"AGRICULTURAL CREDIT: A POLICY CATALYST NEEDED FOR PORVERTY REDUCTION AND RURAL AGRICULTURAL TRANSFORMATION IN NIGERIA

29th Inaugural Lecture

of the Federal University of Technology, Owerri (FUTO), Imo State.

Delivered On
Thursday, 22nd September, 2016

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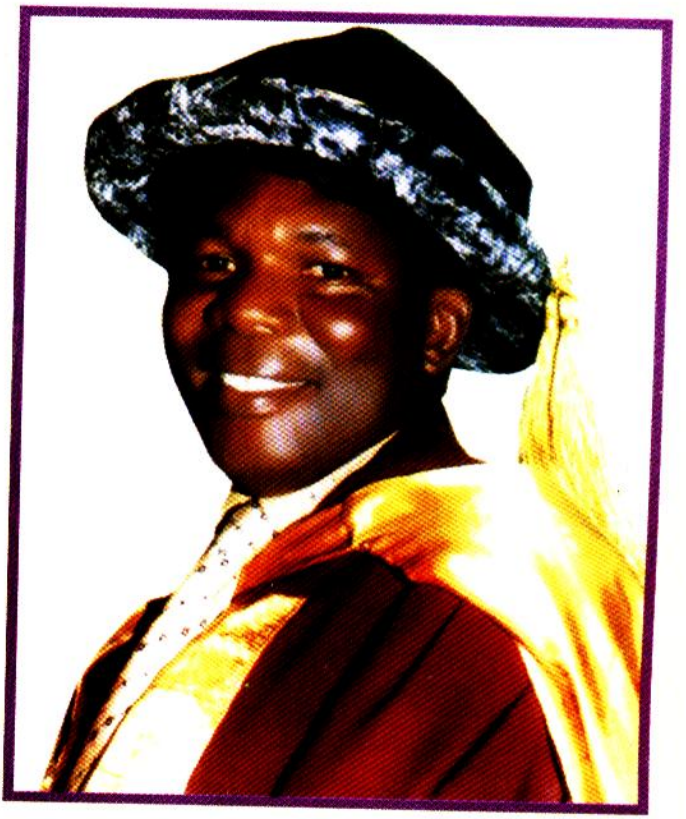
29th INAUGURAL LECTURER



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PROTOCOL

Preamble:

I wish to commence this Inaugural Lecture by inviting the **Holy Spirit** to take absolute pre – eminence and clothe me with HIS garment of wisdom while granting all my audience the necessary understanding they require to follow me in this lecture in the Mighty name of our Lord Jesus Christ (Amen).

Inaugural Lecture in my own understanding is an academic ritual and a very important occasion in the ivory tower in which a Lecturer occupying a **Professorial Chair** in his area of specialization sums up his research findings over the years and presents these to an intellectual/ interested audience and the larger society as constituted here today. This is what this Lecture intends to achieve within the limited time frame allowed.

Occupying a Professorial Chair by me in the Department of Agricultural Economics, School of Agriculture and Agricultural Technology, FUTO did not come by accident but by **God's divine will.** As God spoke to Jeremiah thus;

> ***"Before I formed thee in the belly I knew thee, and before thou camest forth out of the womb, I sanctified thee and ordained you a prophet (a PROFESSOR) unto the nations(unto your generation)" Jeremiah 1:5" (KJV)***

Therefore my Journey to this exalted Chair started when I was a young boy growing up unknowingly and following my late father to his farm to till the soil with the traditional equipment such as hoes and cutlasses. My father cultivated yam, guinea corn, maize, pepper, melon and beans. However, he was known mainly as a big time yam farmer. My father's major sources of labour then, were from family and the cooperative Farming Association formed by the community youths which assisted in working on the farms of selected reputable

farmers in the community in rotation and retire to an outdoor reception of food and palm wine (tombo) drinks latter in the day.

The need for my father to increase the scale of his farm operations began to dawn on the family as we, his children began formal schooling and his responsibilities started to increase without any financial assistance from anywhere. As his first child and son, I thought that the only way for this to happen was for me to work in a financial institution preferably in the banking sector after graduation where I could have easy access to funds that could be made available to him for the expansion of his farm operations. (So I thought).

This thought almost vanished from my mind when he died during my 2nd Year in the Secondary School even before I gained admission into the University. On gaining admission to the **University of Ibadan** in **1977**, I opted to read **Agricultural Economics** with the hope of working in a bank. On Graduation in **1981** and after my National Service a year after, I attended series of job interviews including those from the banks but did not succeed until **1983,** when God ordered my footsteps to this Great University to take up the position of **Graduate Assistantship** in the **Department of Agricultural Economics** as its first foundation staff. Initially, I was hesitant in taking up the appointment as I did not know what the future held in store for me. However, I discussed with a brother of mine on the appointment from FUTO and he encouraged me to take up the offer.

Vice-Chancellor Sir, This marked the pathway and a brief testimony of my ascension to the Professorial Chair in this University as ordained by God, a place that has remained my "**EBENEZERI**" meaning **"hitherto has the LORD helped me"** thus, making it possible for me to stand before this wonderful congregation to present this Inaugural lecture today.

I humbly wish to inform you and my esteemed audience that I Profess Agricultural Economics with specialization in **Agricultural Finance and Rural Development** in the Department of Agricultural Economics, School of Agriculture, Federal University of Technology Owerri, Nigeria.

NOW TO THE LECTURE: "AGRICULTURAL CREDIT"

1.0 INTRODUCTION

1.1 Conceptual Definitions

1.1.1 Agriculture

This involves the cultivation of crops and raising of animals (Livestock) through an efficient and effective management of available scarce resources to achieve profit maximization and output, provision of raw materials for the industry, employment generation and food for the survival of mankind.

1.1.2 Credit

Credit is derived from the Latin word "**Credo**" meaning, "**To believe or to trust**". When a lender gives out money in credit form, it is with the belief or with the trust that, it shall be repaid at a future date. Credit can be defined as the sum of money or goods and services granted to an individual to whom ownership and control is transferred with the aim of paying back with or without interest at a future date (**Orebiyi** 2004). The provision of credit involves two parties; a **lender** and a **borrower**. Collateral such; as a plot of land, equipment, mortgage house are usually required which the rural farmers do not have. This is therefore one of the main reasons for creating institutional credit schemes (Ellis 1992).

1.1.3 Policy

There is no simple definition of the term '**Policy**' that is generally used by writers. Policy in general term therefore implies state intervention in the economy while 'polices' are the specific types of intervention such as producer price policy, agricultural input subsidy policy, etc.

Ellis (1992) defines policy as the course of action chosen by the government towards an aspect of the economy, including the goals the government seeks to achieve and the

choice of methods to pursue those goals.

1.1.4 Catalyst

This is something that causes a change or an event to happen. The chemists define "catalyst" as a substance that increases the rate of a chemical reaction but which does not change the chemical composition of the catalyst.

In this context therefore, "Credit" is the catalyst that is required to change or increase the rural agricultural transformation from its present state of drudgery, backwardness and low productivity to modernization leading to high productivity, poverty reduction, gainful employment and an overall increase in the standard of living of all the farming practitioners especially in the rural areas of Nigeria.

1.1.5 Poverty

Poverty refers to lack of access to the basic needs of **food, clothing and shelter**. It also connotes inadequacy and inaccessibility to basic amenities such as good roads, electricity, education, clean water, good health care facilities etc. this is often associated with low income resulting in low standard of living.

Poverty reduction on the other hand entails the improvement of the circumstances of the poor by enhancing their economic activities, income generation and their overall standard of living (Institute for Research on Poverty, 2013).

.Poverty can be measured using what we call *Headcount index*. This is called the incidence of poverty. This is one of the simplest ways of measuring poverty. This expresses the number of the poor as a proportion of the population i.e. the share of the population whose consumption is below poverty line.

Poverty Headcount Index (H) =

Poverty Headcount Index (H) = $\frac{q}{n}$ (eqn ..... 1)

Where n = Population size

q = Number of poor people living below the poverty line

Depth of Poverty (Poverty Gap):

This measure how far off, households are from the poverty line

Poverty Gap (PG) = $\frac{1}{n}\sum_{i=1}^{q}\left[\frac{z - yi}{z}\right]$ (eqn ..... 2)

Where n = Population size

q = Number of poor people living below poverty line

y = Consumption or income

z = Poverty line

(World Bank 2002)

1.1.6 Rural Area

Generally, rural area connotes the geo – physical location of a neglected lot, where living conditions are unimaginable; sordid roads, ghettos, moribund health facilities, wretchedness, poor education and an area synonymous with inadequacy (Nnadi and Amaechi, 2004). To the common man, the term "rural" also calls to mind an undeveloped area with low level of economic activities with agriculture as their major occupation.

1.1.7 Rural Poverty Reduction

It is a well known fact that Nigeria is poor and ranked among the poorest nations in the world despite its abundant human and natural resources. According to Odoko (2008), poverty in Nigeria was estimated to be 54% of the total population.

Poverty reduction according to Hulme and Mosley (1996) involves moving households from a stable below poverty line situation to a stable above poverty line situation. Poverty reduction requires increase in the rate of economic growth and improvement in income distribution. Even though most African countries and their governments have had poverty reduction on top of their policy agenda but in practice, implementation has fallen far short of the ideal or expectation. This assertion is quite true for Nigeria as noted by the National Planning Commission (2004) which submitted that,

> ***"Poverty reduction is the most difficult challenge facing Nigeria and its people and the greatest obstacle to the pursuit of sustainable socio – economic growth. The poverty rate in Nigeria increased from 27% in 1980 to 66% in 1996 and by 1999 it was estimated that more than 70% of Nigerians lived in Poverty".***

Today, the situation is worse under the depreciating value of the Naira, Insecurity, Unemployment, low income, backlog of unpaid salaries and dwindling revenues into the federation account coupled with an unprecedented corruption in all the facets of our socio - economic life.

1.1.8 Transformation

Transformation is a process, meaning, to change completely (from the old order to the new order) from the primitive farming methods to the modern farming methods.

1.2 An Overview of the Nigerian rural Agriculture:

An overwhelming proportion of the rural sector operators in Nigeria do not have access to institutional credit (Nweze and Okoye, 1994). It is a well known fact that about two thirds of Nigeria's 170million citizens still live in an estimated 97,000 rural communities and their lives are characterized by poverty, misery, morbidity and under development. Infrastructural facilities generally play prominent role in the development of the rural sector. Rural areas in Nigeria have been neglected in the provision of electricity while the urban cities have been in a long or prolonged darkness. The level of water provision by Government could be described as negligible as not more than **18%** have access to portable water. Transportation facilities in terms of motorable roads are grossly inadequate for rural sector activities. Most rural roads become impassable at the on – set of rains. Vehicles are grossly inadequate for rural sector activities.

The major occupation of the rural communities in Nigeria is agriculture which includes crop farming, fishing, lumbering and livestock husbandry and employs over **80%** of the total labour force inspite of apparent neglect. The cropping pattern is a blend of arable and perennial crops with or

without livestock. The system of farm organization is still predominantly traditional. Farm tools consist mainly of hoes, cutlasses and modern inputs are yet to make any appreciable in roads into farming in the rural communities of the country. Subsistence production both at the farm and non – farm sectors does not favor capital formation in the Nigerian rural economy. This is because internal financing of the rural sector created by production processes which are characterized by small scale production, low investment and low level of production results in net returns which are generally very low. Consequently, with consumption need that is high relative to the level of income, these rural sector operators cannot save and invest in new capital in their various businesses (Ijere, 1988). To meet the need for production capital, the developing rural sector must look in the first instance to external sources of capital in order to modernize and possibly expand. However, credit facilities in the rural areas constitute one of the major factors responsible for the declining productivity especially in the agricultural sector of the Nigerian rural economy.

1.3 Policy Analysis Framework

The cardinal objective of any agricultural credit policy worldwide, Nigeria inclusive, is to make adequate investible funds available to the agricultural sector at the right time, place and at such rate as will make returns for agriculture more attractive than before.

This can be simply illustrated in the policy Analysis Framework formulated by Tinbergen (1982) called the "theory of economic policy"

According to this approach, the goal of Government is to maximize social welfare and it chooses "target variables" which it set out to achieve (e.g. income per capita, grain per

district or quantum of credit per farmer either in cash or kind) in the pursuit of this overall goal. The task of policy is then to select the best "instruments" to achieve the selected targets, given;

(i) Constraints (e.g. of state resources or administrative capacity)

(ii) The existence of certain factors over which the policy maker may not have control (e.g. the climate) and

(iii) Side effects which, if they are detrimental, must obviously be minimized.

These components of the Tinbergen framework are illustrated in fig 1 below. This framework is also referred to in the policy Literature as the

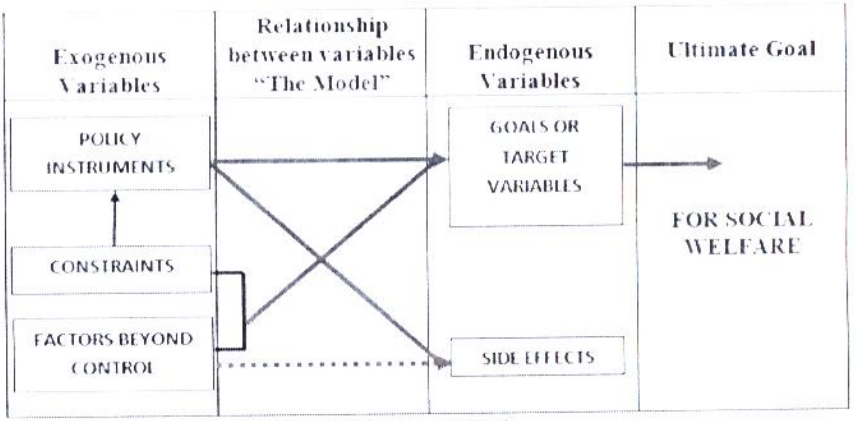


Fig 1: Tinbergen Framework of policy Analysis.

Source: Thorbecke and Hall (1982)

- **Objectives**

  The Objectives of agricultural policy intervention can be diverse and numerous. They may be local, state or nationwide in scope.

  It is assumed that most social objectives fall into two main categories: goals of economic growth and goals of improved income distribution. These two goals are generally referred to as efficiency and equity goals respectively.

- **Constraints**

  The constraints involved in pursuing a particular objective or set of objectives vary according to the scope and nature of the policy problem under consideration. However with respect to applied welfare economics, the existing availability of resources and the current technology of production are regarded as the most basic constraints on what is feasible for an economy

- **Instruments**

  Policy instruments, as the methods of state intervention are devised with both objectives and constraints in view. Authors over the years have developed some systems of agricultural classification according to goals, types of policy instruments as well as other criteria (Mcalla and Josling, 1985; Colman and Young, 1989).

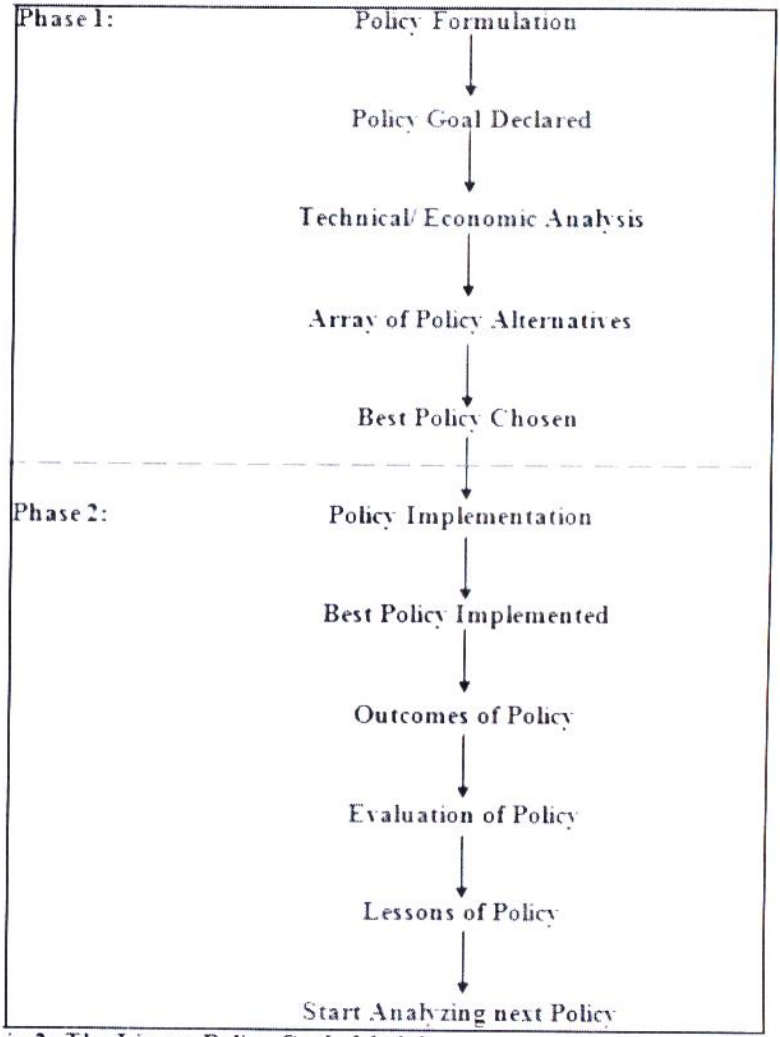
1.4 Policy as a linear Process:

The **Tinbergen framework** gives rise to a conventional approach to the process of policy decision – making. This can be described as the linear policy model or linear policy circle as illustrated in Fig 2. According to this, policy formulation and implementation is a linear process in two phases. The first phase is concerned with policy formulation and the second phase with policy implementation.

The costs and benefits of the alternative policies are calculated and the array of alternative policies is placed before the policy maker for decision.

The policy maker chooses the 'best' alternative policy taking into account the net social benefits, 'its administrative feasibility and any constraints or side effects that may be relevant to its implementation.

In the second phase, the best policy is implemented. The policy eventually results in outcomes that can be measured. An evaluation exercise is carried out which reveals the **STRENGTHS** and **WEAKNESSES** of the policy and suitable adjustments are made to its future operation. Work begins on the next set of policies requiring formulation and the policy cycle starts again.



ig 2: The Linear Policy Cycle Model.

Source: Clay and Schafer (1984)

The first phase begins with a statement by a policy maker concerning a goal that the government wishes to achieve. The next step is the Technical and economic analysis that generates a number of alternative that this target can be reached.

1.5 The need for Credit for Poverty Reduction and Rural Agricultural Transformation:

One of the impediments to rural development in Nigeria relates to inadequacy of credit. The lack of credit facilities is one of the factors that make it difficult for rural dwellers to innovate. Ijere (1986) stated that, for the expected **transformation** to take place in the rural sector, the technology and the techniques of agricultural cultivation, the quality of seeds planted, storage and marketing facilities must be improved and this cannot take place without the deployment of financial resources to these farmers in form of **rural credit**.

Further argument while rural farmers need credit include;

i. Most small scale farmers do not have enough resources on their own to purchase plant and animal inputs and other equipment for the expansion of their scale of operation.

ii. Agribusiness especially in the rural areas if properly funded will increase food production and raw materials.

iii. Increased availability of food will translate into cheap food prices and less proportion of family income going to food purchases with subsequent improvement in investment capabilities in non – agricultural sector.

iv. Funding agribusiness will help in converting agricultural raw materials to finish or semi – finished products for consumers and the production of inputs that are used in the agricultural related sectors.

v. Extending farm credit to the rural farmers, agricultural products will be better processed leading to increase in value

addition. Nigeria has spent heavy amount of her hard – earned foreign exchange on importing food and food products that could have been produced locally.

vi. Credit also stimulate industrial development through expansion of market for industrial goods as Nigeria agriculture is highly dependent on modern inputs such as fertilizer, herbicides, pesticides, machinery and equipment.

vii. Credit also encourages shift from subsistence to commercial production with attendant increase in output due to specialization leading to increase in the level of income and subsequent increase in the standard of living of the farmers at relatively low cost.

viii. Credit also assists in the creation of Job opportunities, enables individual to use his talents for his own benefit and the society to the fullest.

ix. Credit also assists in the aversion of the vicious cycle of poverty, etc.

Mathematically, the simple inventory model used for estimating the short term production credit needs of a farmer according to Kashem (1987) can be expressed as:

$$C = \frac{\alpha - \beta}{\alpha} \times 100 \qquad \text{(eqn 3)}$$

Where: C = Short term production credit needs score for each farmer

α = Total production cost for each farmer

β = Amount of credit available at hand for each farmer either through personal saving or friend

This model provides adequate means of measuring the credit needs of all the farmer categories in terms of loan size and it is also a means of knowing if there were credit needs at all.

1.6 Lessons of credit policies and Administration from other Developing Economies:

Yaron (1994) documented four successful rural finance institutions (RFIS) operating in three (3) developing countries with effective delivery mechanisms. These are Badan Kredit Kecamatan (BKK) and the Bank Rakyat Indonesia Unit Desa (BRI - UD) in Indonesia; the Bank for Agriculture and Agricultural Cooperative (BAAC) in Thailand and the Grameen Bank (GB) in Bangladesh

All these banks were found to be efficient in processing loans though they applied different procedures tailored to their different clients but generally, loan applications were processed rapidly, two examples will suffice.

(i) Grameen Bank (Bangladesh)

Grameen was started as an experimental project in 1976 by Professor Muhammed Yunus, a Professor of Economics at the University of Chittagong in the village of Jobra. Refuting all the bankers' myths about the impossibility of giving credit to the poor, Yunus started the Grameen bank with the sole purpose of giving the landless poor a chance to buy income earning assets to enable them break out of the vicious cycle of "low income, low savings, low investment and low productivity". The project was financed by a commercial bank but was personally guaranteed by Prof. Yunus.

In 1983, Grameen Bank was established as a specialized financial institution on a national scale. By the end of that

year over 82 branches had been set up. The Grameen Bank is not subjected to the Banking Company's ordinance nor is it subject to interest rates ceilings. As at 1994, the Grameen Bank was 92% owned by its members while the remaining 8% was owned by Government.The bank's objective has always been to improve the conditions of the rural poor by providing them with access to credit facilities and some non – financial social programmes.

As a result of the low incomes and lack of access to collateral, lending is done exclusively through joint liability groups tied to compulsory savings. Grameen Bank has achieved phenomenal success with this approach, which has generated replication in many countries including Nigeria.

(ii) Integrated Farm Financing (Philippines)

A crucial requirement for participation in Integrated Rural Farm Financing (IRFF) is that borrowers should train, plan, borrow and repay as a group. On the borrower side, a one shot approval of the farmers whole year financing needs for a variety of farm projects mean a substantial reduction in loan transaction costs and an assurance of credit availability for all his productive undertakings. On the lender's part, lower lending costs also result. A successful case is the Integrated Rural Farm Financing (IRFF) scheme in the Philippines which boasts of an average annual repayment of 99% (Von Pischke, 1991).

Others include; Dominican Development Foundation in Dominican Republic; Mobile credit officers of Agricultural Development Bank in Pakistan; Agricultural Development Bank of Nepal and Kenya's cooperative saving scheme in Kenya among others.

2.0 SUBMISSION OF MY HUMBLE CONTRIBUTIONS TO KNOWLEDGE AS A SOLE RESEARCHER OR IN CONJUNCTION WITH OTHERS IN THE FIELD OF AGRICULTURAL ECONOMICS (Agricultural Finance and Rural Development)

Mr. Vice – Chancellor Sir, as a Research Scientist for more than three (3) decades and a Professor of Agricultural Economics in this University, my research efforts cut across all the major fields of Agricultural Economics which include; Agricultural Finance; Production Economics; Agricultural Marketing; Risks, Uncertainties and Agricultural Insurance; Agricultural Policy and Resource Economics. Other areas include; Agricultural Project, Planning and Appraisal; Agribusiness Management; Technology Innovation and Adoption; Climate Change and Food Security etc. However, greater attention in terms of Resources, time and energy were devoted in researching into how the small scale rural farmers financing problems could be solved or ameliorated. Beneficial Policies to the rural Agricultural transformation, rural poverty reduction as well as the overall improvement in the social and economic well being of these farmers had been recommended .For lack of time and space, I hereby summarize my humble contributions to knowledge either as a sole Researcher or in conjunction with my other Professional colleagues in the field of Agricultural Economics.

2.1 Agricultural Financing Research:

One major reason often adduced for low productivity of the small scale business enterprises (especially in Nigeria) is the limited credit facilities for the development and expansion of the scope of their business operations. Based on this premise, the Federal Government introduced structural Adjustment programme (SAP) in 1986 and as a direct blessing from this programme, the People's Bank was established on 1st October 1989 at Ajegunle a

rural suburb of Lagos State. Gradually, the branches were extended to all the states of the Federation including Imo State. Its Central objective include, solving the credit needs of the less privileged class in the society who hitherto had no access to the conventional commercial bank credits. The majority of the target group live in the rural areas of the country where they are engaged in one type of small business or the other.

Orebiyi and Onu (1991) evaluated the performance of the role of the people's bank of Nigeria in financing small scale business enterprises in Imo State. It also evaluated its loan recovery performance from her loan beneficiaries.

Table 1: Loan Disbursement to Beneficiaries in the various centers

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Centers	No of Registered members per group centre	No of Recipients	Amount Disbursed (₦)	Average Amount Per beneficiary (₦)
Amakohia	52	24	23,700	988
Avu	61	19	17,800	937
Douglas	563	49	48,900	998
Egbu	116	33	27,400	830
Ihiagwa	176	67	69,900	1,043
Orji	103	19	17,700	932
Orogwe	62	19	17,800	937
Total		230	223,200	970

Source: Orebiyi and Onu, 1991

From Table 1, result showed that the average amount of loan in all the centers was less than ₦1000 per beneficiary except at Ihiagwa. The overall average was ₦970 as against the Government directive of ₦5000 benchmark set per beneficiary. Furthermore, a total sum of ₦500,000 was expected from the National headquarters from Lagos for disbursement to the operators in Imo State but only ₦223,

000 was released and disbursed. The implication of this low level of financing and the low number of beneficiaries covered in each center was that, not much impact was achieved in raising the productivity level of these small scale business operators. It was also found from the study that, the small loan size granted encouraged loan diversion to consumption ventures leading to a very high default rate of 81.73%.

In the same vein, **Orebiyi** and Ojiaku (1992) evaluated the performance of the Nigerian Agric. & Cooperative Bank (NACB) in rural financing specifically under the SAP period (1985 - 1989) through the Direct Small Holder loan scheme (DSHLS) in Imo State. Data used were obtained through a sample survey of 95 rural farmer beneficiaries as well as from NACB bank officials selected from four Agricultural Zones, namely Okigwe, Isuikwuato, Isiala Mbano and Ehime Mbano.

Table 2: Loan Disbursement by NACB under the DSHLS to the rural Beneficiaries in Okigwe/Isuikwuato Block.

Year	Amount Demanded (₦)	Amount Disbursed (₦)
1985	2,410,171.40	168,712
1986	979,071.43	68,535
1987	341,428.57	23,900
1988	749,285.71	52,450
1989	1,235,857.10	86,510
Total	5,715,814.21	400,107 (14.28%)

Source: **Orebiyi** and Ojiaku 1992

Table 3: Loan Disbursement by NACB under the DSHLS to the rural Beneficiaries in Ehime/Isiala Mbano Block

Year	Amount Demanded (N)	Amount Disbursed (N)
1985	1,321,600	123,600
1986	2,183,000	339,040
1987	305,000	112,600
1988	10,889,620	708,769
1989	539,000	56,511.50
Total	15,238,220	1,340,520.5 (11.34

Source: Orebiyi and Ojiaku 1992

The level of rural farm financing through the DSHLS of the NACB are presented in Tables 2 & 3 from the two different blocks. The level of financing in Isuikwuato/Okigwe was 14.28% while that of Ehime/Isiala Mbano was 11.34%. The study showed that SAP accounted for the low level of agricultural financing than any other factor in the Okigwe Agricultural zone during these periods (1985 - 1989). SAP was also found to raise the cost of production associated with agricultural products with its attendant unaffordable high food prices throughout the length and breadth of the economy. On this account, SAP was adjudged to have failed.

The need for the development of the rural sector of the Nigerian Communities in recent past has been one of the motivational factors that have encouraged governments to establish a lot of credit programmes for the people. However, these rural communities have remained under – developed because most of these programmes have been characterized by **inadequate loanable funds and poor loan repayment performance** in the mix of excess demand. Some of the credit programmes or institutions have been scrapped while others are highly subsidized to make them effective. One of such credit schemes established by Government was the Supervised Agricultural Credit Scheme (SACS).

Orebiyi, (2001) studied the operations and functioning of this

scheme as a tool for rural development in Anambra State. The major objectives include; determining the level of agricultural financing through this scheme; examining the repayment performance as well as isolating factors influencing loan repayment among the individual farmer loan- beneficiaries. From a sample of 150 farmers drawn from Awka, Aguata and Njikoka Local Government areas, the level of agricultural financing, repayment performance and their determinants were examined.

Table 4: Distribution of Respondents according to the amount of Loan Disbursed and Repaid from SACS from each LGAs in Anambra State.

LGAs	No of Beneficiaries	Amount Obtained (₦)	Amount Repaid (₦)	% Repayment	% Outstanding
Njikoka	57	1,360,000	686,256	50.46	49.54
Awka	66	2,490,000	560,250	22.50	77.50
Aguata	27	837,000	270,685.8	32.34	67.66
	150	4,687,000	1,517,191.8	32.37	67.63

Source: Orebiyi, 2001

Results showed that the repayment performance of the loan beneficiaries in Anambra State under SACS was poor. Only 32.37% of the total amount obtained was repaid while 77.5% of the loan beneficiaries from Awka LGA defaulted. This could really have negative impact on the development of the rural sector micro – enterprises and agricultural output as well. This result agreed with Afolami (1982) who rightly observed that farmers meager capital is being competed for by both production and consumption necessities which cannot be delayed. There is therefore a tendency to allocate the meager income in favour of consumption items, leaving little to purchase production resources, hence the resultant low investment result in low returns thus, loan beneficiaries inability to repay their loans.

Table 5 shows the result of the multiple regression of the factors

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Table 5 shows the result of the multiple regression of the factors

influencing the repayment performance of loan beneficiaries under SACS in Anambra State. Results indicate that, Occupation, Farmer's age, loan supervision, literacy level and the amount of loan borrowed were found to be the essential loan repayment determinants under this scheme in the state and therefore should be emphasized in granting loan request to prospective borrowers.

Table 5 Results of the Multiple Regressions of the Determinants of the Repayment Performance under SACS in Anambra State

Variables		Coefficients	T – ratios
Amount of Loan borrowed	(X_1)	0.609	(4.622)***
Literacy level	(X_2)	34.13	(2.608)**
Farming Experience	(X_3)	0.416	0.58
Farm Size	(X_4)	100.205	0.556
Household Size	(X_5)	-14.704	1.023
Loan Supervision	(X_6)	135.50	4.619***
Farmers Age	(X_7)	19.99	3.645***
Occupation	(X_8)	401.2	2.492**
Cooperative Membership	(X_9)	124.7	0.970
Constant term		40.97	
	R^2	78.85	
	F	14.857	
	N	150	

*** Sig at 1%, ** Sig at 5%

Source: **Orebiyi,** 2001

Financing of Swine production in Owerri Agricultural Zone, Imo State, Nigeria was studied by **Orebiyi,** Ben – Chendo and Odurukwe (2002) because of the importance of the Livestock industry as a major source of animal protein which is required for a balanced nutrition. An average of 20gm animal protein requirement per day has been recommended by the food and Agricultural Organization. (Adesehinwa, *et al.* 1999) for the developing countries. This target has however not been realized in Nigeria and other developing countries particularly when viewed on the basis of the present high cost of meat and relative decline in its population

coupled with the ever increasing population. Results obtained indicate that both the formal and informal credit institutions in the state play prominent roles in the financing of Swine production in the state but the level of financing was found to be lower than the farmers requirement. This was attributed to the high cost of capital acquisition i.e. high rate of interest, lack of collateral on the part of the farmers as well as ignorance in loan request and processing. The study concluded that, the level of financing especially by the formal credit institutions and other agencies should be stepped up, cost of capital acquisition should be reduced while prospective borrowers should be properly enlightened with regard to loan processing and acquisition.

It has been observed that rural farmers who form the majority of the producers in Nigeria prefer to hold their savings in their own farms. As a result, they rely on external credit at various points in time because the realization of income and the act of expenditure do not occur at the same time. Increased agricultural production is a function of availability of capital in the form of credit. In Nigeria where a large number of rural people produce at subsistence level, there is the need to inject capital in the form of credit which if combined with good, efficient management and other factors of production, the rural sector can be developed to achieve self sufficiency in food and agricultural raw materials.

Orebiyi and Njoku (2002) based on this premise, estimated the volume of loan procured and its determinants from the formal rural credit markets in Imo State, Nigeria. The data for the study were collected between 1998 and 1999 with the use of two sets of structured questionnaires, one each for the rural household loan beneficiaries and the other for the credit institutions. The questionnaires were administered to the respondents in 45 rural villages covering 9 Local Government areas of the state.

Table 6 shows that the highest volume of loan obtained by the beneficiaries came from the Union Bank of Nigeria PLC representing 44.16% of the total volume of loan granted with an

average of ₦66, 911.11 per beneficiary. This result was not unexpected as the bank has been known to be the friendliest bank to the farmers with respect to its lending policies. It has also won the prestigious Agricultural loan awards more than any other bank in the country.

Table 6: Percentage Distribution of the volume of loan, number of beneficiaries and average loan per beneficiary by sources of loan from the formal rural credit markets in Imo State

Credit Markets	Loan Vol (N)	No of Beneficiaries	Av Loan per beneficiary (N)	Percentage of total loan vol
Comm Bank	948,800	29	32,751 72	14 59
Peoples Bank	835,000	24	34,791 67	20 40
NACB	501,000	16	31,312 50	12 25
Union Bank	1,806,800	27	66,911 11	44 16
Total	4,091,400	96	42,618 11	100 00

Source: **Orebiyi** and Njoku, 2002

Table 7: Results of the Multiple Regression of the Determinants of the Amount of Credit procured from the formal Rural Credit Markets in Imo State

		LINEAR FUNCTIONAL FORM	
Explanatory Variables		Coeff	t – ratios
Annual Income	(X_1)	0 0214	3 039*
Value of Interest Payment	(X_2)	3 1667	8 818*
Age	(X_3)	652 473	4 534*
Level of Education	(X_4)	941 581	0 414
Household Size	(X_5)	-1780 74	-0 505
Value of Business	(X_6)	0 0186	2 823*
Business Experience	(X_7)	357 528	2 766*
Proximity to credit source	(X_8)	31 255	-0 116
Membership of credit org	(X_9)	-9765 94	-0 613
Occupation	(X_{10})	-5856 46	-0 343
Constant Term		-17409 5	
R^2		0 8757	
F – Ratio		54 422*	
N		96	

Source: **Orebiyi** and Njoku, 2002

(*) Sig. @ 1%(**) Sig. @ 5%

Four functional forms, Linear, Double – log, Semi log and Exponential were fitted into the data but the result of the Linear function was chosen because it gave the best fit. The value of Annual income, interest payment, Age of the beneficiaries, Value of Business and business experience were all statistically significant at 1% level and positively related to the amount of credit obtained. This means that the higher the value of any of these variables, the higher will be the amount of credit secured from these rural credit markets. However, the coefficients of the level of education, household size, distance to credit source, membership of credit organizations and occupation play no significant role in the amount of credit obtained hence were ignored.

The task of developing the export sector of the Nigerian economy has for a long time been hampered or constrained by different exchange control regulations, payment terms, shipping terms and so on. However, agricultural exports have great role and potentials for boosting export earnings as well as providing the needed diversification for Nigeria's export structure. Therefore, if effectively and adequately promoted, they can contribute immensely in improving the supply of foreign exchange in the country. Furthermore, agricultural exports can serve as a strong complement to oil exports and thereby contribute to improving the balance of payment position of a country, assist in resolving the acute debt burden and improve the stock of oil foreign exchange balances'.

Orebiyi (2004) evaluated the effectiveness of export financing in enhancing and exporting agricultural export based in Nigeria. Time series data covering the period 1990 to 2000 were used while econometric and other statistical tools were employed to analyze the data. Results showed that, high exchange rate (₦84/$1), interest rate (15.21%) and inflation rate (25%) were factors found to seriously affect the value of agricultural export even till today. Also, export credit disbursement had on the average been declining since 1993. Furthermore, export trade was found to be characterized by the

vagaries of macro – economic variables. The study recommended among others; an increase in export credit disbursement, provision of adequate incentives for agricultural production, promoting the activities of the Nigerian Export Promotion Council (NEPC) and Nigerian Export – Import Bank (NEXIM). Others include; stability in exchange rate, taming inflation rate to one digit, adequate quality control system, proper management of macroeconomic variables as well as maintenance of stability through discipline and better co – ordination of fiscal and monetary policies in order to improve and boost agricultural export crops in Nigeria

One of the major economic and social problems that Nigeria currently faces is poverty. Poverty has become a major socio – economic scourge and severe hindrance to development in recent times. Efforts to activate the economy through policy reforms and adjustment programmes have met with very little success and economic conditions have remained very precarious. The pervasiveness of this phenomenon in Nigeria in the "midst of plenty" has clearly shown that the hitherto held view that poverty could be tackled by raising general economic standards through the **trickle down** effect of economic growth is faulty. With low integrated poverty index (IPI), Basic Needs Index (BNI) and Food Security Index (FSI) values of 0.49, 0.40 and 0.837 respectively, Nigeria can be categorized as a country with severe poverty, poor social development particularly in the rural areas and of medium food security status (FOS 1995).

The search for a development strategy, which could lead to significant improvement in the socio – economic condition of farmers led to the focus on microfinance. Okerenta, **Orebiyi** and Adesope (2007) identified the effects of Micro – Finance Institutions programmes on the quality of Life of Rural Households in Niger Delta Area of Nigeria. The core objective of the study centered on the extent to which the overall quality of life of the rural people has improved through their access to income as well as raising their

standard of living. When this is combined with access to social services like education, health and housing, a major step would have been taken to eradicate or reduce poverty in the context of sustainable human development. This would in turn tend to enhance the income generating capacities especially of the rural poor households. Eleven major Micro– Finance Institutions (MFIS) providing micro – finance services to rural farmers in the selected states of Niger Delta were purposively selected. The purposive selection was based on the number of loan beneficiaries from the MFIS and social responsibility services of the MFIS to their host communities. A sample of 207 respondents were used for the study. Data collected were analyzed using mean scores and the scoring technique (ST). Scoring Technique as used by puhazhendhi and Satyasai (2000) in their study of Microfinance for rural people in India was used to compute standard of living of the respondents.
Results showed that microfinance programmes had improved the quality of life of the rural households in the study area. The estimated average composite index for social indicators was 170% for the participants. This showed a high standard of living for the beneficiaries. The index for the economic indicators showed an average of 200% for participants. An overall index of 176% for the participants showed that, there was relatively better quality of life for the beneficiaries of MFIS Programmes.
The study recommended that concerted efforts by Government and the Central Bank to promote Microfinance as a tool for mobilizing rural savings, promoting enterprise development, creating employment and income generation activities thus reducing poverty especially among the rural households in Nigeria should be pursued with vigour. Also there is a need to have a policy framework in place to regulate the establishment, functioning and operations of MFIS in Nigeria.

Henri – Ukoha, **Orebiyi,** Obasi, Oguoma, Ohajianya, Ibekwe and Ukoha (2011) determined the major factors influencing loan

acquisition from the financial institutions by small scale farmers in Ohafia Agricultural zone of Abia State, South – East Nigeria. Data were collected using well structured questionnaire administered to 100 randomly selected farmer loan – beneficiaries. Results obtained indicate that; age of the farmers, their level of education, farming experience and their farm size were the major determinants influencing the amount of loan acquired and disbursed to the rural small scale farmers in Ohafia Agricultural Zone of Abia State, South – East Nigeria. The Financial Institutions in this area are encouraged to disburse more agricultural loans to these rural farmers in order to improve their productivity, raising their level of income and hence alleviating household poverty in the state.

Adofu, **Orebiyi** and Otitolaiye (2012) evaluated the major constraints hampering the effective functioning of the Nigerian Agricultural Cooperative and Rural Development Bank (NACRDB) in Kogi State, Nigeria, using the food crop farmers as case study. A multi – stage random sampling Technique was used to select three agricultural zones in Kogi State namely, Kogi West, Kogi Central and Kogi East. The primary data used were collected through a well structured questionnaire, administered to randomly selected 180 food crop farmer loan beneficiaries of the bank.
The major constraining factors identified include; unfavorable organizational policy, inadequate loanable funds, poor group cohesiveness, inadequate bank branches and political consideration in credit allocation. Others are; shortage of competent staff and dearth of bank information to the prospective loan seekers as well as bank customers.

Following from the above, Adofu, **Orebiyi** and Otitolaiye (2013) identified the possible strategies for the effective functioning of the Bank of Agriculture (BOA) in Kogi State, Nigeria. The study evaluated the possible remedies for the effective functioning of the Bank of Agriculture (Formerly, NACRDB). The results showed that

farmer cooperative associations should be strengthened for the bank to lend to them for on- lending to their members instead of lending to individual loan applicants so as to reduce cost of loan administration as well as loan recovery. The Bank should also establish a mechanism to protect farmers from undue competition for fund from non - farmers from the Bank of Agriculture (BOA) and establishing mechanisms for monitoring the utilization of loans granted by the bank to prevent their diversion to non – productive ventures. The mandate of the BOA should be propagated through enlightenment campaign to all the farmers especially those in the rural areas.

2.2 Production Economics Reaseach:

Nigeria was the leading producer and exporter of palm oil until petroleum oil boom of late 1970's. The revised global data for palm oil production (red palm oil and kernel oil) showed that, Nigeria and other West African Countries have generally been stagnated and subjected to erratic fluctuations. Palm oil processing is a major source of income and employment to a large proportion of the rural agricultural populace in the South Eastern part of Nigeria. However, in recent years, its production has significantly declined. **Orebiyi,** Ugochukwu and Iroecheonwu (2002) estimated the profitability of Palm oil production in Umuahia South Agricultural Zone of Abia State, Nigeria. This study was based on the premise that, increased profitability of the palm oil/kernel processing enterprise would act as a motivation for more efficient services and involvement of the rural populace and help in rural poverty reduction. Data for this study involved the administration of questionnaire to 63 palm oil processors in Umuahia South Agricultural zone of Abia State. The results obtained revealed that, palm oil enterprise was profitable in the zone as every ₦1.00 invested yielded a return of 85k while the Net farm Income (NFI) stood at ₦726,800 per year per palm oil processor/marketer. However, problems such as high production cost, price fluctuation

and inadequate storage facilities constitute the clog in the wheel of progress of the processors in the state. The study recommended that, modern and efficient processing mills, good storage facilities and subsidy should be granted to the palm oil processors and marketers in this zone in order to further improve their standard of living through full rural employment and other vocational activities.

The term poultry as often used in agriculture generally refers to all domesticated birds kept for egg or meat production. These include; chicken (domestic fowls), turkeys, ducks and geese. With the exception of the vegetarians, there are no known social or religious stigmas attached to the use of poultry meat in the diet. Meat from poultry is used for feeding infants, young children, adults and convalescents simply because of its high meat yield, low shrinkage during cooking, ease of cooking and low cost relative to other sources of animal protein. Poultry production acts as a source of income to both rural and urban dwellers as most people in these areas engage in poultry production to get their livelihood. The eggs are used in soap industries, bakeries and in vaccine production while its droppings act as organic fertilizers for enriching the poor soils. Inspite of the importance of and the demand for poultry in the economy, its production still remain very poor.

Orebiyi and Nzeh (2002) evaluated the Financing of poultry Production by the Nigerian Agricultural and Cooperative Bank (NACB) in Enugu State, Nigeria. A total of 100 poultry farmer – loan beneficiaries from NACB were randomly selected for this study using two sets of structured questionnaires to obtain the necessary data from the respondents. Results showed that about 92% of the total loan demanded by the poultry farmers from the NACB were approved and disbursed. However, only about 75% of this was repaid. Also the level of financing was found to have increased the level of productivity of these farmers as their stocking size increased from about 200 to 450 on the average per farmer within 3years that this study covered. Major financing determinants of poultry production in Enugu state include; amount of loan

demanded, amount obtained, repayment performance, literacy level of the farmers, their age as well as the stocking population (size) of the birds.

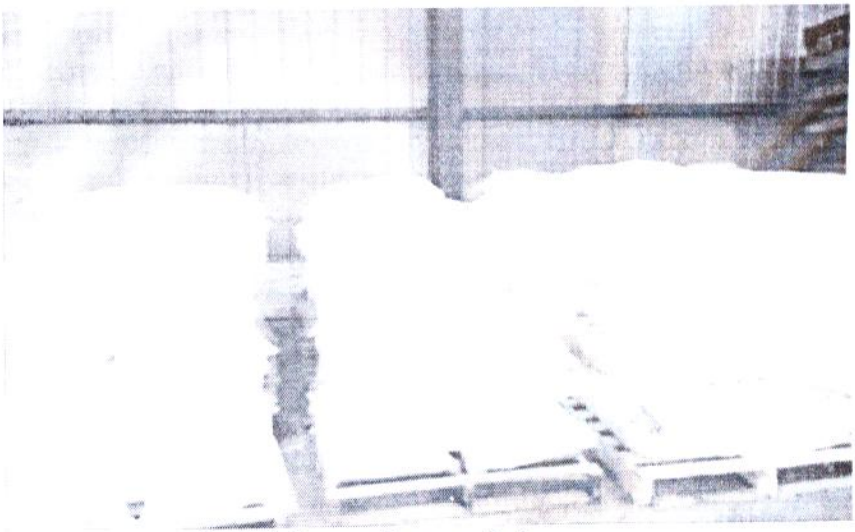
The agricultural sector in Nigeria has for a long time suffered neglect due to the over dependence of the country on the oil sector. This led to the neglect of some agricultural products, which can generate revenue for the economy when properly harnessed and processed. Recently, Government in her bid to revive the agricultural sector encouraged the public to look into possible areas where well processed commodities whose raw materials are locally available in large quantities which can be produced to generate income. Palm wine is one of such neglected cases without Government attention, patronage or recognition. Palm wine especially in the rural areas is a major source of revenue to farmers. It is a sugary solution which can be obtained from either oil palm or the raphia palm and contains high yeast which gives it, its characteristic milky colour. Palm wine tapping has been an occupation of some rural dwellers and is regarded as the leading or most preferred beverage in the rural areas. Palm wine, because of its outstanding quality can be processed and exported to earn foreign exchange as well as create ready market for people who engage in the business. Despite the numerous advantages of palm wine such as; job creation, revenue generation, raw materials in food and pharmaceutical companies, medicinal values etc. the capital, for its effective production, processing, storage and running of the business is seriously lacking as a result of Government neglect of the small scale enterprises, which account for about 30% of wage employment in Nigeria. The cultural and social roles of Palm wine in African society cannot be overemphasized especially from the economic point of view. One important advantage which palm wine has over all other beverages besides being very nutritious is that, it is the cheapest. This makes it the drink of the people, as the rich and the poor can both equally afford it. During festive periods, domestic

demand for palm wine usually exceeds supply.

Orebiyi and Ugochukwu (2003) examined the socio – economic characteristics of the small scale palm wine tappers and their level of profitability in palm wine production in Imo state. Results showed that, Palm wine tapping is mainly engaged in by older people usually above 50years of age, with low level of education and having about 30years of palm wine tapping experience. The average annual profit per tapper stood at about ₦288,646.50. The study recommended that, in order to stem the rural urban migration, increase income and raise the standard of living of the rural populace, easy access and well supervised micro – credit with little or no strings attached should be made available to them. Furthermore, established agricultural institutions like the Nigerian Institute for oil Palm Research (NIFOR) could help the farmers develop and distribute improved high wine producing varieties of Oil Palm trees or seedlings with short period of maturity which could simplify the techniques of production so that tappers may no longer need to climb up the trees. This may even attract the women folk into the business. Finally, experts from the Ministry of Agriculture should train and deploy extension agents to help these tappers by teaching them modern techniques of palm wine production, bottling and preservation. Conclusively, Palm wine production was found to be a very lucrative business in the state. Therefore, it is important for Government and other relevant bodies to recognize the efforts of the rural farmers in Palm wine production if the goals of meaningful and increased income, improved standard of living, sustained economic development and poverty reduction are to be achieved.

Cassava is one of the most important food crops in Nigeria. It is a widely cultivated crop in the southern part of the country in terms of the area devoted to it and the number of farmers growing it. Almost every household grows cassava either for home consumption or for cash income. Cassava is largely consumed in many processed forms

and its use in the industry and as livestock feed is well known and is gradually increasing especially as import substitution becomes prominent in the industrial sector of the economy. As a cash crop, cassava generates cash income for the largest number of households in comparison with other staples. Increase use of the crop as a low – cost energy food, in animal feed and other industrial applications could increase production and the potential market expansion would depend on the quality of various processed products for various markets without significant increases in processing cost, but rather, efficiency of production in resource use would be required.
Efficiency of resource use is defined as the extent to which farmers make efficient decision using inputs up to the level at which their **marginal value product (MVP) is equal to their Marginal Factor Cost (MFC).**



Bags of Cassava Flour ready for use

Orebiyi, Olorunsanya, Babatunde and Fatore (2006) examined Resource use Efficiency in Garri processing in some selected Local Government areas of Ekiti State, Nigeria. Data were collected

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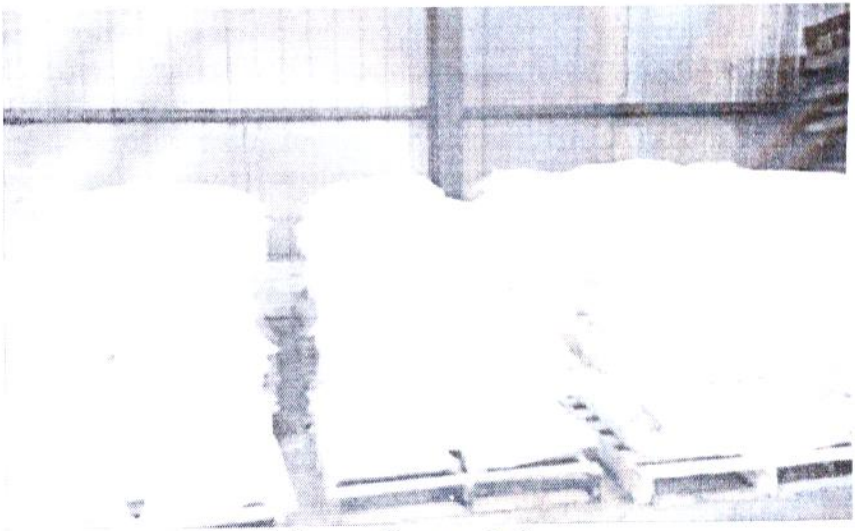

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Orebiyi, Olorunsanya, Babatunde and Fatore (2006) examined Resource use Efficiency in Garri processing in some selected Local Government areas of Ekiti State, Nigeria. Data were collected

through the use of a well structured questionnaire administered to eighty (80) randomly selected garri processors in this area of study. This was to determine the resource use efficiency, cost and returns to garri processors and isolate factors influencing garri processing in the state.

The Results showed that Labour (X_1), operating capital (X_2), and Land (X_4) were the major factors influencing the output of Garri processed in Ekiti State. Garri processing in the area was found to be profitable with an average net farm income of about **₦24,445.63 per ton** of Garri processed while the capital turnover also indicated that for every ₦1.00 invested in this enterprise a return of **36kobo** (36%) was realized. Analysis of the efficiency of resource use showed that, labour was over utilized while purchased inputs were underutilized. The study concluded that labour should be reduced while more capital should be injected for the purchase of other inputs to enable the processors adopt modern processing methods considering the high proportion of literate members (74%) among the processors.

Ohajianya, Onu, Ugwu, Osuji, Nwaiwu, **Orebiyi,** Godson – Ibeji and Enyia (2013) measured the level of Technical efficiency and its determinants in Table egg production in Imo State, Nigeria using a stochastic Translog production frontier to determine individual technical efficiencies of the farmers. Multi – stage random sampling technique was used to select 105 table egg producers. The estimated technical efficiency ranged from 16.23% to 94.17% with a mean Technical efficiency of 62%. The wide variation in the level of technical efficiency indicates that ample opportunities exist for Table egg producers to increase their productivity and income through improvements in technical efficiency. Determinants of technical efficiency of Table egg producers were found to be mainly; credit access, level of education, farming experience, flock size, extension contact and membership of farmers' association or cooperatives as these variables were found to be positively and significantly related to technical efficiency.

Globally, sweet potato is a very important food crop. It ranked fourth in terms of World most important crops after rice, wheat and corn (Horton and Sawyer, 1985). Also, of the world's root and tuber crops, sweet potato ranked third after Irish potato and cassava (Ikeorgu ,2003). The IITA, Ibadan and the NRCRI Umudike have reported high agronomic yield potential of sweet potato as a food security crop in Nigeria, however, this high potential is yet to be converted into increased output under the present cropping system. One of the reasons identified for the failure to achieve increased sweet potato production in Nigeria is the bad agronomic system of cultivation. According to Tewe, *et al.* (2003), sweet potato is usually grown in crop mixtures that have negative effect on its output. In order to make suggestions on how to achieve increased production of the crop, there is a need to examine the best optimal crop combination in sweet potato cropping systems. This formed the crux of the study carried out by Babatunde, Olorunsanya, **Orebiyi** and Falola (2007) in Kwara state, North central zone of Nigeria. Primary data were collected during the 2004 – farming season from ninety eight (98) sweet potato farmers selected from Offa and Oyun local government areas of Kwara state. Descriptive statistics was used to describe the socio – economic characteristics of the sweet potato farmers. Linear programming model was used to determine the optimal farm plan. This tool found easy application in optimization problem, where the aim is to maximize or minimize a linear objective function subject to a set of linear constraints.

For optimal crop combination problem, the linear programming is considered appropriate because the farmer is interested in a crop combination that maximizes his or her gross margin.

Results showed that about 92.8% of the potato farmers were males while 7.2% were females. 67.3% were within the age range of 31 – 50years while the mean age of the farmers was 43years. About 71.4% had one form of education or the other while 99% of the farmers had size of more than five (5) members per household. Over 60% of the farmers cultivated a maximum of 1.0ha of sweet potato

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and only 2% cultivated about 3.0ha. The optimal crop combination was sweet potato/cassava cropping system and the optimal gross margin was ₦14,766ha.
Capital was found to be a limiting resource while land and labour were non – limiting.
Increased capital investment was recommended for increased production of the crop.

Otitolaiye, **Orebiyi,** Ajayi, Musa and Ogaji (2009) focused on the input and output analysis of small – scale rice production in Lavun Local Government area of Niger State, Nigeria. Specific objectives of the study include; determining the cost and returns of rice production and the efficiency of the resources used in its production. A 2 – stage sampling technique was employed to select the rice producing villages in the area where a total of 120 rice farmers were randomly selected. The data generated was done through the administration of a well structured questionnaire. The analytical tools used include; input elasticity of production, Marginal value product and regression analysis.

Table 8: Costs and Return per Hectare of Rice to Producers

Item	Average Cost (N/ha)	Average Return (N/ha)
Value of Output		30,400
Labour	6,500	
Fertilizer	2,200	
Seed	450	
Agro Chemicals	800	
Gross Margin		20,450
Fixed Cost	1,200	
Net Farm Income (NFI)		N19,250

Source: Otitolaiye et al (2009)

Table 8 shows that the average Net farm Income (NFI) of the small – scale rice producer was ₦19, 250/ha. This amount was found to be

the total annual income of a farmer that cultivated a hectare of rice in a year. This amount was found to be very small considering that their average farm size was 3ha per farmer. This could be one of the reasons why rural farmers are poor and generally wallow in abject poverty because of lack of credit to expand the scale of their farming operations.

The Regression results showed that, the coefficients of land (X_1), fertilizer (X_2), improved seeds (X_3) and Agro – chemicals (X_6) have significant relationships with the rice output (Y) with R^2 value of 86.8%. The explicit regression model for rice production in this area was found to be;

$Y = 2.32 + 0.42 X_1 + 0.07 X_2 + 0.29 X_3 - 0.02 X_4 + 0.085 X_5 + 0.096 X_6$

Furthermore, the Elasticity of Production which is a measure of the change in output relative to a unit change in input (other factors remaining constant) = **0.941.**

This indicates diminishing Marginal return and thus a decreasing return to scale of rice production among small scale farmers in this area of study. This implies under – capacity utilization of all the resources, a great scope or means of increasing output level. More inputs should be used in order to achieve higher productivity and output.

Also Government and the private sector should assist the farmers in the provision of farm inputs and credit to raise the level of rice output in the state. The rice farmers on the other hand should pool their resources together through the formation of very viable and functional cooperative societies.

2.3 Technology Adoption Research:

The problems of rural poverty, illiteracy, disease and hunger arising from low agricultural productivity have shown that, the traditional farming can no longer meet the increasing food demands of the growing population. In order to increase agricultural productivity,

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Furthermore, the Elasticity of Production which is a measure of the change in output relative to a unit change in input (other factors remaining constant) = **0.941.**

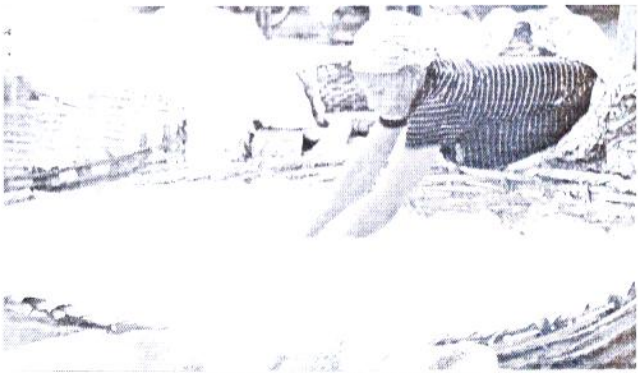
This indicates diminishing Marginal return and thus a decreasing return to scale of rice production among small scale farmers in this area of study. This implies under – capacity utilization of all the resources, a great scope or means of increasing output level. More inputs should be used in order to achieve higher productivity and output.

Also Government and the private sector should assist the farmers in the provision of farm inputs and credit to raise the level of rice output in the state. The rice farmers on the other hand should pool their resources together through the formation of very viable and functional cooperative societies.

2.3 Technology Adoption Research:

The problems of rural poverty, illiteracy, disease and hunger arising from low agricultural productivity have shown that, the traditional farming can no longer meet the increasing food demands of the growing population. In order to increase agricultural productivity,

under the Ecologically Sustainable Cassava Production Project (ESCAPP). One major method through which technology is transferred from the researchers to the rural farmers is 'adoption', a function usually performed by the extension agents through its various institutions. Adoption however, can be viewed as a mental process which an individual passes through in deciding whether to use an innovation or not. Onyenweaku (1987) and Rogers (1969) independently observed that, prior to the adoption of new technologies by an individual farmer; he or she follows an adoption process which involves a number of mental processes like, awareness, interest, evaluation, trial and adoption. IITA played a leading role in the development of improved cassava varieties which are disease and pest resistant, low in cyanide content, drought resistant, early maturing and high yielding. The improved varieties have been introduced throughout Africa's cassava belt. Varieties with resistance to the major diseases give sustained yield of about 50% more than the local ones with about 60% of the area cropped in Nigeria planted with the improved varieties, thus, making Nigeria as the current world leader in cassava production, (Nweke, et.al. 2002).



Processing Raw Cassava after Grating

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Processing Raw Cassava after Grating

Impact studies have revealed that in Nigeria the introduction of improved Cassava varieties has provided food for more than 50million people. To buttress this fact, **Orebiyi** et.al (2005) randomly selected and interviewed 120 ADP contact farmers and 30 extension agents that participated in the ESCAPP programme through two sets of well structured questionnaires. Using Linkert rating scale to determine the adoption level of the contact farmers and multiple regression analysis were used to isolate factors that are critical to the farmers adoption of the improved cassava production technologies in Imo State. The results showed that, the grand mean adoption level of the farmers was 0.61 with the planting of the improved cassava varieties having the highest adoption score of 0.72 while tillage practices had the least score of 0.49. Furthermore, the farmer's age (X_1), educational level of the contact farmers (X_2), level of extension contact (X_5), availability of production credit (X_6) as well as other farm inputs (X_7) were all statistically significant factors influencing the adoption of improved IITA Cassava production technologies in the state. The study recommended that, in any policy formulation and implementation of adoption of any technology innovation for the rural farmers in the state, these significant variables must not be ignored but should always be taken into consideration.

2.4 Research on Risks, Uncertainties, Insurance and Food Security.

Agricultural production is exposed to a wide variety of risks and uncertainties ranging from fluctuation in input and output prices to the vagaries of nature such as unfavourable weather, pests and diseases as well as hazards such as flood and fire outbreak all of which has special impact on the success or failure of an agricultural enterprise. Therefore, it is imperative to reduce the impact of these risks and uncertainties to the barest minimum, hence, there is a need for a mechanism that functions specifically to keep the farmers in business. This is the essence for the establishment of the Nigerian

Agricultural Insurance Corporation (NAIC). Agricultural Insurance in its widest sense may be defined as the stabilization of income, employment, prices and supplies of agricultural products by means of regular and deliberate savings and accumulation of funds in small installment by many in favourable time period to defend some or few of the participants in bad periods. It is essentially aimed at reducing risks and uncertainties, diseases and pests and yield losses in agriculture (NAIC 1990). Ofiabulu, **Orebiyi** and Chima (2000) randomly sampled 80 policy holders under NAIC to examine the level of their awareness and participation in the NAIC scheme in the state. Results showed that about 35% of the policy holders became aware of the agricultural insurance scheme through their bankers. This is quite understandable because most bankers now make it as part of their credit policy as a pre – condition for beneficiaries' farms to be insured before loans are granted to them. A certain percentage of the amount of loan granted is deducted at source as the premium payment which is remitted to the insurance company.

Table 9: Unit of Birds and Minimum Loss to attract claim

Type of Bird	Minimum No of Birds	Minimum Loss
Broilers	250	Above 10% of total stock
Layers	500	Above 10% of total stock
Breeding Stock	1000	Above 10% of total stock
Turkey	10	Above 5% of total stock

Source Ofiabulu, **Orebiyi** and Chima (2000)

Table 10: Premium for Enterprises

Crop and Animal Enterprises	Premium rate (%)
Sole Cropping	6.9% of sum insured
Mixed Cropping	5.5% of sum insured
Economic Crops (Cocoa, Oil palm etc)	2.5 – 5% of sum insured
Livestock	7.5% of sum insured

Source Ofiabulu, **Orebiyi** and Chima (2000)

Tables 9 & 10 showed the guidelines on the unit of birds and the minimum loss a farmer can suffer to attract claims and premium rates for enterprises. The high premium attached to livestock, 7.5% of the sum insured is easily noticeable. This is said to be due to the high risk involved in Livestock management as they are highly susceptible to diseases which could wipe out the total farm stock within a twinkle of an eye.

Food security is of supreme importance in improving nutritional status of millions of people who suffer from persistent hunger and malnutrition. Food security is defined as, access by all people at all times to sufficient and enough food for an active, healthy and productive life. (Haddad, et.al 1994) Food security is a fundamental objective of Nigeria's agricultural policy; nevertheless it has not been given the adequate attention necessary to achieve this objective. Reutlinger (1986) saw food insecurity as the inability of a household or nation to meet target consumption levels in the face of fluctuating production, prices and incomes. Food insecurity is a major worldwide problem. It is currently estimated that 800million people in the world are food insecure, majority of whom live in South Asia and Africa.

Cassava is a food security crop and a major provider of employment and income. The crop is widely grown because of its affordability, ease of cultivation, and high return on investment. Cassava is a good hunger fighter that should be given the needed attention worldwide.

Henri – Ukoha, **Orebiyi,** Ohajianya, Ibekwe, Osuji and Onwuagba (2011) determined the level of food security/insecurity by gender in selected Land Tenure systems among cassava based farmers in Abia State, SouthEast Nigeria as a comparative study.

A randomly selected sample size of 360 cassava farming households comprising 90male headed households an 144 female headed households involved in individual land tenure system, as well as 54 and 72 male headed and female headed farming households respectively involved in communal land tenure system were used for the study.

Descriptive statistics and food security models were the tools employed for analyzing the field data. The results showed that, the level of food security/insecurity for male headed and female headed households under individual tenure systems were 0.66 and 0.60 respectively while the male and female headed households under communal land tenure were 0.55 compared to 0.53 respectively. If food supply is matched by food demand a household is said to be food secured. However, the difference between One (1) and the ratio obtained indicates the level of household food insecurity. Since the cassava based farmers were found not to be food secured, it is recommended that, policies that are central in promoting gender equity and land rights should be urgently put in place through Legislation at the state and National Assemblies in Nigeria in order for the country to achieve food security status.

Henri – Ukoha, **Orebiyi,** Eze, Lemchi, Ohajianya and Ibekwe (2012) isolated the determinants of food security by gender in a communal tenure system among cassava based farmers in Abia State, SouthEast Nigeria. A randomly selected sample size of 126 cassava farming households made up of 54male and 72 female headed households respectively were interviewed with the aid of a well structured and validated questionnaire. Multiple regression technique was used to isolate the factors that influenced food security in the state.

Results showed that, Income, farm size, farming experience, membership of cooperative organization, level of education, labour, access and credit usage and extension contact were found to be the major determinants of food security/insecurity in both male and female headed households in Abia State.

2.5 Agricultural Marketing Research:

Agricultural Marketing consist of all the processes, procedures and services involved in moving food and farm products from the farmer to the final consumer. It includes not only the physical

movement to the point where it is required but also putting it into the form that is desired by buyers and having it ready at the time it is needed. Since the dissolution of the commodity marketing Boards in Nigeria, the purchase of agricultural commodities were left in the hands of private individuals and in some cases with cooperatives. Many works carried out by researchers on agricultural finance were geared towards increased food production, while advocacy of credit for marketers has been neglected despite the fact that between 30 – 60% of the consumer spending on agricultural crops in developing countries have been estimated to go to marketers, (Akinboro, 1981). **Orebiyi** and Amaga (1995) empirically analysed the need to extend credit to palm oil marketers for stimulating National growth. This study was carried out in Arochukwu Local Government of Abia State. 80 palm oil marketers were sampled from four autonomous communities; Abam, Arochukwu, Ihechiowa and Uturu. Results showed that an average of a meager N20,000 were granted to prospective borrowers with a high interest rate of about 36% which was found to be a disincentive to the Palm Oil marketers in the area, hence could not increase the scale of their palm oil marketing operation.

Effective coordination of Agri-business firms and marketing activities which require the organization, directing, supervision and synchronization of agri-business activities relating to market conduct of different organizational groups, is an indispensable tool for a reasonable marketing margin. Fresco (1991), pointed out that product market organization could only be effective and duly placed in the planning of a marketing process if a good sense of coordination is incorporated, as this will ensure revenue optimization. Effective agri-business co-ordination plays an important role in economics and market development through the establishment of an efficient marketing programme which include; Product Price, Promotion and marketing decisions. It also helps in assessing productivity measures of marketing both internal and external to the firm for resource allocation. Also it provides effective

organization to bridge the gap between producers and consumers. Finally, it provides an effective distribution of organization for product supplies and consumption requirements.

Orebiyi and Ugochukwu (2004) examined Agri-business coordination through, "Systems Approach" to Yam and Cassava marketing in Bende Agricultural Zone of Abia State Nigeria. It determined the marketing channels of yam and cassava as well as graphically illustrated the seasonal price differentials between them.

Figure 3 Flow chart of Market Co – ordination and Distribution channels of Yam and Cassava in Bende Agricultural Zone, Abia State

Schema **Orebiyi** and Ugochukwu (2004)

The chart above shows all the stages involved in the effective distribution of Yam and Cassava with the Ultimate aim of making good returns to the producer.

The percentage market share in this channel gave the farm gate marketers (3.33%), wholesalers (50%); Retailers (16.67%) while commissioned agents (30%). The higher percentage of the wholesalers and commissioned agents market share further confirmed the rip – off that the middlemen continue to enjoy at the expense of the small scale farmers who are the main producers of these staple food crops.

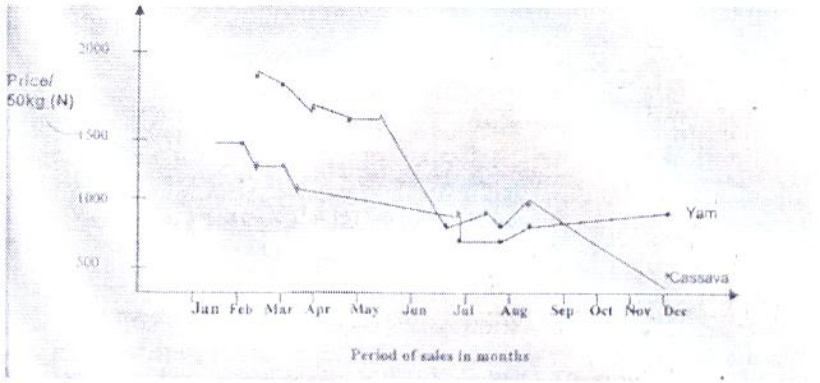

Fig 4 Graphical illustration showing the seasonal price differentials in Yam and Cassava

Source: Orebiyi and Ugochukwu, 2004

A graphical representation of the analysis of data collected showed a one year market organizational chart. The time series shows a high price charge for yam in the months of Jan – March. This is as a result of land preparation for planting. Yam is seen to be scarce since it is not in season. A gradual drop in price sets in from the months of April while a fairly stable price is maintained through June. This could be associated with the availability of other inferior stable foods realized from the output of the new season (e.g. maize). The price of yam goes up again during the new yam festival period between August and September due to traditional importance attached to the product during this period. It rises afterwards as a result of the artificial inflation due to the inflow of natives from abroad for the Christmas and New Year festivities.

For cassava, there is an increase in price between the months of June and August which thereafter decline due to harvesting of the remaining farm stock from the planting season, hence supply increases thereby cutting down on price. Availability of other staple substitutes also affect this price fall as not much importance is attached to this crop like yam towards the end of the year.

The result of the test hypothesis revealed that, at 5% level of

significance, we reject the null hypothesis which states that; "There is no significant difference between prices of yam and cassava in Bende Agricultural Zone of Abia State" and we accept the alternative.

In Nigeria, there has been low or inadequate availability of Pineapple for consumers. This may be as a result of inefficient marketing and distribution system. The importance of marketing in stimulating the production and consumption of agricultural products has been documented but in most developing countries such as Nigeria, research efforts have centered more on production with the result that gains in production have been lost through inefficiencies in marketing. Adegeye and Dittoh (1982) observed that lack of information flow or presence of too many middlemen in the marketing system often result in differences between the prices paid by the consumers and prices received by the producers.
Eze and **Orebiyi** (2005) determined the profitability of pineapple marketing and marketers efficiency in Owerri, Imo State, Nigeria. Results showed a Net Return of ₦9,703.77 Per ton while the efficiency of pineapple marketing was 70% implying that, pineapple marketing is fairly efficient in Imo State. For improved profitability and efficiency in its marketing as a perishable commodity, there is an urgent need for the marketers and Government to remedy the pineapple marketing associated problems such as high cost of the fruit, spoilage within a very short time, inadequate storage facilities and poor road network among others.

The problem of inadequate supply of food items such as; rice, yam and cassava etc violates the philosophy of consumer satisfaction. While the demand tends to be higher than supply with its resultant effect in massive importation of the deficit yearly, the problem of seasonal price fluctuation and discrimination tend to compound issues. Lack of sufficient storage facilities and poor processing

methods militate against marketing of rice in Anambra State as well as other parts of Nigeria.

Orebiyi and Eze (2005) carried out an exploratory study of rice marketing in Anambra State with particular reference to rice processing, storage and pricing. The results of the analysis showed that old people who are mostly illiterate but highly experienced are engaged in rice marketing business. There was a significant difference in the marketing prices of processed and unprocessed rice as well as stored and un – stored rice. A greater percentage of the rice marketers process their rice through the local mills which have no facilities for de – stoning or polishing before they are sold. Local or crude storage facilities such as bags, sacs, drums and warm rooms are commonly used.

These findings have been largely responsible for the inefficient marketing system of rice in the state. This study therefore concluded that, an efficient processing and storage facilities will act as incentives which will increase the output level of rice, increase in farm income with the multiplier effect of better living standard for both producers and marketers, majority of who live in the rural areas. Injection of capital into the business will enhance the operator's income, better living standard leading to poverty reduction.

Local Rice Processed for Marketing.

2.6 Research on Climate Change

Climate change is one of the most crucial factors that seriously impede the effective and efficient agricultural production and the scope for reducing poverty in Nigeria. It encourages unsustainable agricultural production systems and debilitate the health of farm workers which adversely affect their efficiency in farm production thus projecting an imminent doom for the generations yet to come. In order to cope with the excessive heat and other unfavourable conditions; some of the adaptive actions a worker can employ will be to reduce work intensity or increase the frequency of short breaks thus "slowing down" of work and other daily activities. The resultant effect is the reduction in total output due to lower labour productivity. This made Nwaiwu, Ohajianya, **Orebiyi** and Ibekwe (2013) to investigate the effects of climate change on labour use efficiency in Southeast, Nigeria. A total of 312 cassava based food crop farmers were selected using a multistage sampling technique. Results showed that climate element like temperature
presents a statistically significant increasing trend with a trend coefficient of 1.192 and a mean of 26.7°c. Rainfall volume also showed an increasing trend but not statistically significant. Climate indicators like sunshine duration excessive heat or temperature, frequency or incidence of flooding and frequency of dry spell were statistically significant and inversely related to labour use efficiency. We hence concluded based on the evidences from the study that, climate is indeed changing and negatively affecting labour use efficiency which reduces agricultural productivity, thus slowing the scope for reducing hunger and poverty in Nigeria.
Government and stakeholders should provide appropriate adaptive and mitigation measures to ameliorate the present and potential effects of climate change.

In furtherance to the above, climate change was confirmed to increase the intensity of sunshine, higher temperature and highly erratic rainfall pattern which is also occasionally torrential, it is

believed that, it inhibits the effective and efficient performance of on – farm labour "time" used in crop production.

Kovats *et al.,* (2008) opined that, global climate change will increase outdoor and indoor heat loads and may impair health and productivity for millions of working people. Nwaiwu, Ohajianya, **Orebiyi,** Ibekwe and Eze (2013) explored the effects of climate change on Labour Time Allocation to Food Crop Production in Southeast, Nigeria. Applying the same method of Multistage sampling technique in selecting a sample size of 312 cassava farmers, data were collected on their socio – economic characteristics, number of man hours spent on a day's work, time spent to rest, eat, smoke etc and their perception on how climate element change were collected. Data were analysed with the use of descriptive statistical tools like mean, frequency, polygon or line graph and ordinary least square multiple regression analytical tools. Results showed that, the mean age, annual income, household size and level of education of farmers in the study area were, 51.3years; N391,530.64; 8persons per household and 9.6years of schooling respectively. Temperature and hours of sunshine indicated a statistically significant increasing trend over the period studied while the number of rain – days showed statistically significant decreasing trend. Labour time allocated to food crop production was drastically reduced due to the negative impact of the climate change on the famers. More efficient and quality time allocation was recommended to farmers while Government should mitigate the climate change effects on the farmers to enable them perform optimally.

Chikezie, Ibekwe, Ohajianya, **Orebiyi,** Ehirim, Henri – Ukoha, Nwaiwu, Ajah, Essien, Anthony and Oshaji (2015) studied the effects of climate change on selected food crop production in Southeast, Nigeria using a co – integration model approach. The data for the study were sourced from the National Root crops Research Institute, Umudike, National Bureau of statistics and the Central Bank of Nigeria bulletin. Data on crop yield and climate

variables from 1984 to 2014 were collected and analyzed. Descriptive Statistics, co – integration and error correction model analysis were adopted. The Augmented Dickey – Fuller test for unit root revealed that Yam, maize and cassava outputs were non – stationary but became stationary after the differencing. All climate variables were stationary at first level. It also showed the existence of one co – integrating vector in the three models. The coefficients of Error correction Model, ECM (-1) indicated the speed of adjustment of the crop outputs to the equilibrium when a disturbance occurred with values of -0.365 (1% probability); -0.211 (5% probability) and -0.599 (10% probability) for yam, maize and cassava output models respectively. The coefficients of multiple determination (R^2) for Yam, Maize and Cassava were 0.611, 0.440 and 0.2669 respectively. In yam model, the coefficients of all the variables except lagged yam output and temperature have positive relationship with the yam output; the coefficients of lagged maize output, rain – days and temperature were negative while rainfall volume, humidity and sunshine were positive in maize model. In cassava model, coefficients of rainfall volume, rain days, sunshine and lagged cassava output were positive but temperature and humidity were negative. The result further showed that climate change impacted yam and maize output. Adequate mitigation and adaptive measures must be put in place to reduce the negative effects of climate change in order to achieve an appreciable level of agricultural productivity.

CONCLUSION AND RECOMMENDATIONS

Mr. Vice – Chancellor Sir, I have been able to remind this audience about the role and importance of Agriculture as, the raising and rearing of animals for the purpose of production of food for man, animals and industries. It involves and comprises of Crop production Livestock, forestry, fishery, processing and marketing of the agricultural output. Unfortunately, the development of agriculture in Nigeria has not been able to keep pace with the desired

expectations despite several agricultural policies and programmes put in place especially by the past Governments. Even though the Nigeria agricultural policy has always provided among others, for adequate financing of the agricultural sector for its development, but it is very sad to observe that, Government expenditure on agriculture has been shown not to be substantial enough to meet the objective of the policies. This account wholly for why Nigeria cannot depend on herself to supply the large fraction of her food needs for self sufficiency. Moreover, since the Nigerian economy is dependent on Petroleum as a source of its revenue and the chief export driving the wheels of the economy, poor financing of the agricultural sector continued to lead to increase reduction in food supply. This in turn continue to trigger off inflation in the country and its attendant consequences of a fall in the value of the Naira and price instability which is even more pronounced today than any other time in the past as far as the history of this country is concerned.

I have also shown that, the objective of agricultural financing policies in Nigeria has been to establish an effective system of sustainable agricultural financing schemes, programmes and institutions for providing micro and macro – credit facilities for the micro, medium as well as large scale producers, processors and marketers for full employment and agricultural transformation especially in the rural areas of this country.

Inspite of these laudable objectives, the development of the rural agricultural sector, where the bulk of the agricultural production takes place has been slow and consequently its impact on the economic growth and development has been minimal without much appreciable effects on the economic well being of the rural dwellers except **"increase in their poverty level".** The question on everybody's lips now is, **"Where do we go from here?"**

Recommendations:

In the words of Omotesho (2015), a seasoned Agricultural Economist which I completely agree with, who posited thus, "To be in good standing as a nation, we have to diversify our economy by

reducing our overdependence on oil, with the aim of putting the economy on a path of sustainable, all inclusive and non – inflationary growth. He stated further, that the challenge of promoting sustainable development in the rural areas will remain a mirage unless "investment policies" respond to the diverse needs and aspirations of the many segments of the rural societies"

This is the key to poverty reduction and rural Agricultural Transformation in Nigeria. (emphasis mine).

Other major specific recommendations include;

(i) Our policy planners should formulate Agricultural Financing policies that will target some important agricultural crops aimed at improving their output which will be used as raw materials for our industries. This will lead to reduction of our import, increase earnings, conserving our foreign exchange, stimulate economic growth and generate employment.

(ii) Government must ensure that such policies are rural farmers centered as its main focus, so as to accelerate the pace of rural agricultural transformation.

(iii) Adequate budgetary provision and releases should be made to fund all agricultural policy initiatives in the country.

(iv) There should be a review of the existing credit schemes and reform of institutions that have become moribund or obsolete, in order to make them keep pace with the present day dynamic nature of agricultural production if our food security objective is to be achieved.

(v) The present and future transformation of the rural agriculture in Nigeria is hinged on the shoulders of the millions of our unemployed youths roaming the streets daily

for non – existent white collar jobs. Government should as a matter of urgency shift their present focus from their plan of paying a dole of ₦5,000 per month to the unemployed since such policy is not sustainable. Instead, Government should package some well informed investment incentives in rural agricultural production such as mechanization, rural savings scheme and provision of basic social amenities and re- establish the **"Farm settlement Scheme"** which will be self sustaining, rewarding and ensuring gainful employment to all young and vibrant job seekers and graduates in particular in Nigeria.

(vi) Our youths as well as the rural farm operators should undergo training in capacity building by Government and NGOs in order to equip them to sharpen their decision making processes in all their daily occupational activities.

(vii) Currently, accessibility to credit facilities in Nigeria especially from the formal financial institutions is less than 2% of the prospective borrowers. One major reason for this, is the high cost of borrowing (high interest rate). The major objective of interest rate policy as a tool of monetary regulation is to stimulate investment in the more productive sectors of the economy and to discourage the flow of credit to non – productive sectors. Therefore, the concessional one digit interest rate policy should be brought back in favour of the agricultural sector while only genuine farmers properly verified and identified should be the main beneficiaries of the policy.

(viii) Moratorium (Grace periods for loan repayment of at least 1 – 2) years should be granted to long term investments which require high capital outlay and considerable interest payment, while about 6 months should be considered for

food crops and Livestock farmers especially by the Nigeria Agricultural Bank (NAB) and other agencies favourably disposed to Agricultural financing.

(ix) The rural credit institutions in Nigeria should be directed to increase the present paltry sum of loan usually granted to farmers to a more sizeable and reasonable sum that could cater for both the production and part of the consumption needs of the farmer- beneficiaries in order to reduce loan diversion and stem the high default rate in some cases.

(x) Loan procurement and repayment determinants such as; amount of loan borrowed, value of interest payment, age, literacy level, household size, business size, business experience, loan supervision and farming as a major occupation should be considered for each prospective borrower by all credit agencies. These factors should always be emphasized in loan administration and formulation of policies and should be made known to such borrowers as very key significant factors that could mar or improve their loan procurement and repayment performances.

(xi) Policy continuity especially in the agricultural sector and other facets of our national life is sacrosanct and **sine – qua - non** to rural agricultural transformation in this country. It is a well known fact that, the Country is not bereft of very good and well intentioned policies but rather, our bane is lack of policy continuity, policy somersault and poor implementation strategies partly due to our primordial considerations and sentiments devoid of any nationalistic as well as patriotic behavior on the part of the citizenry.

(xii) Infrastructural development in terms of rural roads, electricity, water supply, good transportation facilities, well developed markets for the sale of farm produce are very

important and crucial to rural agricultural transformation which should be the priority of any sensible Government inorder to stem the rural urban drift and stimulate rural agricultural production.

(xiii) Our value systems in this country especially among our youths should be re-orientated to reduce the general malaise for materialism, social vices and corruption in all facets of our social lives. The need for hardwork, honesty and spirit of nationalism should be instilled in all citizenry through massive enlightenment campaign, sponsored workshops and conferences by the three tiers of Government nationwide. If this is faithfully pursed and implemented the nation will be the better for it as the economy will respond positively to a steady growth, increase in the standard of living of the populace with an overall reduction in the level of **rural poverty** in NIGERIA.

4.0 ACKNOWLEDGEMMENT

Mr. Vice – Chancellor Sir, Please permit me to briefly give this word of testimony to reference, appreciate and acknowledge the faithfulness, kindness, love and the mercy of the Almighty God, my Creator, for His wondrous and countless mercies, blessings and unmerited favours which He has continued to bestow on me and members of my family every day of my life till now and even beyond.

Precisely on the 9th of August, 2009 (about 7years ago) a motorcyclist swerved off from the road and knocked me down. I was actually standing in the midst of other people beside an Express tarred road I passed out immediately and became unconscious while blood was gushing out from my forehead, Sympathizers besieged me instantly but did nothing as they thought I was dead, until after some minutes when they noticed that I had started breathing. I was then rushed to the Missionary hospital nearby which even till now is one of the best in the state, but unfortunately the doctor that attended

to me mismanaged the case. When after 4 – 5 days of treatment, I noticed that death was imminent and starring me on the face due to the pains experienced from the pus that had developed and oozing out from my forehead, I had no alternative but to forcefully drive myself back to Owerri from my Village (a journey of about 8hours) and straight to **Anagboso Specialist Hospital**, Works Layout Owerri on a Saturday. I was instantly admitted on Emergency. To the devil and his cohorts I should have been dead then, but I held on to **Psalm 118: 17 which says, "I shall not die, but live and declare the good works of the LORD."**

Here, someone intervened in my case and spared my life when all hope was lost. He made it possible for me to be alive today to deliver the **29th**, in the series of the **Inaugural Lectures** of this great University. That someone is the Alpha and Omega, the one who was at the beginning, who is and will ever be. He is the one that rescued and restored my soul. That someone is Jehovah Rapha, my healer; Jehovah Nissi, my banner; Jehovah Jireh, my provider and Jehovah Shalom, The Lord is my Peace. He is the ancient of days the only wise God and the **I am that I am**.

To this **Almighty God,** belong honour, glory, praises, majesty and adoration forever and ever in Jesus name. (Amen). Please kindly join me in shouting **"Halleluiah"** three times **(3)** to the King of Kings.

On this note I sincerely thank Dr C.N Ukpabia, Chief Consultant, Anagboso Specialist Hospital of works layout Owerri, the vessel that God used to shame the devil and his agents. I also thank and appreciate Rev. G.S Adaka of Fisheries Department FUTO and my church members of First Love Assembly Owerri, for their prayers of healing and restoration that brought me back to life. May your strength continue to be renewed like that of an Eagle in the mighty name of Jesus Christ (Amen).

I hereby acknowledge the following for the significant roles they played in my life and career.

- ✓ My Parents, Mr. Titus Ola Orebiyi and Mrs Judeth Ibironke Orebiyi (both of blessed memory) who toiled day and night, tilling the soil to ensure they gave me the best available education until their creator called them back home.

- ✓ I appreciate my **Benevolent Uncle, Mr. Boyi Akogun** (of blessed memory) who took over the responsibility of my training after the demise of my father, despite his lean resources, I cannot thank him enough. God actually used him to activate and actualize His "divine will" in my life.

- ✓ I thank all my siblings for upholding our family precepts, virtues and doctrines They are: Banjo Orebiyi, (Late); Niyi Orebiyi and Femi Orebiyi. Thanks for ur prayers, support and good conduct always.

- ✓ My Aunty; Elizabeth Dare for being my Mother since the death of our biological mother. God will continue to show you love and mercy all the days of your life as your love and care reduced tremendously the pains that accompanied the loss of our dear mother.

- ✓ I appreciate His Royal Highness, Oba Kolade Ampitan Orebiyi, the **Ologbe of Ogbe**. May your reign continue to witness peace, progress, harmony and improvement in the development of our Community.

- ✓ My Cousins; Dr. Anthony Orebiyi, Mr. Victor Agunbiade, Mr. Orishola Agunbiade and others, I appreciate you all. Mr. Osanaiye Oluyori and Chief B.T.Y Aina deserve special recognition.

- ✓ I thank God for bringing the following seasoned teachers

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To My God – given children:

Ifedayo .O. Oshaji (Mrs) (nee Orebiyi); B.Tech, M.Sc (Agric - Econs) currently a Ph.D student and an Assistant Lecturer with the Department of Agricultural Economics, FUTO.

Omotomilayo .O. Orebiyi B.A, M.A (English) Univ. of Ilorin; currently with AIICO Insurance, Lagos.

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S/No	LECTURE	TOPIC	DATE
1	Prof. C.O G Obah	"Communication in the service of a nation"	Dec. 12, 1986
2	Prof. E.O.I Banigo	" Food Processing and Preservation. Paths to self sufficiency" .	Jan. 18, 1989
3	Prof. V.O. Nwoke	"Where Rust Doth Corrupt"	Nov. 14, 1990
4	Prof. S.C.O. Ugbolue	" In the throes of polymer and Textiles"	Dec. 11, 1996
5	Prof. O.O. Onyem obi	" Mineral Resources Exploitation ,Processing and Utilization: A Sine Qua non for Nigeria's Industrial Development".	Jul. 17 2002
6	Prof. A. B.I Udebibie	"Insearch of Food FUTO and the Nutritinal Challenge of Carnavalia Seeds"	Sep. 18, 2003
7	Prof. E.O Okorafor	Expendable Polystyrene pattern Casting process: A Revolution in metal Casting".	Mar.17, 2004
8	Prof. P.B.U Achi	" Acquisition of Indigenous Machinery Design Manufacturing: The Engineering Education and Training Perspective "	June 28 2004
9	Prof. M.I Nwufo	"Securing the Harvest to Ensure Food for all: A Plant pathologist's Perspective "	July 28, 2004
10	Prof. M.U. Iloeje	"The Chicken or the Egg: Nature and Nurture: New Genetic Spread sheet and Gene Pool in the Breeding and Evolution of A New Nigerian Man".	Nov. 17 2014
11	Prof. J.O. Uzuegbu	" Salvaging our Food from Fungi Rot to Ensure Food Security".	Oct. 29 2008
12	Prof. C.S Nwadiaro	"Inland Water Data Base AS: A Sine Qua Non for Fisheries Development in Nigeria".	May 7 , 2009
13	Prof. M.C Ofoh	" Food Security and Mitigation of Climate Change Through Ecosystem-based Agriculture".	May 27, 2009
14	Prof. B. O Esonu	"Unconventional Feed Resources for livestock Development and Food Security: Paradigms for Nigeria Livestock Industry".	June 24, 2009
15	Prof. E.O.P. Akpan	"Project Management: A Catalyst for Rapid Industrial Development for Emerging Economies "	Oct. 10, 2009
16	Prof. C.C. Asiabaka	"Scaling-up Agricultural Technologies for Food Security and Poverty Reduction: Whose Knowledge Counts: The Farmer or The scientist?".	Feb 15, 2010
17	Prof. C.O. Owuama	" foundation Engineering in a Difficult Environment".	June 10, 2010
18	Prof. N.N. Onu	" Training in Geophysics: The Challenges of Oil Exploration, Gully Erosion and Water Resources"	March 16, 2011
19	Prof. Mrs. H.C. Nwigwe	"Aquatic Resources Management: A Tool for Food Security in Nigeria ".	March 30, 2011

18	Prof. N.N. Onu	" Training in Geophysics: The Challenges of Oil Exploration, Gully Erosion and Water Resources"	March 16, 2011
19	Prof. Mrs. H.C. Nwigwe	"Aquatic Resources Management: A Tool for Food Security in Nigeria ".	March 30, 2011
20	Prof. C.N. Ubbaonu	" Enhancing Acceptability and Economic Value of Local Foods through product Development and Promotion ".	April 27, 2011
21	Prof. G.C Eheduru	" Towards a unified World View: the "god particle" and the Traditional Christian belief" .	Oct. 4, 2012
22	Engr. Prof. E. Anyanwu	" New Energy Technology Revolution: A Catalyst for Sustainable National Development".	Oct. 29, 2012
23	Prof. Goddy Nkem Onuoha	" The Chemical Pathway Small, Changes That made a Difference"	March 27, 2013
24	Prof. C. C. Eze	"Agricultural Finance: A Panacea for Agricultural and Rural Development".	March 26, 2014
25	Prof. A.N. Amadi	"Environmental Health: The Dynamics, Application, Implications and way Forward in Nigeria's Healthcare Delivery System".	July 23, 2014
26	Prof. G.E. Okorafor	" Depopulating the Unemployed Mass in Nigeria Through Effective Project Delivery".	September 10, 2014
27	Prof. A.A. Ayuk	" The Question of the Electron: It's Origin and Impact on Chemical Processes".	March 10, 2016
28	Prof. E. U. Onyeka	" Food Security: Concerns and Comforts in food Processing".	April 27, 2016