"THE IMPACT OF NACB CREDIT ON ARABLE CROP PRODUCTION: A CASE STUDY OF SMALL HOLDER DIRECT SCHEME IN ZARIA".

BY

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CERTIFICATION.

This Thesis entitled "The impact of NACB Credit on Arable Crop Production: A Case Study of the Small Holder Direct Scheme in Zaria". By EDAME GREG. EKPONG meets the regulations governing the Award of the Degree" of MASTER OF SCIENCE of Ahmadu Bello University, Zaria and is approved for its contribution to sciencetific knowledge and literary presentation.

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DEDICATION.

This Thesis is dedicated to my late grand parents maternal and paternal.

And to God Almighty with whom all things are possible.

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'First, I will give thanks to the Lord and His praise shall be permanent in my mouth, for making it possible to complete the programme.

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ABSTRACT

The study aims at analyzing the likely farm-level effects of credit on arable crop production and the use of modern inputs by small holder farmers in Zaria Local Government Area of Kaduna State.

The study compared the output and input use of borrowers and non-borrowers of NACB credit by small holder farmers in Zaria. Given these objectives, it was hypothesized that, the small farmers of arable crop production with access to institutional credit have higher output per unit input.

It was further assumed that there have been increase in productivity and profitability of farmers that use credit on arable crop protection than their non-user counterparts.

That being the case, it was expected that the NACB credit on arable crop protection would make an impact on the size distribution of income among small farmers of arable crop in Zaria LGA, among the borrowers.

All the required information was collected through the use of structured questionnaires. A total of 179 farmers comprising of 71 beneficiaries and 108 non-beneficiaries were interviewed in the four sampled villages in Zaria Local Government Area.

A total of 15,992 clients in the state has so far benefited from the NACB small holder Direct Scheme between 1981 - 1991.

Out of this number, 2,194 small scale farmers in Zaria LGA, has so far benefited from the SHDLS, between 1988 to 1991, when the Kaduna branch office of the NACB was opened. This number out of 3.969 million people, is however, small in Kaduna state. Beside the low number of loans involved, there is a patronage by `big' farmers in the state.

The analytical tools employed in the study include farm-budget, cost and returns analysis, Descriptive Statistical tools such as pie charts and histographs were also used to show the distribution of loans by purposes between 1981 to 1991 in the LGA when the NACB small holder Direct Scheme was inaugurated.

It was discovered that out of a total amount of N756,874,944.74 million that was disbursed to agriculture for various purposes, between 1981/91, 58.4 percent or N441.8 went to arable crop protection.

The second greater share of 31.3 percent or N237.2m went to marketing. Twenty nine million Naira (N29.0m) or 3.8 percent was given for outgrowers-lending. Loans for livestock production amounted to N31.5m or 4.2 percent. Loans for mixed farming amounted to N14.8m or 2.0 percent. The least number of loans went to Agro-Allied production, which received N2.3m or 0.3 percent of all the loans to agriculture.

Percentages of loan distribution within the years were viewed in two different ways: (i) The percentage in total loan amount* and (ii) The percentage number of loans +. The

percentage total loan amount ranged from as high as 31.7 percent in 1985 to as 0.1 percent in 1991. Thirty one point six percent (31.6%) was disbursed in 1982, 19.2% in 1987. While the rest followed the same pattern. The spread of the percentage total number of loans shows a similar pattern. It ranges from 53.0 percent in 1981. This was followed 14.1% in 1982. And the lowest range was 0.3 percent in 1991.

The results of various analysis showed that beneficiaries employed larger fertilizer and capital inputs than non-beneficiaries. The average farm size cultivated and labour input used by the two groups of farmers were not significantly different. Beneficiaries were also found to earn larger gross and Net farm income than non-beneficiaries. The total farm expenses of borrowers was significantly higher than non-borrowers.

The results indicated that fertilizer and capital had greater influence on outputs, while labour showed a negative influence on output of the borrowers.

From the findings, an important conclusion that could be drown from this study is that, the small holder arable crop farmers in Zaria LGA do actually need credit assistance.

Credit will help by giving them good financial base so that they can make some investment in the use of improved modern resources for farm production.

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ABBREVIATIONS AND DEFINITION OF TERMS.

In these piece of work the following abbreviations and terms were used and is defined as follows:

NACB - Nigerian Agricultural and Cooperative Bank.

LTD - Limited.

SHDCS - Small Holder Direct Credit Scheme

SHDLS - Small Holder Direct Loan Scheme.

LGA - Local Government Area

GDP - Gross Domestic Product

SHS - Small Holder Scheme

ACGSF - Agricultural Credit Guarantee Scheme Fund

LDC - Less Developed Countries

HQ - Headquarters

SHDS - Small Holder Direct Scheme

SAP - Structional Adjustment Programme

NFI - Net Farm Income

NFR - Net Farm Returns

TR - Total Revenue

GFR - Gross Farm Returns

TC - Total Cost

TVC - Total Variable Cost

TFC - Total Fixed Cost

GFI - Gross Farm Income

VC - Variable Cost

SACB - State Agricultural and Cooperative Banks

HOD - Head of Department

FASS - Faculty of Arts and Social Sciences

PG - Post Graduate

W.O.I - Warrant Officer I (one).

CHAPTER 1

1.0 INTRODUCTION:.

In Nigeria the small farmer occupies an important position in the search for increased food production. Heavy investment in rural infrastructure, Agricultural research and extension are among the support efforts of the government to improve the welfare of the small farmer and satisfy the food needs of the industrial and commercial urban population. This requires the development of the small farmers ability to increase food and fibre per unit area of land through the application of improved technolgy.

Historically, the small-scale farmer in Nigeria has been the major producer of both export and domestic food products. The Nigerian small-scale farmers have been supplying the bulk of the nation's agricultural output. About seventy five percent of the Nigerian population is engaged in agriculture. This is characteristic of an agrarian economy in the early stages of economic development.

It is agriculture that is expected to produce the marketable surplus that will be used to finance industries and bring about a technological revolution.

The method of small farmer production are however not efficient under presentlevel of knowledge. The farmer must be provided with new knowledge, skills and necessary motivation to production, using present level of known agricultural technology if he has to contribute to national development.

The small holder Direct Credit Scheme was introduced by the Nigerian Agricultural and Cooperative Bank Limited (NACB) in march 1981, to cater for the interest of the small farmers who

constitute more than seventy-five percent of the farming population in this country(NACB,1991).

There is a growing concensus in Nigeria, that agricultural development is one of the most important problems that must be tackled from 1990s onward. It is also a common knowledge that Nigeria of pre-independent era was predominantly an agricultural country.

Some of the products for which the country was widely noted for were cocoa, groundnut, rubber, palm-produce and cotton (Enigimi, 1982).

Nigeria's recognition of the seriousness of her food situation on a nation-wide scale, has made her aware of the problems facing agriculture as well as the necessity to seek a mode of financing geared to the specific needs of her agriculture. The factors affecting agricultural production are very many, complex and interrelated. They include: lack of appropriate technology, suitable credit services, managerial and labour skills, defective tenure arrangements, uneconomic farm sizes, and so on. Individually and conjointly, these factors have adversely affected the progressive development of Nigerian agricultue.

Some of these factors, such as the adoption of technological improvement, use of improved implements and use of improved seeds and fertilizers, may be said to be within the reach of the farmers, provided that the farmers are aware of the means and that they have easy access to credit, so as to secure the loans by which to increase their productivity and thereby improve their well being (AKU, 1981).

1.1 THE IMPORTANCE OF AGRICULTURE:

Agriculture was the single most important sector of the economy accounting for more than one half of the Gross Domestic Product (GDP) and for more than three-quarters of export earning in the 1960's.

The agricultural sector accounted for 78 percent, 69.8 per cent of total gainful employment in 1952 and 1970 respectively" (Aigbokhan, 1988).

It also accounted for 64.4 per cent, 62.2 per cent of the GDP in 1958/59 and 1961/62 fiscal years respectively. In 1960, the percentage of the sector to the GDP was 70 per cent, 55 per cent in 1966, 53 per cent in 1970/71 and 49 per cent in 1973/74.

In 1962, agriculture with its sub-sectors contributed more than 61 per cent of the GDP, and in 1984 the contribution of this same sector to the GDP dropped to about 22 per cent. Before the mid-1970s, agriculture constituted the mainstay of the economy, accounting for about 70 per cent of the total labour force.

Between 1965 and 1973 agriculture recorded a growth rate of 2.8 per cent and a negative growth rate of -0.05 per cent between 1973 and 1984.

A drastic decline is witnessed over the years in its (agricultural) contribution to exports. Agriculture which constituted about 80 per cent of the total value of exports of the economy in 1960, only accounted for less than 42 per cent of the total export earnings in 1970 and about 3 per cent in 1984. Besides, the production of food has been gradually abandoned to such an extent that Nigeria moved from "self-sufficiency in basic food stuffs to a heavy dependence on food imports. For example, the

food import bills soared from N88m in 1971 to about N1,000 million in 1978" (Odejide, 1987).

In brief, there was the dominance of agricultural activity in the economy of Nigeria over the periods 1958/59 to 1973/74; though there has been gradual decline over time in the share of agriculture in the GDP: At 1958/59, the share was 69.4 per cent while in 1973/74 it came down to 34.1 per cent. "Till 1968/69, 53 per cent of the GDP originated in agriculture. After 1968/69, the downward trend in total contribution continued and by 1974/75 only 23.4 per cent originated in agriculture" (Okunrintemi, 1991).

Agriculture is still the main stay of the Nigerian economy. It is the principal source of food and raw materials for the increasing Nigerian population. The availability of an adequate food supply is vital because food shortages will lead to higher prices, which inturn, may lead to demand for higher wages. Also most industrial developments that have taken place have centred on using agricultural products as raw materials - fruit canning and textile industries (Olalokun, 1979).

Nwankwo (1981) has indicated that "agriculture continues to be the mainstay of the Nigerian economy. It provides the bulk of the employment, income, and food for the population. It is the source of raw materials required for the country's agro-based industries. It is also an important foreign exchange earner, a potential which is increasingly being exploited. The crucial role of agriculture in the over-all development of the Nigerian economy is therefore not in doubt."

Similarly, Nigeria has continued to promote:

(i) Increased production of food and other raw materials to meet the needs of the growing population and rising industrial production, a basic objective in this respect is the attainment of self - sufficiency in food production in about five years;

(ii) Increase production of livestock and fish to meet domestic need and create surplus for export;

(iii) Increased production and processing of export crops with a view of expanding and diversifying the country's foreign exchange earnings;

(iv) The expansion of employment opportunities to absorb the increasing labourforce of the nation, and

(v) Evolution of appropriate institutional and administrative apparatus to facilitate the rapid development of the country's agricultural potentials.

If the above objectives are to be achieved, it becomes imparative that appropriate agricultural finance policy and strategy must be adopted by the country.

Abdullahi (1986) in spite of the past contribution of the agricultural sector to food and export production, "it is estimated that growth of agricultural production has declined. This has caused a massive migration from the sector."

Oil has overtaken agriculture in the race for pre-eminence as the cardinal foreign exchange earner. "In the past, agricultural products dominated the Nigerian export trade... oil has now climbed to become the most important export of Nigeria" (Ajomo, 1972).

The dwindling nature of agricultural share in the GDP is

partly explained by the phenomenal growth of the mining and industrial sectors. "The discovery of oil in Nigeria and the consequent economic boom created a situation of irony, whereby instead of being a source of real ecomic growth and development, oil boom led to distirtions in the economy" (Sada, 1987).

1.2 STATEMENT OF THE PROBLEM.

Poverty has been a serious problem of the rural farmers.

Olatunbosun (1975) has indicated that the majority of Nigerians who constitute the poorest segment of our society live in the rural areas with agriculture as their main economic activity.

One problem currently facing the sector is its poor performance. This is manifested in the failure of the sector to provide adequate food for the growing population, declining productivity of most export crops which has contributed to the substantial reduction in the Nigeria's foreign exchange earnings, and the declining contribution of agriculture to the GDP in real times. This continued low rate of agricultural production in the country has been accompanied by alarming increase in the importation of agricultural products including food items for which the country has been traditionally self-sufficient.

The poor performance of the agricultural sector has had very adverse effecfs on the development of agro-based industries in Nigeria.

One of the contributory factors to the problem of low productivity of the Nigerian agriculture is the use of simple production technology. (Abalu, et al. 1979, Osutogun, 1986).

A unique feature of the Nigerian agriculture is the predomi-

nantly peasant system of cultivation. Production is carried out under largely traditional system of cultivation in which farm holdings are small. The system is also characterized by the use of simple tools like cutlasses and hoes. Farm inputs consit mainly of land and family labour. Capital investment is small and modern inputs like fertilizers, chemicals and improved seeds are still not widely used by most of the producers. Subsistence production is the main feature of the system.

Under this small holdings systems, productivity remains low and the average farm income is so low that no net saving is possible. To reverse this situation, farmers will have to take to advanced agricultural technology that will lead to increased yield and income. But farmers can only take to this advanced agricultural technology if they can buy it. In Nigeria, empirical evidence has shown that lack of sufficient capital is a major constraint on Agricultural production (Norman, 1970, Ogunfowora, 1972).

Lack of credit is generally recongnized as an important limiting factor to increasing food production and modernizing agriculture. Farmers' adoption of new technology oridinarily requires the use of some improved inputs which must be purchased. Most small farmers can not finance such purchases from their own savings because they are too poor to save and invest, a condition which has put them in a "vicious cycle" of poverty. The "Vicious cycle of poverty", state that a farmer is poor because he is too poor to save and invest.

The Nigerian small-scale farmer is, therefore, kept in a

position of poverty in spite of the urban development taking place all around him. The "Vicious cycle" theory, which focuses on the reason for low saving rates in developing countries, is widely accepted in Nigeria. (Nafziger, 1984).

Nurkse (1953) has argued that poor countries are poor because they are poor. Behind this apparent statement lies a theory of the "Vicious cycle of poverty".

The basic aim of agricultural credit scheme is to provide the farmer with the purchasing power that permits the expansion of production through the use of improved technology and more modern farm inputs.

The basic assumption that under lines the establishment of institutional credit scheme for farmers in low income countries is that, these farmers are constrained by existing low level of technology and lack of credit. Lack of credit would result in sub-optimal use of available resources since production costs are financed by savings. Provision of credit is then expected to bring a change in the farm level resource use and farm production by removing the financial constraint, so that the farm operator adopts an improved technology (Wharton, 1970).

Ogunfowora (1972) and Falusi (1973) has indicated that the Nigerian Government has attempted to meet this need of credit by establishing various types of credit schemes.

The credit schemes, has been designed to provide capital for the agricultural sector and partly to stimulate the adoption of improved technology. It is hoped that in this way output will be raised with a corresponding increase in income, and that the recipients would be able to improve their well being.

Credit is ussually thought of as being necessary to break the "Vicious cycle" of low farm productivity, low output, low income, low savings, low investment which seem characteristics of peasant farming conditions in economically underdeveloped coutries. Thus, it is argued that until credit is made vailable to small-holders, agricultural modernisation will be seriously delayed even after the other conditions necessary for adopting new technology have been fulfilled.

In addition, the nature of the traditional farming system, warranting little savings, places it in a position where it can not finance its own development at a desirable level (Nwagbo, 1981).

The distortions in Nigeria's agricultural sector have to do with the dependent pattern of production that has, for long, characterized the Nigerian Economy. "Nigerian Agriculture was traditionally broken into two seperate components- the export oriented agriculture that was highly commercial but with no forward linkages to the rest of the economy and the subsistence or the domestic subsector which, though a major producer of domestic food and supplier of raw-materials to industries was nevertheless mostly neglected and characterized by limited access to commercial inputs and low levels of technology (Mbanefoh, 1987).

Credit is also seen as a neceeary incentive package needed to stimulate agricultural development. Hence the adoption of concessional lending rate on credit to the sector. An example is that of the NACB limited.

A lot of measures have been taken to improve the poverty of small farmers in Nigeria. One of such measures is the establishment of the small holder Direct credit scheme in Nigeria, under the NACB to improve the farmers' standard of living by increasing the productivity and profitability in agriculture.

The establishment of the NACB and other institutions as the Agricultural Credit Guarantee Scheme Fund (ACGSF) as well as other credit institutions all over the Federation is an important measure to improve agricultural production in Nigeria (Kumopayi and Adeyanju, 1982).

1.3 THE AIM AND OBJECTIVES OF THE STUDY :

The primary aim of this study is to analyze empirically the likely farm-level effects of credit on the use of modern inputs by small holder farmers in Zaria local Government Area of Kaduna State. The major objectives are:

(i) To obtain basic input-output data for arable crop enterprises from small holder farmers who have adopted the use of credit.

(ii) Identify the various problems affecting the NACB small holder Direct Scheme in Zaria.

(iii) To determine the magnitude of the farm labour use, farm income, cropping pattern, and the productivities of farm resources that are likely to be associated with the use of credit by small holder farmers in Zaria.

(iv) To make policy recommendations for agricultural development policies and strategies.

1.4 RESEARCH HYPOTHESIS

In pursuance of the study's objectives, the study seeks to answer the following questions:

(i) What is the impact of credit on Arable Crop Production of the Small Holder Direct Credit (Loan) Scheme?

(ii) Is the use of credit by the small holder associated with increased output/input?

(iii) Have there been any increase in the size of income as a result of the use of credit among farmers of the small holder scheme of Arable Crop Production?

1.5 JUSTIFICATION OF THE STUDY:

The use of agricultural credit pre-supposes increase in productivity and profitability.

Thus, the study of the impact of the NACB credit, on Arable Crop Production of the Small Holder Direct Scheme, will provide us with the needed data on the the level of productivity and resources use of the small farmers in Zaria.

Institutional creditors will be interested in increased productivity because it leads to higher incomes and gives the debtor the ability to repay the loans. However, the results obtained on the impact of credit on arable crop production of the small Holder Direct Scheme and the level of productivity of farmers would be useful in analysing the direction of credit use in Zaria.

1.6 SCOPE AND LIMITATION OF THE RESEARCH STUDY:

This study is restricted to arable crop production of the small Holder Direct scheme within the NACB limited Operation

scheme within Zaria Local Government Area of Kaduna State.

A severe limitation of the study arises from the fact that most farmers, even those who operate on a fairly large scale, hardly keep any sytematic records or accounts in Zaria.

Therefore, the only way to obtain information from them is through the interviewing techniques with the help of questionnaires; relying wholly on their memory work to give answers to questions. When the memory of the respondent fails, facts may be stated wrongly or misrespresented.

Finally, our literature especially the demand for credit in Nigeria is not very exhaustive but rather restricted within the scope of the research hypothesis. The overall effect of these limitations is that our results would be limited to the given area and time of the study until further research involving wider scope of the area is done.

1.7 CONCEPTUAL FRAMEWORK:

Many research studies have indicated that credit is an integral component of agricultural development programmes which require that farmers purchase an increased value of inputs such as fertilizers, seeds chemicals, etc.

This is true in most low income countries including Nigeria, initiating agricultural rural development programmes.

There is a belief that agricultural credit or credit as a whole is required due to the following reasons:-

(i) There is insufficient savings capacity among small-scale farmers relative to investment requirements. When improved inputs are made available, a cash shortage restricts a substan-

tial portion of the farming population from purchasing the additional inputs.

(ii) The indigenous credit sytem through the money lenders is not adequate with respect to timing, terms, volume, or the breadth of accessibility to supply the additional capital requirements.

(iii) It is often asserted that access to and cost of Local credit is particularly biased against small scale, and low income farmers who are most constrained by a cash shortage.The demand for credit at any given time will also depend on the productivity, prices of inputs and outputs as well as net income from the sales of outputs or crops. This, in their judgement, would tell them that the expected returns to their business would be high enough to guarantee borrowing to improve their farm business.

1.8 ORGANISATION OF THE RESEARCH STUDY:

This study is divided into six chapters . Chapter One, as usual, dwells on the general introduction of the study and comprises of the importance of agriculture, the statement of the research problem, the aim and objectives of the study, the research hypothesis, justification of the study, the conceptual framework and the organisation of the research study.

The literature is reviewed in chapter II. Chapter three describes the Area of Study and Research Methodology. The Area of the Research Study, Sources of data, Data Collection Procedure , Sampling Procedure, Data Requirement, Approaches to the study of Impact of Credit on Small Holder Farmers, Location of the Area of Study, The People of Zaria LGA, Their Occupation, The Climate and

Ecology of Zaria LGA, Types of Crop grown in the Area, Analytical Techniques and Farm budget is also given in the same chapter. Chapter IV shows lending to farmers through the NACB small Holder Direct Loan Scheme. NACB Loans on Small Holder Direct Scheme and purposes 1981-1991. Percentage loan distributed within the years. Loans for Arable Crop Production Purposes. And the implicationof the concentration of Bank Loans on Arable Crop Production is also given in the same chapter.

Chapter V provides the conceptual framework for analysing the Resouce base of farmers in the study area and presents costs as well as returns analysis.

The final chapter VI, is devoted to the summary of the findings, prospects for improvement, Data limitation, policy implications, Recommendation of policy Relevance and conclusion.

CHAPTER II

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

There are similar studies carried out in the literature on Agricultural Credit in Nigeria and other countries on the small-scale farmer and public agricultural credit institutions.

The words "credit", "loan", "borrow", in finance are often used interchangeably. They refer to the process of obtaining control over the use of money, goods or services, in the present in exchange for a promise to repay at some future date. The lender forgoes the use of money or its equivalent. Currently by making a loan or extending credit to the borrower, who promises to repay on the terms specified in the loan agreement or debt instrument. In this manner the borrower obtains resources to use for current production or consumption purposes before doing the saving that would be required to pay for the goods if credit were not available (Miller, 1977).

On the other hand, the word "Credit" is said to come from Latin word "Credo" which means " I believe". This implies that a farm operator who asks a lender for credit believes that the latter will help him out while at the sametime the lender believes that the farm operator will repay him on schedule. Trust is therefore very assential in the field of agricultural credit. Credit, when obtained, should be utilised prudently, otherwise the farmer could throw himself perpetually out of business.

(Akubuilo, 1976).

Credit has often been referred to as the "oil" that lubricates the giant wheel of agricultural production. Credit plays a crucial role in the transformation of rural agriculture. (Mobayo, 1982).

The low level of income of the farmers' constitute their inability to shoulder the responsibility of adopting recent techniques of production single handedly. The NACB Limited and the Agricultural Credit Guarantee Scheme Fund (ACGSF) have been lending to farmers since 1973 and 1978 respectively.

In recent times considerable interest has been shown by Agricultural Economists, Policy Makers, Planners, Agriculturalists, and Financing Institutions on the need to direct attention to the small holder farmer in Nigeria. This deserved attention stems from the conviction that in the short run, Nigeria can rely on the food and fibre required to feed the ever-growing populance, as well as the needs of the agro-based industries. (Aku, 1981).

The feature of the small holdings is not peculiar to Nigeria alone but common to most if not all developing countries.

The former President of the World Bank Group, (McNamara) observed in an address delivered to the Board od Governors of the World Bank in 1973, that there were 100 million families involved and more than 700 milliom individuals involved in farming in developing countries. He also noted that the average size of the farm holdings is small and often fragmented. He further observed that more than 100 million farmers have less than five hectares each and of these, more than 500 million have less than one

hectare each. He concluded that even the use of land which the small farmer has is uncertain, and tenancy arrangements are generally insecure and often extortionated. It is against this background that the NACB inaugurated the Small Holder Direct Credit Scheme in March, 1981 to supplement the on-lending scheme and to reach as many rural farmers as possible.

It is the intention of this research to examine the impact of credit on arable crops production the small Holder Direct Scheme which marked its 10th year anniversary of existance in March, 1991. (NACB, 1991).

In the study of the impact of credit comparing resource use efficiency of borrowers and non-borrowers in the Maigana and Samaru-Kataf Zone of Kaduna State Agricultural Development Project in the state. The results of the study revealed that borrowers in Samaru-Kataf actually used more labour and capital than their non-borrowing counter-parts. With regards to Land there was indication that non-borrowers possessed more of it than borrowers. The results also indicated that non-borrowers had higher income. The Maigana non-borrowers used larger inputs than their borrowing counterparts. The income measures for Maigana borrowers were higher than non-borrowers' in absolute terms. These results have relealed that the efforts aimed at improving the farmers' standard of living by increasing their resource use efficiency have yielded the desired results.

It was also indicated that borrowers used less labour than non-borrowers in the two Zones and non-borrowers in the two Zones used less land and capital than borrowers.

The demand for credits also indicates a high elasticity with respect to interest rate. The result suggests that concessionary interest rate may be a useful agricultural growth stimulus in the study area.

An important conclusion drown from the study is that farmers in Kaduna State do actually need credit assistance given the fact that they are too poor to provide the finance needed to cope with the demand modern farming makes on them. Credit will help by giving them good financial base so that they can make some investment in the use of improved resources for farm production. This is why the assessment of the impact of credit is believed to be worthwhile for the benefit of farmers, policy makers, credit institutions and covers an important gap in credit impact Literature. (Aku, 1991).

2.2 STUDIES ON DEMAND FOR CREDIT IN NIGERIA:

Credit is one of the crucial inputs that can bring about a rapid increase in agricultural production. Credit and increased agricultural production are assumed to have a cause and effective relationship, and for the farmer, if credit is given, increased production is assumed to result.

There has been some structural changes by the government, in the past or last decades, through the introduction of improved technology and the various agricultural policies, ranging from operation Feed the Nation, Green Revolution, Agricultural Credit Guarantee Scheme Fund, etc. Resulting to high techniques of production and high yielding varieties of major crops which has increased the use of purchased inputs such as fertilizer, insec-

ticides and herbicides.

The increased use of farm inputs, the use of farm machanization has altimately increased the cost of production in farming. There have also been increased demand for farm mechanization, human labour and inputed cost usage. The farmers' expenses have become quite high while income remained low. These has made it almost impossible for the small farmers to meet up with these expenses out of their magre incomes.

These however, have brought about the need to set up special credit institutions such as the Agricultural Loans Board, Agricultural Co-operatives, Nigerian Agricultural and Cooperative Bank, and so on to cater for the perceived credit needs of the small and large scale farmers in Nigeria. Studies in Nigeria and elsewhere indicates that unless production credit is made available on suitable terms, the majority of small farmers will be seriously handicapped in adopting profitable technology. (Ogunfowora, et al, 1973).

Credit is most essential in agricultural production with agricultural credit, the farmer can secure farm machinery and equipment, cover unsubsidized portion of farm input, hire additional labour,and also cover some portion of the imputed cost of his family labour. It is true that farm inputs are currently been subsidized in Nigeria, but the rate of the subsidy is so low that, farmers still bear the major parts of the cost burden of their farm production, (Nwoko, 1981).

In a reseach study on the impact of credit among small scale

farmrs in Ondo State, Nigeria, using cross Sectional data analysis on borrowers and non-borrowers, Ilebami, in his findings indicated that borrowers had larger farms than non-borrowers and that their operatimg expenses and investment per hectare were high among borrowers than non-borrowers. (Ilebami, 1983)

Informal Credit is the oldest source of Agricultural Credit. For substistance agriculture, then, credit from such sources was adequate. But when farmers entered the market Economy, both locally and internationally with the introduction of Commercial Crop Production, the demand for credit became more than the rural financial market could provide thus, agricultural development process become stunted. (Famariyo and Nwagbo, 1980).

Availability and accessibility to farm credit is another problem facing the Nigeria Agricultural Sector. Hitherto, Credit channelled to agriculture directly by the Commerical and Merchant Banks and through government sponsored institutions like the NACB and State Agricultural Cooperations and indircetly through the Agricultural Credit Guarantee Scheme Fund established jointly by the Federal Government and the Central Bank acts as the managing agent.

Despite the above, access to institutional credit is virturally non-existent to the average farmer due to his inability to satisfy certain condition, such as:

i. Lack of credit worthiness of the farmer and his inability to provide acceptable collaterial securities.

ii. Another limitation is weakness of farmers Cooperatives. These were expected to be the main channel of loan

transmission when the agricultural credit guarantee scheme was being established; but their operation since the inception of the scheme which is described

as "very disappointing and had neither matched the hopes of the founders nor justified the concessions made by the government".

iii. Another hindreance to farm credit appears to be the land use Decree of 1978, while the Act recognises as the owner of the piece of land someone who has certificate of occupancy, these certificates are hardly issued but are none the less required by Banks as evidence of ownership and interrupted use of the land in respect of which the Loan is applied for .

Agricultural policy and strategy in the 1980's should therefore identify the main bottlenecks in access to institutional credit and evolve measures to overcome or mimimise them. Strengthening farmers Cooperative and making them popular among farmers can stimulate direct lending throguh the Cooperative, while social or group guarantee may assist farmers' who may not otherwise be individually viable. (Edordu, 1980).

In her study of the Economics of Loan Advances and Loan Retrival in a Depressed Economy: Using regression analysis, discovered that the impact of agricultural output is insiginificant in terms of Credit extension to grass root farmers in Nigeria. She further said that the high incideence of loan default by customers of NACB has affected Loan disbursment to farmers.

And that there is a significant difference betwen loan advance and loan retrival in periods of Economic boom and depression. (Ochelebe, 1987).

Agricultural development involves the reduction and elimination of poverty, income inequantity, rural political power inequality and unemployment within the context of a growing agriucltural Economy. When there is an increased per capital income in few rich farmers and agro-allied industrialist, leaving vast majority of the rural people (dwellers) untouched, agricultural growth is said to have occured not agricultural development. Agricultural development is said to have occured when there is agricultural growth, accompanied by income distribution and when needed changes occur in rural institutions so that the majority of the farmers not only have new opportunities, but also equalised access to new wealth-sources (Idachaba, 1984).

"Despite the institution of the Agricultural Credit Guarantee Scheme Fund (Federal Republic of Nigeria, 1977" calls are being made for dual loan programmes in cash and in kind under specified procedures to farmers. Such calls arise from the Operational defects of the Agricultural Credit Guarantee Scheme Fund. These defects are:

i Institutional discrimination against small scale (traditional) farmers who can not meet the collateral requirements of the fund.

ii. Finally, despite the governments' guarantee policy for cooperative borrowers, the fund has not trickled deep enough into the midst of small scale (traditional) farmers.

[redacted]nko, 1981).

Credit Schemes in Nigeria have failed to make the desired impacts on the rural Economy. Some of the causes for the failure of the previous Credit Schemes are:

i. Cubersome and time consuming procedures in loan approval'

ii. Over centralization and dependence on government for investment:

iii. Bribery and political interference;

iv. Repayment problem; and,

v. Land tenure problems.

Farm Credit Scheme in Nigeria have only a limit effect so long as they are operated without due regard to the earning capabilities of the innovations being financed.

2.3 IMPACT OF CREDIT STUDIES IN OTHER COUNTURES;

India adopt a multi-agency approach for financing agriculture and rural development. They therefore have a flexible approach not only with regards to the system of loaning, but also with regards to structuring for loans and levels of technology that can be recommended for implementation. The Organizational structure for financing agriculture is a three tier set-up, the short, medium and long term credit structures.

Conclusively, "from records and information gathered so far, agricultural financing in India has been extremely commendable in that they have not only financed the operations, but in collaboration with Agricultural Finance Corporation have gone along way in achieving a number of innovations primarily with view to

achieving greater and faster growth rate both with regards to productivity as well as to increamental income generation and creation of employment potentials". (Ghouse, 1980).

Philippines experience in Agricultural credit is particularly focused on small scale farmers. Their problems as already know in developing Countries is not easy to resolve. Institutional Agricultural Finance in the Country has always had a strong bias in favour of exports oriented producers. Domestic Crop farmers, though generally small, has very limited access to Institutional sources of credit. The institutional system servicing the agricultural sector is multi-agency consisting of net work of private and government banking and non-banking institutions. (Agabin, 1980).

The study of financing agriculture in Kenya, the structure of the institutional agricultural credit finance in Kenya, and this consists of a Cooperative Bank of Kenya which lends to Cooperative Societies, the Commercial Bank which are the largest source of agricultural credit, statutory boads which engaged in specialised lending to agriculture and the Central Bank which actively pursues a policy of promoting rural development through encouraging other banks to finance rural development. It does this through a refinancing scheme for marketing of some crops. The Country is currently planing to introduce a credit Guarantee Scheme. (Gachara, 1981).

In the results of the measure of the impact of credit in three different Countries: Brazil, Columbia and Ghana, indicated that differences in the regression co-effecients for borrowers

and non-borrowers using both time series and cross-sectional data in Columbia were inconsitent. No meaningful conclusions could be reached with those results. Time-series aggregate data were used in the case of Ghana. The co-efficients were insignificant except for the high labour coefficient which was attributed to the aggregation and specification errors. With cross-sectional data, the Brazilian study ran a Cobb-Douglass production function. The coefficients for land, farm equipment, operating expenses and seed varieties, were significant.

From the three Countries results, an unclear picture emerged from the study with regards to the impact of loans. Some explanations for these unclear picture of the results was provided by authors. Firstly, they argued that short-term credit programmes attempt to encourage the adoption of new seed or fertilizer use. There is, however, no reason why one should expect the adoption and therefore, a shift in production function to be conditional upon borrowing. Moreover, they argued further that modern varieties often imply greater operating expenses due to the use of more chemicals and fertilizers to the extent that farmers with different financial levels are located on different points on the same technology function.

Secondly, the use of medium and long-term credit may be more compatible with changes in production relationship because they can used to finance large inputs which are more difficult to finance internally. For example, mechanization may change land-labour relationship (David and Meyer, 1980).

2.4 THE NEED FOR CREDIT:

There is need to inject not only technology and other agricultural services, but also capital into rural agriculture. "Financial Credit is the most universal and flexible transferable form of economic resources". Says Donal, "with cash obtained via credit one can buy anything that is for sale". Thus where appropriate technology is available, acceptable and understood by the farmers, with an increased capital base, they will be in a position to adopt the technology. However, the major credit facilities elude them. These are available in the towns away from the rural villages. Besides, the farmers lack adequate collateral to offer as Security for the institutional credit and usually have to resort to informal or private source of credit. (Donal, 1976).

Internal financing forms for the small farmers are created by production processess in which family labour is the primary, and in some cases, they only resource (in addition to land). Due to the size of the farms, and the low level of existing technology, the level of production, marketing and Net income tend to be very low. Consequently, with consumption needs that are high relative to the level of income, these farmers cannot save and invest new capital in their farm business. Therefore, little or no capital improvement, on which productivity increases are based, is possible. (Ogugua, 1979).

In particular the need for increased supply of capital seems to arise from the following line of reasoning:

(i) "Many innovations in farming inevitably increase the capital requirements of farmers. The low rate of adoption of

improved practices is partly due to the lack of adequate financial resources for implementing these practices.

(ii) The bulk of the farmers produce at the subsistence level and there is usually small surplus out of which saving for future investment can be made.

(iii) The seasonal nature of farm production and income generation creates a need for short and medium term loans for financing the production activities.

(iv) The supply of loans may strengthen the farmers' position in the disposal of his farm produce instead of having the timing determined by urgent need for cash". (Ogunfowora, etal, 1972).

2.5 CREDIT IN THE NIGERIAN AGRICULTURE:

Agricultural Credit is needed at every stage of this chain - from supply of inputs to the marketing of output. Moreover, Credit once supplied, will need to be monitored to ensure that it is not diverted away from the purpose for which it is granted - Credit, like irrigation water, is a most essential input for agriculture. Whatever system is buit, it must ensure a smooth flow to reach individual farmers.

Credit is obtaining control over the use of money at the present time in exchange for a promise to repay at some future date. The lender foregoes the use of money or its equivalent by making a loan to the borrower who promises to repay on terms specified in the loan agreement or instrument of debt. In common usage, "Credit" and "Loan" are frequently used as synonyms.

Looking at it from different perspective, the need for credit among the small-farmers in Nigeria can generally be divid-

ed into two - for production, the credit funds are mostly spent on payment for labour and purchase of basic farm inputs (fertilizer, seeds, and chemicals and so on). Others include purchase of basic tools - hoes, water pumps in irrigation farming and ox-drawn ploughs. Because the items purchased are small and seasonal, the credit required is short-term and seasonal too.

The purpose of production credit is to provide funds for the undertaking of some economic activity so that the borrower will have a higher net income after he has repaid the loan. On the other hand, credit used for consumption is static rather than dynamic since it does not increase the borrower's income or help him to repay the loan when it comes due. Nevertheless, provision should be made for consumption loans.

The objective of a credit programme for the small farmer should be to meet all his credit requirements including his genuine consumption needs,. (F.A.o. 1975)

Results of many studies carried out suggest that the volume of credit required per farmer is small. This fact has led many workers to conclude that the administrative cost of lending to this category of farmers is very high. Therefore, even though there is an urgent need to increase the capital strength of the small farmers, the credit required is short-term, seasonal and generally of small amount per farmer. Many studies have been conducted on farm credit in Nigeria and their main concern revolved around efficiency of credit organization, number of loans made available, level of repayment and book-keeping, etc. Little attenton has been given to evaluating the farm level of impact of

credit on resouces use efficiency of farmers. (Aku, 1991)

In a study conducted in Funtua Local Govenment Area of the then Kaduna State, using the 1982 agricultural loans,the productivities of loan - users with non-loan users was compared. The findings indicated that borrowers had larger hectarages and net farm incomes then non-borrowers (Anchaun, 1986).

A great deal of work has been done in describing various credit schemes in Nigeria. However, very little research work has been done in systematic assessment of the farm level impact of credit. The few published works in the area exist in the form of unpublished reports and graduate students' theses works. (David, et al, 19980).

Some of these works,done in the area of impact of credit in agriculture in Nigeria and other Countries are reviewed in the subsequent sections.

2.6 THE ROLE OF CREDIT IN AGRICULTURAL DEVELOPMENT; .

One reason for the importance frequently attached to small farmer credit as a vehicle for rural development in the LDCs Economy is the belief that the lack of small farmer access to institutional credit consitutes a critical constraint to the adoption of improved inputs and modern technologies which can lead to increased incomes and enhance rural welfare. Thus, if farmers are to adopt improved livestock, better seeds and pesticides, water pumps, tractors, and so on, they will require credit, especially short-term credit, to help them purchase these inputs.

From 1977 to 1984, a total number of 7,737 projects were

financed under the Agricultural Credit Scheme with a total among of N404,509 million. 95.8 percent of the farmers reached were small scale producers taking 40 percent of the total loan granted. It was also observed that 57.4 percent of the total loan went to poultry production numbering about 20.8 percent of total projects financed. (Sule, 1986).

On-lending scheme of the NACB took the largest share of total loans made by NACB since inception. It took 59.74 percent of the loan value by NACB in its 13 years of operation.

The small holder formed about 90 percent of loan beneficiaries under the Direct lending, only 6.72 percent of loan value went to them. It was observed that loans were skewed to the advantages of large scale farmers who consituted only 8.54 percent of the number of beneficiaries under the direct lending. It was also observed that loans were skewed to the advantages of some Northern States in terms of number of beneficiaries. But the average size of loans were generally higher in the Southern States than in the Northern States. (Ejiga, 1987).

Loans to African farmers have resulted to increamental production. though it is still difficult to obtain objective and accurate data on the increamental impact of project credit on the rural Economy, and on the financial institutions both formal and informal.

Credit from official sources has not been closely associated with savings mobilization in most of Africa. Most specialised farm credit institutions do not accept deposits fragmenting

credit from savings. Low lending rates further discourage savings. (Miller, 1977).

2.7 THE ROLE OF CAPITAL IN AGRICULTURE AND ECONOMIC GROWTH:

"Capital formation has had a rather charismatic influence on discussion of economic growth, especially in the under devloped Countries, from operational as well as theoretical standpoint. Capital formation has come to connote the strategic entry point for achieving economic development. (Aboyade, 1983).

Capital in Agriculture comes from the priviate sector of the economy (individuals' savings) Banks, Mechants, Insurance Companies, and the Cooperative Agricultural Credit system.

The other group include the public sources of credit (government agencies like the ACGSF, State Agricultural Loans Boards, and the NACB) which are legally authorized to make loans to farmers in the Country. Capital requirements on farms will probably continue to be satisfied from current gross income from farming, but there will be more capital flowing into farming from external sources. Capital used both from within the farm sector and outside of it will undoubtedly provide relatively more non-real estate credit farmers.

Capital in Agriculture, includes items such as simple tools, machinery, livestock, fertilizer, seeds and chemicals. Capital is the valuable improvements that farmers make use of to improve their farm business. Improvement in the farm business would include land clearing, draining, fencing, irrigation, terracing and the planting of trees in addition to any farm buildings used

in production. Agriculture requires a large sum of capital for provision of farm inputs, marketing and the processing of farm products. (Wharton,1967).

Capital plays an important role in the Economic theory of development, which much attention has been given in the literature by many Economists. There are three processes in capital formation:

i. "An increase in the volume of real savings;

ii. The chanelling of savings through a finance and credit mechanism, and

iii. The act of investment itself". (Meier, 1970).

The first process is of fundamental importance because capital formaion requires the mobilization of an Economic surplus.

Capital is the root of Economic progress. The main focus of this theory was on the process of labour transfer from the subsistence to the capitalist sector and the growth of employment in the latter sector. Lewis's major theme is the growth of capitalist sector as a condition of economic development. Labour transfer and urban employment growth rate, to Lewis occurs depends on the rate of capital formation and investment. The faster the rate of capital accumulation, the higher the rate of growth of the capitalist sector, and the faster the rate of new job, Creation, (Lewis, 1954).

"Capital usually employed in Agriculture include fertilizers, insecticides, antibiotics, ploughs, siols, herbicides, poultry houses and pig houses. Broardly Capital resources

employed in Agriculture is grouped into two:

a. Durable or fixed capital which includes all items which have mor than one year of useful life. Examples are buildings, machinery, equipment, and land improvements such as terraces and dams. Breeding animals are sometimes classed as durable capital though for purposes of business analysis they are listed as inventory items.

b. Working or circulating capital which include market livestock and feed,cash needed for operating expenses such as fuel, purchased feed, and fertilizer.

The capital available for use on a farm largely determines the volume of business the farm operator can transact. If the farm is intensive it would require bigger capital investment per hectare. Also the smaller the farm the greater the capital requirements per hectare. The more diversified the farming system, the more capital needed.

Capital is a limiting factor in Crop Production in Africa and Nigeria. Many farmers are poor and the credit system is inadequate. The supply of loans to farm operators has always been made a political issue and well-to-do individuals with political connections, posing as farmers, have always snatched loans meant for the genuine farmers. (Akubuilo, 1976).

2.8 RELEVANCE OF THE LITERATURE REVIEW FOR THIS STUDY:

The literature reviewed has shown the importance of income in our national development. It has been observed that the income of the small-scale farmer has been very low compared to the

large-scale farmer and the industrial urban worker (Aboyade, 1983). This has further accentuated the poor state of the small-scale farmer who is dependent on agriculture for his income and welfare. The rapid urban development in the country does not seem to have any positive effect on the "vicious cycle of poverty" the farmer is caught in, father the effect has been negative.

The observation in the literature is that the small-scale or holder farmer has failed to meet the agricultural demand of the country due to his outdated methods of agricultural production and inability to obtain credit facilities. Most Government efforts however, th raise the productivity and income of the small holder farmer have failed in the past. This could be attributed to among other things to the lack of genuine commitment on the part of the planners and government to alleviate the suffering of the rural majority by providing them with credit facilities.

The literature has show that the small holder farmer is a very rational producer and will be willing to adopt new practices if the conditions and benefits acruing are favourable.

The lack of intensive research on the impact of the agricultural credit (small holder scheme) on income of the small holder farmer has come to light by this short review of the available literatures. The literature has not given due attention to income generation and developmental aspects of the rural majority who are the small-holder farmers. It is also observed that the distributional impact of the NACB did not favour the small holder farmer much. This is in spite of the overall goal of the NACB of raising the standard of living of the small holder scheme since its inception in 1981.

2.9 THE GENESIS OF THE NACB OPERATED SHDLS:-

The Nigerian Agricultural and Cooperative Bank Limited (NACB) is a development Bank which was set up by the Federal Government in March 1973. The Banks' name in 1973 was the Nigerian Agricultural Bank (NACB) later sometime in 1978, it was renamed the Nigerian Agricultural and Cooperative Bank Limited (NACB). Its major assignment is the development of the Agricultural sector through the provision of credit to Nigerian farmers and agro-business ventures. It also provides equity financing and loan gaurantees. The small Holder Direct Loan Scheme (SHDLS) of the Bank was introduced in March 1981 to supplement the on-lending Scheme and to reach as many rural farmers as possible. The scheme is still growing in leaps and bounds. Hitherto, the Banks loans were channelled directly to individuals, cooperative societies, limited liability companies and state Government Agencies or indirectly through state Government, their agencies and apex cooperative organisations for on lending to individual small farmers. According to the NACB Annual report for 1980 before the introduction of the small Holder Direct Loan Scheme in March 1981, the culummulative volume of loan operations by the NACB as at December 31st, 1980stood at N381,528,000.00 Approvals under the direct lending schemes accounted for N124,458,000,00 or 33 percent of this amount, while the on lending scheme accounted for the balance of N257,070,000.00 or 67 percent of the total loan portfolio.

However, N163,253,000.00 or 43 percent of the total amount involved was granted to cooperative societies, state Governments

and Federal Government Agencies for produce marketing. Therefore, only N98,817,000.00 or 24 percent of the total amount involved in the on lending scheme went into actual agricultural production.

It is therefore, in recognition of the inadequacy of the on-lending scheme in catering for enough rural farmers that the small Holder Scheme (SHS) was introduced in 1981. The Bank recognised the need to involve the masses of Nigerian rural farming population in its credit programme at its inception, and was equally aware of the many problems facing the millions of farmers that subsist on less than 5 hectare per family, but as a group cultivate over 90 percent of the total cultivated farm land in the country. The initial short-run market strategies of the Bank were therefore, to be such as to maintain a balance between credit needs of the small farmers and the banks limited organizational capabilities, invariably, in order to accommodate this class of farmers, NACB evolved its "wholesale" market strategy by lending to intermediaries who in turn lend to small farmers. By this marketing strategy, the Bank has been able to give wider spread of its funds and credit and has combined it with informal rural education, extension services, input procurement, marketing, and others, in an integrated approach. This is the "on lending scheme which has so far helped in no small measure to improve the institutional services of the on-lending agents and strengthen their organizational set-up.

The on-lending scheme was however, ashort-term marketing strategy. The objective of the Bank has always been to reach the

grassroot farmers through a planned direct credit scheme, hence the birth of the small Holder Direct credit scheme in 1981. The small Holder Direct scheme is a bold and pragmatic approach in agricultural Finance. For this scheme, most of the fundamental requiement of the title to land, adequate security, etc are waived to enable the small scale farmers benefit without hinderance.

The Bank branch offices whose duty it is to administer this scheme make prospective clients aware of the existence of the scheme through occasional press interviews granted by top bank functionaries and the branch managers. A prospective client on making enquiry at the nearest NACB branch office is given a loan form to complete and return. The form requires him to provide some personal data, information on past, present and proposed farm operation and information on his proposed guarantors. On receipt of the completed form, the barnch office delegates an officer to verify and authenticate the information given by the applicant by way of a project indentification visit.

A visit report is therefore prepared by the officer and if he so recommends, a project paper is prepared, giving a detailed break down of cost and benefits to be derived from the project. The project report is then presented to a branch Agricultural project committee (BAPC) for approval/disapproval. On approval, the successful applicant is informed of the fate of his application and requested to come forward to complete the loan agreement forms, along with his two guarantors. The Bank does not enter into correspondence with unsuccessful applicants. In other to obviate difficulties in making advances beyond the credit needs

of the farmers, the bank gives a maximum of N5,000.00 to each farmer. In 1988, the bank increased this amount to N10,000.00 to cater for risein cost of equipments and farm inputs. The loan agreement form has attachment showing proposed schedule of disbursment of loan, to take care of the planned use of funds. At the appropriate time the client requests for the second and final disbursment of funds. This request atracts a visit by the branch officials to evaluate the use to which the first disbursement was put.

If found to be satisfactory, they recommend a second and final disbursment. The branch office at the appropriate time sends out demand notes notifying the client if he does not come forward to pay up the due amounts. The loan period (including the grace period) does not exceed two years starting from the date of first disbursment. Surprise visits are also undertaken to assess the farmers, performances. Visits are also under taken on request, especially when there are outbreak of disease or any kind of disster in a clients farm. It is worthly to note at this point that if the loan beneficiary defaults, the guarantor will be liable to that part of the loan amount he guaranteed, the principal and interest inclusive. The guarantors form which he signs is very explicit on this provision.

2.10 THE IMPACT OF THE SHDLS IN THE NIGERIAN ECONOMY

In barely 20 years NACB has grown to be the most authoritative institution in matters of agricultural financing in the country.

From being a one branch Bank at inception, the bank today

has five Zonal Offices, 62 branch offices and over 300 respresentative offices spread all over the country. This branch spread gives us the unique ability to rapidly respond to the changing needs of the farmer.

Right from inception, NACB adopted the view that rather engage in interpreting the Nigerian Agricultural sce ne as other financial institutions and social commentators have done over the years, their role would be to change the agricultural scene.

The Bank operates a supervised credit delivery system. This system ensures that all major advances in areas of agricultural research and crop husbandry methods are quickly disminated to the farmers through their specialist field staff: Beside all their projects are usually subjected to rigorous appraisal procedures to prove beyond doubt that they are technically feasible, economically viable and finacially profitable. Viewed in perspective, this developmental approach to financial engineering has helped in no small measure in heightening the awareness of the farming community to regard farming as business. It is difficult to quatify in monetary terms the impact of this service by the bank but we are left in doubt that the quickening tempo in the pace of transition from subsistent agriculture to commercialization which this will engender will be perpectually beneficial to Nigerian agriculture. This is in the long term.

In quantitiative terms, it is usual to measure NACB contribution to agricultural development through the quantum of credit to the agricultural sector. Agriculture here is used in general sense to include crop production, forestry, fishery, product marketing and storage and all forms of research related

to agriculture.

However, it is useful to measure the contribution of the Bank not only in terms of the quantum of loans made to the Small Scale arable farmers but also by its revenue and employment generation multipliers, the development of agricultural infrastucture and the physical output of its various projects. It is also noted that undertaking this type of enviornmental audit is fraught with problems and difficulties because of the very nature of our agricultural system in particular and the social milien in general.

There is more to agriculture than production. Agriculture today comprises a complexity of activities the sum total of which we refer to as agric business. In short agriculture is business with complex inter-relationship with industry. At the time of writing about 158,900 Small Scale farmers have benefitted from the SHDLS and about 358 million have been approved. The relevance of the Rural Betterment Programme lies in the sharpening of the awareness of the rural farmer to the fact that such amenities as potable water, electricity, good accommodation, just to mention a few, are not the exclusive right of urban dweller. This increase in awareness is crucial in providing the necessary impetus for the rural farmer to move up by his boot strap and work towards improving his life, even with out outside help. We believe it is with in this context that the problems, prospects and the impact of the NACB Operated Small holder Direct Loan Scheme and its parallel extension services should be judged (NACB, 1991).

2.11 THE PROBLEMS OF SMALL HOLDER CREDIT ADMINSTRATION

IN THE LOCAL ECONOMY:

The nature of the problem stems from the fact that small farmers in Nigeria have only recently had access to credit from institutional sources. EVen then, their access to these formal sources of credit is limited. This results from the fact that extension of credit to Small farmers is unattractive to lenders. This is due to its very high administration costs, high default and arrears rate high risk rate and the Small nature of holding,; which presupposes that the lending institutions should have sufficient staff to do effecive monitoring, supervision and loan recovery trips.

Despite the unattractiveness of Small farmers Credit administration, the NACB has however, blazed the trail and since 1981, introduced its small holder direct credit scheme (SHDLS) which currently covers the thirty one states of the federation and Abuja. However, the Scheme is not without problems; the must important of which is low repayment rate.

Oboh (1981), Osuntogun (1981) Ochelebe (1987) have suggested possible reasons for default ranging from the inperfections of the credit delivery system; inadequate supervision and montioring, lack of adequate market outlets; poor selling prices, failure of the farmer to use borrowed funds for productive purposes refusal and not inability to pay; poor coordination on the part of the lending institutions due to insuficient personnel; farmer's absenteeism and insincereity and farmer's attitudes of regarding the loan as their share of the "National Cake".

It is necessary to conclude this section by listing the major problems militating against smooth operation of small farmer credit in an under developed or less developed economy such as Nigeria:

i. Inadequate infrastructure eg rural roads, storage facilities, rural tele-communication facilties, etc

ii. Security of inputs eg fertilizer, improved Seeds and dones, feeds, etc.

iii. High cost of transport due to (i) above,

iv. Imperfection of markets and hence Pricing System due to the absence of a community exchange and other infrastructures.

v. lliteracy, wide research and devlopment and application gap.

iv. Underdeveloped capital market.

2.12 SMALL FARMERS AND THEIR PROBLEMS

In discussing this topic, we will highlight the Small farmers and their problems, credit delivery system and a review of the efforts of the NACB in channelling credit to small farmers through the Small holder Direct Loan Scheme.

In a survey carried out by the Federal Office of Statistics on farm holdings in 1973/74, Nigeria farmers have been classified into three categories:-

i. Small-Scale farms- these range from under 0.01 hectares to 5.99 hectares holdings and this class holdings and this class constituted 80.78 percent of all farm hold

ings in the country in 1973/74 .

ii. Medium- scale farms- these range from 6.00 hectares holdings to 9.99 hectare holdings and this class constitutes 13. 39 per cent of all farm holdings in the country in1973/74.

iii. Large - Scale Farms - These are farms of 10 hectares and above and this class constituted 5.63 per cent of all holdings in the country in 1973/74.

The problems of Nigerian Small farmers are as follows:

First is the natural resources inputs problems,especially land, water,labour and management.

Second is the problem of farm capital in terms of physical,mechanical, chemical, biological and financaial bottle necks.

Third is the problem of production, risk aversion,enterprise combination, among others, and fourth is the problem of institutional ineffectiveness found in such institutions or organisaions as farmers concerns and government agricultural institutions among others. (Olayide, 1980).

A part from the problems enumerated above, the small farmers are further more characterised by:-

i. Illiteracy and ignorance.

ii. Little capital.

iii. Low level of technology.

iv, Low income.

v. Small Size of farm holdings.

iv, Lack of tangible assets and clear title to land.

vii. Little or no savings.

viii. low level of productivity and

ix. Generally rural millieu.

The effect of these characteristics all put together make the service of formal source of credit inaccessible to the Small farmer who is unattracted to formal lending.

The resultant effect is that he become envitably exposed to other informal source of finance and stands to be exploited at the slightest opportunity.

The major reason why Small Scale farmers have difficulty in attracting credit is that the administrative costs of lending to Small enterprises are high and cuts deep into the profitability of such transactions. This is undoubtedly the case and has been borne out in studies.

A World Bank Study in the Philipines in 1978 showed that whereas the administrative costs of handling large loans was in the order of 0.3% of the cost of the loan,such costs,rose to a range of 2.6% to 2.7% when lending to Small enterpriser (Levistiky, 1988). Within the transactional costs one must take account of the risk element and potential losses. Despite what has been said about the credit worthiness of Small enterprenuer, there is no doubt that seveal Small enterprises lending programmes in the past have suffered from a high level of arrears and defaults rate in Small farmers credit.

CHAPTER III.

3.0 AREA OF STUDY AND RESEARCH METHODOLOGY:

3.1 AREA OF THE STUDY:

The area of the Study is the new Zaria Local Government Areas of Kaduna State. The Local Government Area Comprised Zaria City, as the headquarter, Wusasa, Tudun-Wada, Danmagaji, Gwargwaji, Gyellesu, Dutse- Abba, Tukur-Tukur, Wucicire, Kakuvave, Dakace and Dambo.

However, given the fact that the resources available for the Study are in short supply, Wucicire, Kakuvave, Dakace and Dambo villages were choosen for the survey.

3.2 LOCATION OF THE STUDY AREA:

The field survey in Zaria Local Government area was conducted mainly around Zaria City, the headquarters of the Local Government Area. The four sampled villages of the study area lie along Jos road, about 8 kilometres from the city, the headquarter of the Local Government area.

3.3. THE PEOPLE OF ZARIA LGA:

The people of Zaria Local Government Area are mainly Hausa and Fulani. The Hausa people are settled cultivators while the Fulani people are mainly cattle rearers. Both groups are predominantly Muslims. Because of the practice of "Purdah" among the Hausa Muslims, farming has become almost an exclusive preserve of the men. Within their confined environment, the Hausa women process food.

The Fulani men, on the other hand, tend their cattle while their women market the animal by-product (Milk and butter) in exchange for cash to purchase grains for the family food (Aku, 1991).

Farmers in this area depend largely on family and hired labour as their source of labour supply. Production is mainly for subsistence. Land holdings consist of a few scattered plost. Manual labour is employed as the principal source of power.

The level of farm technology is so low that incomes of the farmers are also low. As a result, their savings are so low that they are not capable of supporting any large capital formation.

3.4 THEIR OCCUPATION;

Farming is the main occupation of the people. The variability and distribution of rainfall in the area, have evolved the people to a unique farming system characterized by mixed cropping. Crop production is still manually done on small scattering pieces of land, using crude implements such as hoes, axes, cutlasses and knives. Agricultural modernization of the farming practices appeares to have led to the increased use of biological (hybrid seeds) and chemical (fertilizer) techniques.

A farm services centre is located in Maigana in the old Zaria Local Government Area (now Soba LGA). It is responsible for supplying farmers in the area with farm inputs at Government subsidized rates. The major farm inputs include improved seeds and seedlings, fertilizers, hecbicides, pesticides and tractor services.

3.5 TYPES OF CROP GROWN IN THE AREA;

The main types of crops grown in the area are: maize, guineacorn (sorghum), millet, rice and yams. One of these areas, behind the Kufena rock to the south of Wusasa, groundnuts, sugarcane and vegetables (tomatoes, pepper and okro) are the important cash crops. It has also been reported to have the highest rates of application of modern inputs.

Root crops (mostly yams and potatoes) are the main cash crops. Cotton is also widely grown in the area (Etuk, 1983).

3.6 THE CLIMATE AND ECOLOGY OF ZARIA LGA:

The climate in this area is such that it can support a wide variety of crops. Farming activities are seasonal in nature. There are two main seasons in the area:

i. The Rainy/wet season, and

ii. The Dry Season.

There are considerable variation in the rainfall pattern of the area. The amount of rainfall ranges between 700-1000mm per annum. This is fairly distributed over a period of 3-4months in a year.

i. The rainy season begins around may and ends in September.

ii. The dry season starts in April and ends in Jahuary or February.

The continentality of its climiate is more pronounced during the dry season, expecially in December and January. The mean daily maximum temperature shows a major peak in April and Minor one in Octaber (Antonza, II, 1989).

This low and seasonal character of rainfall makes its mark

on the vegetation of the area which assumes various shades of green in the wet or rainy season and turns brown, pale or yellow in the dry season (Mortimore, 1970).

Zaria local Government Area consists of both upland (tudu) and low land (fadama) types of farm land. The soils are dark clay, with poor to very poor drainage. The low land is situated along the river basins and capable of supporting crops throughout the year. The upland (tudu), on the other hand,is cultivted mainly during the rainy season. Most of these soils have been formed in alluvial material and some variation in texture can therefore be expected.

In some cases the stream has been somewhat incised in the valleys, in which case the soils tend to be better drained (Aku, 1991).

3.7 RESEACH METHODLOGY:

3.7:1 SOURCES OF DATA

There are two main sources of data used in this Study - the Primary Source and the Secondary Sources.

i. THE PRIMARY DATA;

Data from this source involves an agro-economic survey of farmers in the Zaria Local Government Area. The Small farmers in the Study areas, willingly submitted themselves as respondents when they were approached. A structured questionnaire was administered to farmers in the study area to collect detailed information from them.

ii. The SECONDARY DATA;.

The Secondary source of data was collected from the NACB

head office and the Kaduna branch office records. They were used to build up the back-ground knowledge for the study.

3.7:2 DATA COLLECTION PROCEDURE;.

The basic procedure for the data collection in the research work was the interview schedule. The questionnaires were administered by the researcher with the help of trained enumerators, who are fluent in Hausa language.

The main concern is to collect both input and output data for the 1991/92 growing season.

In addition, verbal discussions were held with various groups of people such as NACB officials at the branch and Head office in Kaduna and farmers in the sampled study area, in order to obtain a general picture of the study.

Furthermore, library research was undertaken to collect information needed to build up the background knowledge for the study.

3:7:3 DATA REQUIREMENT;

Several socio-economic variables were collected from farmers. These included production profiles and sources of f armer' Credit in Zaria Local Government Area of Kaduna State. questionnaires were designed and data were collected under the following broad headings:-

i. PRODUCTION DATA;

These cover information on crops grown and area under different crops. Cost data related to the purchases of input were also collected because this is where the credit is generally put into use.

ii. LABOUR;

This consisted of family and hired labour. The family labour is made up of adult males and children of about 15 years of age. The items collected under this category included:

i. The number of family members.

ii. The number of adult males and children of about 15 years and above. The number of hours put into each opeation by a family member was estimated.

iii.LAND

Land is an important input in crop production. In the study area, the land tenure system is such that land can be owned thrugh inheritance or lease. This siutation was verified during the study. The area under such category of land acqusition was determined and the amount of land put into crop cultivation was also established.

iv. FINANCIAL INFORMATION;

This information included borrowing and investment activities. Under borrowing, data were gathered on source, purpose and amount of loans obtained and utilized. Information on investment included liquid asset, fixed asset and so on.

v. MARKETING DATA :

Data were collected on the following items: data on crops and amount sold, price received, buying agents, amount of output retained, transportation cost and marketing fees.

vi. FARM EXPENSES;

These are input expenditure on hired labour, fertilizers,

seeds, chemicals and so on. Information on this type, source, cost and amount used was collected. It is assumed here that the input use embodies the contribution of credit to the productivity of farmers. It is expected that increased use of purchased inputs results in higher output and consequently increased income of farmers.

3:7:4 SAMPLING PROCEDURE;

To obtain a representative sample of the population from which data were collected, a stratified random sampling technique was used to select the sample.

The procedure involved dividing farmers into groups of borrower and non- borrowers. The total sampled size was 179 farmers. That is, 71 borrowers and 108 non-borrowers in the selected four sampled areas.

In another stage, random selection from a list of households in the villages was done. A sub-sample of households, including only those that were certain to have obtained loan for areable crop production during the 1991/92 cropping season, was drawn for the survey.

Data on farm activities, expenditures, labour, capital inputs, yield and product price were obtained.

The purpose of random sampling in social science research is to avoid bias. Random sampling gives every member an opportunity in the study area to be selected.

3.7: 5 ANALYTICAL TECHNIQUES;

The analytical techniques used to achieve the objectives of

the study are the descriptive statistical tools such as pie charts and histographs. A farm budget analystical techniques was also used in this study.

3.7:6 THE FARM BUDGET;

The farm budget in concept, seeks to identify; the cost, returns and the profitability of agricultural farm production process. The farm budget model looks at the Net farm income (N.F.1).

The NF 1 = TR - TVC + TFC.

Where: NF1 = Net farm income in Naira, which is also referred to as NFR.

Where: NFR = Net frm returns in naira (N).

TR = Total Revenue or Gross FArm Returns (GFR) in Naira (N).

TVC = Total Variable Cost in Naira (N).

TFC = Total Fixed Cost in Naira (N).

TC = Total Cost in Naira (N).

TC = TVC + TFC.

Therefore, NF1 = TR-(TVC+TFC).

Hence; NF1 = TR- TC.

The farm budget is described in the Net Returns to the farm production unit as : TR-TVC+TFC.

The TR (Total revenue) must always be in excess of the cost (TC) of farm production, for the farm to be profitable or econom ically vaiable. In this study however, the costs and returns and

the different budgets in the arable farms under the specified farming system are independently determined to satisfy objectives one, two and to some extend objective three.

The fixed cost part were not taken into consideration as all services from both borrowers and non-borrowers were assumed hired, Reasons for the adoption for this approach is as follows:

i. Most small holder farmers interviewed during the survey used the services of such capital inputs as hired, a few of them owing such inputs could not adequately provide useful information needed to compute the capital related costs.

ii. To avoid ambiguity involved in the valuations of the indices connected with fixed cost such as the net worth of capital inputs, operating cost and depreciation, etc.

iii. For ease of comparison between borrowers, and non-borrowers in the study area, their services are better taken as hired labour cost. The above limiations to getting fixed cost values, have limited the possibility of an extensive use of the farm budget approach in this study.

The farm budget shows only the output realised, the monetary costs and returns from a production process. It is by no means able to determine the optimum costs, returns or farm production level.

The farm budgets valuation of inputs and outputs are subjective because they rest solely on the value judgement of the researcher so extra pains must be taken to get values close enough to their real values.

The farm budgets approach are modelled by using averages in the input-output relationships. Aveages can cover the influence

from some factors like variation in class, management, soils, access to input, credit, etc. This makes the interpretation of the farm budget results complex, because these factors listed above can under normal circumstances affect farm returns.

Despite the above limittions to farm budget, the farm budget is still a valuable analytical tool, quick to construct, useful in quantifying farm success and in making inter-farm comparison between borrowers and non-borrowers in the four sampled area. These are however relevant in investigating the objectives of this study.

3.7.:7 APPROACHES TO THE STUDY OF THE IMPACT OF CREDIT ON SMALL HOLDER FARMERS;-

Basically there are two approaches to the assesment of the impact of any project. The first is comparing the situation "before" and "after" the implementation and then, assessing the results. While the second, is comparing the situation among the beneficiaries and non-beneficiaries. Each of the two approcahes requires a different set of data and analystial techniques.

The first approach may required the use of time series data, covering many years. This therefore, necessitates the keeping of records by the farmes. Unfortunately, the majority of farmers in the study area are illiterates among whom the act of record keeping is almost always non-existent.

The quantification of the "before" data has to do with the farmers' ability to recall to memory what economic activities he had performed in the past. It is likely that data based on

memory will be unreliable.

The second approach, which this study has used, concerns itself with cross-sectional data. This type of data is collected from both borrowers and non-borrowers of loans for the agricultural farm projects. The cross-sectional data are more reliable in this case because they permit an on-the spot assessment of the beneficiaries activities, as they undertake the development project (Aku, 1991).

CHAPTER IV.

4.0 LENDING TO FARMERS THROUGH THE NACB SMALL HOLDER DIRECT LOAN SCHEME (SHDLS).

The Samll Holder Direct loan Scheme, often demands that loans be given only for purposes that fall into the following categories:

i Arable crop production,

ii The raising of livestock, that is,the production of poultry, cattle, pigs and the like,

iii Mixed farming; that is, a combination of food crop prouc-tion, cash crop production as well as livestock production.

iv Agro-Allied production; that is, the production of local raw materials.

v Marketing and

vi Out-growers/on-lending loans; that is, lending made to established institutions against repayment quarantees for on-lending to Small Scale farmers.

The outgrowers/on-lending institutions include state ministries of Agriculture or Agencies, as well as Apex Cooperatives Organi-sations (NACB, 1991).

The aim of this chapter is to analyse, the NACB's lending activities to farmers under the SHDLS in Zaria and to identify differences or similarities in loan allocation within its years of activities. The questions these section of the study tries to

answer are: Have the loans actually been used for the purposes for which they were meants? Are the loans fairly distributed among those purposes?

4.1 NACB LOANS ON SMALL HOLDER DIRECT SCHEME AND PURPOSE 1981-1991

This section discusses the loans given for various purposes, within the years, from 1981 to 1991, when the Small Holder Direct loan scheme was inaugurated. As will be discussed in greater detail later, Areble crop production realised greater transfer of resources from the bank.

An attempt is also made to discuss the laosn approvals by the NACB Kaduna, branch office. The branch office was opened in 1988 to cater for Small Scale farmers in the state, through the various Local Government Areas of Kaduna State.

In doing this, we will highlight the proportion of loans channelled directly to Small Holder farmers and those administered through outgrowers/on-lending for direct production of arable crop in Zaria LGA of Kaduna State.

As figure 4.1:1 indicates, NACB borrowers of the SHDLS in Zaria, are mainly arable crop producers. This loan purpose formed the bulk of the Small holder Direct Loan Scheme (SHDLS). Of the N756,874, 944.74m loan given to agriculture as a whole, arable crop alone accounted for about 58.4 percent or N441.8m. About 11,731 Smallholder farmers benefited from the the loans. Of this number,240 arable crop farmers were from the new Zaria Local Government Area, who borrowed from the bank, between 1988-

1991, when the Kaduna branch office of the NACB was opened. Marketing took the second greater share of 31.3 percent or N237.2m. Livestock production came third of the loan allocation by NACB. The sum of N31.5m or 4.2 percent was given for livestock production. Twenty nine million niara or 3.8% loans went to outgrowers/on-lending. A total of 2, 474 farmers were beneficiaries of such loans. Out of this number, 1, 499 beneficiaries were from Zaria Local Governemt Area. Loans for maized farming amounted to N14.8m or 2.0%. The least number of loans went to Agro-Allied Production, which received N2.3m or 0.3%, of all loans to Agricultures; 18 farmers being the beneficiaries of the loans. Also, the N756.8m transferred into agriculture by the NACB from 1981 - 1991 is quite a substantial sum. It was, however, concentrated in the hands of only 15,992 farmers in the State.

Enigimi (1982) observed that not many Small Scale farmers in Kaduna State, who produce about 90% of the State's food and fibre could afford, for instance, to pay survey fees for their farms, registration of title fees, stamp duties and other collateral requirements of the banks.
This puts them at a disadvantaeous position in the sense that they may not be able to benefit much from the scheme.

It is worthly to note that the SHDLS have conributed immensely to the increase in araable crop production in the study area.

Credit given for areable crop production are so small per

capita that it does not require any complicated collateral. An individual farmer could borrow up to N5,000 without any collateral security (NACB, 1991). It is only when a farmer requires more than the five thousand naira that records are checked to make sure he is credit worthy and his credit-worthiness depends on the type of collateral security he puts down to back-up the loan he takes from the bank.

Loans amounting to N5,000 and below are short-term loans. That is, they are meant for projects/enterprises with short gestation periods. Arable crops do have short gestation periods and it is interesting that NACB loans are being reflected in crop production lately. Hitherto, arable crop production has been on the downswing due to lack of interest in this area.

The fact that arable crop farmers got the largest loans amounting to hundreds of thousands of naira is an indication that, loans from NACB are spread in many hands. This also indicates that the loan reciptients are mostly Small Scale farmers who consitutes the bulk of the farming population in the study area.

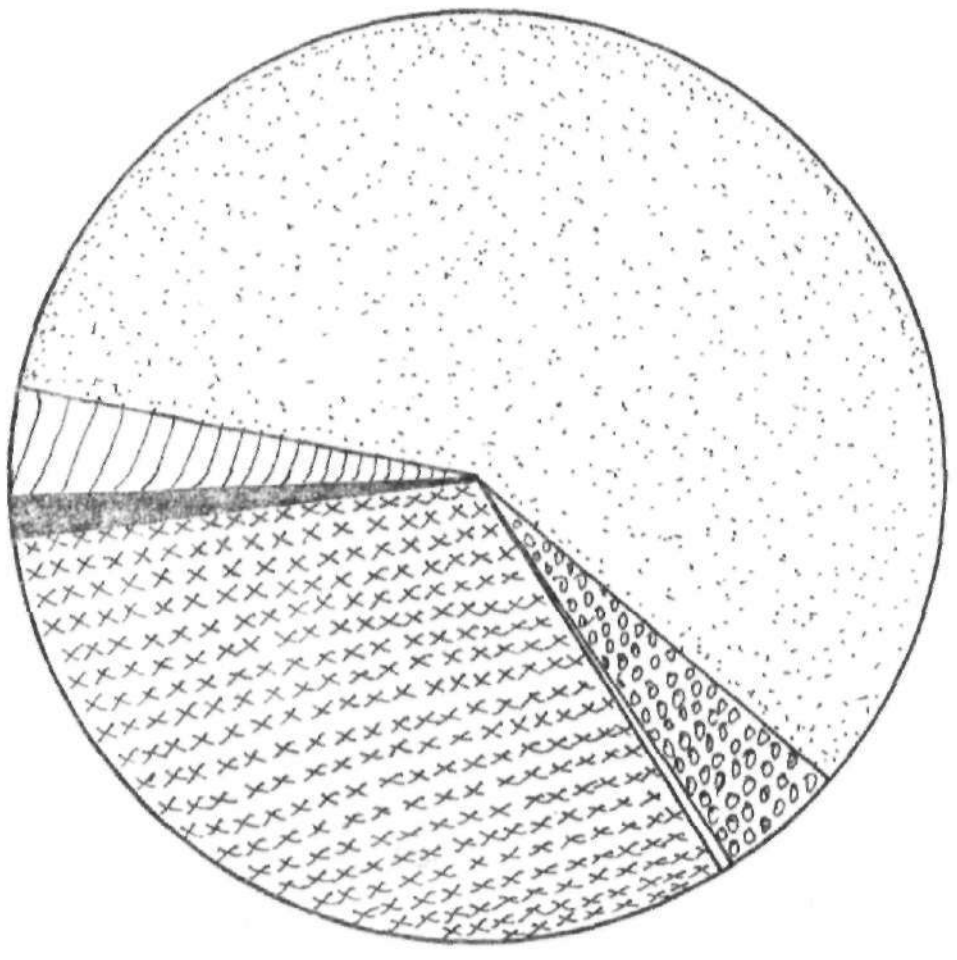
Aku, (1986) argued that poultry industry was collapsing for lack of feeds. As a result, the prices of livestock products have gone up by more than 200%. The poultry feeds come from grains. As grater focus is being paid to crop production by NACB, there would be less of fed shortage for livestock production in NIgeria. Consequently livestock production will be boosted.

The spread of NACB loans in crop production has important implication for the development of Small-Scale agricultural production in the Study area. Arable crop production can be flexible enough to be undertaken by both Small and large-scale farmers. Farmers can take small or large loans, depending on the type of technology one is using. Small loans do not require collateral security, which Small-scale farmers cannot afford. Hence, it is safe to conclude that Small-Scale farmers are the main beneficiaries of NACB loans.

The pie-chart also suggests that marketing came second in loan allocation by NACB in the study period. This loan is for individuals who have facilities for bulk purchase of excess grains and other strategic agricultural produce. Such facilities include stores or warehouses, transportation, processing, drying and preservation facilities. Beneficiares of marketing loans are State Ministries or agencies, and Apex Coopertive Organisa tions. The loans are meant for purchasing farmers' product after havest and has a maximum of N5,000.
It is usually for one farming season of 12 months with an interest rate of 21 percent.

It is envisaged that this will eliminate completely or reduce to a minimal percentage, the wastage and also stabilize prices of agricultural products. With this the farmers are encouraged to farm more, this also accelerates their loan repayment-rate.

LENDING TO FARMERS THROUGH NACB SMALL OLDER DIRECT SCHEME IN ZARIA.



KEY	PURPOSE	PERCENTAGES
	ARABLE CROP	58·1
	LIVESTOCK	4·2
	AGRO – ALLIED	0·3
	MARKETING	31·3
	MIXED FARMING	2·0
	OUT GROWERS/ON LENDING	3·8

FIGURE : 4·1 LOANS BY PURPOSE.

Livestock production took the third share of the loan allocation by NACB during the period. Livestock production consists of poultry and other animals. Crops and livestock production form a unique part of the Nigerian agricultre so much so that each has a special task to accomplish towards achieving the tremendous growth required in agricultural production.

Outgrower/on-lending loans came fourth with 3.8 percent in loan allocation by NACB in the Study period. This procedure entails granting of loans to established institutions for subsequent on-lending to traditional or Small Scale farmers. These institutions guarantee repayment on behalf of the third parties, ie the traditional farmers. These institutions include State Goverments, Cooperative Societies, Organisations, Government bodies and Cooperative banks which may have credit facilities with NACB.

4.2 PERCENTAGE LOAN DISTRIBUTION WITHIN THE YEARS:

One of the main objectives of this study is to determine whether the NACB loans of the Small holder Direct Scheme loans are evenly distributed within the years in Kaduna State.
Figure 4.2 shows that difference in loan distribution exists. The wide variation can be viewed in two different ways:

i. The percentage number of loans* and

ii. The percentage in total loan amount +.

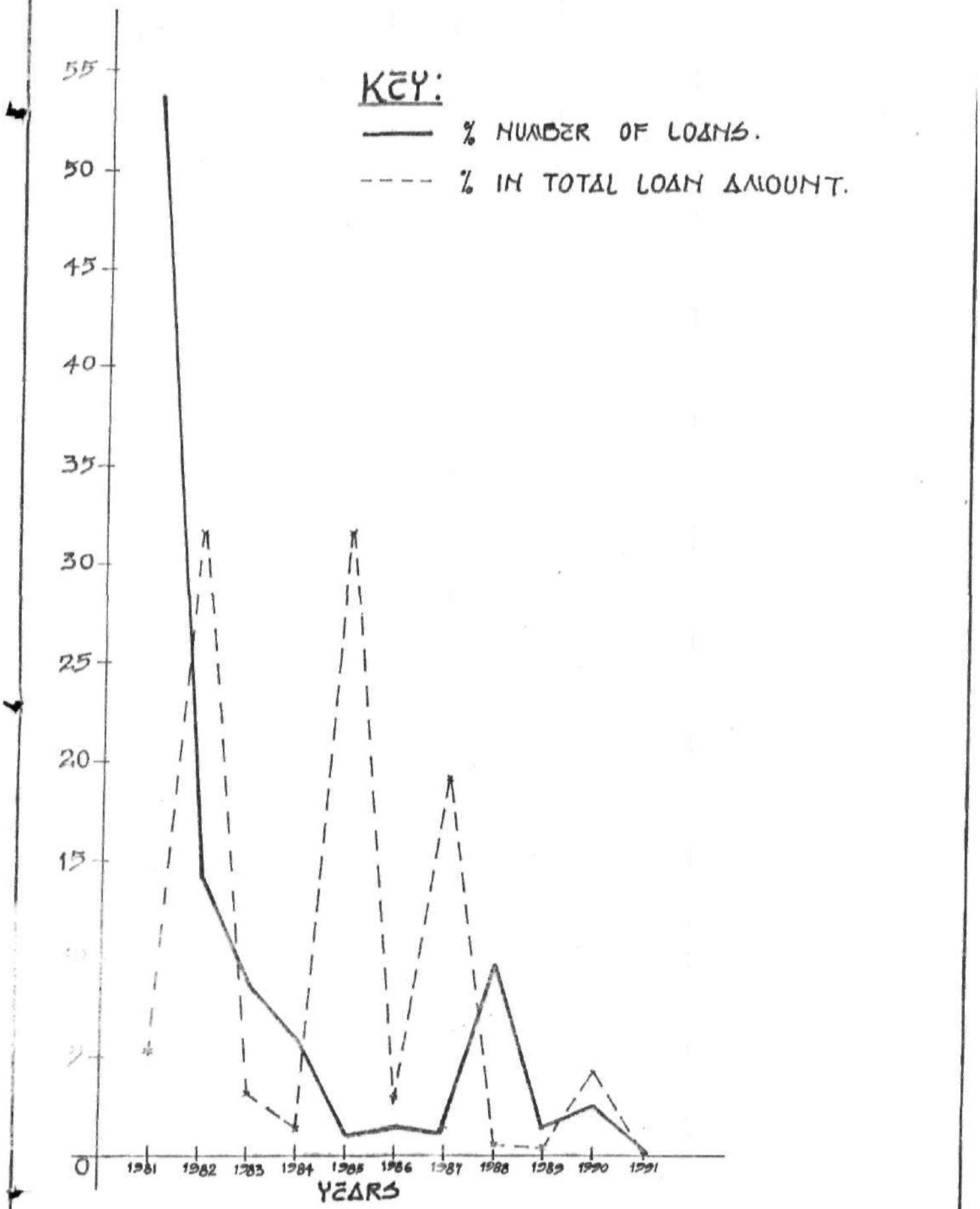


FIGURE: 4.2 THE GRAPH OF LOANS GUARANTEED BY NACB FROM 1981 - 1991.

The percentage number of loans started with an impressive record of 53.6 percent in 1981, it declined to 14.2 percent the following year (1982); This may be as a result of the general recession in the economy, which also dampened the demand for credit by the Small Scale farmers in the State. It further declined to 8.6 percent in 1983 and to 1.0 percent in 1985. It rose again to 1.4 percent in 1986 and to 9.7 percent in 1988. This could be due to increased subvention to the bank by the Federal Government and also increased prosperity in the economy.

The percentage number of loans however, declined to 2.5 percent in 1990, and to as low as 0.3 percent in 1991. This could be attributed to NACB's insistence on adequate collateral securities from the farmers, before approving any loan. The project coordinator of NACB stated that the majority of farmers do not have collateral security to back up their demand for loan, as a result the bank found it very difficult to grant them loans since previous loans granted on concessional collaterals have not been recovered.

The percentage in total loan amount has a sharp increase from 5.4 percent in 1981 to 31.6 percent in 1982, and a decline in 1983 to 3.1 percent. The total amount of loan percentage assumed a particular trend as it declined from previous years and to 1.5 percent in 1984. In 1985, it rose again to 31.7 percent and followed by a sharp decline in 1986 to 2.6%. Between 1986 and 1987, there was another increase from 2.6 percent to 19.2 percent and another drop to 0.5 percent in 1989.

In 1989 the percentage rose again from 0.5 to 4.2 percent and finally dropped to 0.1 percent in 1991.

The rise and fall phenomoenum of loans disbursemenrt by NACB is as a result of government policies due to the dwindling reources of the Federal Govenment.

4.3 LOANS FOR ARABLE CROP PRODUCTION PURPOSES:

As mentioned above, of the N756, 874, 944.74 million given to agriculture by the scheme from 1981- 1991, N441,860, 144.72 million alone was allocated to arable crop production. This amount represents 58.4 persent of the total loan for agriculture. Why is arable crop production loan share so large? Could it be that the bank prefer some purposes to others? These are some of the questions that will be answered in this section.

While it is true that the main business of NACB in the Small holder Direct loan Scheme (SHDLS) is to make loans available to farmers for all purposes, the extent to which they do so is extremely limited by various factors. In the first place, profit seem to be the main consideration in the allocation of loans by the NACB limited. In the words of the project coordintor,' a project has to be vaiable enough to make profits' for its owner to be considered a suitable client for bank loans. Therefore, the type of purpose for which the loans are demanded is the main consideration of the NACB in providing loans to the Small holder farmers.

In the second place, (Aku, 1981) has observed that commer-

cial banks and the NACB as well prefer to lend on a short-term basis, that is, for purposes or activities that have short turnovers. Some food and cash crops do have short turnover periods but their production has stagnated in recent years due to drought.

4.4 THE IMPLICATION OF THE CONCENTRATION OF BANK LOANS ON ARABLE CROP PRODUCTION;

The concentration of NACB Small holder direct loan Scheme on arable crop production has important implications for the development of Small-Scale agricultural production.

One implication of big loans is that the banks do find obvious way to finance projects/enterprises with short gestation periods. Arable crops do have short gestation periods and it is intersting that NACB loans are being reflected in crop production lately.

The fact that arable crop farmers got the largest loans amounting to hundreds of thousands of naira is an indication that loans from NACB are spread in many hands. The implication is that, as greater focus is being paid to crop production by NACB, there would be less of feed shortage for livestock production in Nigeria. Consequently livestock production will be boosted.

The spread of NACB Small holder driect loan scheme in crop production, has important implication for the development of Small-scale agricultural production in the study area. Arable crop productioncan be flexible enough to be undertaken by both

Small and large Scale farmers. It is worthy to note that the SHDLS, loan recipients are Small-scale farmers, who borrow up to N5,000 without collateral security, which Small-scale farmers cannot afford.

Loans for marketing took the second largest share with about 31.3% beneficiaires. While livestock production came third out of the loan allocation by NACB, receiving about 4.2% of total laon beneficiaries. This number is however Small, when compared to arable crop loans. It seems unlikely that, in the near future, large loans will be made in many other areas of agricultural production.

In summary, for SHDLS to meet the demand in the country, some measures should be taken to efficiently make credit available by the NACB to framers for other purposes at larger share too, to imporve food production in Zaria , Kaduna State, and Nigeria as a whole.

CHAPTER V.

5.0 PRESENTATION AND ANALYSIS OF RESULTS

5.1 RESOURCE REQUIREMENTS:

The nature and magnitude of the various farm resources were obtained from the sampled farm areas. Information on the farm sizes, loans, and labour contributed by different labour types was also obtained and is compared between borrowers and non-borrowers in the study areas. It is based on data collected from farmers during the 1991/92 growing season in the four samples villages.

5.2 THE SIZE OF FARMERS' LAND HOLDING.

The size of farm holding is very important in agricultural production. Because farms in the smaller size group are not large enough for any meaningful investment in the use of farm implements and farm machinery.

Farm sizes are grouped into two, for small holding farms under borrowers and non-borrowers in the areas respectively.

Table 5.2, gives the distribution of size of farms and land holding between the two groups in the study areas.

Under borrowers and non-borrowers' in Kakiyaye, the most common size of land cultivated was between 7.6 to 10.5 hectares, with an average size of 9.05 hectares.

Farm size between 4.6 to 7.5 hectares in Wucicire, has an average size of 6.05 hectares. While between 22.6 to 25.5 hectares, has an average size of 24.05 hectares respectively.

The most common size of land cultivated in Dakace among the borrowers and non-borrowers was between 10.6 to 13.5 hectares with an average size of 12.05 hectares.

TABLE 5.2 SIZE OF FARMERS' LAND HOLDING AMONG RESPONDENTS IN THE SAMPLED AREAS.

FARM SIZE IN HECTARES	BORROWERS												NON-BORROWERS											
	KAKIYAYE			WUCICIRE			DAKACE			DAMBO			KAKIYAYE			WUCICIRE			DAKACE			DAMBO		
	NO OF FARMERS	% OF FARMERS	AVE. SIZE OF HOLDING	NO OF FARMERS	% OF FARMERS	AVE. SIZE OF HOLDING	NO OF FARMERS	% OF FARMERS	AVE. SIZE OF HOLDING	NO OF FARMERS	% OF FARMERS	AVE. SIZE OF HOLDING	NO OF FARMERS	% OF FARMERS	AVE. SIZE OF HOLDING	NO OF FARMERS	% OF FARMERS	AVE. SIZE OF HOLDING	NO OF FARMERS	% OF FARMERS	AVE. SIZE OF HOLDING	NO OF FARMERS	% OF FARMERS	AVE SIZ OF HOLDING
4.6-7.5	2	13.3	6.05	3	25.0	6.05	2	11.1	6.05	5	19.3	6.05	2	8.0	6.05	3	10.0	6.05	3	11.6	6.05	3	11.1	6.05
7.6-10.5	4	26.7	9.05	2	16.7	9.05	5	27.8	9.05	4	15.3	9.05	5	20.0	9.05	2	6.7	9.05	4	15.3	9.05	5	18.5	9.05
10.6-13.5	3	20.0	12.5	1	8.3	12.5	6	33.3	12.05	3	11.6	12.0	3	12.0	12.05	4	13.3	12.05	6	23.0	12.05	3	11.1	12.05
13.6-16.5	1	6.7	15.5	2	16.7	15.05	2	11.1	15.05	6	23.0	15.05	6	24.0	15.05	10	33.3	15.05	3	11.6	15.05	-	-	-
16.6-19.5	2	13.3	18.05	1	8.3	18.05	1	5.6	18.05	4	15.3	18.05	2	8.0	18.05	9	30.0	18.05	4	15.3	18.05	4	14.8	18.05
19.6-22.5	3	20.0	21.05	-	-	-	2	11.1	21.05	3	11.6	21.05	4	16.0	21.05	-	-	-	5	19.3	21.05	6	22.2	21.05
22.6-25.5	-	-	-	3	25.0	24.05	-	-	-	1	3.9	24.05	-	-	-	2	6.7	24.05	-	-	-	5	18.5	24.05
25.6-28.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3.9	27.05	-	-	-
28.6-31.5	-	-	-	-	-	-	-	-	-	-	-	-	3	12.0	30.05	-	-	-	-	-	-	1	3.8	30.05
TOTAL	15	100	13.55	12	100	14.05	18	100	13.55	26	100	15.05	25	100	15.90	30	100	14.05	26	100	15.47	27	100	17.20

SOURCE: FIELD SURVEY, 1992.

Between 13.6 to 16.5 hectares was the most common size of land cultivated in Kakiyaye, Wucicire and Dambo among the borrowers and non-borrowers; with an average size of 15.05 hectares respectively.

While the most common size of land cultivated by the non-borrowers in Dambo, with an average size of 21.05 hectares, was between 19.6 to 22,5 hectares, during the survey period.

5.3 THE FREQUENCY OF LOANS DISTRIBUTION AMONG BORROWERS IN THE SAMPLED AREAS.

The frequency distribution of loans (credit) given to farmers in the sampled ares of this study is given in table 5.3. for the purpose of this study, the loans are divided into four sizes. The first class has a range of N500 to N1,500 with average amount of N1000. In the second class the size was N1,501 to N2,500 with an average amount of N2000. The third has a range of N2,501 to N3,500 and mean amount of N3,000. While the last class interval was N3,501 to N4,500 thus giving an average amount of N4000.

In the first class, the percentage of farmers who got loan from the NACB was 40 percent in Kakiyaye, about 25 percent in Wucicire, between 61.1 percent in Dakace and no farmer in Dambo benefited from loans. The number of people that received loans in this category in Dakace is high, however, the amount of loans from NACB was small and was used for cultivation and maintenance of their farms.

For the second class, 26.7% of farmers received loans from NACB in Kakiyaye, 25% at Wucicire, about 16.7% Dakace and 80.7% at Dambo. The reasons why the number of loan beneficiaries is

TABLE 5.3 FREQUENCY OF LOAN DISTRIBUTION AMONG BORROWERS IN THE SAMPLED AREAS OF ZARIA LGA

RANGE OF LOANS (N)	KAKIYAYE		WUCICIRE		DAKACE		DAMBO	
	NO. OF FARMERS	% OF FARMERS	NO. OF FARMERS	% OF FARMERS	NO. OF FARMERS	% OF FARMERS	NO. OF FARMERS	% OF FARMERS
500 -1500	6	40.0	3	25	11	61.1	0	0
1501-2500	4	26.7	3	25	3	16.7	21	80.7
2501-3500	5	33.3	3	25	4	22.2	0	0
3501-4500	0	0	3	25	0	0	5	19.3
TOTAL	15	100	12	100	18	100	26	100

SOURCE: FIELD SURVEY, 1992.

higher in Dambo is because majority of farmers belong to Dambo Young farmers' Union. The Union negotiate for loans on behalf of members, which make it easier for members to obtain higher loans from the bank.

In the third class, 33.3% of the farmers received loans from the NACB, in Kakiyaye, about 25% in Wucicire, and 22.2% at Dakace. While in the last class, 25% of the farmers received loans in Wucicire and 19.3% at Dambo.

From the table, it will be seen that majority of farmers falls in the first and second class intervals. From the interview and discussion held with majority of the farmers who borrowed money for arable crop production, the farmers in the area complained that there is a delay in the supply of credit to them. Credit they said was not sometime availabe for timely use because of the long procedures involved before loans are finally disbursed to them.

It was discovered from the survey that, nine registered members of Dambo Young farmer's Union opted out of the association in 1988, when they applied for loans from the NACB, through the Union because of the long delay in the loans disbursement to them.

5.4 LABOUR.

Labour is very important in agricultural production. In the traditional agriculture,family size plays an important role in the farm labour supply, especially in the rural areas.

In the southern and Western parts of Nigeria, the culture permits female employment in agricultural production. It there-

fore implies that, women labour can be expected to boost the family labour supply a great deal.

But this is not the case in the study area, a predominantly Muslim area where female "purdah" is practised. And employment of female or female participation in agriculture is a taboo, and hence the overall individual family labour is made up of adult males and children of about ages of 15 years. Consequently there is need for hired labour in agricultural production in the sampled areas.

Table 5.4 shows the total labour input of man-hours contributed by different labour types to work in the sampled areas.

A total labour input of 5490 man-hours were available to borrowers in Kakiyaye, of which 53.1 percent of it was used as hired labour hours and 46.9 percent comes from family source of labour. A total of 6600 man-hours was used in production by non-borrowers. Where 66.3% is contributed by family members and 33.7 percent is from hired labour.

Out of a total labour input of 4680 man-hours that was used in the production of arable crop among borrowers in Wucicire, 57.6 percent was hired labour. While 42.4 percent comes from family members as labour input. Non-borrowers in the area have a total of 6980 man-hours available for crop production.

Dakace borrowers have a total of 5340 labour man-hours available and 52.9 percent comes from hired labour. While family labour accounted for about 47.1% as labour source. A total labour input of 6350 man-hours was available to boroowers as labour hours in Dambo village. About 53.0% was used as hired

TABLE 5.4 LABOUR MAN-HOURS CONTRIBUTED BY DIFFERENT LABOUR TYPES TO WORK IN THE SAMPLED AREA OF ZARIA LOCAL GOVT. AREA.

	BORROWERS								NON-BORROWERS							
	KAKIYAYE		WUCICIRE		DAKACE		DAMBO		KAKIYAYE		WUCICIRE		DAKACE		DAMBO	
TYPE OF LABOUR	MAN-HOURS	% TOTAL	MAN-HOURS	% TOTAL	MAN-HOURS	% TOTAL	MAN-HOUR	% TOTAL	MAN-HOURS	% TOTAL	MAN-HOURS	% TOTAL	MAN-HOURS	% TOTAL	MAN-HOURS	% TOTAL
HIRED LABOUR	2910	53.1	2700	57.6	2820	52.9	3360	53.0	2220	33.7	2640	37.8	2790	42.4	3340	50.5
FAMILY LABOUR	2580	46.9	1980	42.4	2520	47.1	2990	47.0	4380	66.3	4340	62.2	3800	57.6	3280	49.5
TOTAL	5490	100	4680	100	5340	100	6350	100	6600	100	6980	100	6590	100	6620	100

SOURCE: FIELD SURVEY, 1992

labour hours, with 47.0% contributed as family labour hours. About a total of 6620 man-hours was available to non-borrowers. Labour hired was 50.5% and 49.5% was from family labour respectively.

From table 5.4, the borrowers in the sampled are, hired more labour than the non-borrowers. Since borrowers in the sampled area, have more funds at their disposal, the demand for their inputs like labour, was expected to be higher. The less use of hired labour hours by non-borrowers could simply imply that they lack funds to hire farm labour, consequently, the use of family labour which is a perfect substitute for hired labour in the area.

5.5 COST AND RETURNS ANALYSIS.

Given the small farmers' low level of income, past savings are frequently insufficient to take advantage of available production opportunities. Access to external production credit therefore becomes a crucial pre-condition for expanding farm incomes of the small scale rural farmers.

This general observation implies that farmers who have access to credit on arable crop production, should have higher incomes than those who do not have access to credit in the study area.

The net returns or profitability is defined as the total revenue less the total cost in any enterprise. And the aviability of the farm enterprise business will depend on its profits. The profitability of the farmers' can inturn, be inferred from the cost and returns relationship of the farm business. Increase

in returns than costs means that profit is realized from the business.

However, the costs incurred by any business organization will depend, on the type of inputs employed, and used in the agricultural production process.

The productivity and profitability of farmers in the sampled ares of study, included only costs and returns from the crops produced. In this, the input land, all data presented and discussed in this section are given on perhectare except otherwise stated.

The uniform farm size holding expression is to allow comparism of the various farms without size bias.

5.5.1 COSTS.

Cost is defined as all expenditures incurred on all inputs used in a production process. In this study, other costs on all variable inputs include labour, seeds bags of fertilizers, farm implements and transportation cost.

5.5.2 LABOUR COSTS.

The labour costs include the various Costs incurred on the use of labour in the following farm activities such as: Land clearing, Planting, fertilizer applications, Weeding and harvesting/threshing.

The various farm activities listed above attracted different wage rates in the various arable crop farms sampled. The wage rate variations per farm activity is computed and detailed in table 5.5, from the results collected in this study.

Land clearing is shown to have attracted the highest wage rates in the area. About N35 per-man-day is charge for land

TABLE 5.5 WAGE RATE FOR FARM ACTIVITY ON ARABLE CROP PRODUCTION IN ZARIA LGA

FARM ACTIVITY (COST OF LABOUR INPUT (N)	KAKIYAYE		DAMBO		DAKACE		WUCICIRE	
	BORROWERS	NON-BORROWERS	BORROWERS	NON-BORROWERS	BORROWER	NON-BORROWER	BORROWERS	NON-BORROWER
LAND CLEARING	35	30	35	30	35	30	35	30
RIDGING	25	25	25	25	25	25	25	25
PLANTING	25	20	15	18	18	15	18.50	16
WEEDING	25	25	25	20	25	25	25	24
FERTILIZER APPLICATION	18	15	20	15	16	15	18.50	15
THRESHING	18.50	16	20	20	17.50	15.50	18	16
TOTAL COST PER MAN-DAY	171.50	151.00	165	153	161.50	150.50	165	146

SOURCE: Field survey, 1992.

₦ Arable crop farms under Borrowers/Non-Borrowers in N/Man-day in the four sampled Areas.

clearing in Kakiyaye among the borrowers. While non-borrowers pay about N30 respectively. Finding from the table 5.5 reveals that there was a uniform rate charged for land clearing within the four sampled villages. Ridging attracts N25 for borrowers and non-borrowers in Kakiyaye.

In Dambo Village, borrowers are charged N30.00, while non-borrowers pay N25 as labour cost for ridging. There is a uniform rate of N25 for farmers in Dakace and Wucicire between the borrowers and non-boroowers in the area.

The wage rates are different because the different form activities are not having equal demand for labour, the more an activity demands the more the wage rate charged.

The labour input costs in the area constitute both family and hired labour. It was assumed that the family labour was a perfect substitute for hired labour. If the family labour is available to the farmers, there would be no need for hired labour. And if the demand for hired labour is low, the wage rate will also be low.

5.5.3 FARM INCOME.

The magnitude of the gap between the revenue and Costs of farming business has always been of special interest to business and economic analysis. The gap is often described in various ways, but can be seen basically as profit of the business enterprises.

The profit is the end result of a market process. It is best conceived as residual income. Agreeing with the above definition, then the level of farm income is a measure of the

profitability of the farm business from the sales of outputs.

It reflects the efficiency with which inputs are used on the farm. Farm incomes, represents payments to owners of productive resources for services supplied and in this situation, the services of the owners of the farm business. There are various forms of farm incomes and ways of calculating them. They include Gross and Net farm income respectively.

The table below gives an analysis of the effect of credit on the magnitude of farm income of farmers in the study ares.

TABLE 5.6: A comparative average farm income statements for borrowers and non-borrowers in Wucicire village, 1992.

Iterms(FC) Farm output	Borrowers N	Borrowers k	%	Non-Borrowers N	Non-Borrowers k	%
Maize	4,740	-	31.0	7,198	57	36.6
Beans	3,150	-	20.5	2,100	-	10.7
Guineacorn	2,800	-	18.3	4,125	-	21.0
Millet	1,516.	66	9.8	2,350	-	12.0
Yams	1,450	-	9.4	2,165	50	11.0
Toma/pepper	810	50	5.2	975 .	50	5.0
Onions	600 .	50	4.0	170 .	78	0.8
Rice	266 .	66	1.8	400 .	-	2.1
Sugarcane	-	-	-	164 .	35	0.8
G.F.I.	N15,334.	32	100	N19,649 .	70	100

Source: Field survey, 1992.

The above table shows that, it is more profitable to both groups of farmers to grow, Maize, Millet, Guineacorn, (Sorghum),

Yams, and beans, which gives them higher profit margin and increase in productivity of the farmers. The Gross farm income (G.F.I) of the farmers in this area was N15,334.32k for the borrowers and N19,649.70k for the non-borrowers respectively.

Maize production among the borrowers in this village obtain an increase in crop yields and income of about N4,740.00 while about 31.0% rate was recorded to obtain the highest increase in the crop yields. The implication for this result is that, maize production in the area has been carried out mainly because of the rainfall distribution which often permits two maize crops in a season. The reasons for this high increase is that, maize production does however, have better potential in the area capable of supporting two maize crops each yaer. In addition to higher yields, storage is easier and past-harvest losses smaller.

Beans is the second higher yield crop in the area, recording about 20.5% accounting for N3,150.00k for borrowers. Simmilar reason are cited for time and frequency of weeding. We found that borrowers consistently indicated adesire to obtain incease in crop yield and attract higher income as a result use improved input practices.

Guineacorn (sorghum) attracted the sum of N2,800 with about 18.3% for borrowers. It is the most important grain in the area interms of total acreage and per-capita consumption. Reason for this high yield is that, it have the dvantage of growing on impoverished soils and of being resistant to major pests, and are usually unresponsive to increase in soil fertility level.

Millet production received about N1,516.66k or9.8% between

the borrowers. Millet production is encouraged in the area, because it is the first crop to be harvested and the most drought resistant of grains grown in the area. For this raeson, most farmers usually grow millet in the area irrespective of its low relative profitability. Agrreing with Norman, (1972) one could state that, Millet, like sorghum is a mojor food crop in the area. Most millet grown is consumed by the farming household. They are grown mostly in mixtures together with sorghum and other crops in the area, thereby leading to higher yields and increase income of the farmwers.

Yams production carry 9.4% with an average income of N1,450. Rice, Onion and and Tomatoes/pepper attracted the least amount of N266.66k or 1.8% on rice production. About 4.0% or N600.50k was realised from Onions, while Tomatoes/pepper carry N810.50k with about 5.2% respectively among the borrowers in the area.

On the non-borrowers farms, the level of farm output is higher than that of borrowers. Out of a total of the Gross farm income of about N19,649.70k, Maize production attracted the highest increase in crop yields and income of about 36.6% with about N7,198.57k. Reasons for this high yield of Maize and other crops among the non-borrowers, could be as a results of the facts earlier attributed to the borrowers in the area.

Further more, the number of loan-beneficiaries in the area is very small when compared with the number of non-borrowers. It is likely also that non-borrowers in the area are farmers with a very sound financial position. If the non-borrowers have higher financial position, they would definitely find themselves on higher points of returns than their borrowers counterpart. This

was the type of results obtained above.

The economic implication of this result was that the current farm expenses had increased and the amount of loans disbursement remained very low.

Agreeing with Matlon (1978) one could believe that, non-borrowers in the area were made up of the wealthy farmers. This being the case, had bigger resource use and as such their level of productivity is higher than the borrowers.

TABLE 5.7: Current farm expenditure/input Costs (N) in Wucicire village, 1992.

Cost of Labour input (VC)	Borrowers N	k	%	Non-Borrowers N	k	%
Cost of hired Labour	375	00	16.4	314	28	10.4
Inputed family abour cost	275	00	11.9	542	85	18.0
Cost of inputs/ Fertilizers	375	00	16.4	619	28	20.4
Cost of seeds	439	16	19.1	581	28	19.2
Cost of repairs of tools	312	66	13.5	255	71	8.4
Cost of farm implements	475	00	20.7	609	42	20.2
Transportation cost	48	16	2.0	100	71	3.4
Total cost of production (TC)	2,299	98	100	3,023	53	100
Net farm income	13,034	34		16,626	17	

Source: Field Survey, 1992.

If the loans amount was not big enough to enable the borrowers bring their resource use to the level of the wealthy non-

borrowers, the results obtained would be unrealistic between the two groups of farmers in the sampled areas.

Table 5.7 above, gives an overall description of the different cost incurred for producing one hectare of arable crop farms across the two groups of farmers in Wucicire village.

The sum of N2,299.98k was incurred as the total cost of production for farms under borrowers in the area. About N475.00 or 20.7% was spent as the cost of farm implements. Seeds attracted 19.1%, about N439.16k The cost of hired labour and input such as fertilizer attracted N375, or 16.4% respectively. While the cost of family labour was N275, about 11.9%. The sum of N312.66k or 13.5% was spent on repairs of farm tools. The least was the cost of transportation, which carry 2.0%, about N48.16k respectively for borrowers in the area. The reasons for this variation in the expenses incurred by the both groups of farmers have earlier been explained above.

Under the non-borrowers farms, the sum of N619.28k or 20.4% was reported as the cost of inputs/fertilizers out of a total cost of N3023.53k.

The second largest proportion of cost incurred on non-borrowers farms was on farm implements; which attracted about 20.2% or N609.42k. This situation is attributed to the fact that, non-borrowers total cost results from the operations of larger sizes of farms. It implies that, if the farm sizes is large, the cost of maintaining the farms would be high.

The cost of improved seeds is valued at N581.28k or 19.2%.

Family labour cost accounts for about 18.0% or N542.85k. While about N314.28k or 10.4% was incurred as the cost of hired labour respectively. The variation in the total cost of production of the both groups of farmers, eventually lead to high incurrement of total cost expenses in the area of study.

The Net farm income (NFI) in this area (Wucicire) was N16,626.17k.

TABLE 5.8: A comparative farm income statement for borrowers and non-borrowers in Dakace village, 1992

Items(FC) Farm Output	Borrowers N	K	%	Non-Borrowers N	K	%
Maize	5,910 .	-	33.5	4,448 .	57	33.2
Guineacorn	4,025 .	-	22.7	3,125 .	-	23.4
Millet	3,500 .	-	19.9	2,800 .	-	20.9
Yams	1,560 .	50	8.9	1,872 .	50	14.0
Beans	525 .	-	3.0	221 .	42	1.7
Onions	710.	50	4.0	187 .	21	1.4
Rice	466 .	66	2.6	200 .	-	1.4
Tomatoes/ pepper	266 .	66	1.5	288 .	64	2.2
Sugarcane	700 .	-	3.9	217 .	21	1.7
GFI	17,664 . 32		100	13,360 .	55	100

Source: Field survey, 1992.

Evidence from table 5.8 above, indicates that the Gross farm income of the borrowers was significantly higher than the non-borrowers.

It shows that both groups of farmers find it profitable to

grow Maize, Guineacorn (Sorghum), Millet and Yams respectively. The Gross farm income for borrowers was N17,664.32k. While the non-borrowers recorded the sum of N13,360. 55k as their Gross farm income.

Maize production recorded the highest yield of about N5,910 or 33.5% for borrowers and 33.2%, with about N4,448.57k for the non-borrowers respectively.

The reason for this high yields in Maize production among the two groups of farmers was as a result of the adoption of new inputs and the use of new seeds which are responsive to fertilizers, they have shorter maturing period and are able to produce or cultivate enough acreages to off-set the cost increase, bringing about the increase in productivity of the farmers in the area.

Varieties of maize of different maturity have been found to influence the grain yield of associated Sorghum in different ways (Anon, 1976).

The next is the guineacorn (sorghum) which has the second largest yield of about N4025.00 or 22.7% for loans beneficiaries and about 23.4% or N3125 for their non-beneficiaries counterpart in the aera. Millet attracted the sum of N3,500 or 19.9% for the borrowers and about 20.9% about N2,800 for the non-borrowers respectively.

Yams cultivation recieved 8.9% about N1,560.50k for borrowers. While the non-borrowers got 14.% about N1,872.50k.

However the economic implication of the high yield of this crops is that all the inputs and their procurrements and utilization at the correct time is central to the success of this increase in productivity of the crops.

The least crop yields under the borrowers is Tomatoes, with 1.5%, rice 2.6%, sugarcane 3.9% Beans 3.0% and Onions 4.0% respectively among the borrowers in the area. The reasons for this low yield is due to inadequate modern farm inputs, such as fertilizers to go round the farms, and as a result, only few farmers grow such crops among the borrowers in the area. The same reasons could be attributed to the low crop yield among the non-borrowers, since new seeds without fertilizer would not achieve full potential and would remain unproductive or under-utilized", therefore bringing about low crop yields in the areas.

TABLE 5.9: Current farm expenditure/inputs cost (N) in Dakace village, 1992.

Cost of Labour inputs (VC)	Borrowers N	k	%	non-Borrowers N	k	%
Cost of hired labour	391 .	66	13.0	382 .	14	14.7
inputed family lab.	350 .	-	11.7	514 .	28	20.1
Cost of inputs/fert.	698 .	33	23.3	421 .	42	16.5
Cost of seeds	636 .	66	21.3	414 .	28	16.2
Repairs cost	325 .	-	10.9	276 .	28	10.8
Cost of farm implem.	513 .	16	17.1	467 .	85	18.3
Transportation Cost	82 .	-	2.7	82 .	14	3.2
Total Cost of production (TC):	2,996.	81	100	2558 .	39	100
Net farm income	N14,667.	51		N10,802 .	16	

Source: field survey, 1992.

Table 5.9 gives an overall description of the different cost incurred for producing one hectare of arable crop farms across the two groups of farmers in Dakace village.

The cost of farm inputs/fertilizers showed the highest increase in cost of N698.33k, about 23.3% out of the total cost of N2,996.81k for borrowers in the area.

Secondly, seeds is valued at N636.66k or 21.3%. One of the major implication for the high cost of seeds is that, the new seeds have shorter maturing period, which makes it possible for the cultivation of two crops or more in a year. Therefore, more farmers go for the new seeds thereby bringing about increase in cost, which eventually leads to increased outputs.

Farm implements attracted about 17.1% or N513.16k for implements used by borrowers in arable crop production in the area. The implecation for this high increase in the cost of farm implements is that, because farmers view profitability as the end results, it becomes appropriately important that, for profit to be obtained, farmers has to adopt the use of good farm implements or new technologies to bring about increase in crop yields. Farm labour attracted 13% or N391.66k for hired labour. While family labour recorded about N350.00 or 11.7%. The cost of repairs of farm tools carried N325.00k about 10.9%. The least amount recorded for borrowers in the area was N82 or 2.7% respectively.

The Net farm income for borrowers was N14,667.51k. On the part of the non-borrowers, out of a total of N2558.39k incurred as the average total cost of production, imputed family labour cost attracted the highest rate of N514.28k about 20.1%.

Farm implements charges incur the cost of N467.85k or 18.3%. Fertilizers cost N421.42k; being 16.5% per hectare.

Seeds attracted the cost of N414.28k accounting for 16.2%

for non-borrowers in the study area. About N382.14k or 14.9% was incurred as the cost of hired labour. The least amount was N276.28k with 10.8% recorded for repairs of farm implements. While 3.2% or N82.14k was incurred as transportation cost for the non-borrowers respectively.

TABLE 5.10: A comparative average farm income statements for borrowers and non-borrowers in Dambo village, 1992.

Items Outputs(FC)	Borrowers N	Borrowers k	%	Non-Borrowers N	Non-Borrowers k	%
Maize	8048	57	39.9	4833	57	36.5
Guineacorn	5,800	-	28.6	3475	-	26.2
Millet	3,977	-	19.6	3100	-	23.3
Yams	458	42	2.3	423	57	3.1
Rice	607	14	3.0	492	85	3.8
Beans	857	14	4.3	375	-	2.8
Onions	227	92	1.1	153	-	1.2
Tomatoes	232	92	1.2	419	35	3.1
GFI	20,209	96	100	13,272	34	100

Source: Field survey, 1992.

Table 5.10 presents the Gross farm income of the total output produced in Dambo village, between the borrowers and non-borrowers in the area. Results from the finding above, shows that, the GFI for borrowers is higher than the non-borrowers. The table indicates that it is more profitable for the both groups of farmers to invest their capital in the production of Maize, Guineacorn (sorghum), Millet, Beans, Rice and Yams, which gives high yields and increase in profit margin and productivity.

This varies from as high as 39.9% about N8048.57k for maize to as low as 1.1% or N227.92k for Onions among the borrowers and non-borrowers respectivly. Maize production among the non-borrowers obtained an increase incrop yields and income of about N4833.57%k or about 36.5% as the highest rate of increase yields in the crop production.

Guinearcorn (sorghum) is the second highest yield crop in the area. Out of a total of N20,209.96k, Gross farm income for borrowers, 28.6% about N5800 showed an increase in the crop yield for business. While about N3475.00k or 26.2% was recorded as increase in crop yield for the non-borrowers. Out of a total of N13,272.34k obtain as Gross farm income.

Similarly, Millet grown in the area showed an increase in crop yield of 19.6% for borrowers about N3,977.85k increase in crop production. The sum of N3100 or 23.3% was given as crop yield among the non-borrowers who planted Millet in the area.

Beans production shows an increase of crop yield and income for borrowers as N857.14k about 4.3%. While 2.8% or N375 was realised by the non-borrowers as increase in yields. Farmers who grow rice among the borrowers obtained an income of N607.14k with 3.0% increase in the crop yield. Non-borrowers had 3.8% or N492.85k.

Tomatoes/pepper production, had an income of N232.92k with about 1.2% for borrowers. While 3.1% or N419.35k was recorded by non-borrowers as tomatoes/pepper yield in the area.

The economic explanation for the high yield of this crops is because of the preferece for crop mixture by producers. Farmers

consistently indicate a desire to obtain increase in crop yields and attract higher income and as a result would prefer using improved farm practices.

The study shows that farmers in the area do have a profit motive in mind, although they may not actually sell all the farm produce.

Agreeing with Voh (1979:15) high yields and financial gains are not mutually exclusive. They are closely related. These observation tend to indicate that farmers understand the economic benefits to be derived from increasing their yields as well as the food security arising from such a situation.

TABLE 5.11: Current farm expenditure/input cost (N) in Dambo village, 1992.

Cost of Labour inputs (VC)	Borrowers N	k	%	Non-Boorwers N	k	%
Cost of hired Labour	596 .	42	16.9	507 .	14	16.0
Imputed Family labour cost	478 .	57	13.5	621 .	42	19.7
Cost of input/fertilizers	514 .	28	14.5	512 .	14	16.2
Cost of seeds	670 .	71	18.9	536 .	42	17.0
Repairs of farm tools	466 .	71	13.2	316 .	-	9.9
Cost of farm implements	725 .	-	20.5	578 .	57	18.4
Transportation cost	88 .	42	2.5	88 .	71	2.8
Total cost of Production TC	3540.	11	100	3160 .	40	100
Net farm income :	N16,669.85			N10,111.94		

Source: Field survey, 1992.

Table 5.11 above indicates that farms under borrowers incurred a total cost of production of about N3,540.11k While for

non-borrowers, the sum of N3,160.40k was incurred as the total cost of production in Dambo village. Farms under borrowers spent from as high as 20.5% about N725. for farm implements to as low as 2.5% or N88.42k on transportation cost in the area. Seeds attracted about N670.71k with about 18.9% being the second largest cost incurred for borrowers farms. The cost of hired labour for borrowers was N596.42k, or 16.9% Fertilizers showed an increased cost of N514.28k about 14.5% among the borrowers. While family labour attracted the sum of N478.57k, with 13.5% respectively. The Net farm income for borrowers in Dambo village was about N16,669.85k.

On the part of the non-borrowers, out of a total cost of N3160.40k incurred as the average total cost of production, imuputed family labour atracted the highest cost of 19.7% around N621.42k. The least being transportation with N88.71k or 2.8%. The net farm income (NFI) for non-borrowers was N10,111.94k respectively.

The implication for this increase in cost incurred among the two groups is applicable to the results obtain in the other villages in the area. The results here agreed with the hypothesis that users' of credit have higher output perunit input, and the users' level of output are higher than non-credit users on arable crop production in the area

Evidence from the table above indicates that the average gross farm income (GFI) of the borrowers in Kakiyaye village was significantly higher than that of the non-borrowers. But a producer's income position is best determined by his Net income (NFI).

TABLE 5.12: A comparative average farm income statement for borrowers and Non-borrowers in Kakiyaye village, 1992.

Items Outputs (FC)	Borrowers N k	%	Non-Borrowers N k	%
Beans	4,725 . 50	23.2	1,330 . -	8.8
Maize	4,260 . -	20.9	5,451 . 42	36.2
Yams	3,705 . 50	18.2	2,475 . -	16.5
Guineacorn	3,033 . 33	15.0	3,000 . -	19.9
Millet	2,333 . 33	11.5	1,280 . 50	8.5
Sugarcane	820 . 50	4.1	850 . -	5.7
Onions	754 . -	3.7	171 . 57	1.2
Rice	700 . -	3.4	469 . 28	3.2
GFI:	N20,332. 16	100	N15,027 . 77	100

Source: Field survey, 1992.

The borrowers Gross farm income was N20,332.16k and that of the non-borrowers amounted to N15,027.77k. This was as a result of differences in the average size of farms, resources used was standardized interms of per hectare use for meaningful anlysis of costs to be made possible. All the farm size was taken to be fixed (under fixed costs) of the farm enterprises.

There is a wide difference in hectare production cost between sampled farms in the area. Farm under borrowers, recorded as higher as 23.2% for beans production to as low as 3.4% for rice cultivation in the area. While under non-borrowers farms, Maize production has the higherst rate of 36.2% to as low as 1.2% for Onions production among the non-borrowers. Maize cultivation carried the second largest yield of 20.9% for farms under borrowers. Farm under non-borrowers, guineacorn (sorghum) had an

increase in yields of 19.9% being second of one of the productive crop in the area.

An economic explanation to this results is that non-borrowers farmers are more efficient in their input mix than their borrowers counterparts, on Maize production.

Yams production gave a return of 18.2% for borrowers and 16.5% for non-borrowers farms respectively.

Rice production among the borrowers farms, attracted the least returns in yield with about 3.4%. While under the non-borrowers farms, 3.2% was recorded as the increase in farm yields.

TABLE 5.13: Current farm expenditure/input cost (N) in Kakiyaye village, 1992.

Cost of Labour inputs(VC	Borrowers N k	%	Non-Borrowers N K	%
Cost of hired labour	404 . 16	19.6	308 . 33	10.8
imputed family labour cost	358 . 33	17.3	608 . 33	21.3
Cost of input/fertilizers	331 . 66	16.1	521 . 66	18.2
Cost of seeds	426 . 66	20.6	558 . 33	19.6
Repairs of farm tools	173 . 41	8.3	314 . 33	11.1
Cost of farm implements	316 . 33	15.3	445 . 66	15.6
Transportation cost	55 . 50	2.7	96 . 41	3.4
Total cost of production	N2066. 05	100	N2,853. 05	100
Net farm income (NFI)	N18,266.11		N12,174.72	

Source: Field Survey, 1992.

The economic implication for this results is due to the fact that rice production in the area is left to the hands of

very few farmers between the two groups of farmers. (borrowers and non-borrowers) respectively.

Also rice production do not yield immediate impact, since the impact may be felt after a long period of time, many farmers would rather prefer growing crops like maize, guinecorn, millet etc that have a short gestation period.

The above table shows the different types of inputs used by the two groups of farmers in Kakiyaye village of the LGA. These consist of variable inputs, cost of labour both hired and family labour cost, cost of inputs such as fertilizers, etc.

Of the total cost of N2,066.05k involved in growing one hectare on borrowers arable crop farms, hired labour input accounts for 19.6% or N404.16k. While imputed family labour cost attracted N358.33k or 17.3%. Cost of inputs e.g. fertilizers, carry 16.1% about N331.66k. Seeds was valued at 20.6% under borrwers farms or N426.66k. The sum of N316.33k around 15.3% was incured as the cost of farm implements under borrowers farms. While the cost of repairs of farm tools was 8.3% about N173.41k Transportation carried 2.7% or N55.50k respectively.

The Net farm income under borrowers farm was N18,266.11k.

Farms under non-borrowers, the total cost of production was N2,853.05k. The cost incurred start with as high as 21.3% under family labour, to as low as 3.4% being cost incurrent on transportation of farm produce from the farms to the Market. Farm inputs e.g. fertilizers accounts for 18.2% or N521.66k. Seeds attracts a charge of N558.33 about 19.6% farm implements incurred a cost of N445.66k around 15.6%. Repairs of farm tools amounted to about N314.33k with 11.1%. While hired labour for

farms under non-borrowers attracted 10.8% or N308.33k.

The results from table 5.13 above gave an unclear picture as regards the input used and the level of productivity between the twogroups of farmers. The non-borrowers incurred a higher total cost of production of N2,853.05k as gainst N2,066.05k under borrowers farms. The implication of this results could be attributed to the fact that, credit (loans) granted to borrowers were inadequate, or they might have been diverted to other uses than farming business.

Furthermore, the non-borrowers sample contained a large number of farmers than the borrowers. It is likely therefore that, the non-borrowers are farmers with a sound financial foundation, for this reasons, the two groups of farmers began at different level, use different level of inputs and might be using the same or different level of technology or farm implements.

This being the case will lead to non-borrowers incuring higher total cost in their crop production in the area.

The Net farm income (NFI) for farms under non-borrowers was N12,174.72k.

5.5.4 TOTAL COST (TC):

Total cost of production are arrived at by adding together the variable cost (VC) and fixed cost (FC). They are calculated on per hecter basis also. Among farmers in kakiyaye village, the total cost of production amounted to N2,066.03k for farms under borrowers and N2,853.05k for farms under non-borrowers respectively.

While in Wucicire, N2,299.98k was realised as the total cost

of production under borrowers farms and N3,023.53k for farms under non-borrowers. The implications here was that, non-borrowers sample contained a larger number of farmers than the borrowers. And by implication, has a number of farmers with sound financial foundations, than their borrowers counterpart.

In Dakace, the sum of N2,996.81k was recorded as the total cost of production for farms under borrowers and N2,558.39k was involved as the total cost of production for farms under non-borrowers. The total cost of production in Dambo village was N3,540.11k for farms under borrowers. While under non-borrowers farms N3,160.40k was accounted for farms under this group.

5.5.5 TH GROSS FARM INCOME (G.F.I.):

The G.F.I. of the sampled farmers in the study area was obtained by multiplying the total quantity of their outputs of crops by unit price of the crops which prevailed within the study period.

The G.F.I. between borrowers and non-borrowers was estimated to value at N15,027.77k for non-borrowers and N20,332.16k for borrowers in Kakiyaye. The G.F.I. in Wucicire was N15,334.32k for borrowers and N19,649.70k for the non-borrowers respectively. Dakace village, has the G.F.I. of N17,664.32k for borrowers and N13,360.55k for non-borrowers.

Dambo village has the GFI of N20,209.96k for borrowers. While the sum of N13,272.34k was recorded as Gross income for the non-borrowers in the area.

Kakiyaye, Dakace and Dambo results agreed with the hypothesis testing, that borrowers level of output is expected to be higher than their non-borrowers counterpart. This was however,

attributed to the use of better inputs e.g fertilizers, seeds etc. Which lead to increase in productivity of borrowers in the areas, through the use of NACB credit on arable crop production.

5.5.6 NET FARM INCOME (NFI):

The NFI is calculated when the difference between the gross farm income and the total cost of production per hectare is taken. The NFI figure can show a negative or a positive sign. The negative or positive sign indicates a loss or profit in the farm business. Under borrowers farms, the net farm income for Kakiyaye, was N18,266.11k and under non-borrowers farms the sum of N12,174.72k was realised.

The survey indicates that the NFI in Wucicire under borrowers farm was N13,034.34k While non-borrowers farms attracted the sum of N16,626.17k. Similarly, Dakace has N14,667.51k for farms under borrowers as the Net farm income and N10,802.16k for farms under non-borrowers. The Net farm income of N16,669.85k for borrowers was recorded in Dambo and N10,111.94k was recorded under non-borrowers farm respectively.

However, Wucicire non-borrowers net farm income was higher than their borrowers counterpart. Reasons for this results was attributed to the fact that, credit granted to borrowers were not only inadequate, but might have been diverted to other uses than farming, the purpose by which the loans were granted. Furthermore, non-borrowers sample contained a more number of farmers, whom might be wealthy farmers in the area.

CHAPTER VI.

6.0 SUMMARY AND CONCLUSIONS.

6.1 SUMMARY OF THE FUNDING.

We x-rayed the impact of the NACB credit on arable crop production in Zaria local Government Area of Kaduna State. We also traced the origin of institutional small holder direct credit delivery in Nigeria which dates back to the early 1981s.

The finding emerging from this study suggest that there has not been an even distribution of loans among the various projects or purposes. They indicate that more loans were given out for some purposes than for others. For example, 58.4 percent of the NACB small holder Direct loan scheme (SHDLS) for agriculture between 1981-1991 went to arable crop production. This demonstrates that efforts are still geared towards financing small scale farmers (who are mostly arable crop producers) as can be seen from the greater focus on arable crop production.

Similarly, further findings emerging from this study area indicates that 31.3% of the SHDLS of the NACB for agriculture withing the study period went to marketing.

It is suggested that this trend should be changed if bank loans are to make any significant impact on Nigerian agriculture. It is suggested that loans be made available to individual small scale farmers in the study area. Just as there should be a balance between the loans received by arable crop productions, there should also be a balance between the loans given for each

other purposes. All loan purposes should be considered as equally important in their contribution towards the growth of agriculture in Nigeria.

A proper balance in laon distribution, between outgrowrs/on lending, mixed farming, marketing, livestock, Agro-Allied and arable crop production should be encouraged. They are unique parts of the Nigerian agriculture and each has a special task to accomplish towards achieving the tremendous growth required in agricultural production.

A total of 15,992 clients in the state has so far benefited from the NACB small holder Direct scheme between 1981-1991.

Out of this number, 2,194 small-scale farmers in Zaria LGA, has so far benefited from the small holder Direct loan scheme, between 1988 to 1991, when the Kaduna branch office of the NACB was opened. This number is however small out of 3.969 million people in Kaduna State. Beside the low number of loans involved, there is a patronage by 'big' farmers, in the state. There is no sense guaranteering the 'big' loans since the recipients are already big and credit-worthy enough to be able to obtain such loans directly from the NACB through the small holder Direct scheme.

The main purpose of the loan scheme is defeated when 'big' farmers' loans are guaranteed by it, where as, they are meant for the small-scale farmers:

Further findings from the study also revealed that the majority of borrowers in the study area obtained between N1,000 and N1,500 as loans. While between N2,000 and N3,500 was faily

distributed among the borrowers as loans.

This amount is small indeed, considering the cost of farm inputs, such as fertilizers and high cost of labour in the area, which is more than doubled in the past two years now. The main features of the land ownership in the study area was the existance of a family are communal land tenure system.

The findings also shows that because of the system of "purdah" being practised by the Muslims in the study area, Women are not employed in agricultural farms, and as such labour supply by family members is only contributed by children from 15 yaers and above and men who are relatives to the farmers: Therefore, more labour was hired for agricultural production of arable crop in the study area.

It is often announced in the media that lending procedures to small scale farmers and that they could borrow up to N5,000 without depositing anyform of collateral security. From the findings, it was revealed that the average loan per-head during the survey year was not up to that amount (N5,000) and farmers must have some form of collateral security, such as land, before such loans are granted. Some of the small scale farmers also find it difficult to find suitable farm land for agricultural cultivation.

It was discovered that, the cost of labour is very high within the study area. For instance, N25.00 is paid as the cost of hired labour per-manday hour and N35.00 is charged as the cost of hired labour during the busiest months in the area. The findings also indicates that the cost of inputs, such as fertilizers was very high. For example, during the survey period,

farmers' in the area bought fertilizers at N150 to N250 per bag depending on the type of fertilizers.

A discriptive analysis to compare the relative efficiency of inputs used by both borrowers and non-borrowers in the study area has been used. A pie chart and histography has been used to show the loans by purposes and the distribution of such loans to the farmwers between 1981 to 1991. When the small holder Direct schemewas introduced by the NACB limited.

A farm budget analytical tools was also used in the study.

Findings also emerging from the studyshows that among the two groups of farmers, it is more profitable for them to produce yams, maize, millet, guineacorn (Dawa), Rice and pepper which leads to increase in productivity and profitability of farmers in the four villages, of the sampled areas.

It was discovered from the findings too that there is a very important difference between how the scheme is run and how it actually does run.

It ought to reach more small-scale farmers with its loans than it does at the moment. An important consideration in measuring the success of the scheme should be how widely distributed the loan beneficiaries are and not how highly concentrated the amount of loans is in the hands of a few 'influential' farmers.

There is no doubt that the best agricultural loan scheme will be the one that will be designed, planned and executed with the intention of involving the majority of the small-scale farmers. Hence, it is therefore suggested that an easier and quicker way of securing loans from the NACB for agricultural purposes be

worked out to enable the majority of the small-scale farmers to benefit from the small holder Direct loan scheme. Perhaps the small-scalefarmers in the area need to be educated as to how to secure loan from the bank.

There might also be the need to increase the NACB subvention on agricultural finances, so that the bank can also increase her lending more to small farmers, since it is believed that the bank deliberately give few loans to reduce not only the administrative cost, but also the risk of default.

There have been increasing demandfor credit in Nigeria and Kaduna State in general. From the findings, it shows that the demand for credit, especially on arable crop production is very high-most of the farmers interviewed at the area, complained of the untimelinessof the disbursement of such loans to them at time of need. And where such loans are disbursed late, it may not be useful for that period for which they were given.

It was also discovered that loans that are supposed to be meant for the small scale farmers were being hyjacked by some individuals who pose as farmers but do not actually use the loans for their farm business. While the real farmers do not benefit from such loans.

6.2 POLICY IMPLICATIONS:

The study set out to indicate the impact and the role played by borrowing on economic development of the small holder farmers. The Gross farm income (Gross output), net farm income, cost and returns analysis were used as development indices of arable crop farmers in the area. Thus, to the extent that borrowing enhanced the above, to that extent in aided economic or agricultural

development.

The policy issues that have emerged from this study, the most essential aspect of the study is the need to grps the financial behaviour of the small holder farmers of arable crop production.

The small holder direct credit scheme was started in 1981 with N100,000 allocated to each of the 18 branch offices for lending to small holder farmers. This amount was increased in 1985 by over 90 percent.

For the 1985 planting/Agricultural season, the amount was increased to N900,000,00 per state and N300,000,00 for Abuja.

In addition to the above, the number of beneficiaries has reflected the degree of awareness generated by the scheme in the State. The branch offices have of late been "invaded" by applicants seeking loan forms, with the result that the branch offices are under pressure. This is a welcome development, the tempo of which should be sustained.

Despite this steady growth of the scheme in the state, not much can be achieved in the direction of more funds and increased output of the farmers in isolation. Creadit is recognised as only one of the necessary ingredients for enhanced agricultural development in the area. Therefore, improvement in credit facilities without improvements in other areas such as research, Agric. produce marketing, education of the farmers, pricing policy, infrastructures, technological changes in agriculture, mechanisation, land reforms, storage, acticulated planting, etc will certainly not achieve the desired results.

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For credit to be effective other sectors of the economy must cooperate in providing the relevant services to support the small holder scheme. This will lead to accelerated integrated rural development.

Farmers who have borrowed money, generally spend more money for their families on those things that determine higher welfare. Although casuality could be in either direction, results from other studies suggest that it is most likely credit use that made it possible for borrowers to enjoy higher welfare.

It has been demonstrated that the loans provided by traditional lending agencies are not large enough to finance medium and long-term capitals of all lending agencies in the study area, only the NACB limited, provides sufficient loans for agricultural investiment in long-term assets, the small holder farmers', yet capital requirement is a critical need for agricultural development.

The use of credit has led to increase in productivity and profitability of farmers of arable crop-production than the non-borrowers.

In conclusion, there have been greater influence through credit, such that, if provided would make it possible for farmers to increase capital intensity in production. Hence, lenders need to adopt their process so as to accommodate extension of medium and long-term loans to small holder farmers, who may not have the collecteral where necessary to back such loans.

6.3 RECOMMENDATION OF POLICY RELEVANCE:

Nigerian Agriculture is in a transitional phase. Transition from the subsistence level to a commercial stage. After a care-

ful study of the impact of the NACB credit on Arable crop production: With particular reference to the SHDS in Zaria.

In order to improve on the present situation, a number of measures have to be undertaken. From the findings, we make the following recommendations:

We therefore recommend that more attention should be paid to small holder farmers, who actually produce food for the teaming population of the local governmet Area, the state and Nigeria in general. The issue of collateral securities should be reviewed to enable poor farmers in villages around the study area get access to these loans, more so, we recommend that the NACB minimum loan of N5,000.00 to small scale farmers without collateral securities be increased to at least N10,000 to N15,000.00 inview of the prevailing high cost of farm inputs in the country.

We also recommed that a strategic cooperative scheme of the small holder farmers in the rural areas be established. The strategy for implementing the scheme should be based on the model of the existing small holder scheme. The establishment of primary cooperative, whose membership by law is authorised by ten members, with a special loan of a minimum of N10,000 to N15,000 per member be established for primary cooperatives based on the terms and conditions of the present small holder direct scheme.

We can highlight some of the advantages associated with granting credit through cooperatives, among which are the relative low cost of credit administration, the ease of reaching several small farmers and the ease of loan recovery using the cooperative machinery.

Cooperatives, the world over when properly operated have been known to be a reliable means of reaching several small holder farmers with ease. The problems of cooperatives will further be solved by the pursuit of the establishement of the State Agricultural and cooperative Banks (SACB). The NACB will then be an apex organisation owning majority shares with farmer organisations, while State Government will own majority shares. The bank will operate on lending institutions for channelling NACB and other bank loans to farmers and cooperative organisations.

The sucess of this effort as it affects the cooperatives will also be predicted on the elimination or reduction of the existing problems associated with the cooperative societies.

Essentially therefore, for lenders to want to lend to small scale farmers, the lenders will have to be convined that the current spate of poor financial management, personality problems, leadership problems and lack of commitment on the part of members to their activities have been eliminated.

It is further suggested that the activities of credit institutions be decentralized, since in the past centralization of the activities of sililar institutions has been one of the factors responsible for their failure. The bank should give priority to the development of districts and village level branches. By so doing, the banks make themselves accessible to small scale farmers that cannot reach the state capitals or towns where the bank has its branch offices from their remote villages.

Loan applicants should be identified as serious farmers who possess the capacity for credit utilization and repayment. The

farmer should have adequate and legally enforceable collateral when the need arises to secure the loan thus making it possible to convert the property to cash in case of default.

Staff of NACB and other credit institutions should be honest/objective in their inspection of farmers projects so as to identify genuine farmers who have adequate and undisputed land for farming. Adequite study of the project should be made to determine the volume of financial assistance that could conveniently and successfully be applied to the project as over funding or under funding will make for poor management/implementation of the project thus leading to project failure.

Where the projects fail as a result of unavoidable disasters, they should be re-appraised and extra funds injected to enhance performance and bail the farmers' out of their predicament.

Disbursement should be timely/regularand by instalments to ensure faithful utilization of funds. Loan staff should regularly monitor the utilization of funds so as to check diversion. Inspect the project regularly to office expert/technical advice. By loan staff regular inspection and visits, the awareness is created in the farmer that the funds being utilised are borrowed and as such stand to be repaid back.

The NACB management, should put in place a sound recovery system by providing:

(i) Adequate transport facilities for the recovery staff

(ii) Be able to pay allowances to sfaff promptly to boost their moral.

(iii) Enlist the assistance of village heads, farmers' Unions and cooperative societies in the recovery effort. Market channels should be explored for farmers to enable them dispose of their products profitably. Profitability is the ultimate goal of any ventures, for if there are no profits, the business cannot pay off its loans and other costs/charges.

The above strategies if faithfully adopted by the NACB and lending Agencies, will make for low default rate thus giving rise to high recovery rate.

The analysis offers sufficient evidence to conclude that NACB credit on arable crop production of the small holder scheme, on agricultural credit can contribute to greater credit access for small holder farmers by basing credit decisions more on profitability and productivity of the investments than on collaterals.

The findings from the study reveal that the farmers' ability to borrow a sufficient amount is of ten frustrated by lack of credit worthyness. This is vividly demostrated by large unmet demand for credit.

However, small as the loans are, they could still have some impact if properly utilized for an illed economy. Evidence from this study has proved that credit provides access to inputs which otherwise would not have been available without it.

The NACB small holder Direct scheme has not made the necessary impact on the arable crop production; due to the following reasons: Either,

(i) The loans are too small, or

(ii) They are being diverted to other off-farm activities.

Agricultural credit scheme are open to all categories of farmers, they might have been hyjacked by the rich farmers, many of whom are contractors, and power-brokers. Shocking revelations may be uncovered when a more comprehensive study on Arable crop production of the small holder Direct Agricultural Credit Scheme is undertaken. It is obvious that farm production may not have increased significantly, if agricultural credit is not utilized for farm work. The off-farm activities would have benefited more than anything else. It is therefore being suggested that, these shouldn't be bias in small farmers credit delivery, so that the noble objective of the credit scheme could be achieved. The small holder Direct Credit scheme must come as an opportunity to serve the rural people more espicially and make a positive impact on the lives of these rural people (dwellers).

From the results of the hypothesis testing, a very inconsistent results was obtained. For example, in one of the Sampled area, borrowers could be using more inputs thannon-borrowers and still in the same area, it was found that the productivity of non-borrowers was higher than borrowers, such inconsistent and contradictory results indicates the difficulty involved in trying to isolate the impact of NACB credit of the samll holder scheme on arable crop production from that of the other inputs used in the same production process.

They also highlight the diffifulty of getting accurate data needed to analyse such situation on the farm so that a more reliable results could be obtained.

We have suggested the introduction of cooperative societies in the rural areas where supervision by the banks will be easier,

and less expensive, so that more small scale farmers will be able to benefit from the scheme. Farmers cooperative organisation should encouraged in areas where such exist, since they can guarantee repayment, when members defult payment. We believe that if this is followed, it will be easier, and less expensive for the small-scale farmers to be able to benefit from the small holder Direct loan scheme of the NACB, Limited.

Nigeria has a challenging future of being able to feed its teaming population and to achieve this, we advise that all hands must be on decks. This means that the Government must live upto its promises of allocating enough fund to the agricultural sector, especially the small scale farmers who constitute 90 percent of food production in the country.

This will make it possible for banks to grant more loans to farmers. So that the dreams and aspirations of every Nigerian for a brighter tomorrow with plenty to eat will be achieved.

6.4 DATA LIMITATION:

It was a difficult task to collect data from farmers who are mainly illiterates and do not understand English language properly and do not keep records of their farm activities.

Farmers were visited during the survey, some respondents were not easy to find with the time-lag in between the visits. Therefore, a number of respondents was dropped out of the sample, especially within Zaria city being the headquaters of the Local Government Area of the study area.

The analysis of the data on the impact of credit on certain crops production was a problem. Example, loans for plantations, yams, cocoayams, rice etc, do not yield immediate impact. As a

result, fall under the medium and long term loan categories, whose impact may be felt after a long period of time.

Collection of data were limited to a single cropping period and to farmers who produced annual crops. As a result of this, a big volume of information was left out of the analysis, which eventually became limitation to data. It was not easy to get data for all the projects sponsored by the NACB, since the introduction of the small holder Direct scheme in 1981. As such, a big volume of information was leftout of the analysis.

Finally, as a result of cost constraints, time lag and resources available for the study as a private student, collection of data were also limited to four villages in the LGA, out of 12 villages that make up the new Zaria Local Government Area. And with the additional crea tion of new LGAs in the former Zaria LGA, a big volume of information was leftout of the analysis, which is also a limitation to data collection.

6.5 CONCLUSION:

This study aims at analyzing the likely farm-level effects of credit on arable crop production and the use of modern inputs by small holder farmers in Zaria Local Government area of Kaduna state.

The major objectives of this study is to ascertain the changes in the cropping pattern, farm labour use, farm income and the productivities of the farm resources that are likely to be associated with the use of NACB credit by small holder farmers' in Zaria.

This study has also concerned itself with establishing the

cost and returns per-hectare, identifying the variations in the costs and returns for different sizes of farms for arable crop production. The farm budget indicates that both categories of farmers (borrowers and non-borrowers) are making profit in growing arable crop in Zaria Local Government area of Kaduna State.

The small farmers of arable crop production with access to institutional credit have higher output per unit input. And there have been increase in productivity and profitability of farmers that use credit on arable crop production than non-users counterparts.

It was discovered that out of a total amount of N756,874,944.74 million that was disbursed to agriculture for various purposes, between 1981-1991, 58.4 percent or N441.8m went to arable crop production, being the largest share of the loans.

The findings that emerged from this study indicate that there has not been an even distribution of loans among the various projects. They indicate that more loans were given out for some purposes than for others.

A total of 15,992 clients in the state has so far benefited from the NACB small holder Direct scheme between 1981-1991.

Out of this number, 2,194 small scale farmers in Zaria LGA, has so far benefited from the SHDLS, between 1988 to 1991, when the Kaduna branch office of the bank was opened. The branch office was opened to cater for small-scale farmers in all the local government areas of the state.

The number out of 3.969 million people, is however small in Kaduna State.

From the survey carried out in the four sampled villages in

the Zaria LGA, out of a total sampled size of 179 respondent, a total of 71 small holder farmers in the new LGA, benefited from the SHDLS. While 108 were non-beneficiaries of the small holder Direct loan scheme in the area. From this figures, an important conclusion that could be drawn from this study is that, the small holder arable crop farmers in Zaria LGA do actually need credit assistance.

The assessment of the impact of NACB credit on arable crop production in Zaria is believed to be worth-while for the benefit of farmers, credit institutions, policy makers and covers an important gap in credit impact literature.

BIBLIOGRAPHY.

AJAKAIYE, M.B. (1990): The role of NACB in Agricultural develop ment (being a paper presented at the National Conference held at the (ASCON) Badagry (Lagos-Nigeria, 14-16 (August).

Ajomo,S.A. (1972): "Oil law in Nigeria" into/Elias: The law and social change in Nigeria,. Evans Brothers (td; Lagos.

Aku, P.S. (1981): "Problem in the Implementation of the agricul tural Credit Guarantee Scheme Fund. A Case study of selected credit Institutions in Kaduna State of Nigeria". Unpublished M.Sc. Thesis, Dept. of Agri Economics and Rural Sociology, IAR, ABU, Zaria.

Aku, P.S. (1991): An Evaluation of the Impact of Institutional Agricultural Loans on Farm Resouce use Efficiency in Kaduna State. Unpublished Ph.D. Thesis, Dept of Agric. Econs and Rural Sociology, Faculty of Agriculture, A.B.U. Zaria (March).

Akubuilo, C.J.C. (1976) Agricultural Economics and Farm Management (Tropical Agricultural Hand Books) Macmillan Publisher, London and Basingstoke.

Abdullahi, Y.A. (1986): The Nigerian Agricultural Development Policy and the small-scale farmers" Panel Organised by U.S. Social Science Research Council. Madison, Wisconsin, U.S.A

Aboyade, O. (1983): "Foundations of an African Economy", Praeger Special Studies in International Economics and development. Frederick A. Praeger Publishers, New York.

Agabin, M.H. (1980): Philippine Experience on Agricultural Finance, Technical Board for Agricultural credit. Manila, Philippine, P. 97.

Aigbokhan, B.E. (1988): Planning, Employment and income Distribution in Nigeria, Kristal Publications, Ltd, Lagos - Nigeria.

Anonymous (1980): Notes on the Experimental cropping systems and improvement programme cropping scheme meeting IAR, ABU, Zaria. P. 47.

Anonymous (1981): Notes on the farming system research programme cropping scheme meeting, IAR, ABU, Zaria. P. 89.

Andrews, D.J. (1972): Intercropping with sorghum in Nigeria. Experimental Agriculture, 10:57 - 63.

Anonymous (1976): Notes on farming system and intercropping programme cropping scheme meeting, IAR, ABU, Zaria - Nigeria.

Baker, B.F.I and Yasuf, Y. (1976): Mixed cropping research at the IAR, Samaru-Zaria, Nigeria. In Manyo, J.H. etal (Eds).
Intercropping in Semi - arid areas p9 17-18, Microfiche Edition.

Baker, B.F.I (1979): Mixed cropping in Northern Nigeria III, Mixture of cereals. Experimental Agriculture, 15(1): 41:48.

David, C.C. and Meyer, R.L. (1980): "Measuring the farm level impact the Agricultural loans in Borrowers and lenders", In rural Financial Markets and Institutions in Developing Countries.
J. Howell (Ed.) Overseas Dept. Institute, P9 201 - 219.

Donal, G. (1976): Credit for Small farmers in Developing countries. West view press, Colorodo Boulder.

Enigimi, J.A. (1982): " The role of NACB and ACGS".
Unpublished B.Sc. (Econs) Project.
Department of Econs, ABU, Zaria.

Edordu, C.C. (1980): The role of farmers cooperative in the Agricultural credit guarantee scheme. Paper presented at the National Conference on farmers cooperatives held at the University of Ife (OAU) 10th - 11th Nov. P9 10 - 11.

Ejiga, O.I. (1987): The performance of public Agricultural Credit Institutions: A case study of NACB Ltd (1973 - 1985), Unpublished M.Sc., Thesis, Dept. of Geography, ABU, Zaria. PG. 68 - 70

Etuk, E.B. (1993): Micro Economic Effects of Technological change on small Holder Agriculture in Northern Nigeria: A linear programming Analysis. PhD. Thesis, University Microfilm's International U.S.A.

Edame, E.B. (1987): " The role of Ekajuk Community in the Develop ment of Ekajuk Community Secondry School (ECSS) (1975 - 1985), Unpublished PGDE. Thesis, Institute of Education, ABU, Zaria (September).

Ekuma, R.A. (1991): Strategies for loan Recovery, A paper presented at the National Conference on Agricultural Finance in Cross River State, C.R.S Agricultural loans Board MANR, Calabar, (6th, September).

Famoriyo, S. and Nwagbo, E. (1980): Problems of Agriculture and Agricultural Finance in Nigeria, Conference paper, Fort-Harcourt, PG 3 - 18.

F.A.O. (1975): Credit for Agriculture in Developing World, Report on the World Conference on credit for Farmers in Developing Countries. U.N.O, Rome

Fisher, N.M. (1984): Fertilizer uses on mixed crops in Northern Nigeria. A Seminar paper presented at the dept of Agronomy. TAR, ABU, Zaria, Nigeria P9 19, June 27.

Fisher, N.M. (1982): Improved Technologies for crop Mixtures with millet and Sorghum. A paper presented at the NAFPP (National Accelerated Food Production Programme) workshop, ABU, Zaria, Nigeria, P. 12, April 82.

Ghouse, G. (1980): Financial Institutions and Agricultural Finance in India, P. 76.

Gachara, D.N. (1981): Agricultural Credit in Kenya, Central Bank of Kenya, Nairobi, Kenya P. 106.

IIEBAMI, D. (1983) : The Impact of credit among small scale farmers in Ondo State of Nigeria, World Bank Residence Mission, Lagos - Nigeria.

Idachaba, F.S. (1984): Priorities for Nigerian Agriculture in the 5th National Development Plan (1986 - 1990) Niser, Ibadan, P. 12.

Iuben, M.S. (1982): "Population growth, land tenure and food production" in Grubutoye (edt) Population and Development in Nigeria, Niser, Ibadan.

Kumopayi, O.A. and Adeyanju, S.O. (1982): Socio-Economic characteristic of small farmers: A case study of Kwara State, University of Ibadan - Nigeria.

Lewis, W.A (1954): "Economic Development with Unlimited supplies of Labour", The Manchester School, U.K. 22(2) 139-91.

Levistsky, Jacob (1983): "Financing of small and medium enterprises" UNIDO.

Mobayo, W.T. (1982): Impact of public Agric. credit programmes on the farm income of small farmers: A case study of Oyi LGA

of Kwara state. An Unpublished M.Sc. Thesis, Dept. of Agric Econs and Rural sociology, IAR, ABU, Zaria.

Miller, L.F. (1977): Agricultural credit and Finance in Africa Rockerfeller foundation, New York P9 70.

Mbanefoh, F.G. (1987): "Distortion in production in the Nigerian Economy: An analytical Framework" in Distortions in the Nigerian Economy,. Nigerian Economic Society Annual Conference, Calabar, (May 12 - 16).

Meier, G.M. (1976): "Leading issues in Economic Development" (2nd Ed.) Oxford University press, New York P. 252 - 261.

NACB DIGEST (1991): A Journal of NACB Ltd. Vol. 3 (4). April P. 47 - 49. NACB LTD, KADUNA.

NAFZIGER, E. W. (1984): The Economic of Developing Countries. Wodsworth Publishing Company Belmonth, USA.

Nurkse, R. (1953): Problems of Capital formation in under developed Countries. Oxford University press New York P. 111 -

Norman, D.W. (1972): "An Economic Survey of three villages in Zaria province, 2 input - output study Vol. 1 "Samaru Miscellaneous paper 37, IAR, Zaria.

Nwankwo, G.O. (1981): Part review of the 4th National Development Plan (1981 - 85) Federal Ministry of Economic Planning, Lagos P. 24

Nwoko, S. G. (1981): "An Institutional Appraisal of Nigeria's ACGS" Agricultural Administration P. 12.

Olalokun, F.A. etal (1979): The structure of the Nigerian Econo

my. The Macmillian press, Ltd, Lagos.

Ogunfowora, O. etal (1973): Capital and credit in Nigerian Agriculture. Nigerian Rural Development study paper No. 6, University of Ibadan, Nigeria.

Ogugwa, S.N. (1979): Small farmers credit with particular reference to Nigeria. Unpublished M.Sc. Thesis, University of Reading, U.K.

Ochelebe, M.A. (1987):Economic of loan advances and loan retrival in a depressd economy: Acase study of NACB Ltd. Unpublished B.Sc Thesis, Dept. of Econs and statistics, University of Benin, Benin-City Nigeria PP. 123 - 124.

Olayide, S.O. (1980): "Characteristics, problems and significance of farmer' in Nigerian small farmers" CARD, Ibadan.

Oboh, D.A. (1981): Problems of loan repayment under the auricultural credit. A Journal of NACB Ltd Vol. 3(4) April.

Odejide, A.F. (1987): " The Nature, causes and consequences of Distortions in production and distribution on the Nigerian Economy: Some policy prescriptions" in Distortion in the Nigerian Economy, The Nigerian Economic society Annual conference, Calabar (May 12 - 16)

Onuk, A (1989): "An appraisal of the performance of the NACB in financing cooperation projects (1980-1987)" IDP submitted to EFS Dept. ASCON.

Okunrintemi, J.S. (1991): "The agricultural sector and the inflationary pressure in Nigeria, (1960 - 1989)"

Unpublished M.Sc thesis, Dept, of Economics, ABU Zaria.

(October).kigbo, BN and Greenland,

Okigbo, BN and D.J (1976): Multiple cropping in tropical Africa. In matthias, C etal (eds) Multiple cropping P9 03 - 101 American Society of Agronomy, Madison, Wisconsin, U.S.A.

Sule, O.A.S. (1986): Agricultural Development and the role of Financial Institutions, paper presented at the 5th, National seminar on Finance, organized by the time leisure services and the Nigerian Arab Bank ltd, at Abeokuta.

Suntogun, A. (1973): "Agricultural credit strategies for Nigerian Farmers" A.I.E. Spring review of small farmers credit in Africa, Vol. Vi (106) February.

Sada, P.U. (1987): Distortions in an oil - economy: Nigerian's experiance in Agricultural production and distribution services" in Distortion in the Nigerian Economy

the Nigerian Economic society Annual

conference, Calabar. (May 12 - 16).

Snodgrass, M.M. and Wallace, L.T. (1980): Agricultural Economics and growth (3rd Ed) Meredith corporation New York.

Sani Mohammed Chobe (1987): Productivity of maize/sorghum mixture as it affected by croo production, stand Arrange ment and maize variety. M.SC. Thesis, Dept. of Agronomy, Faculty of Agriculture, ABU. Zaria (December 87).

Voh. J. P. (1979): An exploratory study of factors Associated with adoption of Recommended farm practices among Giwa

farmers. Samaru Miscellaneous paper 73, IAR, ABU, Zaria.

Wharton, C.F.R. (1967): "Agricultural Development and Economic Growth. Edited by Southworth, H. and Johnston, R. Cornell University press, Ithaca, New York.

TABLE 5.1: APPENDIX A:LOANS DISBURSED BY NACB, THROUGH THE SMALL HOLDER DIRECT SCHEME, BY PURPOSE, 1981-1991.

YEARS	OUTGROWERS/ ON-LENDING		ARABLE CROP		LIVESTOCK		AGRO-ALLIED		MARKETING		MIXED FARMING		GRAND TOTAL	
	NO. OF LOANS	AMOUNTS (N,000)	NO. OF LOANS	AMOUNTS (N,000)	NO. OF LOANS	AMOUNTS (N,000)	NO. OF LOANS	AMOUNTS (N,000)	NO. OF LOANS	AMOUNTS (N,000)	NO. OF LOANS	AMOUNTS (N,000)	NO. OF LOANS	AMOUNTS (N,000)
1981	4	25,438,169	8,408	15,365,424	138	75,717	-	-	66	28,658	-	-	8,616	40,907,968
1982	970	68.177	1,280	238,762,602	-	-	-	-	-	-	-	-	2,250	238.830,779
1983	-	-	1,407	23,356,000	-	-	-	-	-	-	-	-	1,407	23.356,000
1984	-	-	49	9,597,857	-	-	-	-	-	-	913	27,683	962	9,625,540
1985	1	196,410	71	130,268,182.72	44	29,658	-	-	49	109,167,748	-	-	165	239,661,998.72
1986	-	-	220	22,284,574	-	-	-	-	-	-	-	-	220	22,284.574
1987	-	-	56	1,494,950	35	1,269,450	-	-	35	128,035,096	52	14,782,281.54	178	145,581,677.54
1988	1,499	3,353,500	26	10,850	19	68,950	-	-	-	-	-	-	1,544	34,333,00
1989	-	-	135	510,500	86	903,806	-	-	-	-	-	-	221	1,414,306
1990	-	-	47	145,500	331	292,473,28.69	7	22,84617.79	-	-	-	-	385	31,677,446.48
1991	-	-	32	63,805	1	4,050	11	33,500	-	-	-	-	44	10,135,5
TOTAL	2,474	290,562.56	11,731	441,860,144.72	654	31,598,959.69	18	23,18117.79	150	237,231502	965	14,809,964.54	15,992	756,874,944.74

SOURCE: (1), NACB ANNUAL REPORTS, 1985. (2), NACB LOANS DIVISION. (3), NACB BRANCH OFFICE,1992, KADUNA

APPENDIX: E.

DEPARTMENT OF ECONOMICS
FACULTY OF ARTS AND SOCIAL SCIENCES
AHMADU BELLO UNIVERSITY,
ZARIA.

" The Impact of NACB Credit on Arable Crop Production: A Case study of Small Holder Direct Scheme in Zaria".

Farmers' Questinnaires - Between Borrowers and Non-Borrowers.

1. Name of Farmer.....

2. Farmer's LGA.....

3. Name of Village/Town/District.....

4. Farmer's Age.....

5. Occupation of Farmer:.....

   (a) Principal.....

   (b) Subsidiary.....

   (i) Tailoring /_____/

   (ii) Carpentry /_____/

   (iii) Wood carving /_____/

   (iv) Shopkeeper /_____/

   (v) Others (please specify.....

   .....

6. Name of Enumerator:.....

7. Date of Interview:.....

8. How many farm plots do you have ?

   (a) 1 - 2 plots /_____/

   (b) 3 - 5 plots /_____/

   (c) 6 and above /_____/

9. What crops have you grown on thema in the last four years ?

Year	crops	Units	Quantity Produced Number of Unit produced.
Last Year	i.....		
	ii.....		
	iii.....		
	iv.....		
Two Years ago	i:		
	ii:		
	iii:		
	iv:		
Three Years ago	i:		
	ii:		
	iii:		
Four years ago	i:		
	ii:		
	iii:		
	iv:		

10. Have you ever borrowed money for farming ?

Yes: .....

No: .....

11. If yes, from whom ?

(i) Name of person:.....

(ii) Name of credit institution.....

(iii) Place of Location:.....

12. If No, Where do you get money to purchase farm inputs ?

(i) From Relatives ? /_____/

(ii) From Neighbours ? /_____/

(iii) From Friends ? /_____/

13. If you took a loan this growing season (1991), how much did you borrow ?

(i) NO - N500

(ii) N501 - N550

(iii) N552 - N560

(iv) N561 - N600

(v) N700 - N1,000

(vi) N1,500 - N2,500

(vii) N2,500 and above

14. When did you get the loan ?

(i) Month:.....

(ii) Year:.....

15. What location is the credit institution you borrowed from ?

(i) Urban:.....

(ii) Rural:.....

16. What kind of security do you offer for the loan ?

(i) Land /_____/

(ii) Cash in the bank /_____/

(iii) Guarantors /_____/

(iv) Crops /_____/

(v) Other (please specify).....

17. For what purpose did you borrow this year?

Reasons for use of Loan	Amount spent on each loan
i. Hiring Labour	N.....
ii. Purchase fertilizer	N.....
iii. Purchase land	N.....
iv. Purchase farm implements	N.....
v. Purchase Livestock	N.....
vi. Others (please specify)	N.....

18. When did you pay back the loan ?

(i) 3 months later...../_____/

(ii) A year later...../_____/

(iii) After the harvest...../_____/

19. Are you going to pay back more than you borrow ?

(a) Yes /_____/

(b) No /_____/

20. If yes, how much more will you pay back ?

(i) N10 - N50

(ii) N60 - N100

21. Where will you get the money to pay back the loan ?

(i) From sale of crops /_____/

(ii) From relatives /_____/

(iii) Borrow from neighbours or friends /_____/

(iv) Others (specify please) /_____/

22. Have you noticed any difference between the use of credit in farming and the lack of it ?

(a) Yes /_____/ (b) No /_____/

23. If yes, what is the nature of the difference ?

(i) Improvement in productivity /_____/

(ii) Decrease in productivity /_____/

(iii) Any other thing (please specify) /_____/

24. Has the use of loan improved your standard of living/welfare

(a) Yes /_____/ (b) No /_____/

25. Did you receive loan last farming season ?

(a) Yes /_____/ (b) No /_____/

26. If Yes, when did you get it ?

(a) Month:.....

(b) Year:.....

27. Did you get the mount you asked for ?

(a) Yes /_____/ (b) No /_____/

28. What month did you start using the loan ?

(a) Month:.....

(b) Year:.....

29. Has any credit officer ever visited you to advise you on how to use the loan you took ?

(a) Yes /_____/ (b) No /_____/

30. If yes, from where did he come from ?

(a) MoA Loan Board Division /_____/

(b) NACB Branch Office (Location) /_____/

(c) Any other (please specify) .....

.....

31. If no credit officer visited you, do you think you need one to advise you on how to use the loan ?

(a) Yes /_____/ (b) No /_____/

32. If you have ever received advise from a credit office, what is the nature of the advise on the use of credit/loan ?

.....

.....

.....

33. Did you follow this recommendation during the last farming seasons ?

(a) Yes /_____/ (b) No /_____/

34. If yes, were the instructions easy to follow ?

(a) Yes /_____/ (b) No /_____/

35. If yes, please explain:.....

.....

.....

36. If no, please explain why ?.....

.....

.....

37. Have any of these instructions helped you ?.....

(a) Yes /_____/ (b) /_____/

38. How did you get land of cultivation of the crop ?

(i) Family land /____/ No. of hectare /____/

(ii) Rented land /____/ No. of hectare /_____/

(iii) Purchased /_____/ No. of hectare /____/

(iv) Leasedhold /____/ No. of hectare /____/

39. If rented or leased, how much per hectare per year ?

Amount N:.....

40. If purchased, how much per hectare ?

Amount:.....

41. Of the crops grown, how much land is devoted to each crop ?

Types of crop	No. of hectare under cultivation	Total Number of hectare owned

42. Title Deeds:

Is the land registered /_____/ or unregistered /____/

43 If registered, how much is the amount ? N.....

44. What type of labour used in crop production ?

(i) Family labour /____/

(ii) Hired labour /____/

(iii) Both family and hired /_____/

45. How long is the normal work day for each group family members ?

Children's hour:.....

Female hour:.....

Male:.....

46. Do you hire any labour Yes /_____/ No. /_____/

47. Complete the table below, where labour is hired.

Type of Operation	No. of workers per day	Hour of work per day	No. of Days Taken to work	Wage Rate per Day	Imputed value of feeding (N)	Total wage value (N)
Land clearing						
Ridging						
planting						
Weeding						
Ferti-lizing						
Spraying						
Harves-ting						
Thresh-ing						
Market-ing						
Others (specify)						

(i) Family labour used:

Type of operation	No. of men	Hours of work per day	No. of women	Hours worked per day	No. of Children	Hours work per day	Total hrs of work	Total Imputed value in (N)
Land clearing								
Ridging								
Planting								
Weeding								
Fertilizing								
Spreying								
Harvesting								
Marketing								
Others (Specify)								

(a) Indicate the wuality of hired labour in year for the farm operation (in months).

TYPE OF OPERATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
LAND CLEARING												
RIDGING												
PLANTING												
WEEDING												
FERTILI-ZING												
SPRAYING												
HARVES-TING												
THRESHING												
MARKETING												
OTHERS												
(SPECIFY												

(48) Indicate the wuality of family labour in year for the farm operation (in months).

TYPE OF OPERATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
LAND CLEARING												
RIDGING												
PLANTING												
WEEDING												
FERTILI-ZING												
SPRAYING												
HARVES-TING												
THRESHING												
MARKETING												
OTHERS												
(SPECIFY												

49. What problems have you faced with the use of loans ?

.....

.....

.....

.....

50. What help will you like from the government or the credit institution concerning the use of Agricultural loans ?

.....

.....

.....

.....

.....

.....