n_i / n$$

Where P_{α} is the weighted poverty index for the whole group, m is the number of sub groups while n and n_i are the total number of households in the whole group and the ith subgroup, respectively.

The contribution (K) of each sub-group's weighted poverty measure to the whole group's weighted poverty measure is obtained by using

K = $n_i P_{\alpha i} / nP_\alpha$

The second most commonly used analytical tool is the regression model, which include the ordinary least squares (OLS), a three-step feasible generalized least squares (FGLS) procedure, and limited dependent variable regression.

Usually, studies that utilized the OLS method were those that estimated the determinants of household welfare or standard of living proxied by the per capita expenditure (PCE). Examples include Olaniyan and Bankole (2005); Okunmadewa et al. (2005), and Okojie (2001).

Olaniyan and Bankole (2005) specified the determinants of per capita expenditure as follows

Ln PCE = $a_i X_i + u_i$

Where *lnPCE* = log of per capita expenditure

X is a set of household characteristics and other determinants, and

u is a random error term.

Okunmadewa et al. (2005) observed that the customary or conventional model of household economic behavior under constrained utility maximization was used to relate the level of household expenditure (as money – metric indicator of welfare) directly to the exogenous asset endowments of the household and variables describing the social and economic environment in which the household makes decision. The model is as follows:

$\ln E_i = a + \beta SC_i + \gamma HC_i + \delta OC_i + \in X_i + \eta Z_l + u_i$

Where E_i = Household expenditure per capita of household i

SC_i = Household endowment of social capital

HC_i = Household endowment of other assets

X_i = a vector of household characteristics

Z_l = a vector of human capital

U_i = error term

Lastly, Okojie (2001) analyzed the determinants of household per capita expenditure in a bid to provide an insight into the determinants of household economic welfare. The multiple regression model estimated is summarized as follows:

Log PCE = f(X, Y, Z)

where:

Log PCE = Log of mean per capita household expenditure,

X = a vector of personal characteristics of household head,

Y = a vector of household characteristics, and

Z = a vector of community variables.

If the relationship is assumed to be approximately linear, the equation to be estimated is of the form:

$$\text{Log PCE} = b_0 + a_1X_1 + \ldots a_nX_n + b_1Y_1 + \ldots . b_mY_m + c_1Z_1 + \ldots c_jY_j + e$$

The error term e is assumed to be normally distributed with zero mean, constant variance and uncorrelated with the explanatory variables.

The use of the limited dependent variable regression in poverty studies has become prominent since a person is either poor or nonpoor in most cases. Studies reviewed used different types, ranging from Probit (Olaniyan and Bankole 2005; and Olaniyan 2000), Logit (Okojie 2001) and Tobit (Okunmadewa et al. 2005).

Olaniyan and Bankole (2005) transformed the PCE of each household (dependent variable) into a dichotomous response variable y_h with binary outcomes taking two values ($y_h \in \{0,1\}$, with y_h = 1 if per capita expenditure is greater than the poverty line, and 0 otherwise.

Based on the above, the probability of poor which corresponds to yh = 1, was derived using the probit equation below

$$\Pr(y_h = 1) = \Phi[\sum \beta_k x_k]$$

In the same vein, since the response is a binary outcome, the probability associated with alternative event of being nonpoor is represented by

$$\Pr(y_h = 0) = 1 - \Phi[\sum \beta_k x_k]$$

Where Pr is the likelihood of being poor and where

y_h = poverty status of household i (Y_i = 1 if the household is poor, and zero if the household is nonpoor

x_{ik} = k-th explanatory variable of the likelihood of poverty of household i

β_k = parameter associated with x_k

The parameters of the probit model are then estimated using the maximum likelihood estimation method. The assumption is that the response variable has a sample of N observations, which are independent. The estimation of the equations above yielded predicted probabilities given the set of values taken by the explanatory variables. However, their analysis was based on the marginal effect of each variable on the probability of the effect. This is because probit coefficients do not represent the standard marginal effects represented by linear regression coefficients. However, the marginal effects combine the predicted probability of being poor with the estimated probit coefficients.

The marginal effect was derived by taking the partial derivative of the probit specification with respect to an independent variable. This is given as

$$\frac{\partial \text{Prob}(Y=1)}{\partial x_k} = \Phi[\sum \beta_k x_k]^* \beta_k$$

Equation 4 represents the marginal changes in the probability that a household is poor due to changes in the underlying regressors. It should be noted that the changes are evaluated at the mean values of the data.

Okunmadewa et al. (2005) used the Tobit regression, a hybrid of the discrete and continuous dependent variable, to determine the impact of the explanatory variables on the probability of being poor.

The model is expressed following Tobin (1958) as:

$$q_i = P_1 = f(sc, he, oc, hh, re) + e_i \qquad \text{if } P_1 > P_1^*$$

$$= 0 \quad = f(sc, he, oc, hh, re) + e_i \qquad \text{if } P_1 \leq P_1^*$$

$$i = 1,2,3 \ldots\ldots\ldots 582$$

Where q_i is the dependent variable. It is discrete when the households are not poor and continuous when they are poor. P_1 is the poverty depth/intensity defined as $(Z - Y_i)/Z$ where Z is the poverty line, and Y_i is per capita household expenditure (PCE). The poverty line (Z) is the two-thirds of the mean per capita household expenditure ($^2/_3$ MPCE). P_1^* is the poverty depth when the poverty line (Z) equals the expenditure per capita (here $P_1^* = 0$).

Variables Definition

The social capital variables that were used in the regression analysis included: the density of membership, heterogeneity index, meeting attendance index, cash contribution, labor contribution, and decision-making index. The measurement of these six social capital indices is as explained below. This follows the approach used by Grootaert et al. (2002).

1. **Density of membership:** This was captured by the summation of the total number of associations to which each household belongs.

2. **Heterogeneity index:** This was an aggregation of the responses of each household to the questions on the diversity of members of the three most important institutions to the households. On each of the three associations, each household answered questions on whether members live in same neighborhood, are in the same kin group, same occupation, are of same economic status, are of same religion, same gender, same age group and same occupation. Hence, for each of the factors a yes response was coded 0 while no response was coded 1 A maximum score of 10 for each association represents the highest level of heterogeneity. The scores by the three associations for each household are then divided by the maximum score of 30 to obtain an index. This index was then multiplied by hundred (a zero value represents complete homogeneity while 100 represents complete heterogeneity).

3. **Meeting attendance index:** This was obtained by summing up the attendance of household members at meetings and relating this to the number of scheduled

meetings of the associations to which they belonged. This value was then multiplied by 100.

4. **Cash contribution:** This was obtained by the summation of the total cash contributed to the various associations to which the households belonged. The actual cash contribution for each household was rescaled by dividing this amount by the maximum fee amount in the data and multiplying the resultant fraction by 100.

5. **Labor contribution:** This was the number of days that household members belonging to institutions claimed to have worked for their institutions. This represented the total number of days worked by household members. This was also rescaled to 100 using the same process as for cash contribution.

6. **Decision making index:** This was calculated by summation of the subjective responses of households on their rating in the participation in the decision making of the three most important institutions to them. The responses were averaged across the three groups and multiplied by 100 for each household.

7. **Aggregate social capital index:** This was obtained by the multiplication of density of membership, heterogeneity index and decision-making index, following Grootaert (1999).

8. The **human capital variable** was measured by the average years of formal education of the head of the household. The household characteristics used were:

   y. Marital status of household head (D = 1 if married, 0 if otherwise)
   z. Household size (actual number of people in the household)
   aa. Gender of household head (D=I if male, 0 if otherwise)
   bb. Age of household head in years
   cc. Age of household head square to capture the life cycle of household welfare.
   dd. Primary occupation of household head (D=I if farming, 0 if otherwise)

Okojie's (2001) model focused directly on poverty, that is, whether the household's economic welfare fell below the poverty line (the household is poor) or above the poverty line (the household is nonpoor). The probability of being poor was specified as the value of the cumulative distribution function of Z which was specified as a function of exogenous explanatory variables. The equation was of the form:

Prob (Poor = 1) = F(Z) = F($\beta_o + \beta_1 X$)

where $F(Z) = e^z / (1 + e^z)$ was the cumulative logistic distribution, representing the probability of being poor. X represented the vector of explanatory variables, these included personal characteristics of the household head, household characteristics, and community variables.

Olaniyan (2000), in order to examine the role of household endowments in determining poverty in Nigeria, specified a binary response model (poor/nonpoor) that was estimated by Probit. The Probit specification was designed to analyze qualitative data reflecting a choice between two alternatives, which in the case are the poor, and the nonpoor. The dependent variable took the value of zero or one where one represented being poor and zero otherwise. The Probit specification then provided a model of the probability of observing the poor. The binary model was specified as follows:

Prob (s=1) = F(z- bx)

Where *F* was the cumulative probability function, *z* was the poverty line, *b* was the vector of parameters, and *x* the vector of household characteristics, which included household endowments.

Definition of Variables

The role of household endowments in determining poverty was captured in his regression in two ways. The first one was done by including the value of the assets as measures of potential earnings while the second was to examine the pattern of actual earnings realized in the household. The second approach was implemented by including the shares of income from various sources. Generally, the independent variables used in this paper were categorized broadly into six. The first two classifications represented the household endowments. The first was used for human asset endowments while the second was for physical endowments. His main focus was the household heads because in many African countries, they take decisions on the activities of the members of the household including their education and training, duties and expenditure. The quality of the head of the household is thus an important asset to any household. In order to capture how this affects the household he included age and the age squared of the household head. This served to capture the experience as well as the stage in the life cycle of the household. The experience of the head helps to determine how he can cope with situations as well as how to elevate the status of the family.

In addition, the educational level of the household head is another important asset to the household. This is because it influences the way in which the household relates to the labor market in terms of the type of jobs searched for and the type of enterprise that the household engages in. It also influences the perception on basic social variables like the health and sanitation of the family. The size of the household also determines its poverty status. Since the NCS did not have information on the specific educational attainment of the members of the household, he included the number of the members of such households. As a result the expectation can both be negative or positive. If the quality of the members is low then we expect a positive effect and negative if otherwise.

The second component of his independent variables was the physical assets. Physical assets are important because they affect the degree to which income can be smoothened over time by borrowing or by selling assets. Here two variables were used, ownership of other business and ownership of land or house. The ownership of other business was captured in Naira value and represents all income that accrues to the household apart from the income earned from basic employment. This represents the income earning potentials of the households and makes a difference in the income of different households in the same employment with the same basic wage income. In addition, this variable acts as an indication of business volume and equipment value.

The second physical asset was the ownership of land or house. Because the NCS data does not differentiate between land ownership and house ownership, he used the information on imputed rental income to compute a dummy for house ownership by the household. This has important implications for poverty as house/land ownership can serve as collateral for credit in addition to its primary function of providing shelter.

He also included variables reflecting the income composition of households. This serves mainly as reflection of asset combination of the household. It is expected that a household with good human and physical assets would be able to generate substantial income from other sources apart from basic wage income. This has implication for escaping poverty as it proxies households' abilities to respond to economic changes and as alternative view of household asset. This is made on the belief that household of equal endowments may have different income composition which reflects the differential ability to take advantage of one's potentials. As a result this variable also measures the innate skills and entrepreneurship ability of household heads that can diversify their income base so as to reduce vulnerability to shocks (Ellis 1998).

Nigeria is a large country and as such one can expect variation in poverty status across the various regions of the country. Hence, he included four regions as categorical variables-- North West, North East, South West, and South East (It should be noted that the last category of independent variables serves as control variables in the regressions). The last set of variables was the socioeconomic variable. These included four variables which were being a farmer, being in formal employment, informal employment, and others.

The studies of Alayande and Alayande (2004), Oni and Yusuf (2007) and Oyekale and Oyekale (2008) utilized the specification by Chaudhuri (2000) as used by Chaudhuri et al. (2002) to estimate vulnerability to poverty in Nigeria (due to the unavailability of panel data set) with minor modifications, especially the types of variables included in the regressions. The general procedure for generating the vulnerability index followed the processes below:

Assume that the stochastic process generating the consumption of a household is given by

$$LnC_h = X_h\beta + e_h \qquad \text{(i)}$$

where C_h is the per capita consumption expenditure (PCE), X_h represents a bundle of observable household characteristics such as household size, location, educational attainment of the household head etc.., β is a vector of parameters and e_h is a mean - zero disturbance term that captures idiosyncratic factors (shocks) that contribute to different per capita consumption levels for households that are otherwise observationally equivalent.

Also assume that the variance of e_h is given by:

$$\sigma^2_{eh} = X_h\theta \qquad \text{(ii)}$$

The estimates β and θ were estimated using a 3 –step feasible generalized least squares (FGLS) procedure suggested by Amemiya (1977).

First, we estimate equation **i** using an ordinary least squares (OLS) procedure. We use the estimated residuals from equation i to estimate:

$$\hat{e}^2_{OLSh} = X_h\theta = \eta_h \qquad \text{(iii)}$$

using OLS The predictions from this equation are used to transform the equation as follows:

$$\frac{\hat{e}^2_{OlSh}}{X_h\hat{\theta}_{OLS}} = \left(\frac{X_h}{X_h\hat{\theta}_{OLS}}\right)\theta + \frac{\eta_h}{X_h\hat{\theta}_{OLS}} \qquad \text{(iv)}$$

This transformed equation is then estimated using the OLS to obtain an asymptotically efficient FGLS estimate, $\hat{\theta}_{FGLS}$. Note that $X_h\hat{\theta}_{FGLS}$ is a consistent estimate of σ^2_{eh}, the variance of the idiosyncratic component of household consumption.

The estimates:

$$\hat{\sigma}_{eh} = \sqrt{X_h\hat{\theta}}_{FGLS} \qquad \text{(v)}$$

are then used to transform equation (iv) as follows:

$$\frac{LnC_h}{\hat{\sigma}_{eh}} = \left(\frac{X_h}{\hat{\sigma}_{eh}}\right)\beta + \frac{eh}{\hat{\sigma}_{eh}} \qquad \text{(vi)}$$

OLS estimation of equation iv yields a consistent and asymptotically efficient estimate of β. The standard error of the estimated coefficient, $\hat{\beta}_{FGLS}$, can be obtained by dividing the reported standard error by the standard error of the regression.

Using the estimates $\hat{\beta}$ and $\hat{\theta}$ that we obtain, we are able to directly estimate expected log of consumption:

$$\hat{E}(LnC_h/X_h) = X_h\hat{\beta} \qquad \text{(vii)}$$

and the variance of log consumption:

$$\hat{V}(LnC_h/X_h) = \hat{\sigma}^2_{eh} = X_h\hat{\theta} \qquad \text{(viii)}$$

for each household h. By assuming that consumption is log normally distributed (that is, LnC_h is normally distributed), we are then able to use these estimates to form an estimate of the probability that a household with the characteristics, X_h, will be poor, that is of the household's vulnerability level.

Letting $\phi(.)$ denote the cumulative density of the standard normal, this estimated probability would be given by:

$$\hat{V}_h = P(LnC_h < LnZ/X_h) = \varphi\left(\frac{LnZ - X_h\hat{\beta}}{\sqrt{X_h\hat{\theta}}}\right) \qquad \text{(ix)}$$

According to Chaudhuri et al. (2002), the method outlined is the standard one used in most poverty assessments that rely on regression methods, but with one important difference. In poverty assessments, the disturbance term is implicitly thought of as stemming from measurement error or some unobserved factor that is incidental to the main focus of the analysis. In most cases, therefore, rather than specify a separate equation such as (ix), so that the variance of e_h is allowed to also depend upon the particular characteristics of the household, it is assumed that this variance is the same for all households. Thus an estimate of β and a single common estimate of σ, the standard deviation of e_h (and hence LnC_h), is obtained from the ordinary least squares estimation of i. With the same additional assumption that we make, which is that LnC_h is normally distributed, these estimates are used to derive the probability that a household with characteristics X_h will be poor.

Omoke (undated) and Obi (2007) used the computable general equilibrium to show the impact of a change in policy on the poverty situation of the households. In addition, Canagarajah et al. (1997) and Aigbokhan (2000) used the stochastic dominance analysis to see the sensitivity of the poverty indices to changes in the poverty line.

According to Ayoola et al. (1999), participatory tools were used in focus group and individual contexts and included transect walks, listing, ranking and scoring, trend and seasonality analysis, cause-impact analysis, individual case studies and Venn diagrams. The tools were used flexibly and sequentially according to context and issue. The study distinguished broadly between men, women and male and female youth in its exploration of issues. Individual case studies (in-depth discussions/interviews) were conducted with one poor man, one poor woman, one poor male youth, one poor female youth, one man who used to be poor and had moved out of poverty, and one woman who used to be poor but had also moved out of poverty.