ASSESSMENT OF THE EFFECT OF MICRO-CREDIT ON POVERTY ALLEVIATION AMONG RURAL CROP FARMERS IN EDO STATE

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ABSTRACT

The study evaluated the effect of micro credit on poverty alleviation among rural crop farmers in Edo State, using the problem of inadequate capital for the development of the agricultural sector as the main frame of reference. The specific objective of the study was to identify the social and economic contexts which influence the behaviour of respondents in the use of resources that determine the strata of the community the individuals would be, identify the various sources of micro credit schemes and their beneficiaries, determine the effect of micro credit on farm size, output, expenditure and income of beneficiaries and compare them with those of non beneficiaries, and evaluate the poverty status of beneficiaries and non beneficiaries of the micro credit scheme. Primary and secondary data were used for this study. Secondary data were sourced from organizations such as Lift Above Poverty, Edo State Micro Credit Scheme, Federal Office of Statistics, World Bank and the Internet while primary data were obtained by the use of copies of pre-tested questionnaire administered beneficiaries and non beneficiaries of the micro credit scheme. A multistage sampling procedure was used to select twelve (12) blocks, twenty-four (24) cells and eight hundred (800) respondents. Primary data were obtained from interview schedules administered by enumerators of the Edo State Agricultural Development Programme and Lift Above Poverty (LAPO). Three hundred (300) copies of well completed questionnaire each for

beneficiaries and non beneficiaries were analysed using frequency counts, means, percentages, multiple regression, and test of differences in mean and poverty indices.

Our findings were that, one hundred and thirty five (135) and one hundred and thirty three (133) of the beneficiary and non beneficiary respondents respectively were female while one hundred and sixty five (165) and one hundred and sixty seven (167) of the beneficiary and non beneficiary respondents respectively were male. Ninety six percent (96%) and eighty six percent (86%) of the beneficiaries and non-beneficiaries respectively were in the active age bracket of between 20 and 60 years, sixty one percent (61%) and sixty percent (60%) of beneficiaries and non-beneficiaries respectively were educated. The mean farm size was found to be 1.73 hectares for beneficiaries and 1.81 hectares for non-beneficiaries. Eighty two percent (82%) beneficiaries and eighty three percent (83%) non-beneficiaries were full time farmers and the output of beneficiaries in maize; cassava and yam were higher than that of non-beneficiaries.

Result of the regression analysis revealed that output and credit had a positive relationship with productivity and income of beneficiaries and non-beneficiaries of the micro credit scheme. The study also revealed that the incidence, intensity and severity of poverty were higher with non-beneficiaries than with beneficiaries of the scheme. It can therefore be

concluded that for farmers to be able to alleviate their poverty situations, there is the need for the injection of outside sources of finance in the form of micro credit.

DEDICATION

This work is dedicated to the memory of my late father, **Mr. Zekeri Aimiehimuan Ilavbarhe** and my mother, **Mrs. Asimao Irhueminukhue Ilavbarhe,** for their contributions to my education. I will ever remain grateful for their encouragement.

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CERTIFICATION

We certify that this work was carried out by Mr. Kashetu Ohiokhuaobor ILAVBARHE, of the Department of Agricultural Economics and Extension Services, Faculty of Agriculture, University of Benin, Benin City, Nigeria.

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1.0: INTRODUCTION

1.1: Background to the Study

Almost 80% of the total population has been described as rural inhabitants in most developing countries of Africa, Asia and Latin America, with agriculture providing employment and source of livelihood for between 75% and 80% of this population (World Bank, 1981).

Agriculture has been the primary occupation of man. It has served as man's supplier of food, employment and raw materials for the industries. Up to the 70s, Nigeria was regarded as an agrarian society, especially when assessed by the contribution of this sector to the Gross Domestic Product (GDP) and by the fact that it provided employment for the majority of the country's work force. Agriculture had been the main pivot of the Nigerian economy prior to the discovery and commercial exploitation of crude oil. The performance of the agricultural sector has been a major concern to policy makers, economists, entrepreneurs and the various governments. This is due to the reliance of the country on this sector to sustain the economy through the provision of food and employment for the teeming population, raw materials to the agro-allied industries and foreign exchange for the development of the other sectors of the economy. Agriculture accounted for 94 percent of the total estimated gross Domestic Products (GDP) of N38.346 million in 1960 (FOS, 1978).

This trend continued until the commercial exploration of petroleum and the development of the other sectors of the economy such as manufacturing, construction, service, finance and government services (Ojo, 2000). The

- 2 -contribution of agriculture to GDP dropped to as low as 16% in 1981 (FOS, 1986). There has been consistent fluctuation in the contribution of this sector to the GDP in the recent times.

Agricultural sector has witnessed a decline in the employment of labour force as a result of rural – urban migration while its contribution as a foreign exchange earner has been dwindling. This sector has not also performed well in the area of stimulation and sustenance of the industrial development through the provision of raw materials for the agro – allied industries and foreign exchange for the importation of the required machineries for industrialization. Although the mineral sector, especially petroleum, has now become the major revenue earner by virtue of its contribution to the GDP, agriculture still remains the largest employer of labour, thereby providing job opportunities, income and food for the populace. Agriculture also provides the raw materials needed in the nation's agro-allied industries and it is an important earner of foreign exchange. In spite of this, the demand for food is still in excess of production and there existed a local food demand - supply gap hence supply is augmented with importation.

A number of factors have militated against her achieving self-sufficiency in food production. These include the development of the non agricultural sectors that tended to depress rather than complement the agricultural sector; the main policy thrust in agriculture has been in the direction of increasing cultivable land area rather than raising productivity, the use of unimproved seeds and seedlings and lack of fertilizers. Equally important is the problem of physical infrastructure such as feeder road, water supply, electricity, schools, health, storage, processing and marketing facilities which are either lacking or are inadequately provided in the rural areas where over 90% of the total agricultural output is produced. For instance, the construction and service sectors of the economy have drained the agricultural sector of its virile labour force through rural-urban migration with the result that only the aged are left behind to till the soils. Nigerian farmers live in rural areas, served with poor infrastructures (roads, health care facilities, water, electricity, and schools) and therefore lack access to productive resources as well as output market. Most of the farmers have small farms; use traditional inputs that are capable of generating only very low income. This low income of the farmers leads to low savings and investment. Nafzigar (1994) concludes that farmers are poor because they lack capital for investment. Poor people have minimal linkages to influential people, or to urban opportunities and limited access

to credit facilities. The main assets of these poor farmers are labour and simple implements.

Available technology in Nigeria implies that there is a large and real potential for the development of the agricultural sector. The adoption of these new technologies, which comprises of improved biological materials such as seeds, seedlings, livestock breeds and fingerlings: agrochemicals such as fertilizers, pesticides and herbicides, and farm implements such as cutlasses, hoes, and intermediate machineries requires the injection of capital from non-farm sources. A common belief is that capital is the most limiting factor in any productive venture, including agriculture.

Lack of capital is thought to be the primary cause of low labour and land productivity. This low levels of production result in low levels of income as all what is produced is consumed. Since no surpluses above subsistence level in the form of savings, farmers lack investment capital and are therefore caught up in a web of vicious cycle of poverty.

Poverty exist when one or more persons fails to attain a specified level of wellbeing that is deemed to constitute a reasonable minimum standard of living set by that society (Ravallion, 1992). Imoudu (1998, 1999), on the other hand, sees poverty as a condition of living with little or no money required providing the basic necessities of life such as shelter, food, and clothing. Poverty causes hunger, diseases, inadequate shelter and homelessness. Poverty contributes to physical weakness through lack

of food. This in turn reduces the labour force available for farm work. Poverty hinders the education of children and leaves them perpetually poor. For farmers to break away from this poverty there is the need for the injection of funds in the form of credit

Credit is one important input employed in agriculture. Credit is needed to expand the scale of agricultural production and to enhance the adoption of improved farming technologies. However, access to credit facilities in banks by farmers is highly limited. Cooperative societies, friends, relatives, money lenders, traders, produce buyers and local social organizations such as ‘esusu’ groups do not provide adequate quantities of all the credit needs of the farmers who constitute the bulk of the population in Nigeria.

Credit plays a significant role in the transformation of subsistence agriculture into commercialized large-scale agriculture. It is required for the purchase of inputs needed for the adoption of modern agricultural technologies. Most economists and financial experts have identified the lack of capital as a constraint to agricultural growth and development. Oyatoye (1981) was of the view that credit is a major factor necessary for technological transfer in traditional agriculture. She went further by sayings that given availability of inputs needed to improve technologies, how rapidly farmers would adopt these technologies depend on the efficient sources of production credit. Credit therefore is the process of obtaining

control over the use of money, goods and services in the present in exchange for a promise to repay at a future date.

1.2: Statement of the Problem

There are empirical evidences to suggest that poverty and its alleviation is of great concern to policy makers the world over. This is particularly relevant when considering the most recent poverty indicators such as illiteracy, unemployment, access to healthcare facilities, education, mortality rates and the numbers of people within the absolute poverty level. Nigeria, in spite of its abundant resources ranks below Kenya, Ghana and Zambia in poverty rating (World Bank, 1997). Similarly, Nigeria's Gross National Product (GNP) per capita is lower, while the purchasing power of its citizenry continues to erode, due to high inflation rate and an increasing income inequality (FOS, 1996). World Bank (1996) reported that the extent of equity in the distribution of income is very essential in reducing poverty. In their study of Nigeria, it was revealed that national poverty would have decreased by 13% as against 8.9% achieved only by growth, had it been that income distribution did not worsen between 1989 and 1992

However, the effort of government at all levels to boost food production, encourage economic growth and alleviate food insecurity and hence poverty have not yielded the desired results as farmers continued to lack credit which is a major resource in food production. The prevalence of

poverty has continued to be a recurring decimal in Nigeria, hence the recent efforts by the private sector to provide credit in the form of micro – credit schemes.

In recent times, efforts at expanding access to credit by the poor have focused largely on channeling credit through the micro credit organizations. Does micro credit increase the entitlement of borrowing households through increasing their income and assets? To what extent has these micro credit organizations satisfied the credit needs of these farmers? To what extent have the micro credit schemes helped in reducing poverty and income inequalities among these farmers? Does it get to the targeted grass root people and if not, what can be done to achieve success in alleviating poverty of these farmers? These are the questions this study is set to address. This study is therefore, premised on the effect of micro-credit schemes in alleviating poverty in Edo State.

1.3: Justification of the Study

Poverty is a global phenomenon that needs concerted efforts to tackle or address. Little wonder then that international organizations like the United Nations Organization (UNO), Food and Agriculture Organization (FAO), International Monetary Fund (IMF), and the World Bank have devoted a lot of resources to the study of poverty and its alleviation especially in the Less Developed Countries (LDC's). This study will provide evidence on

how well the efforts of these bodies have helped in providing solutions to poverty problems in Edo State.

Evidence of evaluation of micro credit schemes in Nigeria is limited, and few studies investigate the effect of different programme strategies. Independent studies have been done only on poverty (Oshuntokun, 1975; World Bank, 1990, 1995, 1996; Ogwumike, 1991; Onah, 1996; Ogwumike and Ekpeyong 1996; Echeberi, 1997; Anyanwu, 1997; Englama and Bamidele, 1997), but little or nothing has been done in the area of evaluating the effect of micro credit financing on poverty alleviation among rural farmers in Edo State. The closest work done in this regard was that by Ogwumike (1991), when he studied the impact of demographic and social economic variables on poverty among different occupational groups in Nigeria, farmers inclusive and since then, poverty has taken its toll on Nigerians hence the need for this study.

The study also comes handy as the Federal and State governments of Nigeria have spent over hundred millions of naira on poverty alleviation and are still seeking more pragmatic ways of alleviating poverty among farmers. It is hoped that the study would throw more light on the specific areas of micro-credit schemes that would require modification and improvement.

This study is also justified from these two perspectives. For the micro credit organizations, it will provide the information needed to modify their

lending policies and procedures to suit the aspirations of farmers and, for the farmers, it will offer information on the effect of micro credit on farm size, output and incomes. This may encourage more farmers to avail themselves of the opportunities offered by micro credit organizations. It is expected that the findings and conclusions reached would provoke further research to generate information that would help in dealing with poverty and better ways of alleviating it.

1.4: Objective of the study

The broad objective of this study is to assess the effect of micro-credit on alleviating poverty among rural farmers in Edo State. The specific objectives of the study are to;

1) identify the social and economic characteristics of beneficiaries and non-beneficiaries of the micro-credit schemes in Edo State,
2) identify the various sources of micro credit scheme and their beneficiaries in Edo State,
3) determine the effect of micro – credit on the farm size, output, income and expenditure of beneficiaries and compare this with that of non-beneficiaries, and
4) evaluate the poverty status of beneficiaries and non-beneficiaries of the micro credit scheme.

1.5: Hypotheses of the Study

1) Ho_1; There is no significant difference in the socio - economic characteristics of beneficiaries and non-beneficiaries of the micro-credit scheme.
2) Ho_2; There is no significant difference in poverty experience (incidence, severity and depth) of beneficiaries and non-beneficiaries.
3) Ho_3; There is no significant difference in the performance (farm size, output, income and expenditure) of beneficiaries and non-beneficiaries of the scheme.

CHAPTER TWO

2.0: LITERATURE REVIEW

2.1: Nigeria Farming Situation.

Agriculture has been the mainstay of the economy of the developing countries including Nigeria. Famoriyo (1986) affirmed that agriculture still remains the corner stone upon which the super structure of the solid foundation of any economic growth must be built.

Nigeria's population is estimated to be over one hundred and sixteen (116) million people, out of which about seventy five to eighty percent (75% - 80%) or eighty seven to ninety two (87 – 92) million people depend on farming for sustenance (World Bank, 1996). According to the World Bank (1996), the number of the rural poor is roughly twice that of the urban and the depth of poverty is more than double in the rural areas. It further emphasized that eighty five percent (85%) of the extreme poor that live in the rural areas are engaged in agriculture with worse income inequality. This situation was re-echoed in 1997 by the World Bank but went further to highlight the fact that the differences between the proportion of poor in farming household and that of non farming household was twenty two percent (22%) in 1985, nine percent (9%) in 1992, and thirteen percent (13%) in 1993.

Nigerian farmers live in rural areas, served with poor infrastructures (roads, health care facilities, water, electricity, and schools) and therefore

lack access to productive resources as well as output market. Most of the poor have small farms; use traditional inputs that are capable of generating only very low income. This low income of the farmers leads to low savings and investment. Nafzigar (1994), concludes that farmers are poor because they lack capital for investment. Poor people have minimal linkages to influential people, or to urban opportunities and limited access to credit facilities. The main assets of these poor farmers are labour and simple implements. Poverty contributes to physical weakness through lack of food. This in turn reduces the labour force available for farm work.

A review of Nigeria's history shows that capital has been the most limiting factor to productive ventures. Inadequate capital has resulted in entrepreneurs and organizations looking elsewhere for credit to bridge this gap. In recognition of this fact, the Federal Government of Nigeria established the Nigerian Agricultural, Cooperatives, and Rural Development Bank, Agricultural Credit Guarantee Scheme Funds and the Nigerian Agricultural Insurance Company to help channel fund to the agricultural sector. These have not achieved the desired result and the average Nigerian rural farmer is still poor and deprived. Any society that has undergone the negative effect of poverty is clearly in need of urgent and concerted effort to at least redress the onslaught of poverty and thus move its citizenry close to prosperity.

Poverty and its alleviation have attracted Government attention as evident in the various poverty alleviation programmes. However, the efforts of government at all levels to boost food production, encourage economic growth and alleviate food insecurity and hence poverty has not yielded the desired benefits. The prevalence of poverty has continued to be a recurring decimal in Nigeria hence the trend towards increasing participation of private initiatives (Korken, 1987). This is where the micro-credit scheme comes in. The importance of micro-credit in grass root development is now well recognized in the area of poverty alleviation. In recent times, efforts at expanding access to credit of the poor have focused largely on channeling credit to them through the micro-credit schemes. A clear strength of these programmes has been their ability to reach the poor and do so with astonishingly small default rates.

However, many of these programmes have proliferated, and a number of concerns have arisen about the capacity of micro-credit schemes to adequately serve the financial needs of the poor households on a sustainable basis.

2.2: The Concepts and Definitions of Poverty.

There are no comprehensive theories on poverty, but what are available are some concepts that try to describe poverty, its causes, and

suggestions on how it could be ameliorated. Hence, poverty alleviation strategies are often fashioned in relation to the perceived causal factor.

Poverty varies from one profession to another. For instance, while the economists view poverty in terms of income distribution, the sociologist and psychologist see it in relative terms. They perceive poverty not only as an expression of life situation but positioning of self in the complex web of social relations.

Poverty is variously defined as lack of resources adequate to maintain a satisfactory standard of living or a minimum level of physical well-being. Poverty exist when one or more persons fails to attain a specified level of wellbeing that is deemed to constitute a reasonable minimum standard of living set by that society (Ravallion, 1992). Poverty denotes more than a condition of material scarcity and is characterized by high proportion of poor households, unemployed, low per capita income, low caloric intake, high incidence of child labour, high level of infant and maternal mortality and low life expectancy. Poverty, according to the African Development Bank (1992), is the state of deprivation of fundamental human needs and expectations. Among these are the desire for sufficient food and water, adequate shelter, good health care services, long life, knowledge and the capacity to provide materially for oneself and family through productive endeavours. Imoudu (1998, 1999), on the other hand, sees poverty as a condition of living with little or no money required providing the basic

necessities of life. A situation whereby one is not able to provide for himself and family, the basic necessities of life such as shelter, food and clothing is regarded as extreme poverty. Poverty causes hunger, diseases, inadequate shelter and homelessness. It hinders the education of children and leaves them perpetually poor. Poverty therefore is far more than lack of income, although that is how it is typically measured.

Poverty is having insufficient income to provide for what is now regarded as a minimum standard of living. In other-words, it is a situation facing those in society whose elementary and physical needs are least satisfied. According to Eberchard Hauser et al. (1999), unemployment, childlessness and the lack of means of transport are considered as signs of poverty.

Incidentally, poverty line is the chosen level of income below which people are defined as being impoverished. Consequently, the poor have been defined as those living below the poverty line established by each society and the poorest are those people in the bottom fifty percent (50%) of that line. The World Bank has estimated this consumption based poverty line to lie between $275 and $370 per person per year or between N37, 125 and N49, 950 per person per year (at N135 to $1).

The work of Stein and Foss (1995) affirmed that there was no objective definition of poverty and no objective way of measuring how

many people are in the poverty bracket but that the numbers affected by it differed greatly according to the concept used in its definition.

There are four broad concepts of poverty namely; absolute poverty, relative poverty, material poverty and subjective poverty (which is more recent and less used) (Afonja and Ogwumike, 1995)

Absolute poverty is taken to imply inability to provide for physical subsistence to the extent of being capable of protecting human dignity and no hope of doing so. Under this category, poverty is seen as not due to lack of material wealth but the inability to meet primary and physical needs especially those thing whose absence will denigrade human existence. These include food, clothing, and adequate housing. Absolute poverty refers to those people who are literally on the margin of life. Because of their low income, they virtually consume all disposable income thereby reducing their marginal propensity to save to absolute zero. Their lives are characterized by malnutrition, poor upbringing of children, poor sanitation, illiteracy and diseases as to be beneath any reasonable definition of human dignity.

Absolute poverty considers poverty as the lack of resources to consume certain bundles of goods and services which contain what could be considered absolute minimum' which includes basic necessities of life such as food, shelter and clothing. Two basic problems are associated with this definition. First, what constitute this absolute minimum? Second, how

do we set minimum standard for such items like clothing, transportation and shelter, which may depend on individual taste, preferences and the prevailing social-economic condition within a given society. Even when we agree on certain minimum bundles of goods and services, such minimum may not be relevant over a period of time, even when we adjust for price variations.

Ruggles (1990) defines absolute poverty by the “approximate maximum” which refers to the maximum proportion of income that a family spends on certain subsistence goods. For example, if families or households spend more than the specified maximum share of their income on basic needs such as food, housing, and health care, then, they are considered poor.

Relative poverty on the other hand, is taken to connote the inability of a section of the society to satisfy their basic needs as well as others. It compares the welfare of those with the lowest amount of resources with others in the society. For example, a person is said to be relatively poor if his level of income is below 40%, 50%, or 60% of the average or medium income of the population (Afonja and Ogwumike, 1995). Other researchers define relative poverty in relation to the bottom 10%, 15%, or 20% of the income distribution. Some other studies have used relative shares of expenditure or consumption instead of income. Others consider a person to be relatively poor if he cannot provide for himself and his family as much as those in the same vicinity with him. `

Material poverty is taken to imply lack of ownership or control of physical assets or inputs or elementary durables or goods such as bicycle, land for housing and farming or animal, sewing machines, shoes, beds and household wares.

Subjective poverty require that individuals (including the poor) define what they consider to be a decent or minimally adequate standard of living

Poverty is multifaceted and has spatial dimension of its own. Hence, the phenomenon of rural poverty is different from the realities of urban poverty. The Nigerian children face a bleak future because of restricted opportunities for advancement and thus suffer emotional deprivation couple with a feeling of resignation and self-negativism often originating from unpleasant personal experiences. Poverty breeds poverty because poor parental economic background in most cases perpetuates poor economic performance and thus manifest itself in prostitution, exposure to risk, corruption, robbery, street life, increased unemployment, living in squalor, shanties, or shackles, high infant and maternal mortality, acute malnutrition, short life expectancy, human degradation and living in over crowded and poorly ventilated homes

Poverty is experienced in every community in varying degrees in Nigeria. The worse hits are those in the rural areas of the country. Udo (1995) see poverty in relative term based on country context and preferred developmental approaches to its alleviation. Vision 2010 defined poverty

as a “condition in which a person is unable to meet the minimum requirement of basic needs of food, shelter, clothing, and health care services. This definition largely sums up the essential features of poverty in the Nigerian context. Adetunbi (1998) in her study of developmental fund for rural poverty alleviation described a poverty stricken person as a giraffe when you see it you know it. This, to a large extent sums up the general view on poverty as a person’s inability to meet the basic necessity of life-food, health care, shelter, education and clothing.

According to Imam (1998), poverty is on the increase despite the country’s sixth position as the world largest oil exporter. The human development report has it that the population of the poor has been on the increase in Nigeria. In 1992 the population of those within the poverty bracket was put at about 34 million people. This has increased by about 61% to 55.8 million people in 1999. The import of this is that Nigeria has become the poorest nation in the world. The United Nation Information Centre puts the poverty line at $34 per month or N4, 590.00 per month (using an exchange rate of ($1 to N135) which is far above the N4500 minimum wage in Edo State

The incidence of human poverty defined by life expectancy, educational attainments and living condition is estimated at forty two percent (42%) and income poverty defined as those below $1 a day is put at thirty nine percent (39%) of Sub - Saharan Africa. Slow income growth

over a considerable period of time is one of the main causes of this situation. According to World Bank Study published in 1996 on trends in developing countries, per capita GNP fell by 5 percent in Nigeria. The only universal characteristics of poverty are low income and low consumption or the only common feature of the poor as a category is a lack of resources for consumption.

2.3: Causes of poverty

It is essential to seek the causes of poverty as the basis for designing a national poverty alleviation strategy. The World Bank (1996) identifies the following factors as the root causes of poverty in sub Saharan Africa. They are:

- Inadequate access to employment opportunities
- Inadequate level of physical assets and capital
- Low endowment of human capital
- Inadequate access to assistance for those living at the margin and those who are victims of transient poverty.
- Destruction of natural resources leading to environmental degradation.
- Lack of participation of the poor in the design of developmental programmes aimed at the poor.

- Low rate of investment
- Inefficient allocation of resources.
- High population growth rate and
- Use of inappropriate technology

Also, the national or international causes of poverty can be divided into three broad categories, these are:

a) Unequal distribution of factors of production. The main cause of poverty is the unequal distribution of the means of production. By definition, these means are land, labour and capital. This concept of unequal distribution of means of production comes down to that of unequal distribution of basic resources. The population of a country is not equally endowed with these resources and those not privileged are vulnerable and will not be able to resist poverty. A farmer who lacks access to land and capital is likely to be vulnerable to poverty. It is therefore necessary to consider the structural defects in the distribution of resources, particularly land and natural resources, credit, economic resources, social capital and technology.

b) Economic and social resources: According to Kankwenda et al. (2001), economic and social resources are usually goods and services that can be used to produce other goods and services or generate income. These are what we call inputs. Inputs are often difficult to come by, by the farmers or the poor. The most limiting resource in the study areas is finance. The main issues regarding financial capital as stated by Kankwenda et al.

(2001) are the inaccessibility and poor distribution of credit and savings. According to them, credit and savings are essential resources for the poor, enabling them to seize opportunities offered by the market to invest and use inputs and equipments. In their opinion, credit and savings play a significant role during cyclical downturns, such as droughts, recession, and illness. In analyzing the causes of poverty, Kankwenda et al. (2001) proffer the following:

- Availability of credit and savings to poor people through an overview of the micro credit system in the country.
- The various institutions offering financial intermediation at local levels need to modify their strategies.

c) Deficiencies in government planning: The planning process in Nigeria is still largely dictated by the top-down paradigm. The non-involvement or exclusion of the poor in the planning and decision-making processes and the institutional framework is a crucial element in poverty and its alleviation. The perception of the poor about their situation and what they see as their needs are usually not integrated into poverty alleviation programmes. The lack of involvement of the poor in planning has meant that they are not reached by the benefits of these development programmes. According to Kankwenda et al. (2001), policies based on a development paradigm that is not people oriented, poorly targeted policies or a lack of national development policies can be causal or aggravating

factors in poverty. In their opinion, the same applies to poor implementation of policies and strategies, inadequate monitoring and evaluation, corruption; lack of political will or failure to take people's aspirations into account can generate harmful effects that can cause poverty.

d) Deficiencies in macro-economic policies: Macro-economic instability affects micro credit organization directly through monetary policies as real interest rates and indirectly through impact on clients. Persistent distortions may lead to misallocation of resources.

Rural development has been hampered in Nigeria by policies that favours other sectors over agriculture and urban over rural areas. Schiff and Valdes (1992) estimated that direct and indirect government interventions depressed domestic agricultural terms of trade by thirty percent (30%) and resulted in an income transfer out of agriculture equal to forty percent (40%) of agricultural GDP. These policies were ill conceived, as countries with highest degree of discrimination against agricultural sector hardly progress.

Government policies and investments that are tilted in favour of urban areas are pervasive largely because many countries see development as industrialization. According to Yaron and Benjamin (1997), urban biased policies rest on eight pillars, which are:

- An overvalued exchange rate

- Low, controlled and seasonally invariant prices for agricultural produce,
- High rate of protection for domestic industry, whose output are used as agricultural inputs,
- Excessive taxes on agricultural exports.
- Disproportionately high budgetary allocations to urban rather than rural infrastructure (roads, electricity and water)
- Disproportionately high investment in human resources (health and education) in urban, rather than rural areas
- Laws that make it impossible to make the kind of small, risky, high-cost loans that are typical in rural areas
- Underdeveloped legal and regulatory provisions regarding land title and collateral for typical rural assets (land, crops and farm implements) relative to urban assets (cars, other durables and homes).

Government policies such as bank reserve requirements, channeling of large share of bank credit to preferred sectors and fixed interest rates lead to rigidities that militate against efficient allocation of resources and intensify problems arising from imperfect information about financial intermediaries, borrowers and depositors. In rural financial intermediations, these rigidities are further complicated by problems associated with rural areas, such as poverty, low population densities and lack of traditional

collateral. These problems in conjunction with transaction cost of administration of small loans discourage formal lending institutions from going into the rural areas.

2.4: Poverty Alleviation from the Grassroots; the Needs and Modalities.

The need for poverty alleviation is one of those issues on which there is consensus amongst most countries. The broad consensus is understandable when one considers the havoc poverty has unleashed on the people. Vision 2010 in their report shows that the average life expectancy in Nigeria is about fifty-one (51) years whereas the average for developed countries is sixty-two (62) years. Infant mortality rate is 84 per 1000 live birth as against the developed countries average of 70 per 1000. Ibra (2000) categorized the problems militating against poverty alleviation in Nigeria as;

- shift in government policies,
- lack of infrastructural facilities,
- lack of enabling environment (politically and economically) and
- little or no access to education and health care services.

Some recent development give cause for hope that the issue of poverty alleviation in Nigeria is receiving great attention from the governments at Federal, State and Local Government levels, the private

sector and the international communities. However, boosting agricultural production by adopting new technologies is one of the most effective ways to reduce poverty (Gaiha, 2000). The experience with the Green Revolution showed that rapid agricultural progress made a big difference in reducing poverty in parts of Asia (Jazairy, 1992). Datt and Ravallion (1998) also found that higher crop yield reduce the severity of poverty.

Behram (1993) identify macro economic stability, competitive markets and public investment in physical and social infrastructure as the panacea to achieving sustained economic growth and a reduction in poverty. Mabogunje (1980) explored the 'economic growth approach' to alleviating poverty but despite the increase in the GNP over the years in Nigeria, the poverty situation of the citizens has not changed. Food and Agriculture Organization (FAO), (1995) were of the view that economic growth on its own may not alleviate poverty, as the poor will not benefit from the 'trickle down' effect of growth. The report went further to say that "economic growth" will reduce poverty if and only if it utilizes and benefit the poor.

2.5: Strength and Weakness of Micro Credit Organization for Poverty Alleviation

The strength of micro credit organizations may be found in their increasing credibility with donors, beneficiaries and other agencies. Brown

et al. (1996) explores the ‘target group approach’ as a major strength of the micro credit organization. He was of the view that a major characteristic of micro credit groups is that they target their effort on particular clients, aiming to use the cooperative paradigm as a means of channeling loans to this target population.

Kamal (1982) identified “flexibility and responsiveness” as a source of strength of the micro credit organization. According to him, micro credit groups are not tied up in a bureaucratic system of administration. Their informal arrangement means that they can respond to changes; they enjoy loose control, which enables them to offer flexible services. Adetumbi (1995) in his study of NGO’s as development mobilizers identified ‘heterogeneity’ as a promoting factor and said that NGOs are not tied to a highly standardized homogeneous development products but are characterized by a rich variety of approaches and philosophies. He went further that the acceptability of the NGOs might not be unconnected with the ability of the NGOs to reach the target population more cheaply and directly.

It is recognized that micro credit organizations appear to be able to reach grassroots poor in ways not open to large official institutions (Korken, 1987). A number of factors, which have led to this gain in favour of private initiatives at the expense of government, have been the twin bureaucratic culture, lethargy and corruption found in many government

establishments. The global trend towards the increasing reliability on private initiative is an important one whose case is put strongly by Korken (1987). Experience has shown that relying on government and her command system approach to resource management is unsatisfactory. Micro credit organization by contrast, work through the development of people rather than the transfer of capital resources, emphasizing local control, accountability, initiative and self reliance (Akinola, 1992)

In considering the weakness of the micro credit organizations with particular reference to development, it is worth quoting Buijs (1998) who identified three sets of institutional drawback of micro credit organization as:

- Policy orientation,
- Mandate and justification and
- Capacity gap.

Landim(1987) claim that NGOs have weak management information system and that they sometimes put social considerations before economic viability while Akinola (1992) considered the weakness of micro credit organization as:

- Leadership and succession
- Anti business culture and
- Lack of programme integration.

2.6: Review of Poverty in Nigeria

A review of the poverty situation in Nigeria shows that it has been a long-standing phenomenon. According to Ajakaiye, et al. (2002), the period between 1971 and 1973, the country witnessed the first positive decline in oil revenue, real per capita income and per capita consumption weres very low. Per capita income and per capita consumption rose sharply between 1973 and 1974 (Ajakaiye et al. (2002). This was the era when the Gowon led administration instituted the Udoji panel to review salaries and wages of the public service. Poverty declined during this period (World Bank, 1996). Between 1975 and 1980 was characterized by mild progress in welfare and poverty improvement. For instance, average real per capita income continued to rise until 1980, but private consumption per capita remained sTable. Real wages in agriculture continued to rise until 1976, after which they remained relatively constant until 1980. Between 1980 and 1885, there was a serious deterioration in the standard of living of the people, thus culminating in the introduction of the Structural Adjustment Programme (SAP) in 1986. Between 1985 and 1992, real income, per capita consumption and overall welfare of Nigerian fell below the 1980 level (Nwosu and Adeyeye, 1989)

Poverty in Nigeria is more than low income; it is the much broader problem of chronic human deprivation, both economic and social, that affect majority of the people. Savings and investment are a key issue in Nigeria

because they are essential for growth. Domestic saving in Nigeria is extremely low because of the incidence and severity of poverty. After two decades of virtual economic stagnation, a combination of falling household income, capital flight, and disinvestments has diminished overall savings.

The Nigeria farmers lack control over income generating assets and limited access to the market. The poor tend to have less land and less capital, he is less educated, he has less good health and has acquired fewer rights than the higher income groups. In Nigeria, 70 percent of the population work on marginal soils in the rural areas and depend on agriculture for their livelihood. The type and quantities of goods produced by this vast majority (80 – 90 percent) of farmers, 60 – 70 percent of whose output is intended for self-consumption, relegate them to the margins of the market economy.

Re-establishing growth in agriculture must be the absolute priority of any poverty reduction strategy in Nigeria. The bulk of Nigeria's human capital is under utilized, because poor people do not have the resources (land and credit) that would enable them to contribute to production and economic development.

Table 1: Poverty by Region (Poverty Line = N11, 292.96 in 1996 Prices)

Region	Incidence of Poverty		Depth of poverty		Severity of Poverty	
	Incidence	Contribution	Depth	Contribution	Severity	Contribution
Urban	46.4	32.6.	0.308	32.6	0.171	32.6
Rural	61.3	67.4	0.310	67.4	0.173	67.4.
All Nigeria	55.7	100.0	0.310	100.0.	0.172	100.0.

Source: NCS 1985, 93, 96

Nigeria is today witnessing unprecedented poverty situations. Poverty as characterized by the World Bank (1996) is overwhelmingly rural in outlook. The number of people in poverty as at 1992 was 34.7 million with about two third of this coming from the rural areas. From Table 1, it can be seen that poverty is more of a rural phenomena. In the rural areas of Nigeria, poverty incidence, depth and severity respectively contributed 67 percent while they only contributed 33 percent in urban centre of the country. Therefore, one can conclude that the effect of poverty is felt more in the rural areas of Nigeria. The worsening standard of living can be traced to the decline in the world oil prices and a decrease in the per capita income which stood at $1000 in 1980 but fell to as low as $260 in 1995.

The introduction of the Structural Adjustment Programme and the subsequent deregulation of the economy led to unintended effects such as the devaluation of the naira, which snowballed, into eroded purchasing power of the people and spiral inflation.

Poverty has assumed an endemic proportion in Nigeria, with severe implication for economic growth; social equity and political stability and successive governments have failed to tackle the scourge effectively (Obadan, 1991; Aigbokhan, 1997). Until 1986, poverty alleviation had not been a policy issue in Nigeria (FOS, 1996). Instead, the governments had concentrated efforts and resources on economic growth. However, between 1960 and 1986, some poverty related policies were implemented

without conscious effort at directing them at alleviating poverty. Some of these efforts are:

- Free and compulsory primary education
- Adult and nomadic education
- Operation Feed the Nation/Green Revolution
- Countrywide Agricultural Development Programmes
- River Basins Development Authorities
- Low Cost Housing Schemes and
- Small and Medium Scale Enterprises

Following the introduction of the Structural Adjustment Programme (SAP) in 1986, the Federal Government initiated special programmes targeted at alleviating poverty at the rural areas. These programmes included:

- National Directorate of Food, Roads, and Rural Infrastructures (DFRRI)
- National Directorate of Employment (NDE)
- Better Life for Rural Women which later became Family Economic Advancement Programme (FEAP)
- National Immunization Scheme
- National Land Development Authority (NALDA)
- National Economic Reconstruction Funds (NERFUND) and

- National Housing Scheme.
- National Poverty Eradication Programme (NAPEP).

All these were designed to benefit the poor and alleviate poverty. Despite all these efforts aimed at combating poverty in Nigeria, the scourge has continued to impoverish more and more people hence government and private initiatives have declare war on poverty through the micro credit scheme.

2.7: Credit; Meaning and Scope

Credit have been defined variously by financial experts and the ones that suits our purpose are the Adegeye and Dittoh (1986) definition which says that credit is the process of obtaining control over the use of money, goods and services in the present in exchange for a promise to repay at a future date while Mellor (1966) defined credit as a device for facilitating the temporary transfer of purchasing power from one individual or organization to another with a promise to repay at a later date.

A lender forgoes the use of his money or its equivalent in the present by extending a loan or credit to a borrower, who promise to repay the principal along with accrued interest at a specific time in the future. Credit involved the element of obligation on the part of the borrower to make a refund and confidence by the lender on the borrower's good faith and ability to repay.

Credit may be classified as consumption or production credit. Consumption credit is credit used for the purchase of items for family use. This does not directly add to output or income from farm operations but help farmers to establish good neigbourliness like feeding the family, paying children's fees and taxes, so that the family is happy and healthy enough to supply the needed farm labour. This consumption credit indirectly assists production.

Production credit, on the other hand is a credit used in the purchase of inputs and carrying on production activities. Credit may also be classified on the basis of the length of time it takes to mature. Credit classified by length can be grouped into short, medium and long-term credit.

Short-term credits are usually called seasonal production loan because they are used for the purchase of materials, which are completely used up in one year or season. Credit for the cultivation of annual crops such as yam, maize, rice, wheat and for hiring labour as well as those for the purchase of fertilizers, seeds and other chemicals are short term credit since they have to be repaid after the production season which is usually one year.

Medium term credit or loans are those granted for a period of between two and five years. Under this category may be grouped loans for livestock production such as poultry, piggery, and rabbitary. Loans for such

crops as sugarcane, pineapple, and irrigation schemes fall into this classification. A distinctive feature of this type of loan is that the timing of the expected additional income extends over several years hence; it is not reasonable to expect the borrower to repay the full amount within one year.

Long-term loans are those granted for period of over five years. Usually the period is between six and fifty years. Such loans are used for capital projects such as the purchase of land, heavy plants and equipments, construction of permanent buildings, tree crop cultivation, fish pond construction and the establishment of cattle ranches. The time period covered by short, medium and long-term loans can be somewhat arbitrary and may vary from institution to institution. When classified according to sources, credit could be informal or formal.

Informal sources consist of friends, moneylenders and merchants and traders while the formal sources are the banks, government agencies and cooperative societies.

2.8: Informal or Non-Institutional Sources of Credit

Friends and Relatives; Borrowing money from friends and relatives to start business is very common in the rural areas of Nigeria. Friends and relatives are very easily accessible but the amount of credit from this source is usually very small. They charge little or no interest and repayment terms are very favourable.

Money Lenders; This is one of the most important sources of capital to rural farmers in Nigeria. They are the very wealthy individuals in the locality, and in most cases, they are opinion leaders. They are close to the farmers and have personal knowledge of the credit worthiness; character and family background of would-be borrower. They are easily approachable; their methods are simple and do not call for extensive disclosure of information. They are flexible in operation and have the advantage of being able to respond to their clients without delays especially in circumstances where borrowers have to meet some urgent expenses. Moneylenders charge very high interest and may exert serious pressure on debtors. This ranges from social compulsion to outright foreclosure of borrowers assets.

Merchants and Traders; This is another important source of finance for the agricultural sector in Nigeria. They are very common in areas of tree crop plantation. They do not only give cash, they also supply inputs on credit. Interest rate is high but lower than that of moneylenders. They take security in the form of pledging of produce.

2.9: Formal or Institutional Sources of Credit

Banks; This forms the largest source of credit to the agricultural sector in terms of amount. However, several studies have shown that credit from commercial banks account for only a small proportion of farmers currently

using credit (Okorie, 1998). Due to the nature of funds available to banks, they specialize in long, medium and short term lending and working capital financing in the form of overdraft. Before a credit is granted, banks require a well formulated feasibility report showing financial requirement of the farmer and how the farmer intends to repay the loan if granted. Banks require collateral security in the form of mortgages. Interest rate is not high but government regulated.

Government Agencies; Government agencies are also involved in the funding of agriculture. Most of their funding is not in cash but in kind such as land preparation and supply of inputs. Repayment is either in cash or in kind. Examples of government agencies involved in agricultural lending are River Basin Development Authorities, Agricultural Development Projects and Agricultural Credit Corporations.

Cooperative Societies; Cooperatives constitute the most effective and efficient avenue for credit delivery especially in the rural areas. Loans are made only to registered members for purposes of food production, agro-industrial projects, livestock and fisheries development, processing, distribution and marketing of agricultural produce. In addition to being a member, other criteria that govern borrowers' selection are magnitude of savings, active participation and past performance. Interest rates are low and have efficient ways of debt recovery.

2.10: Evolution of Credit in Nigeria

Credit plays an important role in the development process. It provides funds to farmers and entrepreneurs to undertake new investments, expand old ones or adopt new technologies. It helps to even out consumption by providing working capital and reducing poverty in the process. Both formal and informal lenders are active in the rural credit markets, (Adams and Fitchett, 1992; Aleem, 1990; Ghate, 1992; Hussain and Demaine, 1992; and Udry, 1990).

The informal credit market has the advantages of collateral-free lending, proximity, timely disbursement and flexibility in loan transactions but is constrained by smallness of loan amount, high interest rate, and short term in nature and may be diverted. Due to the inadequacies of the formal and informal credit markets, many governments including that of Nigeria have attempted to develop alternative financial institutions to provide credit to farmers. The establishment of the Nigerian Agricultural Cooperative and Rural Development Bank, Agricultural Credit Guarantee Scheme Fund and the Nigerian Agricultural Insurance Company are good examples. Such attempts have failed not only in delivery of credit to target farmers but also in promoting a viable credit delivery system. High covariate risk of agricultural enterprises (Binswanger and Rosenzweig, 1986), the asymmetric information and lack of enforcement of loan contracts (Hoff and Stiglitz, 1990), government imprudent interference in

credit markets, and rent seeking as a result of credit rationing (Bravenman and Guash, 1989) are some of the factors militating against government directed credit schemes in many countries

Credit as an instrument for agricultural financing in Nigeria is ancient and was practiced in various forms in many parts of the country. The authorities in the Northern region had introduced mixed farming in Daura in 1922, which was designed to combine livestock and crop production into one viable unit. Because of the huge financial involvement of the scheme, the Native Authorities introduced institutional credit in the 1930's (CBN, 1979). Impact of this credit scheme was minimal due to limited financial resources of the local authorities and farmers continued to rely on the informal sources, which involved the moneylenders with the attendant problems of high interest rates and stringent repayment measures. This led the Colonial Administration in 1938 to pass the moneylender Ordinance, designed to regulate the high interest rates charged by moneylenders whose clients were mostly farmers (CBN, 1979). The ordinance had little or no effect on the informal financial market.

As a result of the difficulties inherent in the regulation of the informal financial market and the desire to assist in the development of agricultural exports, a series of "loan boards' were created following pressures for regionalization that came in the wake of constitutional changes that was sweeping through the country at that time. The loans boards were

designated the regional development boards for the Eastern, Northern, Western and Colonial Development Boards for Lagos. Thus, agricultural policies and related credit policies became regional issues both on functional and constitutional grounds until 1956 when the Federal Loans Board was created. To widen its scope in agricultural credit, the Federal Government planned to create agricultural credit bank under the first national development plan 1962 – 1968 (CBN, 1979). The take off of the bank was disrupted by the civil war until 1972 when the bank was inaugurated (Uzoaga, 1981).

The performance of the Regional Development Boards was dismally poor. In most cases, loan recovery rates were poor because of widespread of 'dole' mentality, while cases of loan diversion, political influence and corrupt practices were reported, (Uzoaga,1981). The establishment of the Central Bank of Nigeria seems to have alleviated the problems of farmers. Apart from financing the marketing boards, it also introduced the Agricultural Credit Guarantee Scheme, Rural Banking Scheme, concessional Interest rates on agricultural credit, agricultural insurance scheme, export stimulation loans, refinancing and rediscounting facilities. All these and other credit policy guidelines were designed to facilitate credit to the agricultural sector.

With all these policies and programmes of government, the rural economy (which is synonymous with agriculture) is still in its pre-

independence era if not worse. The performance of rural finance operations has fallen short of expectations and many of the credit programmes have become a costly drain on the nations' economy. Most of the credits have reached only a minority, often the wrong minority of the rural population, generating an unintended "grant" in the form of negative on-lending interest rates, which are captured by wealthy and influential individuals. Administrative bottleneck has retarded the development of an efficient rural financial market. This is as a result of the irrelevant institutional system of financing agriculture to the realities of the Nigerian situation. The way these banks have functioned over the years is such that the credit system is essentially directed to meeting the needs of large farming entities and enterprises with high and quicker rates of returns whereas, Nigerian agriculture is largely a small farm structure, dominated by peasants, who do not only provide the bulk of agricultural production but are under the existing agricultural policy, expected to play a major role in the production of food and fibre through farm expansion and productivity growth.

Specialized agricultural credit institutions established to implement targeted and often-subsidized loan have failed due to inadequate planning and inefficient operations. Among their deficiencies has been the imbalance between the institutions' sizable supply-led loan portfolios and mobilization of savings. The Nigerian Agricultural, Cooperatives and Rural

Development Bank, and Agricultural Credit Guarantee scheme have consequently ended up as mere disbursement window, rather than balanced full service financial institutions. Unmotivated by commercial imperatives, these institutions have suffered from inadequate credit evaluation, management and monitoring with inevitably high default rates.

2.11: Micro Credit

With the dismal performance of the state owned credit organizations, micro credit organizations are growing to meet these short falls in the credit needs of the farmers. Micro credit organizations have emerged over the past decades to address this market imperfection and to provide financial services to low-income earners and farmers. The World Summit on micro credit held in Washington DC in 1997 define micro credit as programmes that provide for self-employment and other financial and business services to the very poor persons.

Micro credit involves the delivery of small credit facilities to low income earners and mobilization of savings from them. The provision of banking, credit advisory services and training in appropriate technologies are also part of the services rendered by micro credit organization.

According to Imam (1996), micro credit scheme extends credit to small producers: people that the conventional financial service providers consider unbankable or credit risk. She went further to categorize such

beneficiaries as people who run household or small family business that are not registered with any appropriate government licensing agencies. Such micro enterprises are the small farmers, petty traders, fishermen, local food processors and artisans.

According to the World Micro credit Summit Delegation of February (1997) 'micro credit programmes extend small loans to poor people for self employment projects that generate income, allowing them to care for themselves and their families. In most cases, micro credit schemes offer a combination of services and resources to their clients in addition to credit. These often include savings, training, networking and peer support.

Since attention has been focused on micro credit as a tool for poverty alleviation, it has been shown that micro credit schemes have made valuable contributions in the fight against poverty. Wolfensohn (1996) asserted that micro credit schemes have brought the vibrancy of the market economy to the poorest villages and the people of the World. According to him, this business approach to the alleviation of poverty has allowed millions of individuals to work their way out of poverty with dignity.

2.12: Role of Agriculture in Poverty Alleviation

Absolute poverty is deeply entrenched in Nigeria where about 64.7 million people are absolutely poor (Poverty Profile for Nigeria, 1985 –

1996, December 1998). Poverty is more of a rural phenomenon in Nigeria. The rural poor make up more than 80% of the poor in Nigeria.

Agriculture is the mainstay of the economy. Over 70% of Nigerians are engaged directly or indirectly in agriculture (Imoudu, 1999). Hence, improvement in agriculture will mean improvement in the income and living standards of most Nigerians. Credit is a major factor to improve Nigerian agriculture, given the resource and poor nature of the Nigerian farmers and hence, the low use or adoption of improved inputs or technologies.

Agricultural growth is a catalyst for broad based economic growth and development; agriculture's linkages to the non-farm economy generate considerable employment, income and growth in the rest of the economy. Agricultural sector must release workers to the non farm production sectors, it should increase its purchase of industrial inputs, it should be of such an improved productivity level as to lower food cost relative to income and output should be sustained in periods of depression if it is to help in alleviating poverty. Very few countries of the world have experienced rapid economic growth without agricultural growth either preceding or accompanying it (Per Pinstrup-Andersen et al., 1999). Economic growth is strongly linked with poverty reduction. According to Per Pinstrup-Andersen et al.,(1999), a review of the East Asian economic growth experienced since 1950s clearly shows the catalytic role of agriculture in generating economic growth and reducing poverty.

A combination of appropriate agricultural technology, policies and institutions generated economic surpluses in agriculture that was partly retained by farmers and partly transferred to consumers through reduced prices. Implicitly, if not explicitly, agriculture acted as the lead sector in rapid growing Asian economies of Taiwan, Korea, China, Thailand and Malaysia.

Agricultural growth and development must be vigorously pursued in Nigeria for the following reasons;

(a) to alleviate poverty through employment creation and income generation in the rural areas

(b) to meet growing food demand driven by population explosion and urbanization at reasonable prices

(c) to stimulate overall economic growth and development since agriculture is the most viable lead sector for growth and development and

(d) to conserve natural resources.

Poverty is the most serious threat to environmental degradation, lacking means to intensify agriculture; the poor are forced to over use or misuse natural resource base to meet their needs.

An assessment of the impact of the Green Revolution has shown that productivity increases in agriculture have contributed to reduce poverty in both rural and urban areas. Higher farm yield was found to have reduced

absolute poverty directly through farm income and reduced food prices and indirectly through high rural wages (Gaiha, 2000). In another study, it was reported that in Vietnam, poverty was found to be associated with lower food production per capita and an ongoing research in Mozanbique has indicated that the use of modern inputs and irrigation resulted in increasing living standard and reduced poverty (Per Pinstrup-
Andersen et al. 1999). Unless concerted efforts are made now, poverty is not expected to diminish much in the future.

Agriculture must be in the forefront of a national and international agenda to eradicate poverty. Failure to significantly expand agricultural research in and for economically emerging nations like Nigeria and failure to invest in agricultural development will make poverty alleviation an elusive goal.

2.13: Role of Rural Financial Services in the Alleviation of Poverty

Past policy neglect to provide saving and insurance services in rural areas has created a great vacuum in agricultural financing. The concept of lending is not well understood and often being mixed up with that of providing relief or assistance. Most of the credit projects, according to Adams (1988) and Adams and von Pischke (1984) soon degenerated into transitory income transfer schemes with doubtful coverage of the poor but

with never – ending need for injecting public resources to keep state driven top-down rural banks and cooperatives from collapsing.

Credit was often limited to specific export crops while ignoring the demand for credit for other farm and non-farm activities, as well as stabilizing food consumption (Zeller, 1999)

Most people in Nigeria are exposed to high-income risk. Vagaries of climatic condition, economic fluctuations and a large number of individual specific shocks leave households vulnerable to severe hardship and poverty. Rural households are exposed to such shocks as harvest failure as a result of flood, drought, pest and diseases and other climatic events, policy shock such as the devaluation of the Naira which has increased the cost of imported inputs, and the deregulation of the money market with attendant high interest rates.

These households respond differently to risk (Dercon, 2002; Fafchamps, 1999; Morduch, 1999; Alderman and Paxson, 1995; and Townsend, 1995). According to Gerther and Gruber (2002), households in Indonesia can protect themselves against 30 percent of low frequency serious health shocks with severe long term effect in contrast to 70 percent of high frequency smaller health shocks.

High-income risks are not easily insured against by the informal money markets. Credit and insurance markets are typically absent or incomplete in developing countries either for good reasons or because of bad policies

(Bell, 1988; Besley, 1994 and 1995). Consumption credit that is supposed to be insurance against these shocks are absent in the formal credit system in Nigeria. Traditional credit system (esusu, isusu or adaji) often extends credit that may be used for consumption purposes (Dercon, 2002). Informal credit markets appear to adjust better to high-risk environment. Udry (1994) reports that informal loans in rural Nigeria appears to take the form of state – contingent loan, repayment of which is conditional on income outcomes of both borrowers and lenders, with negative shocks translated into favourable terms for the party experiencing them.

Zeller et al. (1997) identified three pathways through which access to financial services may influence income risks and food security. These pathways are; improved income generation, depressing cost for self-insurance through more cost effective assets and liabilities of households and consumption credit. Financial policies may perform better in alleviating poverty and contributing to food security and rural development if they address these pathways. Recent studies have shown that access to credit has yielded significant improvement in income and food security of the poor (Pitt and Khandker, 1996; Foster, 1995; Jacoby, 1994; and Zeller and Sharma, 1998)

Lack of capital is only one of the many factors that militate against poor rural households from improving their welfare. Other factors include illiteracy, and lack of access to basic social and market infrastructures.

2.14: Theoretical Framework

2.14.1: Relationship between Credit, Output, Cost and Profit Functions

According to Miller (1977), credit provides the means for the temporary transfer of assets from an individual or organization with surplus to one who have not. The owner of the asset is the lender while the individual or group who accepts the asset from the owner is the borrower.

Credit may be described as a facility extended by the lender to a borrower with a promise by the borrower to repay the principal with accrued interest at a later date. For a credit transaction to be consummated, the borrower must provide some evidence of debt obligation in return for the loan, where the loan is based solely on good reputation, financial standing of the borrower and trust. Credit can also be extended to the borrower in the form of assets possessed by the lender i.e. in cash, kind or both

Credit is expected to influence the availability of factors of production such as land (L), labour (E), capital (K), technology (A), and management (M).

All things remaining constant, output level is dependent upon the quality of these factors to the farmer, therefore,

$$Q = f(L, E, K, A, M) \qquad \text{Equation 2.1}$$

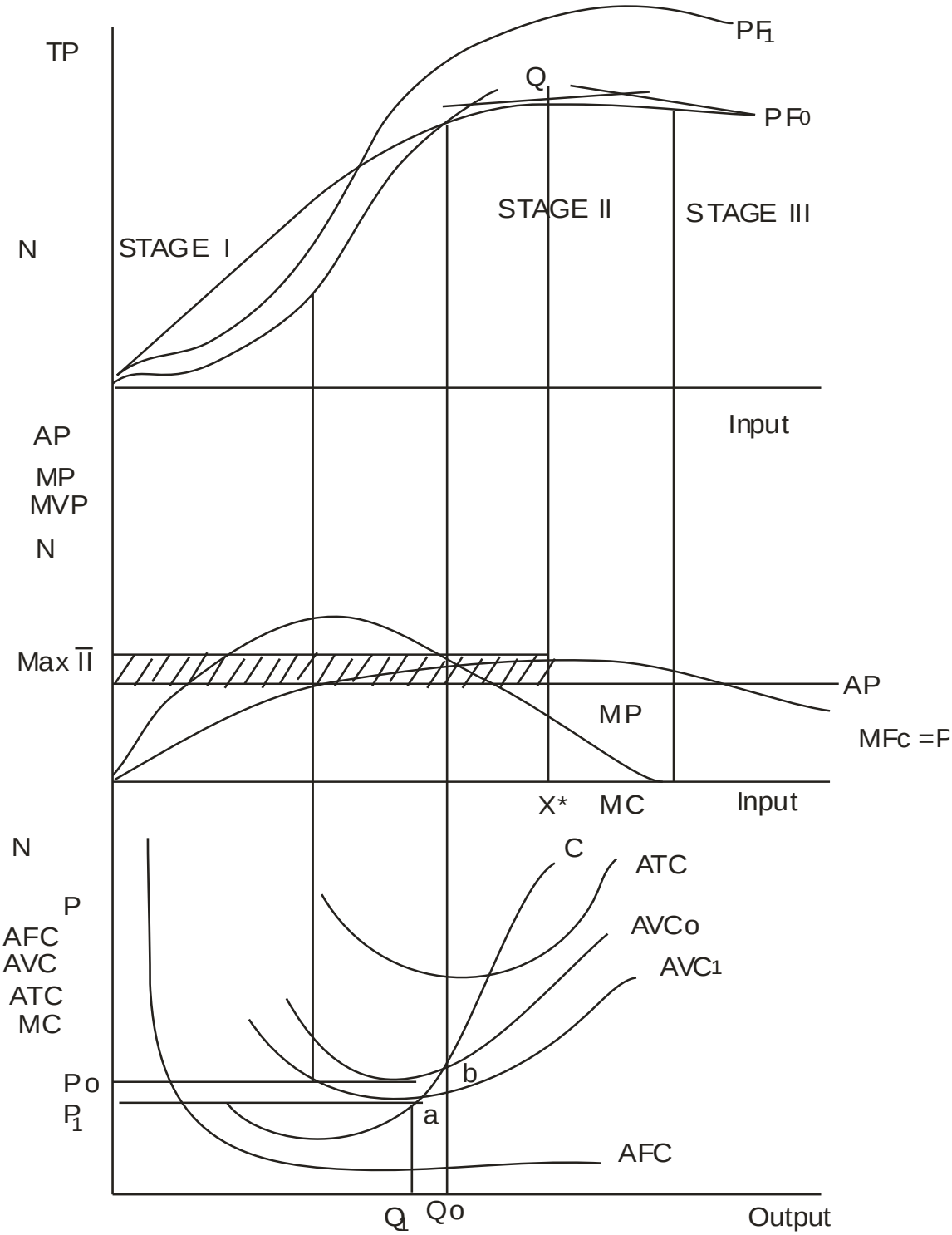
This implies that output (Q) is a function of all the factors of production put together. As one or more of these factors of production increases, output also increases proportionately; all things being equal and the production frontier will shift to higher level.

From the foregoing, credit is expected to increase the purchasing power of the farmers in respect of these factors of production and lead to an outward shift in the production possibility curve as shown in Figure1.

Also, cost of production is a function of output viz.

$C = f(Q)$ Equation 2.2

As output increases, the average variable cost decreases up to stage11 of the production possibility curve as shown in Figure 1. Since the market supply curve can be derived from the locus of points of the interception of the marginal cost curve (MC) with the average variable cost curve (AVC), all the locus of points on the marginal cost curve above the average variable cost curve represent the market supply curve. Therefore, from Figure 1, it can be shown that the market supply with credit is more by a-b because without credit the supply curve would be b-c but with credit it has increased to a-c. One can therefore infer that one of the benefits of credit to the agricultural sector is an increase in the supply of inputs



P=Price, AVC = Average variable cost, AFC= Average fixed cost, ATC =Average total cost, MC=marginal cost, MP=Marginal pro
Ap=Average product, MVP =Marginal value product

Fig 1: Relationship between Credit, Output and Profit
Source: Adapted from Adegeye and Dittoh (1985)

Credit also enhances bulk purchases, which tend to depress unit cost of production as a result of economies of scale.

In Figure.1, $AVC_0 =$ average variable cost curve without credit

$AVC_1 =$ average variable cost curve with credit

It could be observed from Figure 1 that P_0Q_0 is greater than P_1Q_1. That is the unit cost of production without credit is higher than the unit cost of production with credit.

Agricultural credit also generates higher profit. This is achieved through increase output and reduction in the cost of production.

$\pi = TR - TC$ Equation 2.3

As cost of production decreases, profit tends to increase

That is as $TC \longrightarrow 0 \pi \longrightarrow \infty$ Equation 2.4

Therefore, a well utilized agricultural credit results in profit maximization. Since a greater number of farmers in Nigeria are small and hardly maximizes profit, access to credit will provide capital, which will allow for optimal allocation of resources and hence optimal production of output. The condition for optimal allocation of input is attained when the marginal factor cost equal marginal value product.

$MFC = P_x = MVP$ Equation 2.5

The optimal production of output is achieved when marginal cost equals marginal revenue equals output price and equals average revenue

$$MC = MR = P_y = AR$$ Equation 2.6

The maximum profit so attained is shown in Figure 1 by the shaded portion.

2.15: The Gordian Knot, Rurality of Agriculture, Poverty and Credit

The concept of the Gordian knot or the vicious cycle of poverty can be used to explain the poverty situation of rural farmers in Nigeria and how the injection of credit can help to transform this cycle of poverty to prosperity. Rurality of agriculture is not in doubt and it is characterized by hoe and cutlass technology, small and fragmented holdings and lack of access to capital required for adopting new innovations. The Gordian knot comprises of different levels, which are as shown in Figures 2 and 3.

2.16: Vicious Cycle of Poverty

At this level, farmers are poor because they lack investment capital. This lack of investment capital is as a result of low productivity of resources. Because of low productivity, all that is produced is consumed and hence no marketable surpluses (Imoudu, 1999). This leads to low per capita income. Low income implies insufficient saving which lead to general lack of investment capital, which further translates, into low productivity and low income.

This results in technological trap. As a result of this vicious cycle of poverty, a general lack of investment capital transforms into low productivity as well as lack of incentives to undertake research. This lead to lack of technological break through and knowledge which further hampers development in the agricultural sector.

These translate to what we call the stagnant traditional agriculture. The general lack of technological innovations results in a backward agricultural system characterized by hoe, cutlass, insufficient food production that are of low nutritional value, inadequate diet and malnutrition which negatively impact on productivity.

This is the level of inadequate diet, hunger that lead to physical incapacitation. Poverty translates to lack of sanitation and lack of dietary knowledge which further impact negatively on productivity.

The above scenarios culminates in a low level equilibrium trap which is characterized by high mortality, poor living condition, ignorance and lack of foresight, unskilled labour, high birth rate, high socio – cultural constraint and population explosion. This description is shown in Figure 3.

The majority of the Nigerian rural farmers find themselves in this unpleasant situation of abject poverty, backward agriculture, low productivity and high mortality rate. However, a timely and appropriate injection of and monitored credit would transform this vicious cycle of poverty to prosperity. A properly targeted credit would allow the farmers to procure inputs and adopt technological innovations needed to transform the present subsistence farming to a more commercialized and contract oriented farming. This would lead to increase in per capita income thus leading to increased savings, which would further enhance investment capital. Research would enjoy increased funding and there would be technological progress culminating in modernized agriculture with improved food and raw material production

Farmers would then be able to afford good and qualitative education for their children and thus increase the skilled labour percentage of the economy. Mortality rate will decrease, birth rate will also decrease and living standard will improve. Enhanced raw material production would lead to an increase in capacity utilization and employment. As the quality of food produced increases, exportable commodities will tend to be on the increase. The result of all these is increases in foreign exchange earnings and improved infrastructural development, which ultimately lead to economic development. The transformation of the vicious cycle to prosperity with the injection of credit is shown in Figure 3.

2.17: Conceptual Framework

The conceptual framework of this study will be based on the use of micro credit to alleviate poverty among rural farmers in Edo State of Nigeria. In this study there are three basic indices necessary for determining the poverty level or otherwise of an individual or a community. These are;

1. Demographic indices
2. Economic indices and
3 Social indices

Demographic indices; the following will be treated under the demographic indices;

- the level of education and literacy; this will measure the net education enrolment and literacy rate of the households
- the nutritional level; this will consider the food share of the total expenditure
- shelter; the type of house, population per room, access to health care and potable water
- family size; total number of people in a family, household head, average household size and population of family below 17 years and above 60 years

The economic indices are income of the family, sources of such income, capital base of the household head, source of capital, other assets and total farm size

Social indices are infrastructure in the community such as hospitals, schools, and recreational facilities.

CHAPTER THREE

3.0: RESEARCH METHODOLOGY

3.1 Area of study

The study was carried out in Edo State. The State was created in 1991 out of the defunct Bendel State. The State has a population of about 2,159,843 which is about 2.4% of the total population of Nigeria (NPC, 1994). It has a land mass of $17{,}920 km^2$, with a population density of 121 people per square kilometer. It lies between longitude $06^o04'$ and $06^o43'$ East and latitude $05^o44'$ and $07^o34'$ North of the equator. The State is bounded in the north by Kogi State, in the west by Ondo State, in the south by Delta State and in the east by Kogi and Anambra States.

The Administrative division of the state is made up of Eighteen Local Government Area (LGAs). For effective administration, the state is divided into three geopolitical zones namely Edo North, (Akoko Edo, Etsako Central, Etsako East, Etsako West, Owan East, and Owan West), Edo Central (Esan Central, Esan North East, Esan South East, Esan West and Igueben) and Edo South (Egor, Ikpoba-Okha., Oredo, Orhionmwon, Ovia North East, Ovia South East, and Uhunmwode) as shown in Figure 4

The state is mainly agrarian, producing a variety of crops such as yam, cassava, cocoyam, rice, maize, sorghum, plantain, cocoa, coffee, oil palm, and rubber. A large proportion of the population is engaged in farming, fishing, carving and carpentry.

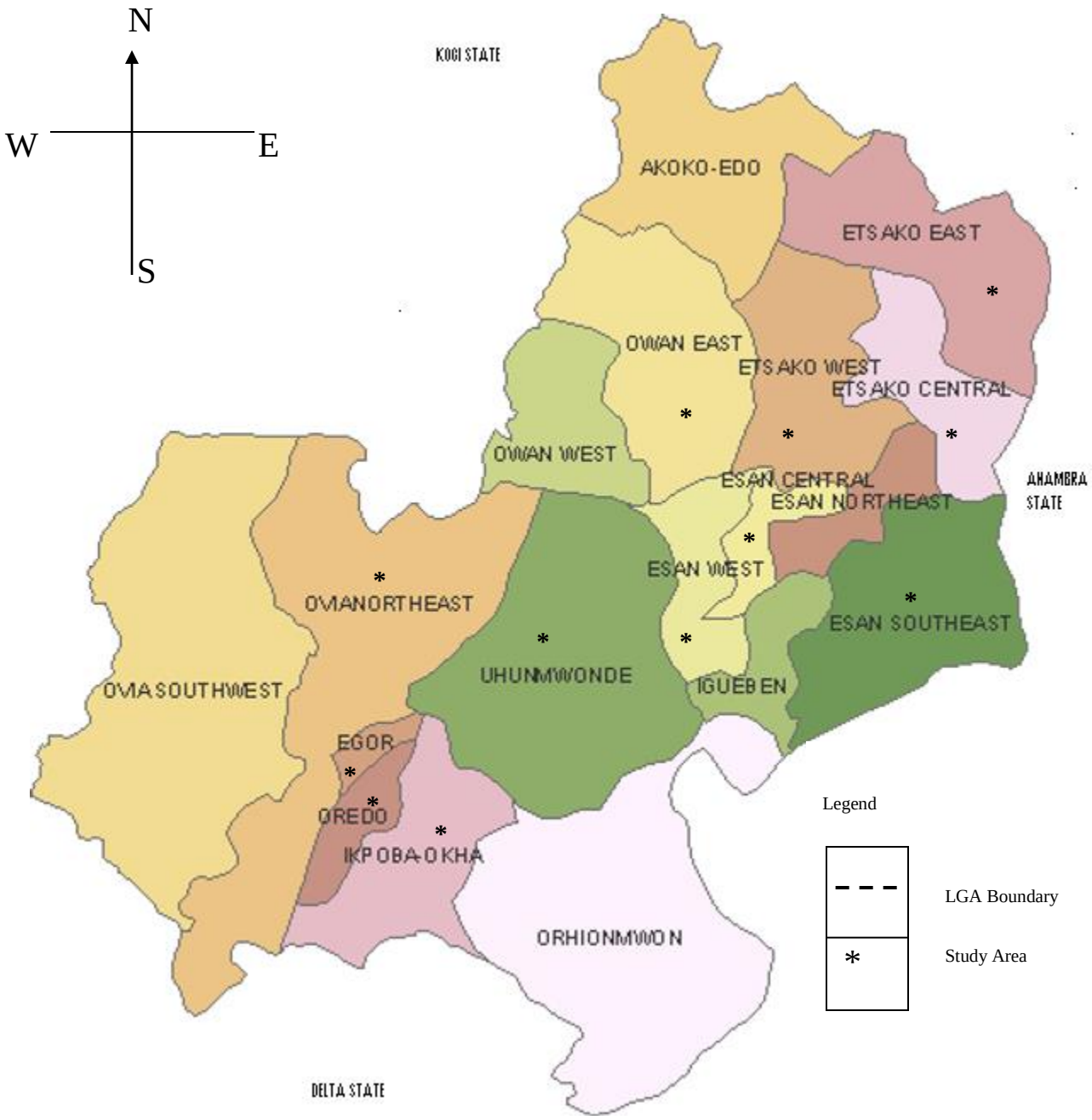


Fig 4: Map of Edo State

Source : Adapted from United Nations Inter-Regional Crime and Justice Research Institute (2003)

3.2: Scope of the Study

The research covered the three geopolitical zones of the State. The study established the level of poverty in the State and the extent to which micro-credit schemes have helped to alleviate it. Representative samples were taken from the three geopolitical zones of the state to give it a statewide coverage. The study focused on both beneficiaries and non-beneficiaries of the micro-credit schemes. It ascertained the level of output; farm size and income growth of beneficiaries and these were compared with those of non-beneficiaries.

3.3: Source of Data

Both primary and secondary data were used in this study. Primary data were collected from the respondents by the use of a well-structured questionnaire. Secondary data were sourced from organization such as Lift Above Poverty (LAPO), Edo State Micro-Credit Scheme, Federal Office of Statistics (FOS), Central Bank of Nigeria (CBN), World Bank, Internet, and other relevant publications.

3.4: Sampling Procedure

A multi-stage sampling procedure was adopted in this study for the selection of respondents. This involved a blend of different sampling techniques such as systematic, random and purposive sampling

procedures. The decision to employ multi-stage sampling procedure was premised on the fact that the state is divided into three geopolitical zones called senatorial districts. These districts are Edo North, Edo Central and Edo South senatorial districts. These districts are further sub-divided into Local Government Areas or Councils, which are referred to in this study as blocks.

The Local Government Areas are made up of communities or wards, which are referred to as cells. Sampling was carried out as follows:

Step 1: The three geopolitical zones were purposively selected to give a statewide coverage. These are Edo North, Edo Central and Edo South. Edo North zone consist of six local government areas namely Akoko Edo, Etsako Central, Etsako East, Etsako West, Owan East, and Owan West, Edo Central is made up of five local government areas namely Esan Central, Esan North East, Esan South East, Esan West, and Igueben while Edo South is made up of seven local government areas of Egor, Ikpoba-Okha, Oredo, Orhionwon, Ovia North East, Ovia South East and Uhunwode.

Step 11: At the senatorial district, two thirds (2/3) of the local government areas (blocks) were randomly selected from each of the three senatorial districts. This gave four (4) local government areas from Edo North, three (3) from Edo Central and five (5) from Edo South, giving a total of twelve

(12) local government areas in all, which is about 66.67% of the total local government area of the state as shown in Table 2.

Step 111: A random sampling of two (2) communities (cells) in each of the selected local government areas was taken. A total of twenty-four (24) communities were sampled. Specifically, eight (8) communities were sampled from Edo North, six (6) communities from Edo Central and ten (10) communities from Edo South.

Step 1V: A systematic random sampling was used to select on the average seventeen (17) beneficiaries and seventeen (17) non-beneficiaries of the micro-credit schemes from each cell. A total of one hundred and thirty three (133) respondents each of beneficiaries and non-beneficiaries were selected from Edo North, one hundred (100) each from Edo Central and one hundred and sixty seven (167) each from Edo South, giving a sample size of eight hundred (800) respondents made up of four hundred (400) beneficiaries and four hundred (400) non-beneficiaries of the micro-credit schemes.

Table 2; Allocation of Respondents by Zones

Zone	Local Govt Area	Community		No. of Respondents
Edo North	Etsako Central	Fugar	(17)	34
		Iroakhor	(17)	
	Etsako East	Agenebode	(16)	33
		Okpella	(17)	
	Etsako West	Auchi	(17)	33
		Agbede	(16)	
	Owan East	Afuze	(17)	33
		Ihievbe	(16)	
Edo Central	Esan Central	Irrua	(17)	33
		Ewu	(16)	
	Esan South East	Ubiaja	(17)	33
		Emu	(16)	
	Esan West	Ekpoma	(17)	34
		Iruekpen	(17)	
Edo South	Egor	Use	(17)	34
		Evbotubu	(17)	
	Ikpo – Okha	Idogbo	(17)	33
		Obayantor	(16)	
	Oredo	Ebo	(17)	33
		Irhirhi	(17)	
	Ovia North East	Iyowa	(17)	34
		Ugbogui	(16)	
	Uhunmwode	Ehor	(17)	33
		Eyean	(16)	
Total				300

*Figures in parentheses are numbers of respondents from the villages

3.5: Method of Data Collection

The Impact Assessment Survey Strategy (IASS) was used in data collection. It involves the administration of open ended and close-ended questions in copies of the questionnaire on the sampled beneficiaries and non-beneficiaries of the micro-credit schemes. Staff of micro credit organizations and Extension Agent or Enumerators of the Edo State Agricultural Development Programmes were used in the administration of the questionnaire. Structured interview schedule were used for non-literate respondents while questionnaire were administered to the literate ones.

3.6: Evaluation of Data Collection Instruments

The data instrument was subjected to two tests namely, validity and reliability tests. To validate the contents of the instrument, opinion of experts in the fields of agricultural economics, economics and business administration were sought to assess the instrument, to see if relationship exist between the questions and the objectives of the study.

Reliability test measures the stability of the measuring instrument to yield consistent result when administered on the same respondent at different times. The reliability of the instrument was estimated using the test-retest method. A pilot test was conducted. The instrument was first administered at different times to a sample of forty individuals from communities that were not included in the final samples and a correlation

of (78%) was recorded between the two sets of observations. High correlation coefficient indicates high reliability of instrument of measurement (Uniamikogbo, 1997).

3.7: Poverty Status of Respondents

The working definition of poverty in this study is that which conceptualizes the poor as earning an income below an established poverty line in line with Aigbokhan (2000) quoted by Ajakaiye and Adeyeye (2001). This relative poverty line would be adopted and set at two thirds of mean income of respondents as adopted by FOS (1999) and the World Bank/FOS/NPC (1998). This line would be used to classify the respondents into the following three groups:

i) Non-Poor (NP); Those whose income were above two thirds of the mean income of respondents, i.e. $NP > \frac{2}{3}$ (mean income).

ii) Core Poor (CP); Those whose income lie between one third and two thirds mean income of respondents i.e. $\frac{1}{3} < CP < \frac{2}{3}$

iii) Hard Core Poor (HCP); Those whose income falls below one third of the mean income of respondents i.e. HCP $< \frac{1}{3}$ (mean income)

3.8: Data Analysis

300 copies of the questionnaire each for beneficiaries and non-beneficiaries that were well filled out were selected for analysis and data generated were subjected to both descriptive and inferential statistical analysis. Descriptive statistical tools used included frequency Tables, measures of central locations such as means and standard deviations while inferential statistical tools used are multiple regression, test of differences in sample means, and Foster, Greer and Thorbecke (FGT) weighted poverty index.

3.9: Model Specification

3.9.1: Regression; A multiple regression model was used to establish the effect of micro credit on poverty alleviation among rural farmers.

The functional form of the regression equation is;

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9 + b_{10}X_{10}$$

Where a and bs are parameters,

Y = income

X_1 = Sex (male = 1, female = 0)

X_2 = Output (value of output in Naira)

X_3 = Age (in years)

X_4 = Expenditure on the farm (in Naira)

X_5 = Education (No education = 0, Primary = 1, Secondary = 2 and Tertiary = 3)

X_6 = Household size (Numbers in a household)

X_7 = Farm size (in hectare)

X_8 = Household Head (male head = 1, female head = 0)

X_9 = Occupation (full time farming = 1, part time farming = 0)

X_{10} = Credit (in Naira).

3.9.2: Test of difference in sample means (z test).The parametric statistical test used is the Z – test for the comparisons of means and to determine whether there is any significant difference in the mean values of the variables examined. The formular is given as:

$$Z = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

Where

$\bar{x}$ = Mean of sample one

$\bar{x}$ = Mean of sample two

S^2_1 = Variance of sample one

S_2^2 = Variance of sample two

n_1 and n_2 are the sample sizes.

For a two-tailed test, the results are significant at the 5 percent level if Z calculated lies outside the range -1.96 to 1.96. We accept H_A, hence we conclude that at 5 percent level there is a significant difference in mean values of the examined variables within the two groups. However, if Z calculated is less than Z tabulated we accept H_O, hence we conclude that there is no significant difference in the mean values of the examined variables within the two groups or that the two samples are from the same population.

3.9.3: Poverty Indices

The Indices of poverty, which measure poverty incidence, depth and severity, were used to describe the level of poverty in the study area, as developed by Foster, Greer and Thorbecke, (1984).

The formula is;

$$P_\alpha = \frac{1}{N}\sum_{i=1}^{q}\left(\frac{Z-Y_i}{Z}\right)^\alpha$$

Where

P_α = Poverty index

N = the size of the population under study

(Z-Y) = the gap between the poverty line and the income for each poor individual

Z = poverty line

q = the number of individual below the poverty line

Yi = capita income of the household

α = the parameter that takes the value 0, 1, 2.

Incidence of poverty (Po); this is a head count ratio or the prevalence of poverty. It indicates the proportion of the population below the poverty line. The higher the index, the greater the proportion of individuals or households who are poor

$$Po = \frac{n}{N}$$

Poverty Depth/Gap/Intensity; this is when ά = 1, the index becomes;

$$P1 = \frac{1}{N}\sum\left(\frac{Z-Y}{Z}\right)$$

It shows the average gap between the income of a poor individual or household and the poverty line. The higher the index the greater the poverty gap

Severity of Poverty; this is when ά = 2, the index becomes;

$$P2 = \frac{1}{N}\sum\left(\frac{Z-Y}{Z}\right)^2$$

This means that the further away a person is from the poverty line the higher the value of the index. Therefore, the higher the value of this index the more severe the poverty.

3.9.4: Test of Variability (F – test)

This is an F – test and is used to determine if variances of two samples differ significantly from each other. The test statistics is given as

$F_{cal} = \frac{Larger S_1^2}{Smaller S_2^2} = \frac{S_1^2}{S_2^2}$ where

S_1^2 = Variance of sample one

S_2^2 = Variance of sample two

F_{cal} = Computed F- value

3.10: Limitation of the study

Designing research to assess the impact of a programme on recipients is very difficult because one cannot observe the outcomes for the participants had they not enrolled in it. A proxy group of non-participants that share the same characteristics must be identified. Determining this hypothetical non-treatment group is the crux of the matter. Also, determining the effect of credit programmes is very difficult

because not all money borrowed is invested in income generating ventures.

Assessing the impact of an anti-poverty intervention such as this suffers from these two methodological problems;

Counter Factual

This has to do with evaluating what the welfare would be if the participants did not take part in the programme. This is the most difficult methodological problem in evaluating impact of a programme (Yaron et al., 1997; Ravallion, 1991) Literature generally uses control group to tackle this problem (Hulme and Mosley, 1996; Mustafa et al., 1996; Evans et al., 1995; and Montgomery et al., 1995). Using two different control groups; eligible non-members and non-borrowing members of micro-credit organizations will address this problem of counter factual.

Fungibility of Money

Micro-credit organization lend to individuals who claim they will invest the money in specific income generating ventures. It is a fact that not all the money borrowed is used for investment purposes. Money is fungible and often, the loan obtained from micro-credit organizations is diverted to other uses such as on-lending, immediate consumption needs, repaying loans as well as investing in income generating

activities, (Hassan Zaman, 1998; Goetz and Gupta, 1995; and Hulme and Mosley, 1995). Gaile and Foster (1996) write, “no study has successfully controlled fungibles of resources between the household and the assisted enterprise. However, this does not mean that it is impossible to insure against this bias. The constraint this poses for this study is that two individuals may receive the same amount of naira loan; one may use the money to meet household crises while the other may invest everything in an income generating enterprise. This constitutes a very serious constraint if one must capture the impact of such credit on poverty alleviation. This will be handled by relying on the law of averages with large data and existing evidence that about 80% of credit disbursed by organization is invested in income generating activities by the borrowers, (Mustafa and Others, 1996). Borrowers are aware that when loan is diverted to other uses, they stand the risk of being barred from obtaining more credit in the future. Other limitations are:

Poor Records: Most of the respondents hardly keep records of their operations and they have to rely on memory recall. This made the work of enumerators very difficult but we have to carry out second sets of interview and compare the two for consistency.

Unwillingness to Release Information: Most respondent were unwilling to release information on income and other financial

transactions but the researcher has to evolve other means of determining the income. This we did by finding out the output and the prevailing price at the time in question. Output multiplied by price gave us the income.

CHAPTER 4

4.0: RESULTS AND DISCUSSION

4.1: Socio-economic characteristics of Respondents

The purpose of discussing the socio-economic characteristics of respondents is to provide a frame of reference and the socio-economic context, which defines the economic, and social conditions under which the respondents operates. It is these socio-economic conditions that influence the behaviour of respondents in the use of resources that determines the strata of the community the individuals would be.

Therefore, this chapter presents the summary of data analysis and the interpretation of findings, in line with the specific objectives of the study.

Table 3: Distribution of Respondents According to Gender

Gender	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Male	165	55.00	167	55.70	332	55.33
Female	135	45.00	133	44.30	268	44.67
Total	300	100.00	300	100.00	600	100.00

4.2: Respondents According to Gender.

The result revealed that out of the 300 beneficiary farmers of the micro credit scheme, 165 respondents (55%) were male while 135 respondents (45%) were female as shown in Table 3 and Figure 5. On the other hand, among the 300 non-beneficiary farmers, 167 respondents (55.70%) were male while the remaining 133 respondents (44.30%) were female. The overall analysis indicates that 332 respondents (55.33%) were male while 268 respondents (44.67%) were female. About 135 female (45%) benefited from the micro credit scheme while female non-beneficiary were 133 (44.33%). More female were in the beneficiary group than in the non-beneficiary group.

The gender distributions of respondents deviate from the norm since men are supposed to participate more in agriculture and thus credit (Alufohai and Ilavbarhe, 2001). The role of women in agriculture and credit is becoming more prominent as revealed by the findings of this study. Women are becoming more and more interested in productive agriculture as against previously held views that they were only involved in processing and marketing of agricultural produce. The involvement of women in agricultural credit may be as a result of clean lending procedure of the micro credit organization. Women have always been handicapped in having title to land, which is the main collateral for accessing credit in the formal credit institutions.

Traditionally, men are mainly the breadwinner of the family and consequently in the rural areas, the men engage in major farming activities while the women does not compete with but play roles that are complimentary to the occupation of their husbands (Isijola, 1999).

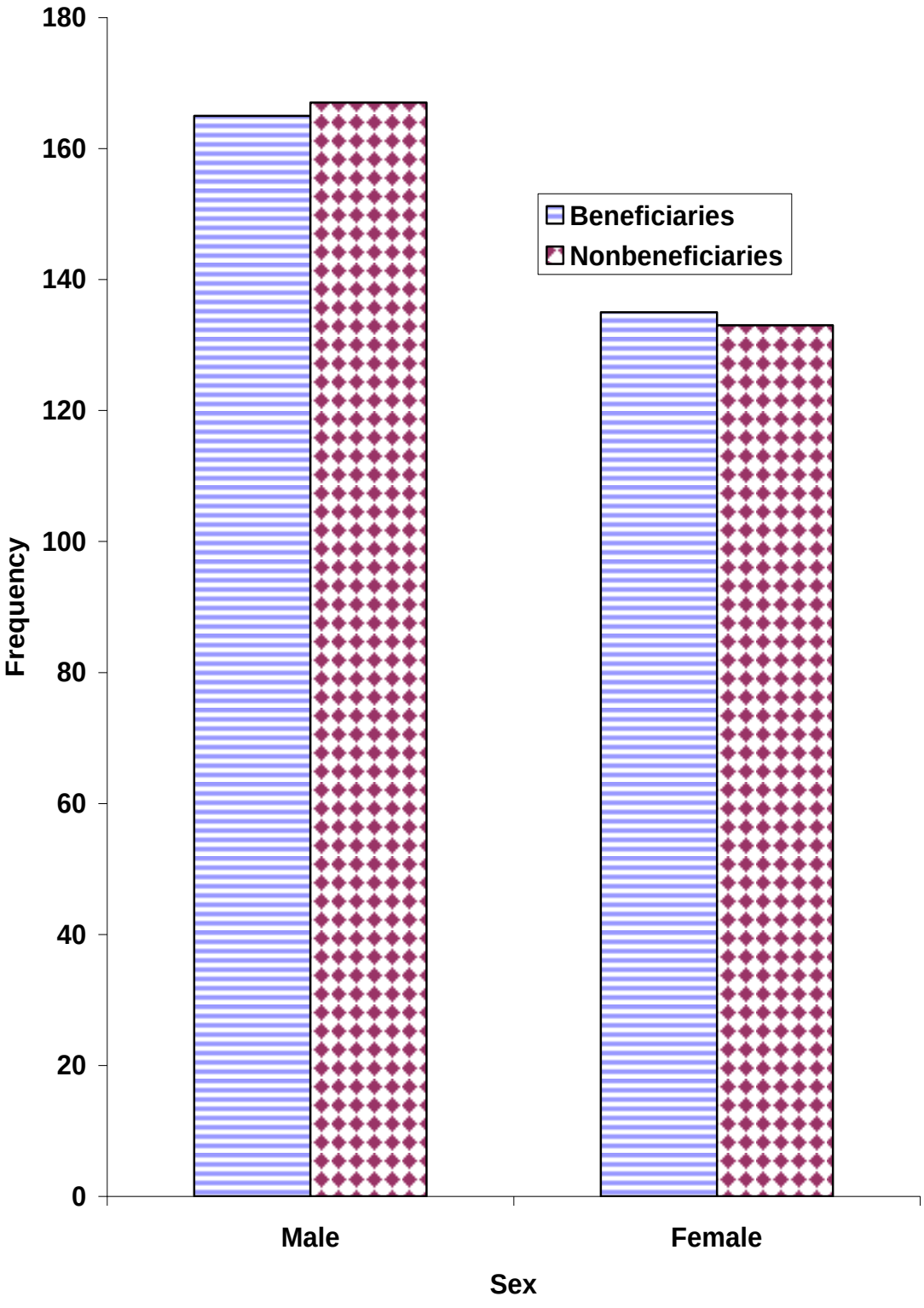


Fig 5 : Sex of Respondents

Table 4: Distribution of Respondents by Age

Age in Years	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Less than 20	-	-	1	0.33	1	0.17
20-40	125	41.70	101	33.67	266	37.67
41-60	163	54.30	156	52.00	319	53.16
Above 60	12	4.00	42	14.00	54	9.00
Total	300	100.00	300	100.00	600	100.00

4.3: Respondents According to Age

The distribution of respondents according to age is shown in Table 4 and Figure 6. From the Table and Figure, it can be seen that out of the 300 beneficiary respondents of the micro credit scheme, none was below 20 years of age. This is indicative of the fact that micro credit organisation does not target school age in their lending process. This age brackets are expected to be in school. This is not always the case as some may drop out of school and require some encouragement to go into any agribusiness ventures. 125 respondents (41.70%) were between the ages of 20-40 years, 163 respondents (54.30%) were between 41-60 years old while only 12 respondents (4%) were above 60 years old. On the other hand, of the 300 non beneficiary respondents, 1 respondent (0.33%) was below 20 years of age, 101 respondents (33.67%) were between 20-40 years old, 156 respondents (52%) were between the ages of 41-60 years old while 42 respondents (14%) were above 60 years old. Based on the overall analysis, 1 respondent (0.17%) of the entire sample size was below 20 years of age, 226 respondents (37.67%) were between the ages of 20-40 years, 319 respondents (53.16%) were of the age bracket 41-60 years while 54 respondents (9%) were above 60 years old. Of the entire sample size, 545 respondents (91%) were in their productive ages of between 20-60 years. Agricultural production as is currently practiced in the study area, require some physical energy on the part of the practitioners and therefore,

very young and very old people may not be able to meet the energy demand hence they are very few in agriculture.

The age distribution of participants in any economy is relevant as productivity has been identified to be a function of age. Risk taking tends to diminish with age just as does productivity (Oluwasola, 1993). Age has negative influence on technical efficiency, as older farmers tend to be risk averse and shy away from adopting new technology and innovations (Ojo, 2000). Large number of poor people is found in households with elderly head of household (aged 40years and above) (Government of Mali and UNDP, 1998). Indeed, the older one grows, the less one is able to provide for the needs of ones dependants.

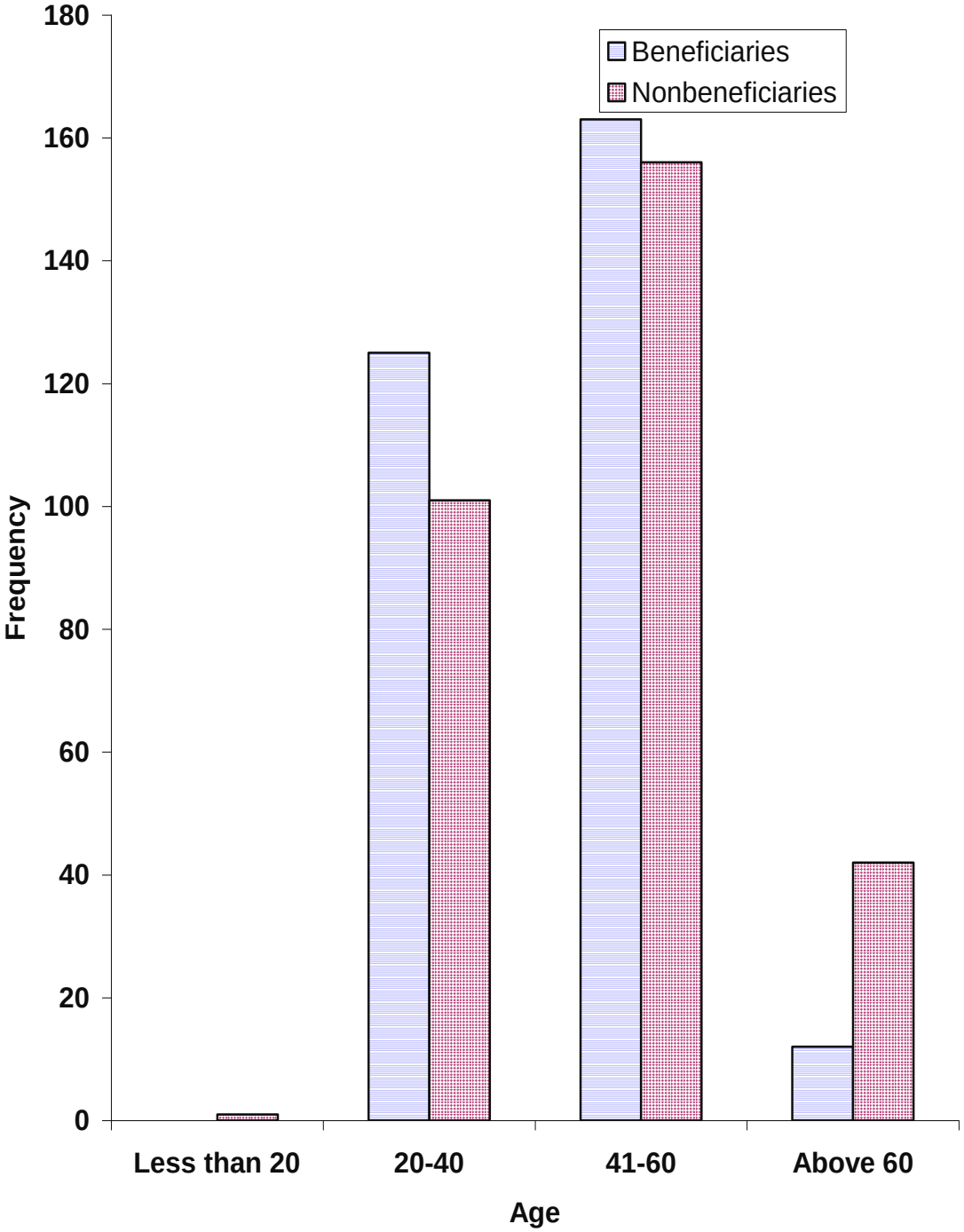


Figure 6: Age Distribution of Respondents

Table 5: Distribution of Respondents by Educational Qualifications

Level of Education	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
No Education	82	27.33	52	17.33	134	22.33
Some Primary	34	11.33	69	23.00	103	17.17
Completed Primary	89	29.67	74	24.67	163	27.17
Some Secondary	35	11.67	56	18.67	91	15.17
Completed Secondary	51	17.00	36	12.00	87	14.50
Tertiary	9	3.00	13	4.33	22	3.66
Total	300	100.00	300	100.00	600	100.00

4.4: Respondents by Educational Attainment

The result show that 82 respondents (27.33%) of the beneficiaries of the micro credit scheme had no education, 34 respondents (11.33%) had some primary school, 89 respondents (29.67%) completed primary school, 35 respondents (11.67%) had some secondary school experience, and 51 respondents (17%) completed secondary school while 9 respondents (3%) had tertiary school experience as captured in Table 5 and Figure 7. It could be inferred that 61% of the beneficiaries of the micro credit scheme had formal education while 39% had no formal education. In case of the non-beneficiaries of the micro credit scheme, 52 respondents (17.33%) had no education, 69 respondents (23%) had some primary school experience, 74 respondents (24.67%) completed primary school, 56 respondents (18.67%) had some secondary school experience, 36 respondents (12%) completed secondary school, while 13 respondents (4.33%) had tertiary school experience. It can be seen that 59.67% of the non-beneficiary respondents had formal education while the remaining 40.33% had no formal education.

Overall analysis show that 134 respondents (22.33%) had no education at all, 103 respondents (17.17%) had some primary school, 163 respondents (27.17%) completed primary school, 91 respondents (15.17%) had some secondary school, 87 respondents (14.50%) completed secondary school while 22 respondents (3.66%) had tertiary

educational experience. From the above, it can be deduced that 60.50% of the respondents had formal education while 39.50% had no formal education. It was also revealed that 60.67% of the overall respondents can read in English, 39.33% can not read in English, 49.33 can write in English while 50.67% can not write in English. The high level of literacy among beneficiaries and non-beneficiaries of the micro credit scheme is an indication of the fact that educated people are taking to agriculture in the midst of high unemployment in the country. Education plays an important role in agricultural development because it allows for information dissemination. Educational attainment of respondents is an important facility because it broadens knowledge, improves intelligent quotient and enhances the capacity of the farmers to seek and make use of new improved technologies. Education also enhances the entrepreneurial ability of the farmer to harness resources. Educated head of household are generally less poor than uneducated head of household. Education is a pre-condition for higher productivity.

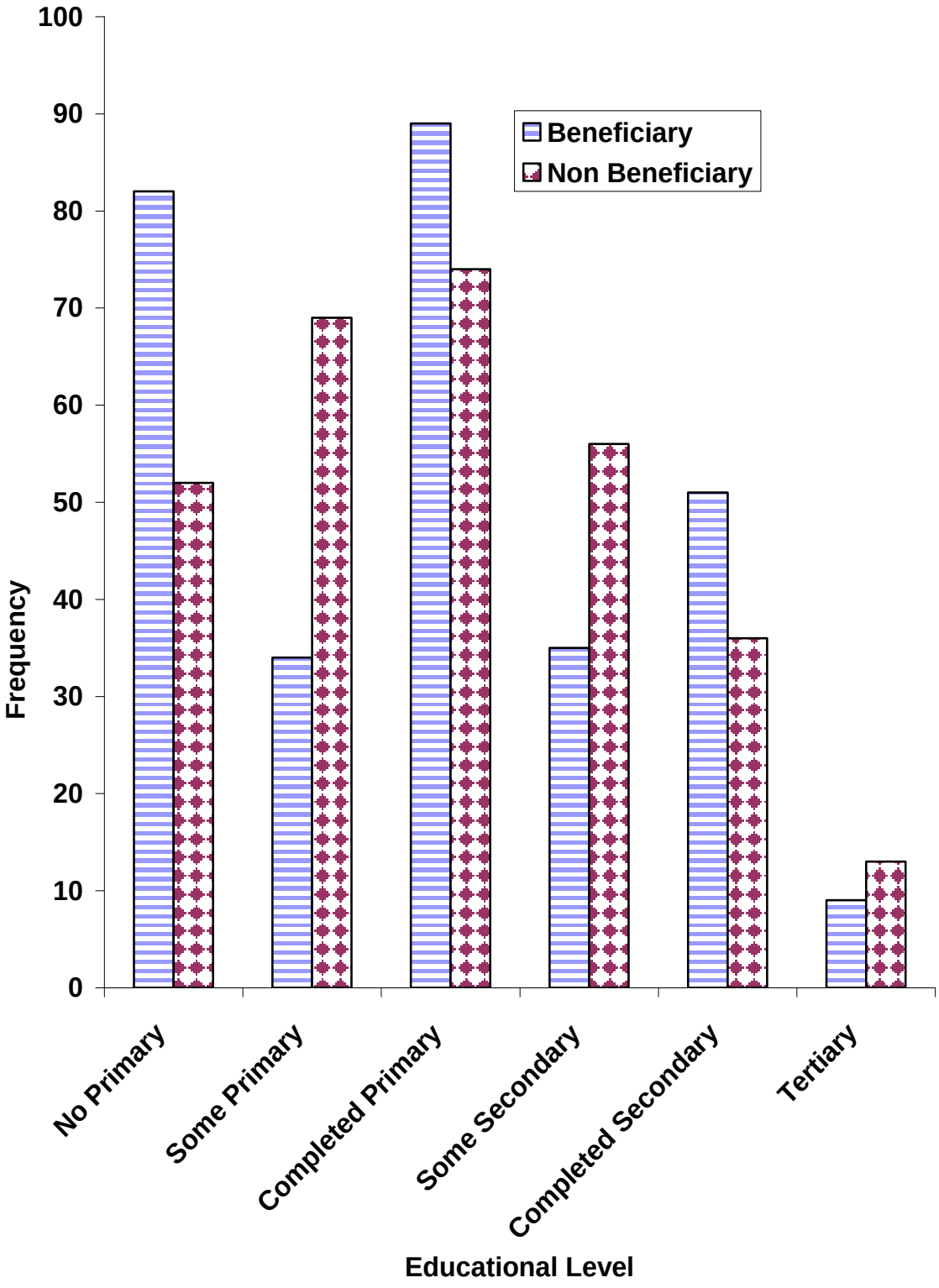


Fig. 7: Educational Attainment of Respondents

Table 6: Distribution of Respondents by Marital Status

Marital Status	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Never Married	3	1.00	1	0.33	4	0.67
Married (Mono)	236	78.67	276	92.00	512	85.33
Married (poly)	35	11.67	20	6.67	55	9.17
Divorced	3	1.00	-	-	3	0.50
Separated	3	1.00	-	-	3	0.50
Widowed	20	6.67	3	1.00	23	3.83
Total	300	100.00	300	100.00	600	100.00

4.5: Respondents According to Marital Status

Table 6 and Figure 8 show the distribution of respondents according to their marital status. The Table and Figure revealed that among the beneficiaries, 3 respondents (1.00%) were never married, 236 respondents (78.67%) were married to only one person (monogamous), 35 respondents (11.67%) were married to more than one person (polygamous), 3 respondents (1.00%) were divorced, 3 respondents (1.00%) were separated and 20 respondents (6.67%) were widowed. In case of the non-beneficiaries, 1 respondent (0.33%) was never married, 276 respondents (92.00%) were married to one individual (monogamous), 20 respondents (6.67%) were married to more than one individual (polygamous), while 3 respondents (1.00%) were widowed. The overall analysis reveals that 4 respondents (0.67%) of the total respondents were never married, 512 respondents (85.33%) were married to only one individual (monogamous), 55 respondents (9.17%) were married to more than one individual (polygamous), 3 respondents (0.50%) were divorced, 3 respondents (0.50%) were separated and 23 respondents (3.83%) were widowed. From the above analysis, higher percentages of respondents were married (94%) and this has implications for agricultural development. The more members a family has, the more labour hands the family has for farm work.

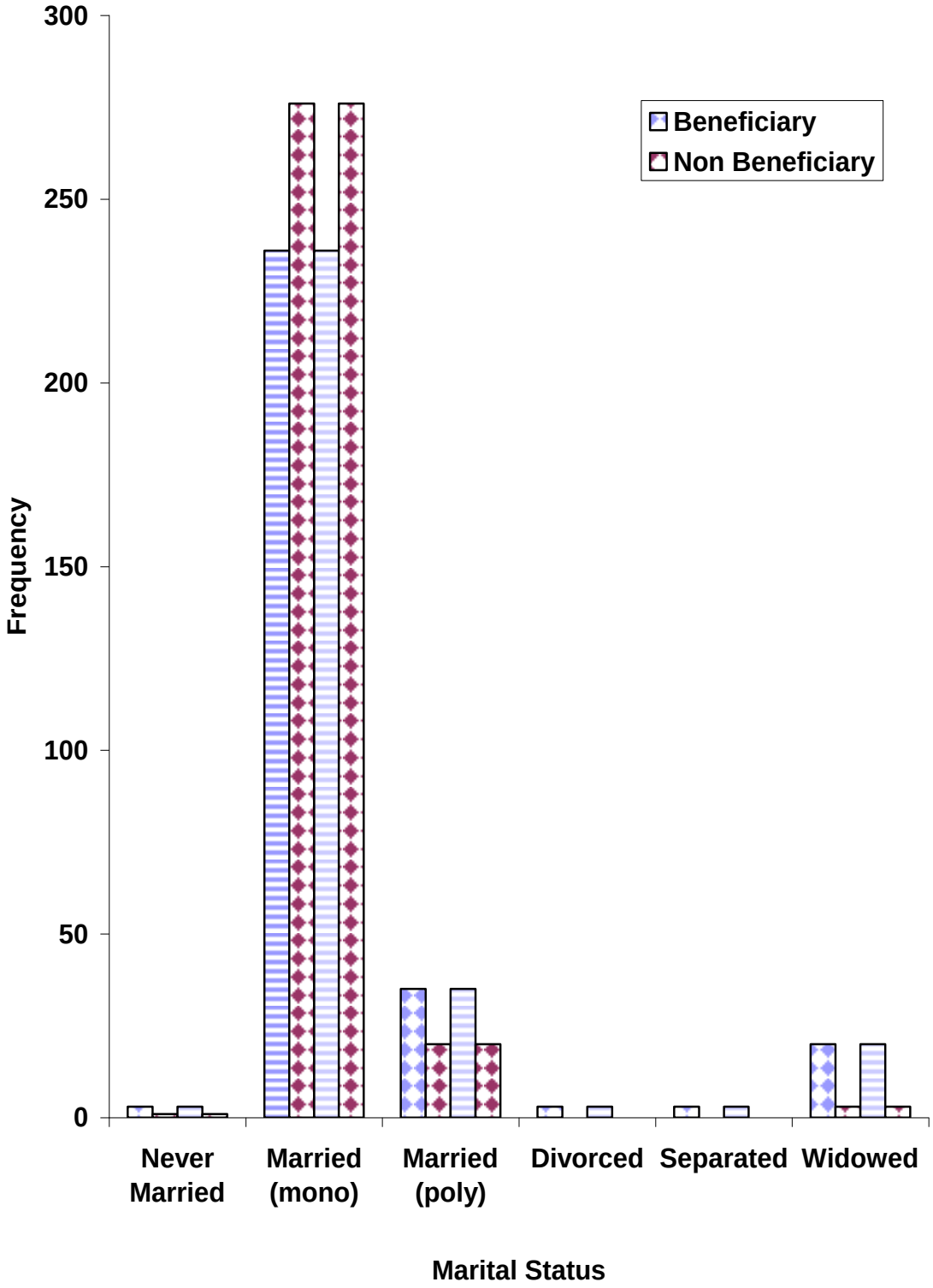


Fig. 8: Marital Status of Respondents

Table 7: Distribution of Respondents by household Size

No. in Household	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
1-3 Persons	20	6.67	13	4.33	33	5.50
4-6 Persons	117	39.00	143	47.67	260	43.33
7-9 Persons	109	36.33	123	41.00	232	38.67
10 and Above	54	18.00	21	7.00	75	12.50
Total	300	100.00	300	100.00	600	100.00

4.6: Respondents by Household Size

The result reveals that household size ranges between 1 and above 10 persons as shown in Table 7 and Figure 9. In the Nigeria context, household consist of husband, wife or wives, children and dependants. In case of the beneficiaries, 20 respondents (6.67%) had household size of between 1 and 3 persons, 117 respondents (39%) had household size of 4 to 6 persons, 109 respondents (36.33%) had household size of 7 to 9 persons and 54 respondents (18%) had household size of 10 and above persons. The non-beneficiaries also exhibit the same trends. 13 respondents (4.33%) had a household size of 1 to 3 persons, 143 respondents (47.67%) had a household size of between 4 to 6 persons, 123 respondents (41%) had a household size of between 7 and 9 persons and 21 respondents (7%) had a household size of 10 and above persons. For the entire sample, 33 respondents (5.50%) had a household size of between 1 to 3 persons, 260 respondents (43.33%) had a household size of between 4 to 6 persons, 232 respondents (38.67%) had a household size of 7 and 9 persons and 75 respondents (12.50%) had a household size of 10 and above persons. The object of discussing household size of farmers is to enable us have insight into the amount of free farm labour to which the farmer have easy access. All things being equal (ceteris paribus), a household with large family size is assured of a steady supply of labour force necessary for farm operations. This also minimizes the

dependence on hired labour and enhances the household self-reliance. Large family size requires higher maintenance cost and unless higher proportion of members of such household are engage in income yielding ventures, such family is likely to be poor. The result of the Malian survey on the Social and Economic Situation reveals that the percentage of poor households increases with the number of household members. The poor tend to have more children or more dependants, (Kankwenda, 2001)

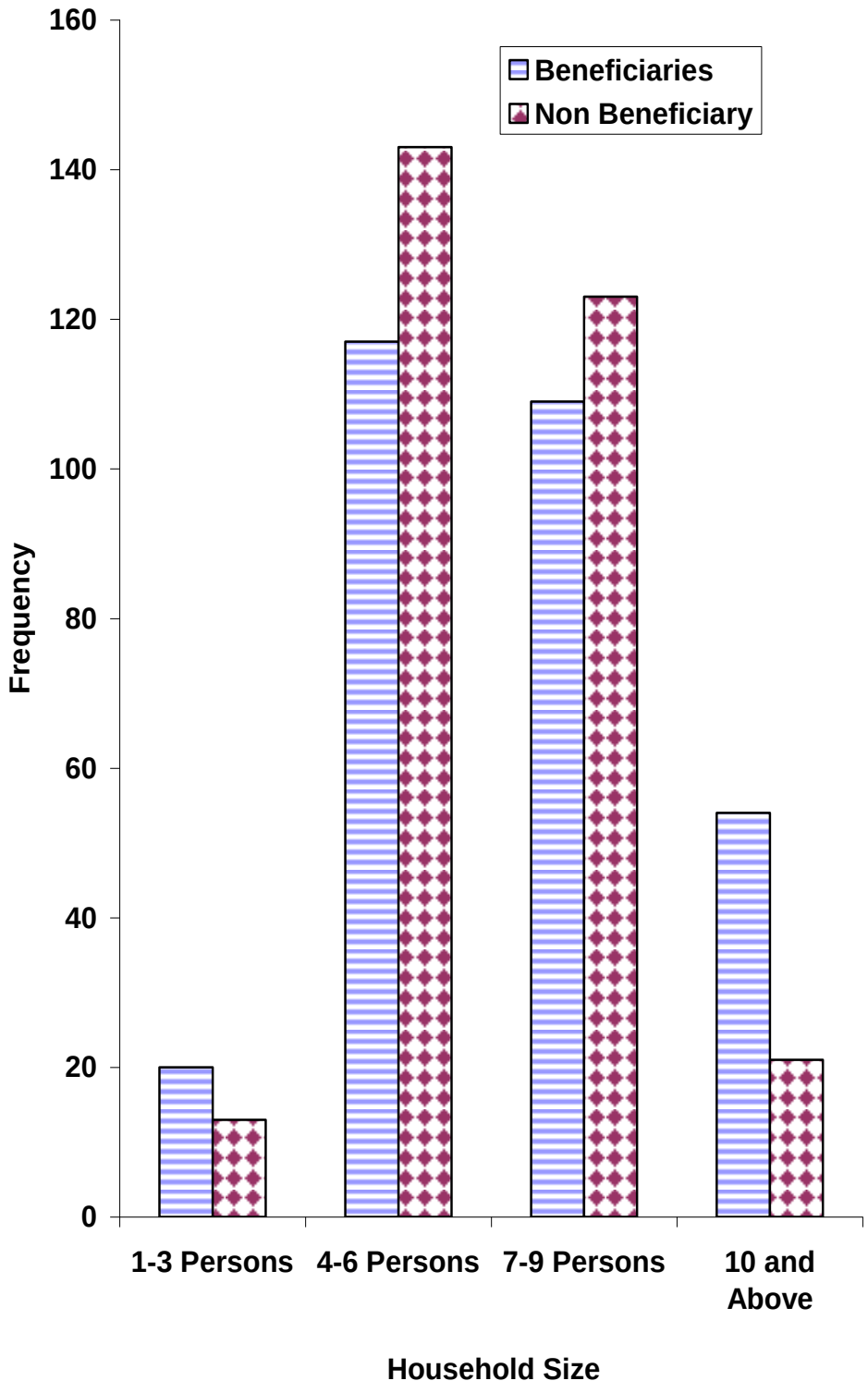


Fig.9: Household Size of Respondents

Table 8: Farm Size of the Respondents

Farm Size	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
0.1-2ha	267	89.00	254	84.67	521	86.83
2.01-5ha	32	10.67	45	15.00	77	12.83
Above 5ha	1	0.33	1	0.33	2	0.34
Total	300	100.00	300	100.00	600	100.00

4.7: Respondents by Farm Size

Majority of the respondents 267 (89%) cultivated farm sizes of between 0.1 to 2 hectares which represent the small scale farms, 32 beneficiary respondents (10.67%) had farm sizes of between 2.01 to 5 hectares which could be regarded as medium scale farms and only 1 beneficiary respondent (0.33%) had a farm size of above 5 hectares which we can term large scale farm as shown in Table 8 and Figure 10. Also, 254 non beneficiary respondents (84.67%) cultivated farm sizes of between 0.1 to 2 hectares, 45 non beneficiary respondents (15%) had farm sizes of between 2.01 to 5 hectares and only 1 respondent (0.33%) had farm size of above 5 hectares.

For the entire sample, 521 respondents (86.83%) had farm sizes of between 0.1 to 2 hectares, 77 respondents (12.83%) had farm sizes of between 2.01 to 5 hectares and only 2 respondents (0.34%) had farm sizes of over 5 hectares. The above analysis reveals that majority of the farmers were operating on a small-scale levels as revealed by Figure 10. The small and scattered nature of farms in the study area were partly due to the land tenure system which discriminate against large holdings by individuals and partly due to the poor nature of farmers who have no access to credit from the formal lending institutions.

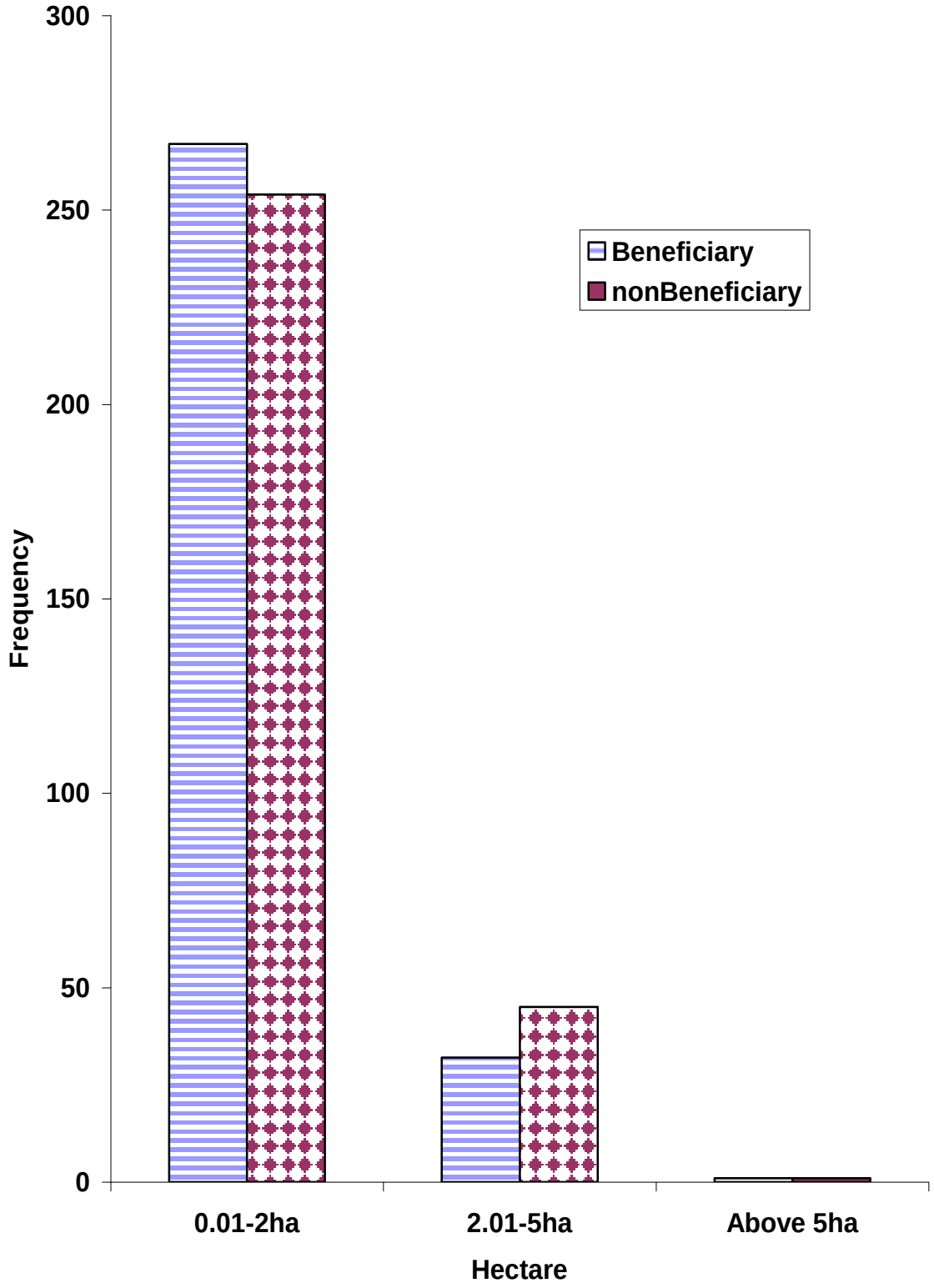


Fig.10:Farm Size of Respondents

Table 9: Distribution of Respondents by Land Ownership

Ownership	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Self	257	85.67	223	74.33	480	80.00
Government	1	0.33	20	6.67	21	3.50
Leasehold	42	14.00	57	19.00	99	16.50
Total	300	100.00	300	100.00	600	100.00

4.8: Distribution of Respondents by Land Ownership

The distribution of respondents according to sources of farmland cultivated is shown in Table 9 and Figure 11. The Table and Figure revealed that 257 beneficiary respondents (85.67%) cultivated self-owned land, 1 beneficiary respondent (0.33%) cultivated government land and 42 beneficiary respondents (14%) cultivated their farm on leasehold land. On the other hand, 223 non beneficiary respondents (74.33%) cultivated self owned land, 20 non beneficiary respondents (6.67%) farm on government land while 57 non beneficiary respondents (19%) cultivated on leasehold land. The overall analysis shows that 480 respondents (80%) farm on self-owned land, 21 respondents (3.50%) farm on government owned land while 99 respondents (16.50%) had their farm on leasehold land.

Majority of farmers (80%) in the study area own their farm land and this could serve as a source of collateral for institutional lending.

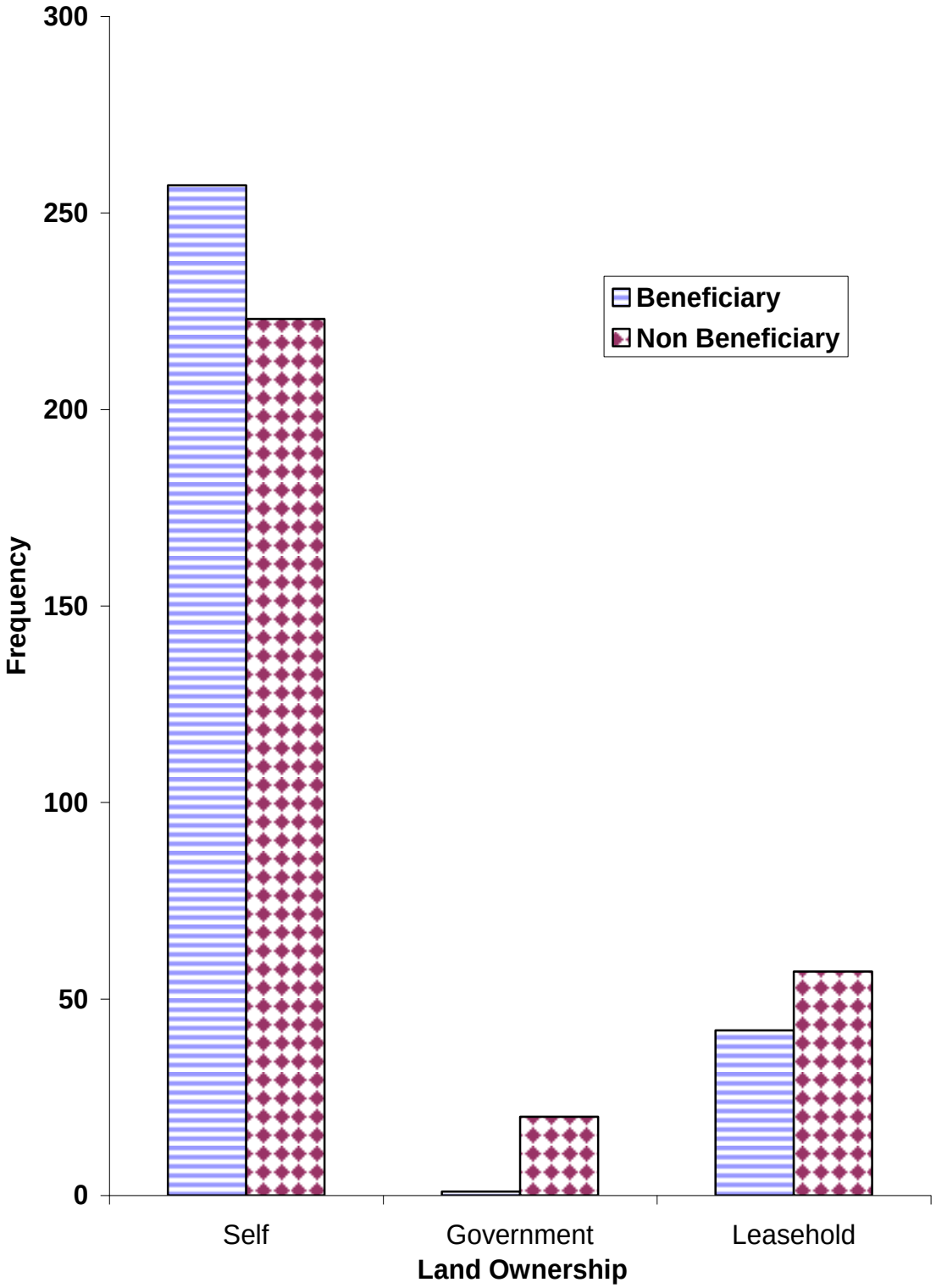


Fig. 11: Land Ownership by Respondents

Table 10: Distribution of Respondents by Relationship to Household

Relationship	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
House Head	180	60.00	158	52.67	338	56.33
Spouse	120	40.00	139	46.33	259	43.17
Child	-	-	1	0.33	1	0.17
House Help	-	-	2	0.67	2	0.33
Total	300	100.00	300	100.00	600	100.00

4.9: Distribution of Respondents by Relationship to Household

The distribution of respondents by their relationship to household is shown in Table 10. The Table reveals that 180 beneficiary respondents (60%) were household heads while 120 beneficiary respondents (40%) were spouses of these households. On the other hand, 158 non beneficiary respondents (52.60%) were household heads, 139 non beneficiary respondents (46.33%) were spouses, 1 non beneficiary respondent (0.33%) was a child, while 2 non beneficiary respondents (0.66%) were house helps. The overall analysis shows that 338 respondents (56.33%) were household heads, 259 respondents (43.17%) were spouses, 1 respondent (0.17%) was a child while 2 respondents (0.33%) were house help.

From the above, 597 respondents were stakeholders in the affairs of the households and are therefore saddled with the responsibility of fending for their families.

Table11: Distribution of Respondents by Type of Farming

Nature of Farming	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Full Time	247	82.33	249	83.00	496	82.67
Part Time	53	17.67	51	17.00	104	17.33
Total	300	100.00	300	100.00	600	100.00

4.10: Distribution of Respondents by Type of Farming

Table 11 and Figure 12 present the distribution of respondents by type of farming. The Table and Figure showed that 247 beneficiary respondents (82.33%) were full-time farmers while 53 beneficiary respondents (17.67%) were part-time farmers. Also, 249 non beneficiary respondents (83%) were full-time farmers and the remaining 51 respondents (17%) were part-time farmers. In the overall analysis, 496 respondents (82.67%) were full-time farmers while 104 respondents (17.33%) were part-time farmers.

The occupational distribution of respondents indicate to a significant extent that majority of respondents are full-time farmers. This tends to encourage specialization. Multiple occupations tend to increase inefficiency arising from lack of specialization and partly encourage loan diversion into non-agricultural ventures.

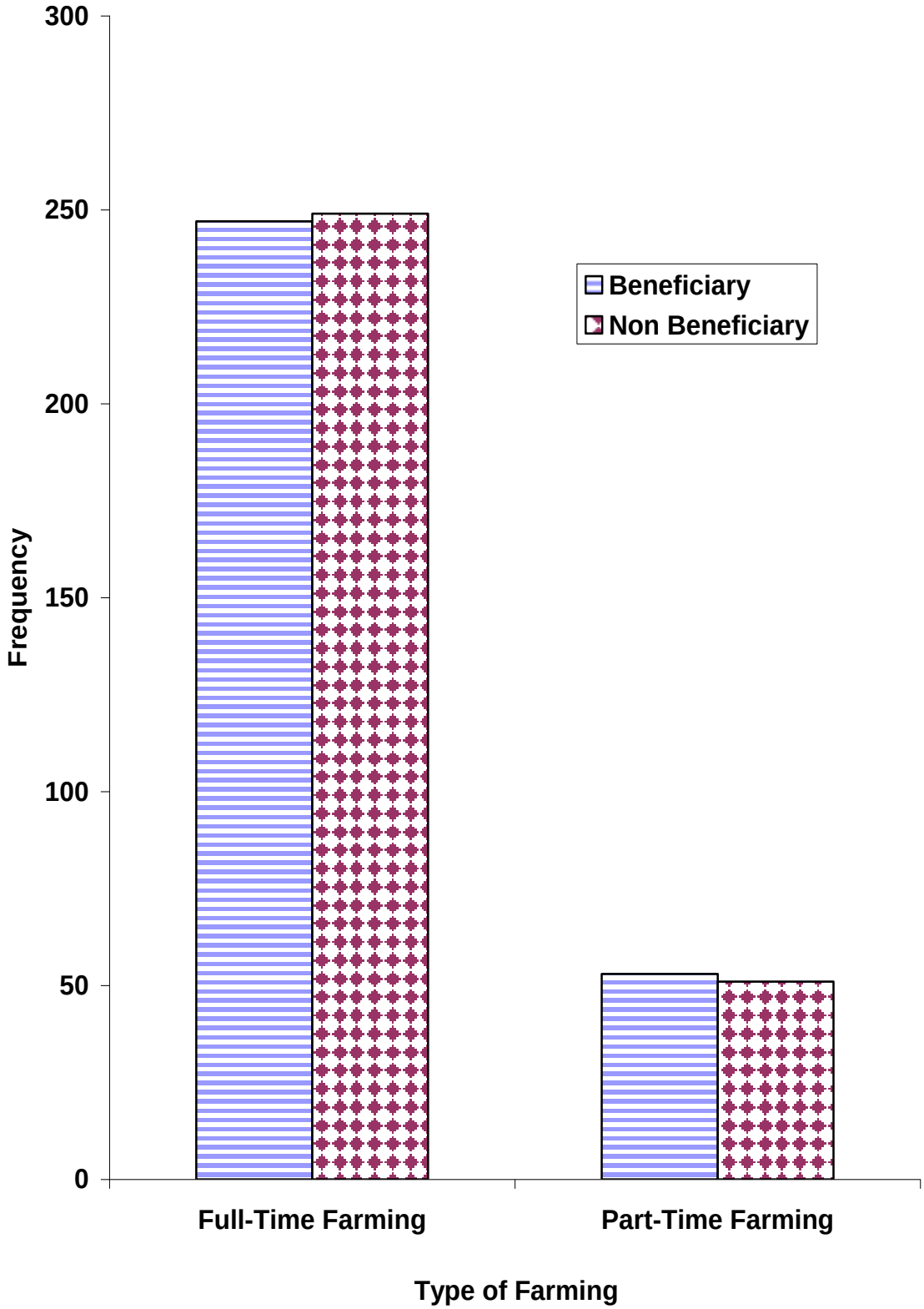


Fig. 12: Type of Farming of Respondents

Table 12: Distribution of Respondents According to Available Resources

Resource	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Labour	51	17.00	113	37.67	164	27.33
Finance	6	2.00	1	0.33	7	1.17
Land	191	63.67	145	48.33	336	56.00
Management	52	17.33	41	13.67	93	15.50
Total	300	100.00	300	100.00	600	100.00

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4.11: Distribution of Respondents According to Available Resources

The study revealed that 51 beneficiary respondents (17%) had labour resources in abundance, 6 beneficiary respondents (2%) had capital resources at its disposal, 191 beneficiaries (63.67%) had land resources available while 52 beneficiaries (17.33%) had managerial resources at its disposal as revealed in Table 12 and Figure 13. On the other hand, 113 non-beneficiary respondents (37.67%) had labour resources available to it, 1 non-beneficiary respondent (0.33%) had capital resources at its disposal, and 145 non-beneficiaries (48.33%) were endowed with land resources while 41 non-beneficiaries (13.67%) were endowed with managerial resources. Global analysis reveals that 164 respondents (27.33%) had labour resources, 7 respondents (1.17%) had capital resources at its disposal, 336 respondents (56%) had land resources and 93 respondents (15.50%) had managerial resources available to it.

From the foregoing, it could be seen that capital is the least available of the resources while land is the most available resource to the respondents. Most economist and financial experts have identified the lack of capital as a constraint to agricultural growth and development. Oyatoye (1981) was of the view that capital is a major factor necessary for technological transfer in traditional agriculture. Given available technologies, how rapidly farmers would adopt these technologies depend

on capital availability. Oni (1987) opined that the traditional farmers lack capital resources to purchase farm implements and machines, and for farmers to be able to, they must supplement their personal earnings with credit facilities.

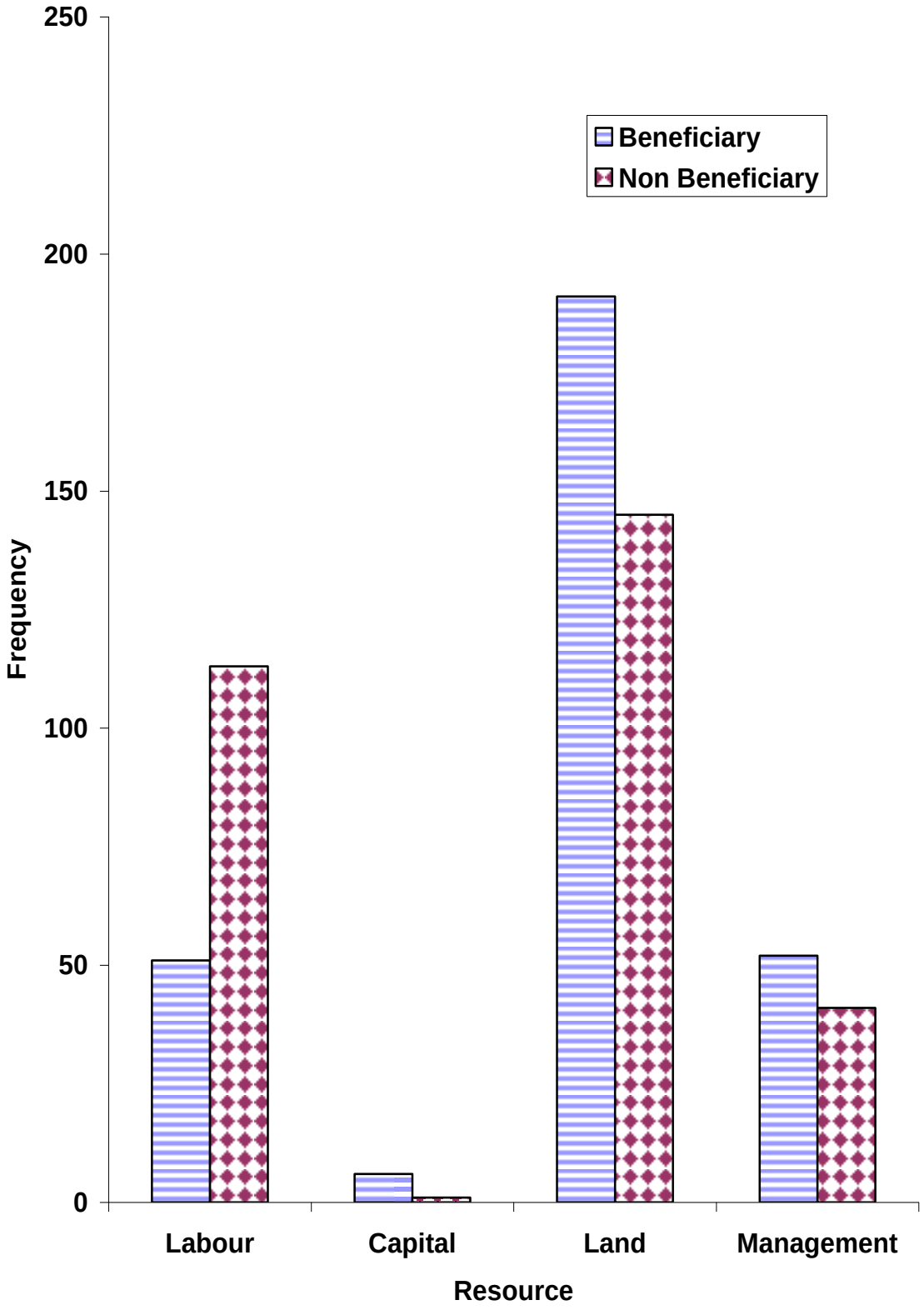

Fig. 13: Most Available Resource to Respondents

Table 13: Distribution of Respondents by Most Limiting Resources

Resource	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Labour	14	4.67	19	6.33	33	5.50
Land	21	7.00	32	10.67	53	8.83
Finance	265	88.33	249	83.00	514	85.67
Total	300	100.00	300	100.00	600	100.00

4.12: Distribution of Respondents by Limiting Resources.

Table 13 showed the distribution of respondents according to the resources that is most limiting. The Table indicates that 14 of the beneficiary respondents (4.67%) had labour as the most limiting factor, 21 beneficiaries (7%) had land resources as the most limiting, and 265 beneficiaries (88.33%) had finance as the most limiting factor. In case of the non-beneficiaries, 19 respondents (6.33%) had labour as the most liming factor, 32 respondents (10.67%) had land as the most limiting factor while 249 respondents (83%) had finance as the most limiting factor. The overall analysis shows that 33 respondents (5.50%) had labour resources as the most limiting factor, 53 respondents (8.83%) had land as the most limiting factor while 514 respondents (85.67%) had finance as the most limiting factor. This is further illustrated by Figure 14.

From the above analysis, it could be advanced that finance is the most limiting resource in any business ventures, hence the need for credit. Credit is meant to break the poverty cycle of the rural and subsistence farmers thereby increasing their income and capital formation status (Ilavbarhe and Ahmadu, 2001). Benjamin (1993) noted that finance must be injected into the agricultural sector to enhance rapid and continual use of growth promoting inputs. Osuntogun (1973) stressed that unless production credit is made available on a sustainable terms, the majority of the small scale farmers will be seriously handicapped in adopting profitable

techniques. Hence credit is a major factor in agricultural development and the lack of it is usually given as the explanation for many of the problems facing this sector in Nigeria.

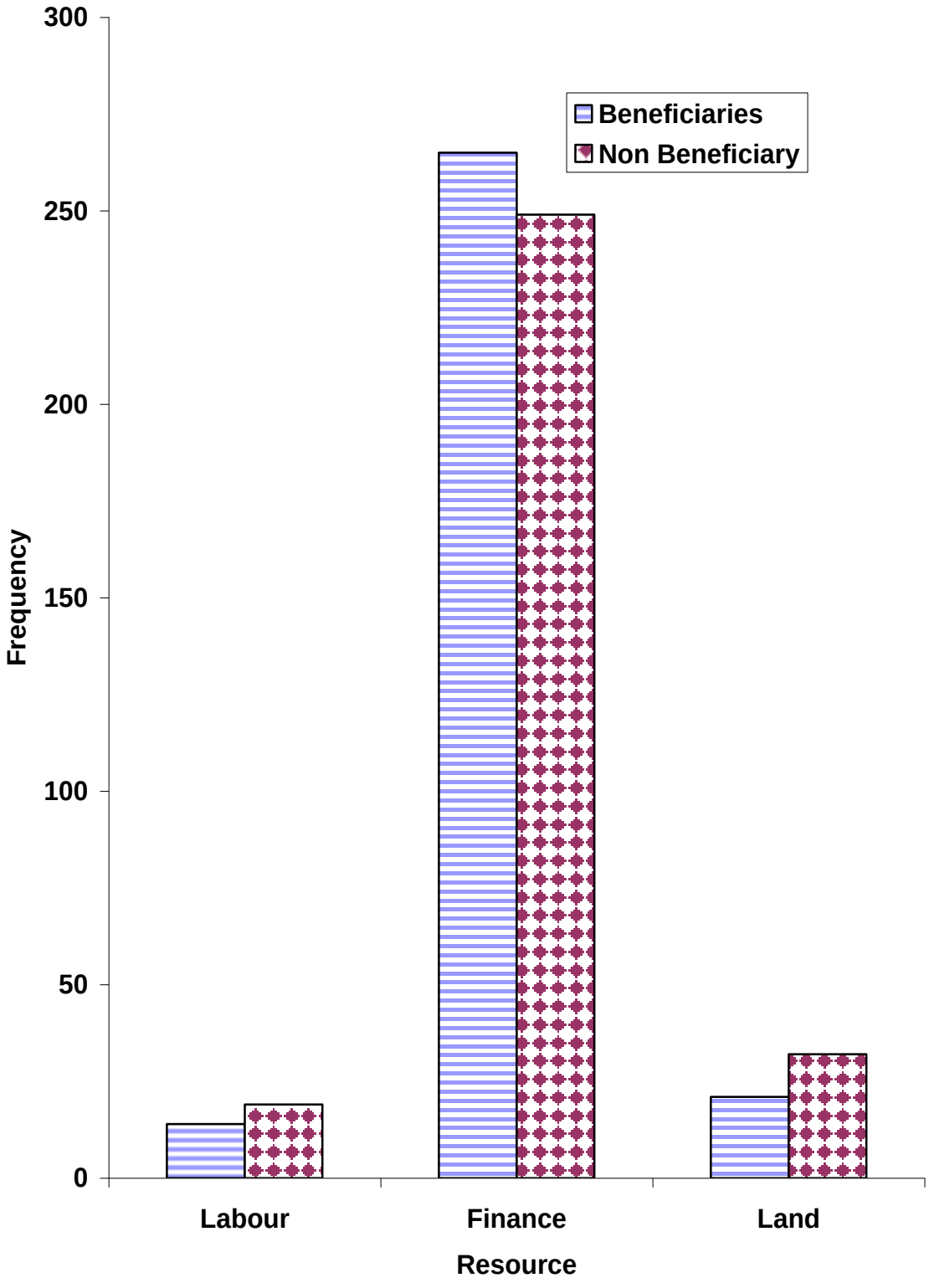

Fig. 14: Most Limiting Resource of Respondents

Table 14: Distribution of Respondents by Membership of Cooperative Societies

Response	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Membership	300	100.00	266	88.67	566	94.33
Nonmembership	-	-	34	11.33	34	5.67
Total	300	100.00	300	100.00	600	100.00

4.13: Respondents' Membership of Cooperative Societies

Table 14 shows the distribution of respondents according to membership of cooperative societies. The Table reveals that all beneficiaries (100%) were members of cooperative societies while 266 non-beneficiary respondents (88.67%) were members of cooperative and 34 respondents (11.33%) were not member of the cooperative society. When viewed from the total sample, 566 respondents (94.33%) were members of the cooperative society while 34 respondents (5.67%) were non-member of any cooperative group. It is obvious that to benefit from the micro credit scheme, one must belong to a cooperative society. It is easier to channel credit through cooperative society for on lending to its members and also very effective in debt recovery because they adopt the group liability approach. By this method, the group exerts pressure on indebted members to repay the loans so that other members could access from the credit arrangement. A cooperative society therefore, is the most effective channel for credit delivery in the rural areas. The situation was further captured in Figure 15.

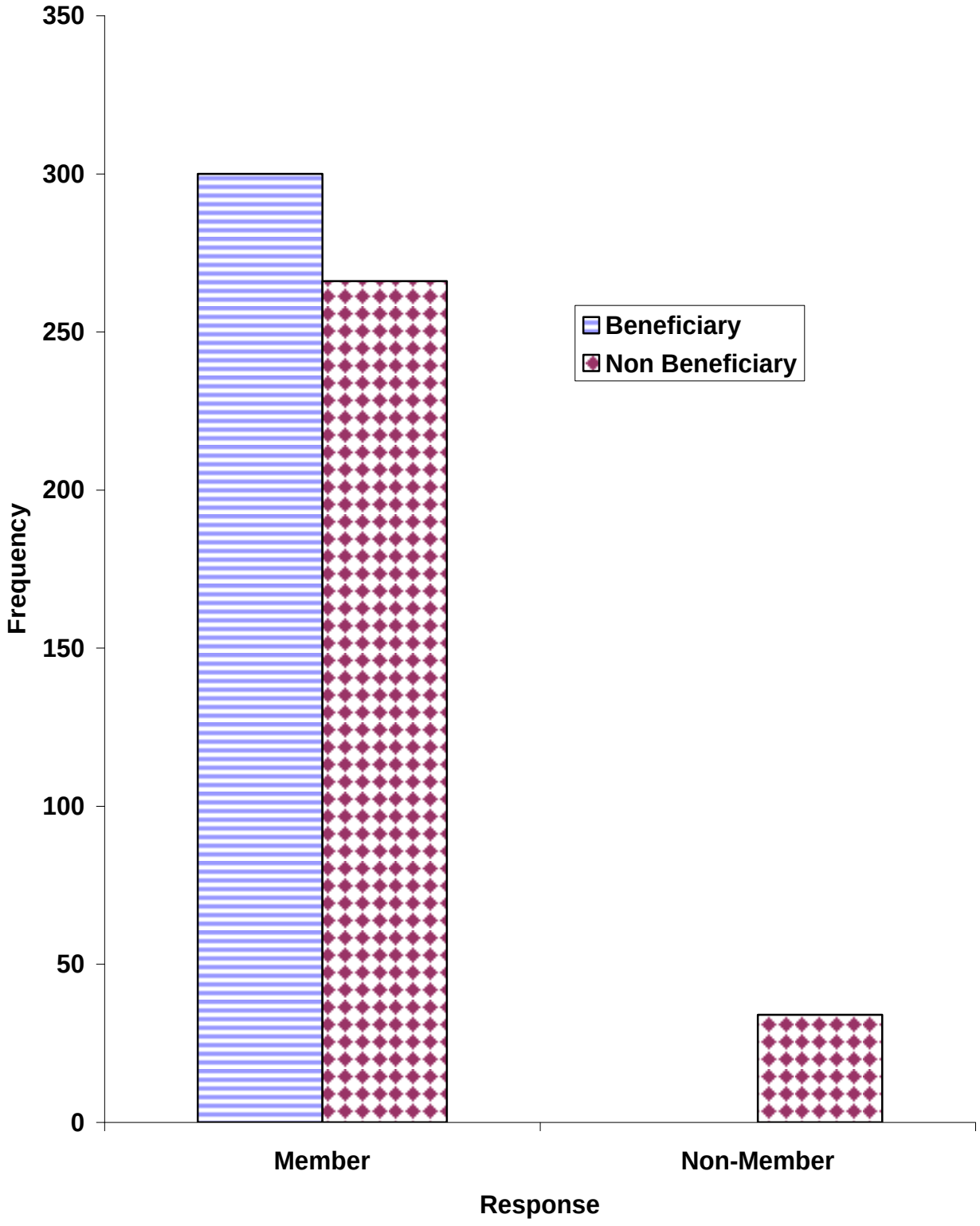

Fig.15: Membership of Cooperative Societies

Table 15: Distribution of Respondents by Frequency of Meetings

Meeting	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
No Meeting	-	-	34	11.33	34	5.67
Weekly	20	6.67	9	3.00	29	4.83
Fortnightly	15	5.00	44	14.67	59	9.83
Monthly	237	79.00	183	61.00	420	70.00
Quarterly	-	-	34	11.33	34	5.67
Total	300	100.00	300	100.00	600	100.00

4.14: Respondent's Frequency of Attending Meetings.

The result indicates that 20 beneficiary respondents (6.67%) were having weekly meetings, 15 respondents (5%) were having fortnightly meetings, 237 respondents (79%) were having monthly meetings, and 28 respondents (9.33%) were having quarterly meetings. On the other hand, 9 non beneficiary respondents (3%) were having weekly meetings, 44 respondents (14.67%) were having fortnightly meetings, 183 respondents (61%) were having monthly meetings, 30 respondents (10%) were having quarterly meetings and 34 respondents (11.33%) had no meeting at all because of non-membership of cooperative societies. On the whole, 29 respondents (4.8%) were having weekly meetings, 59 respondents (9.83%) were having fortnightly meetings, 420 respondents (70%) were having monthly meetings, 58 respondents (9.67%) were having quarterly meetings and 34 respondents (5.67%) were having no meeting at all because of non-membership of cooperative societies. The frequency of meetings determines the amount of savings a cooperative society could mobilize. Contributions and loan repayments are made at such meetings and matters affecting the group are generally resolved at meetings of this nature.

Table 16: Distribution of Respondents by School Enrolment

Enrolment	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
No Enrolment	3	1.00	2	0.67	5	0.83
1-3 Children	128	42.67	278	92.67	406	67.67
4-6 Children	150	50.00	18	6.00	168	28.00
7-9 Children	19	6.33	2	0.67	21	3.50
Total	300	100.00	300	100.00	600	100.00

4.15: Respondents by School Enrolment.

Table 16 and Figure 16 show the distribution of respondents by the number of children enrolled in school. The Table revealed that 128 of the beneficiary respondents (42.67%) had enrolled between 1 and 3 children in school, 150 other respondents in this category (50%) had enrolled between 4 and 6 children in school, 19 respondents (6.33%) had enrolled between 7 and 9 children in school and 3 respondents (1%) did not enroll any child in school. The Table also revealed that 278 non beneficiary respondents (92.67%) had enrolled between 1 and 3 children in school, 18 non-beneficiaries (6%) had enrolled between 4 and 6 children in school, 2 respondents (0.67%) of the non-beneficiaries had enrolled between 7 and 9 children in school and 2 respondents (0.67%) of the non-beneficiaries did not enroll any child in school. On the basis of the entire sample, 406 respondents (67.67%) had enrolled between 1 and 3 children in school, 168 respondents (28%) had enrolled between 4 and 6 children in school, 21 respondents (3.50%) had enrolled between 7 and 9 children in school and 5 respondents (0.83%) did not enroll any child in school. The struggle to break away from the vicious cycle of poverty is keen between beneficiaries and non-beneficiaries as revealed by school enrolments. The two groups have invested in the development of their children as a hedge against old age.

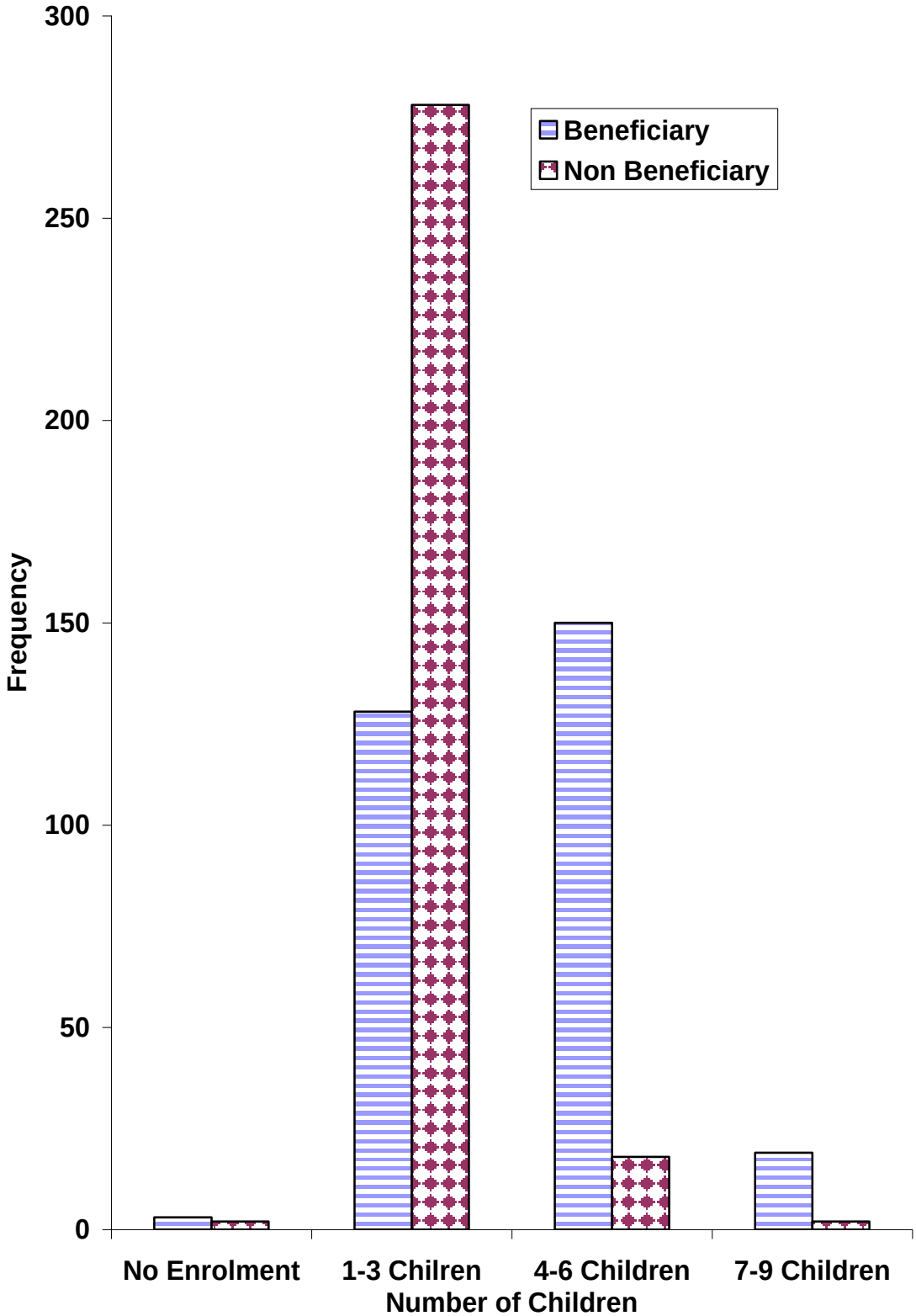

Fig. 16: Enrolment of Children in School

Table 17: Distribution of Respondents by Number of Household member that Attend Health Care Centres

No. of Household	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
No Member	82	27.33	204	68.00	286	47.67
1-3	181	60.33	93	31.00	274	45.67
4-6	32	10.67	2	0.67	34	5.67
7-9	5	1.67	1	0.33	6	1.00
Total	300	100.00	300	100.00	600	100.00

4.16: Respondents by the Number of Household that Attend Health Centres

Table 17 present the distribution of respondents according to members of households that attend health centres. The Table indicated that of the beneficiary respondents, 181 respondents (60.33%) registered between 1 and 3 household members in health care delivery centres, 32 respondents (10.67%) had registered between 4 and 6 household members in a health care centres, 5 respondents (1.67%) registered between 7 and 9 household members in health care centres and 82 respondents (27.33%) did not register any household member in health care centre. On the other hand, 93 non beneficiary respondents (31%) registered between 1 and 3 household members in health care delivery centres, 2 respondents (0.67%) registered between 4 and 6 household members in health care centres, 1 respondents (0.33%) registered between 7 and 9 household members in health care centres while 204 respondents (68%) did not register any household member in health care centre. On the whole, 274 respondents (45.67%) registered between 1 and 3 household members, 34 respondents (5.67%) registered between 4 and 6 household members, 6 respondents (1%) registered between 7 and 9 members while 286 respondents (47. 67%) did not register any household member in health care centre. It is obvious that from the foregoing that non-beneficiary respondents (68%) were not able to avail themselves with health cares

services because of their poverty status and more also because they lack access to credit facilities as against their beneficiary counterparts. Figure 17 captures this situation more vividly.

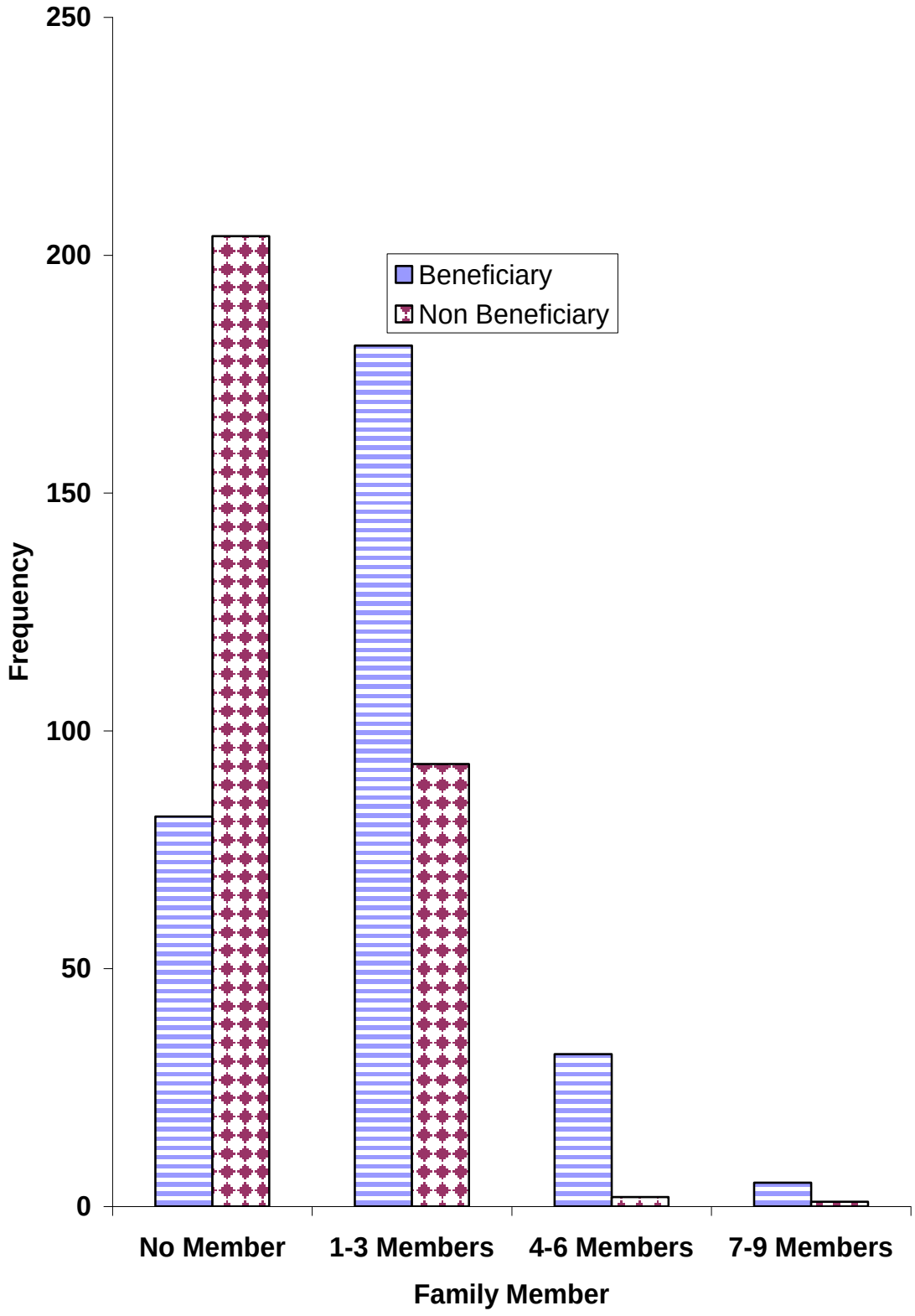

Fig. 17: Access to Health Care Services

Table 18: Distribution of Respondents by Area of Expenditure

Area of Investment	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Farm Dev,	266	88.67	198	66.00	464	77.33
Family Upkeep	13	4.33	60	20.00	73	12.17
Medical Care	8	2.67	5	1.67	13	2.17
School Fees	13	4.33	37	12.33	50	8.33
Total	300	100.00	300	10000	600	100.00

4.17: Respondents' Area of Expenditure

Table 18 shows the distribution of respondents according to major area of expenditure. The Table showed that 266 of the beneficiary respondents (88.67%) spent the bulk of their resources on farm development, 13 respondents (4.33%) spent their resources on family upkeep, 8 respondents (2.67%) spent their resources on medical care and 13 respondents (4.33%) spent theirs on children's school fees. On the side of non-beneficiaries, 198 respondents (66%) spent their resources on farm development, 60 respondents (20%) spent their resources on family upkeep, 5 respondents (1.67%) spent theirs on medical care and 37 (12.33%) spent their resources on children's school fees. On a general basis, 464 respondents (72.33%) spent their resources on farm development, 73 respondents (12.17%) spent theirs on family upkeep, 13 respondents (2.17%) spent their resources on medical care, and 50 respondents (8.33%) spent their resources on children's school fees. It is glaring that both beneficiaries and non-beneficiaries spent the bulk of the resources on farm development with the hope of reaping higher returns that will enhance their status in society. They invested the bulk (77.33%) of their resources on farm development, 12.17% on family upkeep, 2.17% on medical care and 8.33% on children's school fees. For any society that wants to develop, the bulk of its resources must be devoted to the education of its youth but the reverse was the case here.

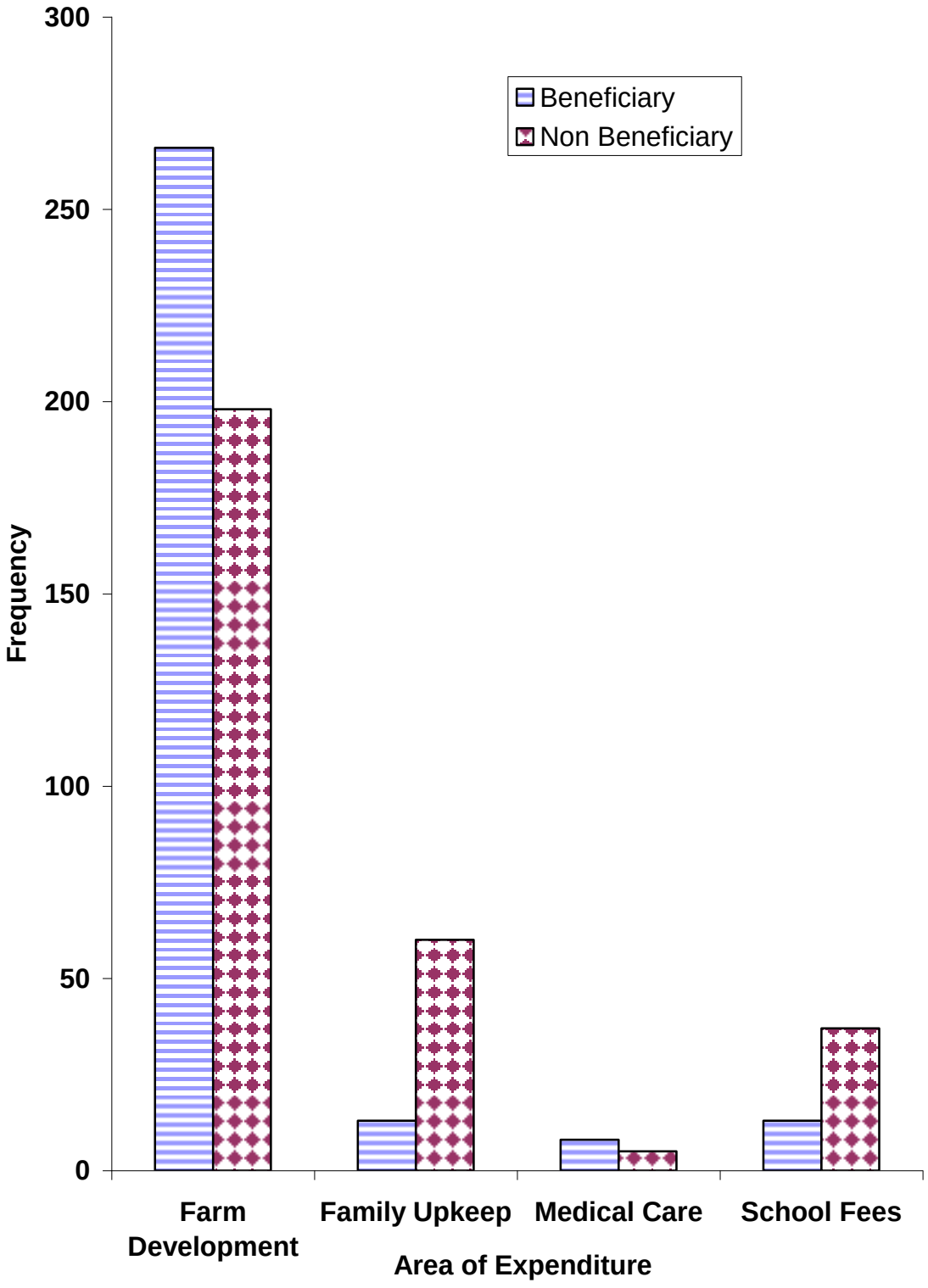

Fig. 18: Major Area of Expenditure

Table 19: Distribution of Respondents by Awareness of Micro Credit Organisation

Membership	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Aware	300	100.00	250	83.33	550	91.67
Not Aware	-	-	50	16.67	50	8.33
Total	300	100.00	300	100.00	600	100.00

4.18: Respondents' Awareness of the Micro Credit Scheme.

Table 19 and Figure 19 show the distribution of respondents according to their awareness of the existence of micro credit scheme. The Table and Figure revealed that the 300 beneficiaries (100%) were not only aware but had benefited from the micro credit scheme. Of the non-beneficiary respondents, 250 (83.33%) were aware of the existence of the micro credit scheme and 50 (16.67%) were not aware of the activities of the micro credit scheme. On the whole, 550 (91.67%) of the respondents were aware of the existence and activities of the micro credit scheme and 50 (8.33%) of the respondents were not aware of the existence of the micro credit scheme. Majority of the respondents were aware of the activities of the micro credit scheme and little enlightenment and encouragement is required to get every farmer to be part of the scheme.

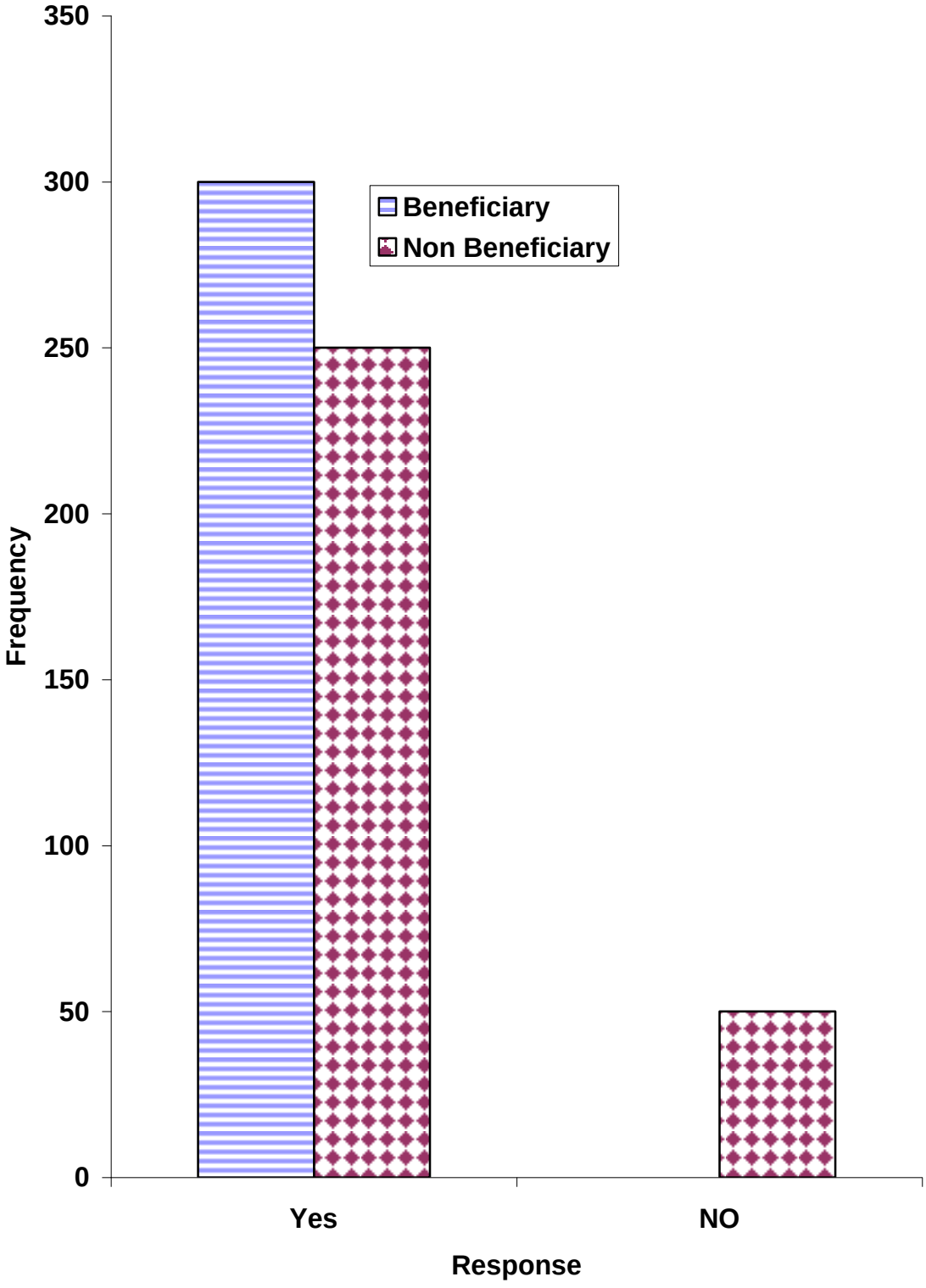

Fig. 19: Awareness of the Existence of Micro Credit Scheme

Table 20: Distribution of Respondents by Registration with Micro Credit Organisation

Registration	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Registered	300	100.00	219	73.00	519	86.50
Not Registered	-	-	81	27.00	81	13.50
Total	300	100.00	300	100.00	600	100.00

4.19: Respondents' Registration with Micro Credit Organisation

Table 20 show the distribution of respondents according to the number that registered with micro credit organizations. The Table showed that all the 300 beneficiaries (100%) are members of the micro credit groups that abounds while 219 (73%) of the non-beneficiary respondents are members of the micro credit groups and 81 (27%) are not registered members of the micro credit groups. From the foregoing analysis, out of the 81 respondents that did not register with any micro credit group, 50 of them were not aware of the existence of the micro credit scheme and 31 respondents were aware but did not register for some reasons. On the whole, 519 respondents (86.50%) were registered members of micro credit groups while 81 respondents (13.50%) were not. It is obvious that the respondents share almost the same social – economic characteristic required to be member of the micro credit group hence the majority of non-beneficiaries are non borrowing members of the micro credit organizations while the remainder are eligible non members of the micro credit organizations as further shown in Figure 20.

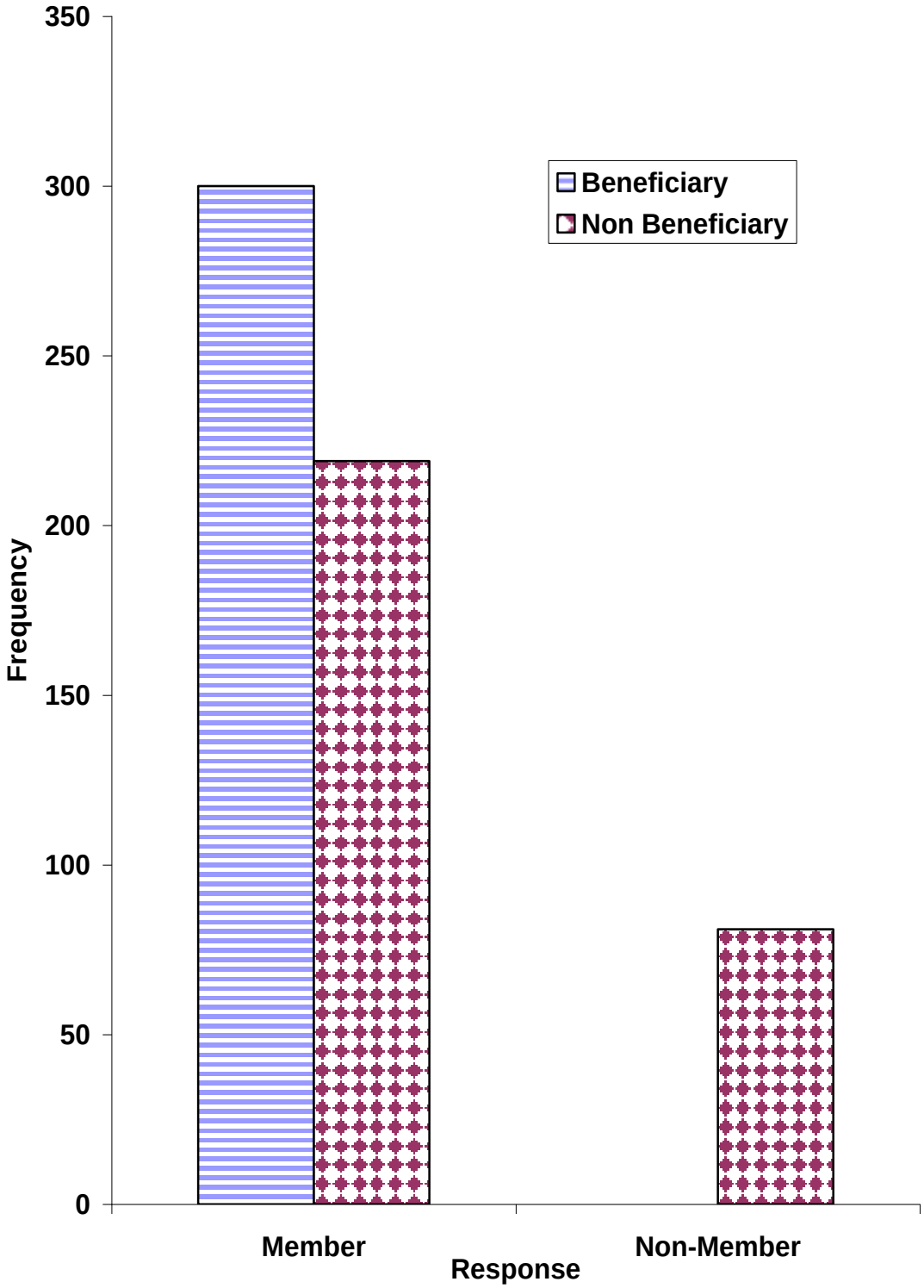

Fig. 20: Membership of Micro Credit Organisation

Table 21: Distribution of Respondents by Other Sources of Income

Other Sources of Income	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	74	24.67	82	27.33	156	26.00
No	266	75.33	218	72.67	444	74.00
Total	300	100.00	300	100.00	600	100.00

4.20: Respondents' Other Sources of Income

Table 21 and Figure 21 show the distribution of respondents according to other sources of income. The Table revealed that 74 beneficiary respondents (24.67%) had other sources of income other than farming and 226 respondents (75.33%) had no other source of income apart from farming. They rely solely on farming as their means of livelihood. On the other hand, 82 non-beneficiary respondents (27.33%) had other sources of income and 218 respondents (72.67%) depend solely on farming for livelihood. It could be inferred here that all the respondents depend on agriculture and agribusiness related venture for sustenance.

Agriculture should be targeted as the veritable channel for poverty reduction. An assessment of the effect of the green revolution has shown that productivity increase in agriculture had contributed to the reduction of poverty in both rural and urban areas. Higher farm yield was found to have reduced absolute poverty directly through farm income and reduced food prices and indirectly through higher rural wages (Gaiha, 2000). In other studies, it was reported that in Vietnam, poverty was found to be associated with lower food production per capita and an ongoing research in Mozambique has indicated that the use of modern inputs and irrigation resulted in increased living standard and reduced poverty (Per Pinstrup-Andersen et al., 1999). Therefore, agriculture must be in the forefront of a national agenda in the eradication of poverty.

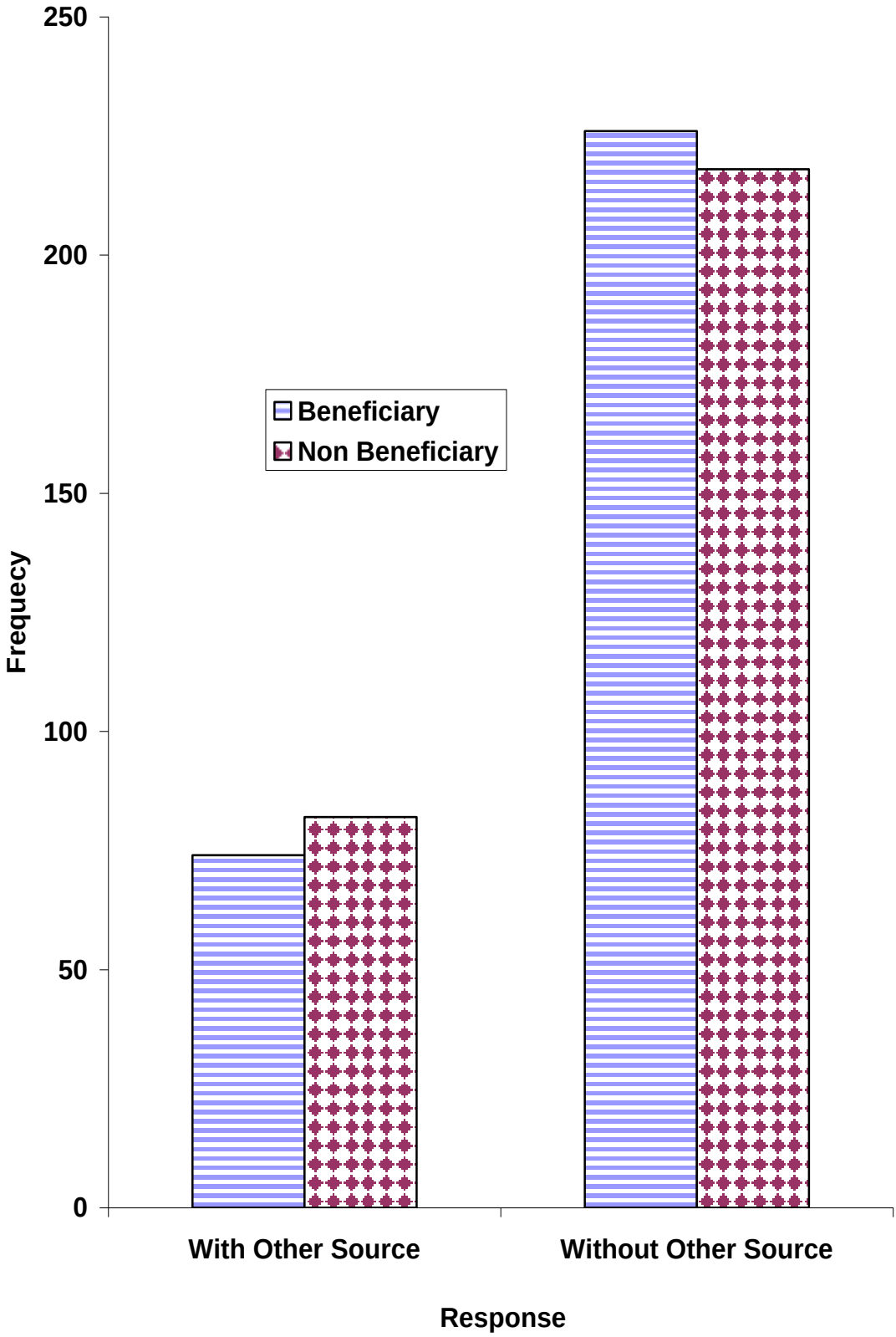

Fig. 21: Respondents' Other Sources of Income

Table 22: Distribution of Respondents by Additional Credit Requirements

Amount	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
N1-10, 00	1	0.33	1	0.33	2	0.33
N10, 001-20,000	11	3.67	16	5.33	27	4.51
N20, 001-30,000	15	5.00	20	6.67	35	5.83
Above N30, 000	273	91.00	263	87.67	536	89.33
Total	300	100.00	300	100.00	600	100.00

4.21: Respondents' Additional Credit Requirements.

Table 22 shows the distribution of respondents according to credit requirements. The Table and Figure 22 revealed that 1 beneficiary respondent (0.33%) required credit of between ₦1 and ₦10, 000, 11 beneficiaries (3.67%) required funding of between N10, 001 and ₦20, 000 15 respondents (5%) required credit line of between ₦20, 001 and ₦30, 000 and 273 respondents (91%) required credit of above ₦30, 000. Of the non beneficiary respondents, 1 respondent (0.33%) required a credit facility of less than ₦10, 000, 16 (5.33%) required a credit line of between ₦10, 000 and ₦20, 000, 20 (6.67%) required credit advance of between ₦20, 001 and ₦30, 000 while 263 (87. 67%) required credit facility of above ₦30, 000. On a sample wide basis, 2 respondents (0.33%) required credit of less than ₦10, 000, 27 respondents (4.51%) required credit facility of between ₦10, 001 and ₦20, 000, 35 respondents (5.83%) required credit line of between ₦20, 001 and ₦30, 000 while 536 respondents (89.33%) required credit of more than ₦30, 000. It is glaring from the above that only 64 respondents (10.67%) had their credit requirements met within the maximum of ₦25, 000 given out by the micro credit organisation while 536 respondents (89.33%) had credit requirements in excess of the maximum offered. It could be inferred that majority of the respondents' demand for credit are not met. The maximum of ₦25, 000 as credit to individual farmers is small compared with their need. A hundred

percent return on investment, if possible, cannot alleviate any poverty. It amounts to about ₦70 a day, which will not be enough to feed, talk more of paying for shelter, education of children and medical care.

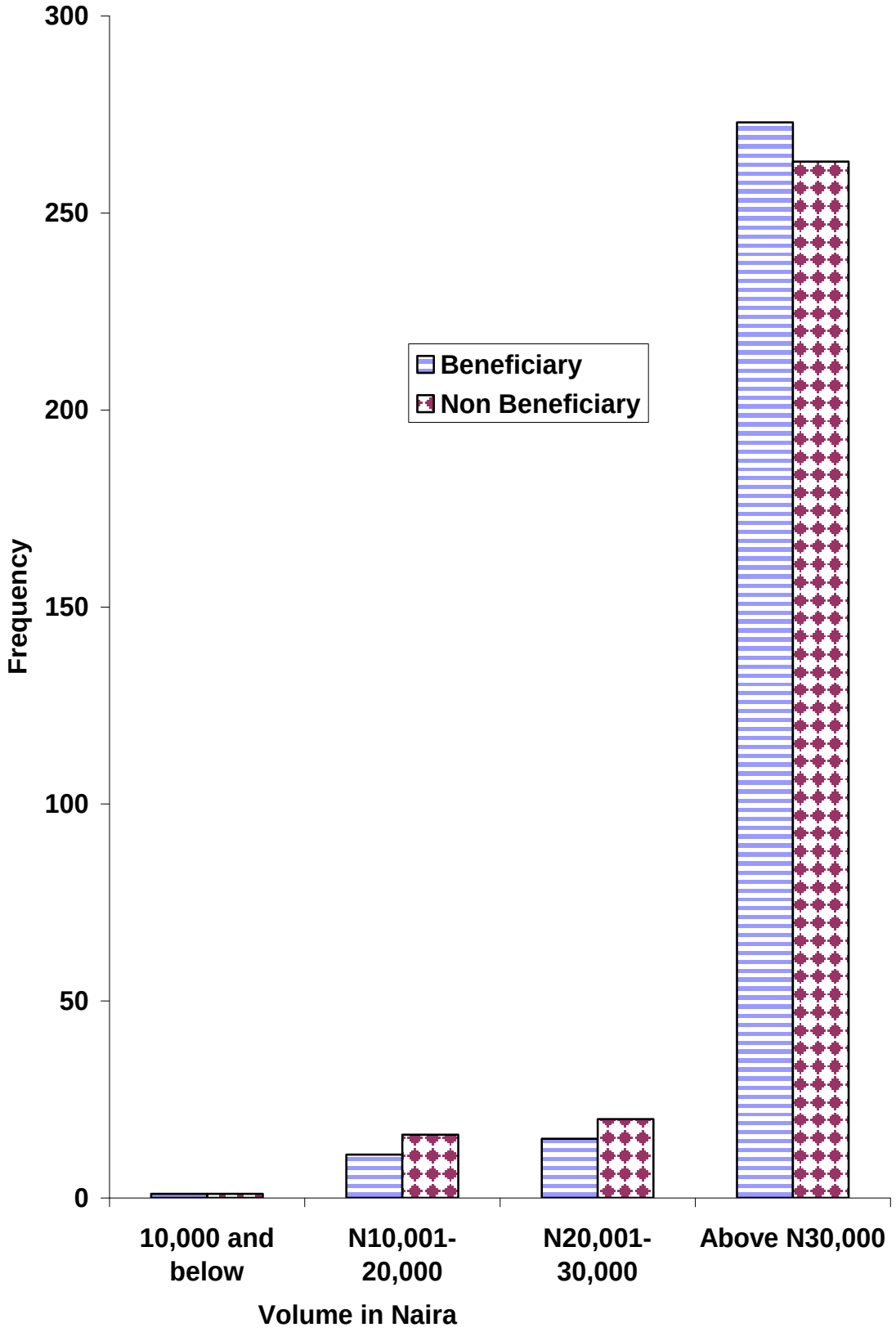

Fig. 22: Credit Requirement of Respondents

Table 23: Distribution of Respondents by Expenditure on Food Items

Amount	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
N1- N5,000	116	38.67	142	47.33	258	43.00
N5, 000-10,000	139	46.33	152	50.67	291	48.50
N10, 001-15,000	44	14.67	6	2.00	50	8.33
Above N15, 000	1	0.33	-	-	1	0.17
Total	300	100.00	300	100.00	600	100.00

4.22: Respondents' Expenditure on Food Items

Table 23 show the distribution of respondents according to expenditure on food items. The Table indicate that 166 beneficiary respondents (38.67%) spent less than ₦5, 000 on food items in a year, 139 respondents (46.33%) spent between ₦5, 000 and ₦10, 000 on food items per year, 44 respondents (14.67%) spent between ₦10, 001 and ₦15, 000 a year on food while only one respondent (0.33%) spent above ₦15, 000 a year on feeding. On the other hand, 142 non Beneficiary respondents (47.33%) spent less than ₦5, 000 on food items in a year, 152 respondents (50.67%) spent between ₦5, 000 and ₦10, 000 on food while 6 respondents (2%) spent between ₦10, 001 and ₦15, 000 on feeding in a year. For the entire sample, 258 respondents (43%) spent less than ₦5, 000 on food items in a year, 291 respondents (48.50%) spent between ₦5, 000 and ₦10, 000 on feeding in a year, while 51 respondents (8.50%) spent above ₦10, 000 on food. It is clear from the foregoing statistics that the respondents marginally feed, as the total amount spent on feeding is grossly inadequate for a minimum standard of living. They marginally exist.

Table 24: Distribution of Respondents by Expenditure on Non Food Items

Amount	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
N1- N5, 000	225	75.00	216	72.00	441	73.50
N5, 000-10,000	67	22.34	82	27.33	149	24.83
N10, 001-15,000	7	2.33	2	0.67	9	1.50
Above N15, 000	1	0.33	-	-	1	0.17
Total	300	100.00	300	100.00	600	100.00

4.23: Respondents' Expenditure on Non Food Items

Table 24 show that 225 beneficiary respondents (75%) spent less than N5, 000 on non food items in a year, 67 beneficiary respondents (22.33%) spent between N5, 000 and N10, 000 on non food items, 7 respondents (2.33%) spent between N10, 001 and N15, 000 on non food items while only 1 respondent spent above N15, 000 on non food items. The case of non-beneficiaries followed the same trend. 216 respondents (72%) spent less than N5, 000 on non food items, 82 respondents (27.33%) spent between N5, 000 and N10, 000 on non food items while 1 respondent (0.33%) spent above N10, 000 on non food items. Of the entire sample, 441 respondents (73.50%) spent less than N5, 000 on non food items, 149 respondents (24.83%) spent between N5, 000 and N10, 000 on non food items, 9 respondents (1.50%) spent between N10,001 and N15, 000 while only 1 respondent (0.17%) spent above N15, 000 on non food items in a year. This analysis has further exposed the poverty situation of our respondents.

Table 25: Distribution of Respondents by Assets Acquired

Asset	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Radio	33	11.00	149	49.67	182	30.33
Television	61	20.34	92	30.67	153	25.50
Video	69	23.00	37	12.33	106	17.67
Stove	12	4.00	3	1.00	15	2.50
Cooker	6	2.00	-	-	6	1.00
Refrigerator	16	5.33	2	0.67	18	3.00
Grinder	12	4.00	3	1.00	15	2.50
Generator	3	1.00	-	-	3	0.50
Bicycle	18	6.00	7	2.33	25	4.17
Motorcycle	40	13.33	6	2.00	46	7.67
House	6	2.00	1	0.33	7	1.17
Land	21	7.00	-	-	21	3.50
Shares	3	1.00	-	-	3	0.50
Total	300	100.00	300	100.00	600	100.00

4.24: Assets Acquired by Respondents

Table 25 and Figure 23 show the distribution of respondents according to assets acquired. The Table and Figure showed that 33 beneficiary respondents (11%) acquired radio sets, 61 respondents (20.34%) acquired television sets, 69 respondents (23%) acquired video players, 12 respondents (4%) acquired stoves, 6 respondents (2%) acquired gas cookers, 16 respondents (4%) had grinders, 3 respondents (1%) had generating sets, 18 respondents (6%) acquired bicycle, 40 respondents (13.33%) had motor bicycle, 6 respondents (2%) acquired houses, 21 respondents (7%) had additional land for farming, and 3 respondents (1%) acquired shares in blue chip companies. In the non beneficiary group, 149 respondents (49.67%) acquired radio sets, 92 respondents (30.67%) had television sets, 37 respondents (12.33%) owned video players, 3 respondents (1%) acquired stove, 2 respondents (0.67) were able to acquired refrigerator, 3 respondents (1%) acquired grinders, 7 respondents (2.33%) bought bicycles, 6 respondents (2%) and 1 respondent (0.33%) acquired motor bicycle and house respectively. It could be said that majority of the beneficiaries acquired tangible assets that will better their living standard. There is little improvement in the standard of living of the beneficiaries as compared with that of the non-beneficiaries in terms of assets acquisition.

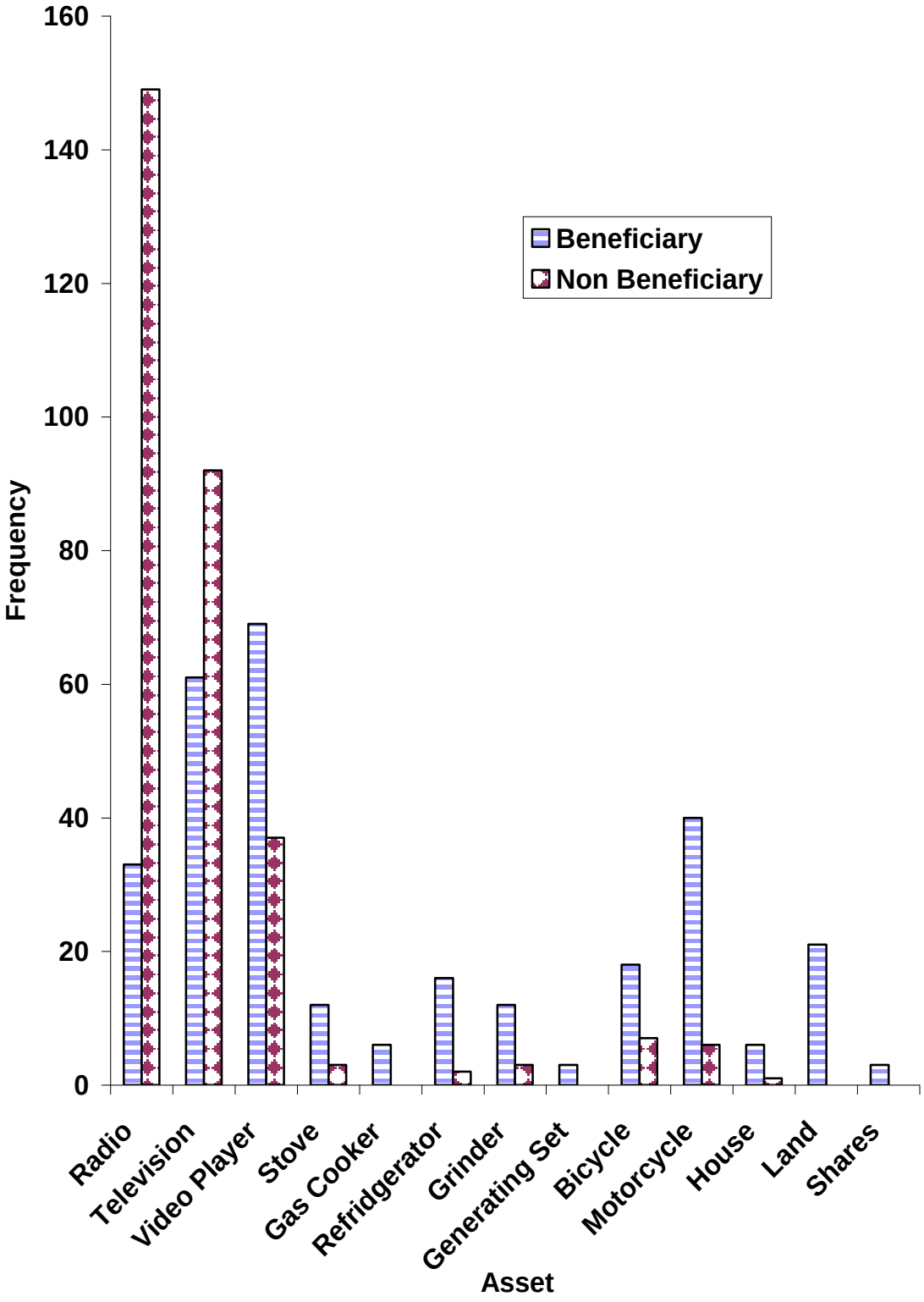

Fig. 23: Asset Aquired by Respondent

Table 26: Distribution of Respondents by Expenditure on Farm Business

Amount	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
N1- N5, 000	22	7.00	244	81.33	266	44.33
N5, 000-10,000	154	51.34	56	18.67	210	35.00
N10, 001-15,000	120	40.00	-	-	120	20.00
N15, 001-20,000	4	1.33	-	-	4	0.67
Total	300	100.00	300	100.00	600	100.00

4.25: Respondents' Expenditure on Farm Business.

Table 26 show the distribution of respondents according to the amount spent on farm business. The Table showed that 22 beneficiary respondents (7.33%) spent less than ₦5, 000 on farm activities, while 244 non-beneficiary respondents (81.33%) spent about the same amount on farm business. The bulk of the non-beneficiaries are within the less than ₦5, 000 brackets. This means that they have little or no money to invest on their farm business. 154 beneficiaries (51.34%) spent between ₦5,000 and ₦10,000 on farm business compared to 56 non-beneficiaries (18.67%) who spent the same amount on farm business. 120 beneficiaries (40%) spent between ₦10,000 and ₦15,000, and 4 beneficiary respondents (1.33%) spent between ₦15,000 and ₦20,000. No non-beneficiaries were able to invest more than ₦10, 000 in farm business. The Table also brings to fore that some beneficiaries diverted part of their credit to other uses since they invested less than what they got from the micro credit organisation on farm business.

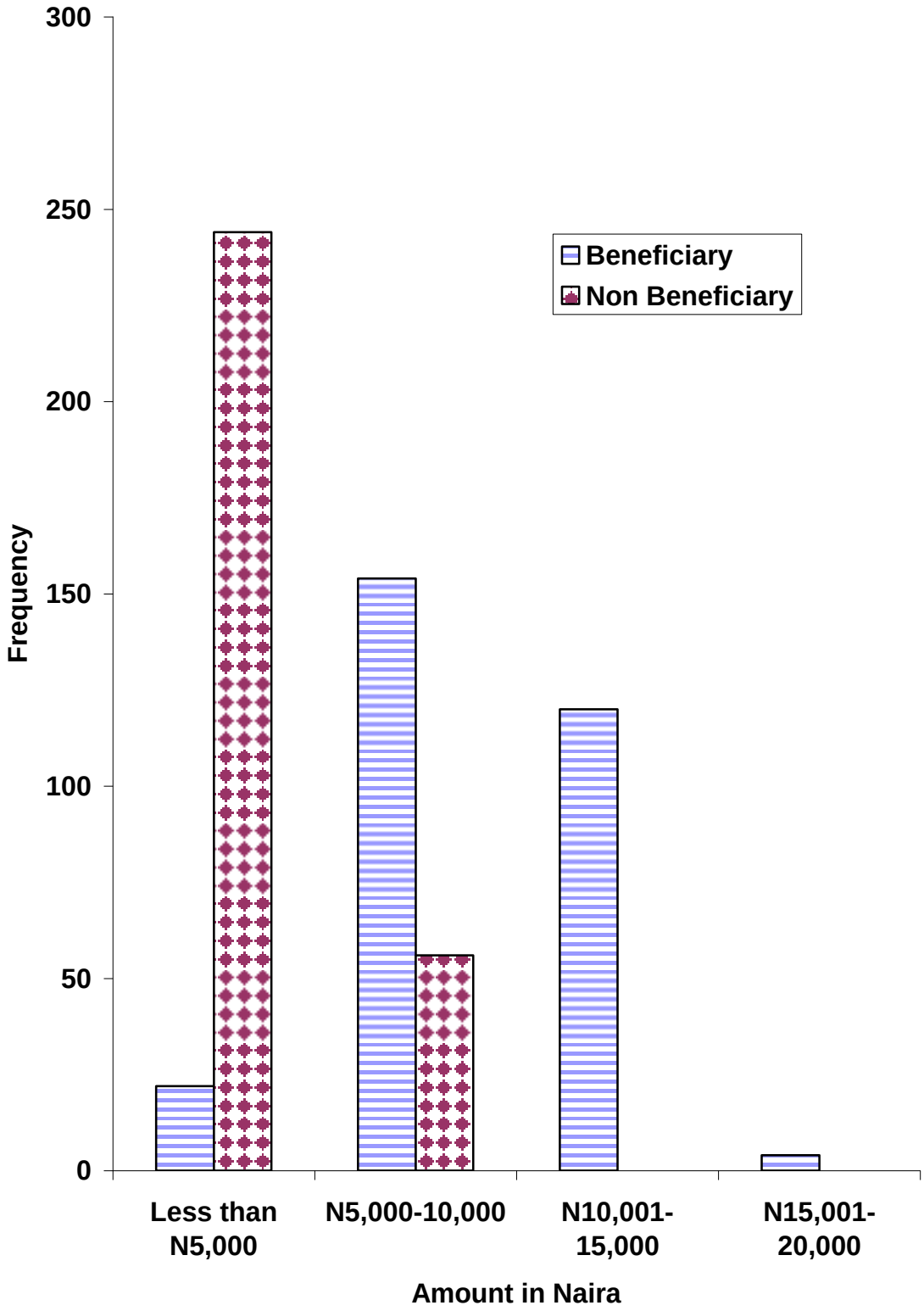

Fig. 24: Expenditure on Farm Business

Table 27: Distribution of Respondents by output of Maize

Bag	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
1-50 Bags	48	16.00	269	89.67	317	52.83
51-100 Bags	184	61.33	31	10.33	215	35.83
101-150 Bags	67	22.33	-	-	67	11.17
151-200 Bags	1	0.34	-	-	1	0.17
Total	300	100.00	300	100.00	600	100.00

4.26: Respondents' Output of Maize

Evaluation of credit programmes has been done on the basis of extra tonnes of output produced and income earned based on these output. Hence evaluation of micro credit is based on the output of maize, cassava, and yam.

Table 27 and Figure 25 show the distribution of respondents according to their output in maize. The Table showed that of the beneficiaries, 48 respondents (16%) had output of between 1 and 50 bags, 184 respondents (61.33%) had between 51 and 100 bags, 61 respondents (22.33%) had output of between 101 and 150 bags and 1 respondent (0.34%) had between 151 and 200 bags of maize. In the case of non-beneficiaries, 269 respondents (89.67%) had output of between 1 and 50 bags and 31 respondents (10.33%) had output of between 51 and 100 bags of maize. Further analysis revealed that beneficiaries had an average output of 79 bags while non-beneficiaries had average output of 30.67 bags of maize

The test of difference between means revealed that there was significant difference between the outputs of maize of beneficiaries and that of non-beneficiaries since the Z – calculated value of 9.22 was greater than Z – tabulated of 2.576 at the 5 percent level. It was inferred that, micro credit had a significant influence on the yield of maize compared with that of non-beneficiaries.

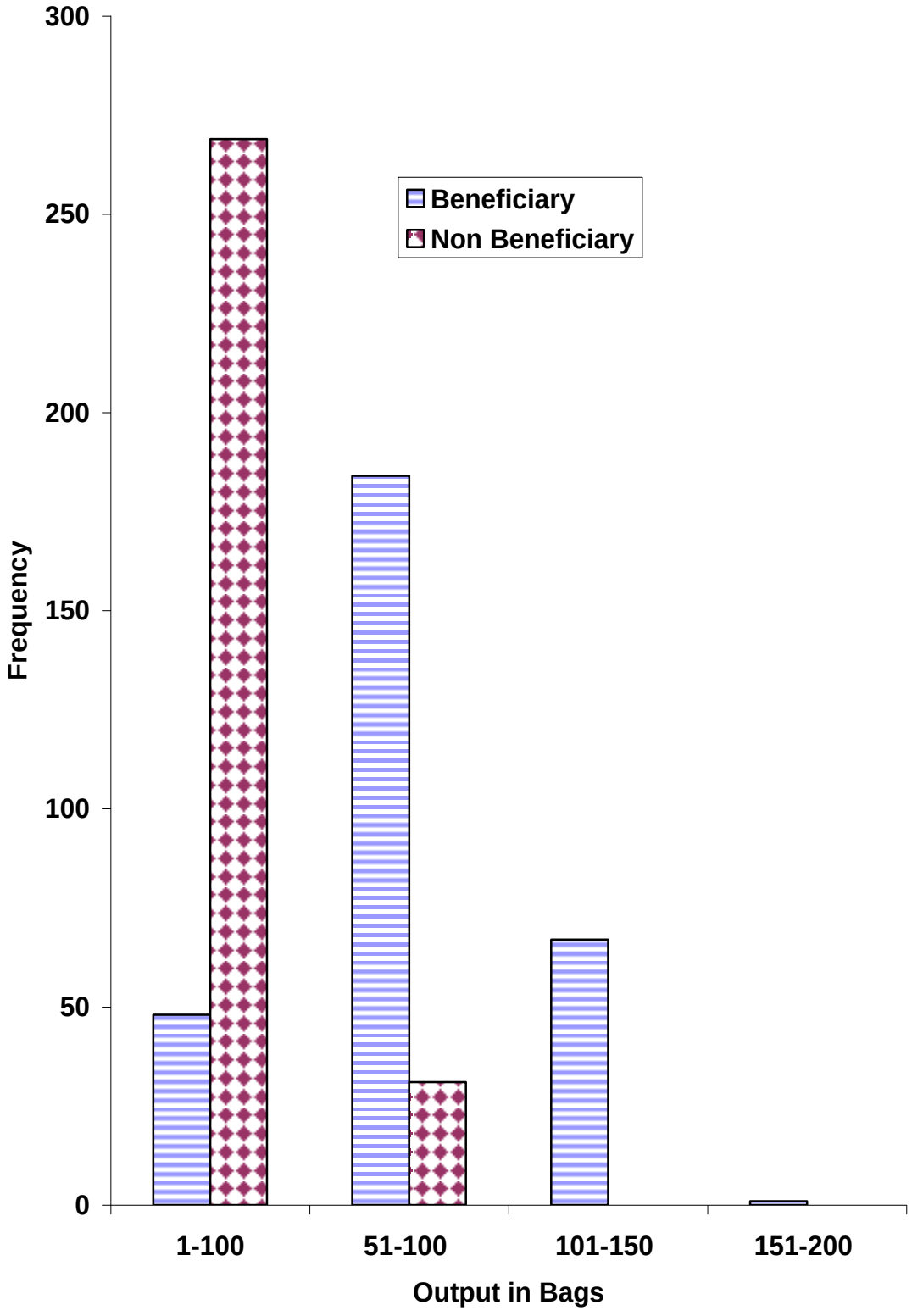

Fig. 25: Maize Output of the Respondents

Table 28: Distribution of Respondents by Cassava Output

Tubers	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
1-100	32	10.67	278	92.67	310	51.67
101-200	206	68.67	22	7.33	228	38.00
201-300	62	20.66	-	-	62	10.33
Total	300	100.00	300	100.00	300	100.00

4.27: Respondents' Cassava Output

Table 28 and Figure 26 show the distribution of respondents by output of cassava. The Table and Figure showed that, in the case of beneficiaries, 32 respondents (10.67%) had output of between 1 and 100 tubers, 206 respondents (68.66%) had output of between 101 and 200 tubers and 62 respondents (20.67%) had output of between 201 and 300 tubers of cassava. In the case of non-beneficiaries, 278 respondents (92.67%) had output of between 1 and 100 tubers and 22 respondents (7.33%) had output of between 101 and 200 tubers of cassava. From the analysis, it was discovered that beneficiaries had average cassava output of 160.5 tubers while that of non-beneficiaries was 57.83 tubers.

The test of significant difference between output of beneficiaries and non-beneficiaries showed that the Z – calculated value of 9.80 was greater than Z – tabulated value of 2.576 at 5 percent level of significant. This means that there was a significant difference between the cassava output of beneficiaries and non-beneficiaries. Credit had a significant influence on the yield of cassava of beneficiaries.

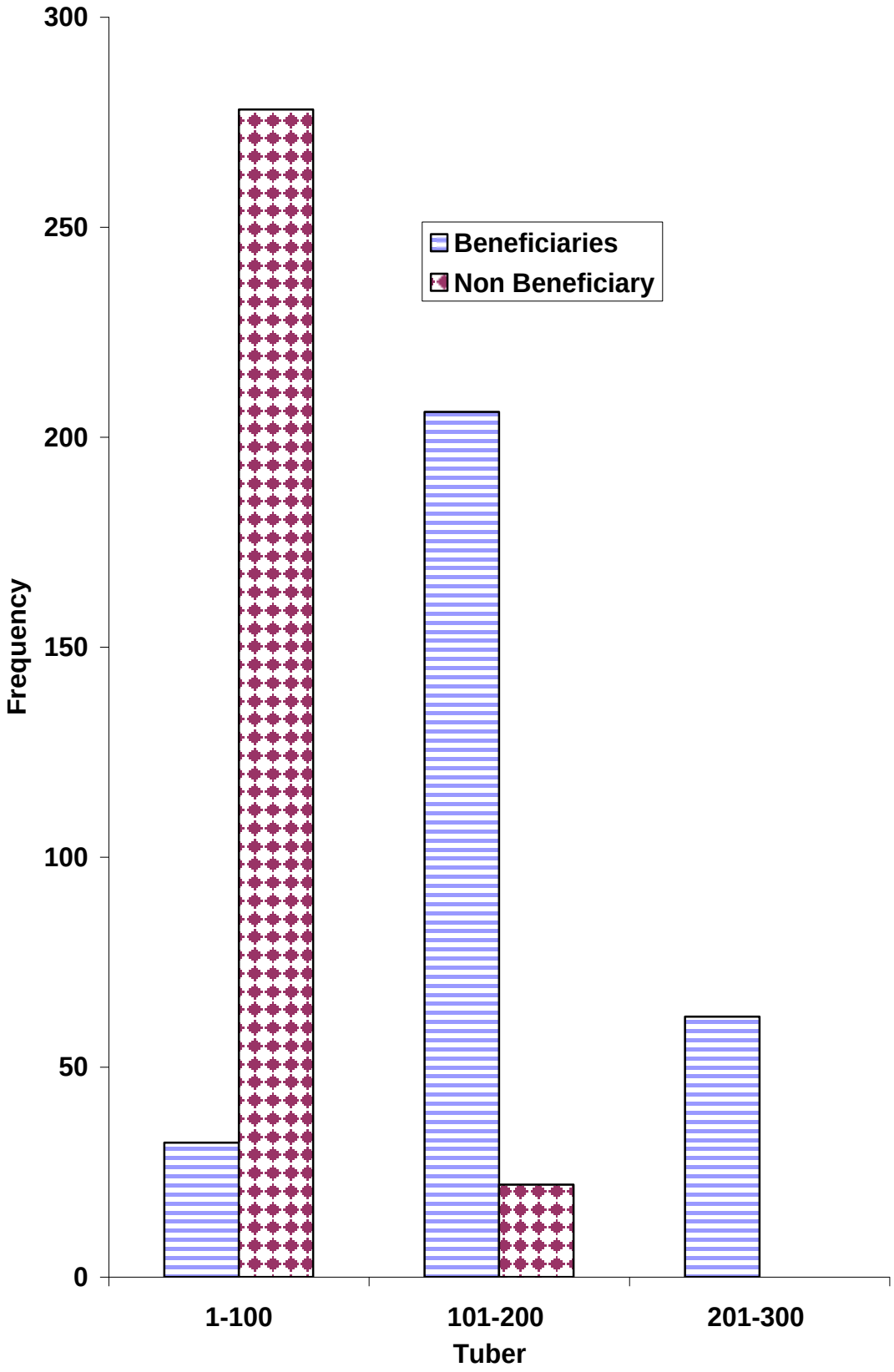

Fig. 26: Cassava Production by the Respondents

Table 29: Distribution of Respondents by Yam Output

Tuber	Beneficiary		Non Beneficiary		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
1-100	28	9.33	238	79.33	266	44.33
101-200	173	57.67	62	20.67	235	39.17
201-300	90	30.00	-	-	90	15.00
301-400	9	3.00	-	-	9	1.50
Total	300	100.00	300	100.00	600	100.00

4.28: Respondents' Yam Output.

Table 29 and Figure 27 show the distribution of respondents according to yam yield or output. The Table and Figure showed that in the case of beneficiaries, 28 respondents (9.33%) had output of between 1 and 100 tubers, 173 respondents (57.67%) had output of between 101 and 200 tubers, 90 respondents (30%) had output of between 201 and 300 tubers and 9 respondents (3%) had output of between 301 and 400 tubers of yam. In the case of non-beneficiaries, 238 respondents (79.33) had output of between 1 and 100 tubers, and 62 respondents (20.67%) had output of between 101 and 200 tubers of yam. Analysis further revealed that beneficiaries had average yam yield of about 177 tubers and non-beneficiaries had an average yield of 71 tubers.

The test of difference between means revealed that there was a significant difference between the average yam yield of beneficiaries and non-beneficiaries since Z- calculated of 8.89 is greater than Z-tabulated of 2.576. This implies that beneficiaries had higher yam yield than non-beneficiaries which could be attributable to micro credit.

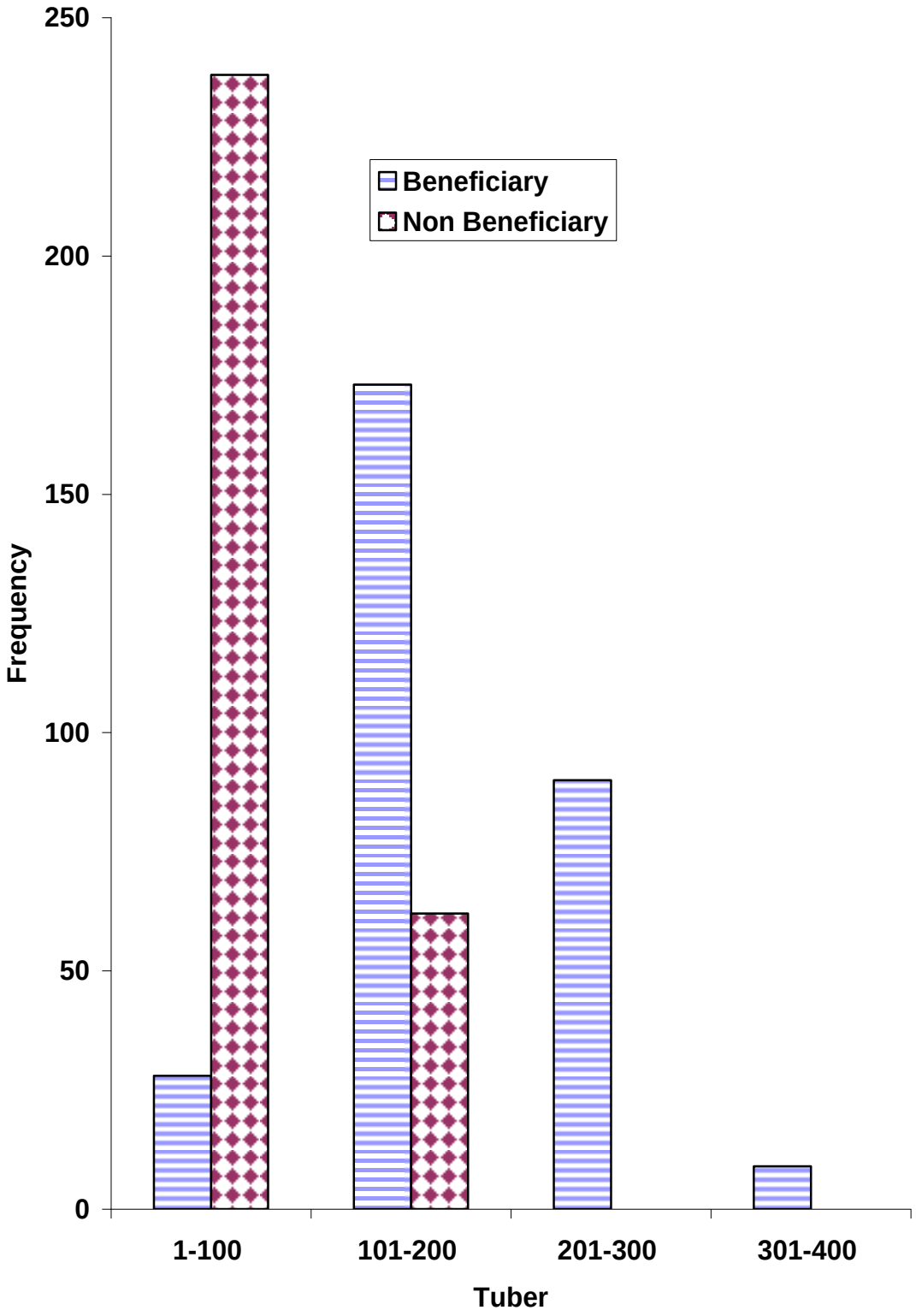

Fig. 27: Yam Output of the Respondents

4.29: Factors that Determine Income of Respondents (Regression Analysis)

Evaluation of agricultural credit programmes had been based on the traditional concept of credit as an input. Farmers have specific credit needs that can be met by making a predetermined amount of loan available to them, hence evaluation of credit programmes have been done in terms of additional hectares of crops cultivated, extra outputs produced and additional incomes generated. We are adopting same in this study.

Multiple regression analysis was used to investigate the factors that determine income of respondents. The linear functional form was used and the result is as presented in Tables 30 and 31. For the beneficiaries, sixty five percent of the dependent variable was explained by the independent variables put together as revealed by the adjusted R^2 while for non-beneficiaries; seventy four percent of the dependent variable was explained by the independent variable as revealed by the adjusted R^2. The contribution of individual variable is discussed below:

Table 30: Result of Multiple Regressions for Beneficiary

Variable	Coefficient	Standard Error	t-Ratio
Constant	-6461.9	2084.8	-3.10**
Sex	689.30	673.36	1.02
Output	0.16	0.05	2.94**
Credit	1.86	0.10	17.83*
Age	6.63	33.96	0.20
Expenditure	0.18	0.12	1.54
Education	-310.95	265.70	-1.17
Household Size	-40.88	79.93	-0.51
Farm Size	-12.32	538.14	-0.02
Household Head	-1338.9	698.58	-1.92
Occupation	-15.54	476.60	-0.03

R-Squared 0.664

R-Bar-Squared 0.652

F-stat (10,289) 57.22*

Table 31: Result of Multiple Regressions for Non-Beneficiary

Variable	Coefficient	Standard Error	t-Ratio
Constant	-447.26	1295.90	-0.35
Sex	411.32	454.68	0.90
Output	0.94	0.03	28.58*
Age	11.77	23.02	0.51
Expenditure	0.96	0.08	1.19
Education	210.82	179.40	1.18
Household Size	-11.18	54.24	-0.21
Farm Size	154.53	362.93	0.43
Household Head	-205.35	472.21	-0.43
Occupation	190.76	322.50	0.59

R-Squared	0.75
R-Bar-Squared	0.74
F-stat (9, 290)	94.48*

Output (X_2)

Output was expected a priori to carry a positive influence on both beneficiaries and non-beneficiaries. This variable conform with what is in the literature to the effect that higher output will automatically lead to higher income or revenue , all other things remaining constant. It is output that translates into income after sales. Put in another way, the value of output is what we regard as income or revenue (Agwu and Chukwuone, 2005). Though, some of these incomes may not be in monetary terms, they are recorded or calculated in monetary forms. For instance, output consumed at home may not be available for sale; they are recorded in monetary terms as if they were not produced at home. The variable (output) was very significant to beneficiaries and non-beneficiaries at the 5% levels respectively.

Credit (X_3)

The coefficient for credit was positive. This is in conformity with what is in the literature. Credit have tremendous impact on productivity and hence income. It plays a significant role in the transformation of subsistence agriculture to a commercialized, contract-oriented farming system. It provides the needed funds to farmers and entrepreneur to

undertake new investments, expand old ones or adopt new technologies. It also helps to even out consumption by providing working capital.

Capital is required for the purchase of farm land, hiring of labour, purchase of inputs, processing and packaging of produce (Saliu and Inelo, 2005). Most economists and financial experts have identified lack of credit to be the primary cause of low labour and land productivity and hence a constraint to agricultural growth and development. The variable was significant at the 5% level.

4.30: Poverty Status of Respondents

Incidence of Poverty (P_O)

Given the average per capita income of all respondents to be ₦2, 982.14, the absolute poverty line was set at N1, 989.09, two third of the mean income of all respondents. Based on this absolute poverty line, 21% of the beneficiaries and 43% of non-beneficiaries were classified as been poor while 79% of beneficiaries and 57% of non-beneficiaries were categorized as non poor as shown in Table 32 and Figure 28.

Of the poor beneficiaries, 20% of them were categorized as core poor and 1% as hard-core poor. In the case of non-beneficiaries, 40% were classified as core poor and 3% as hard core poor. From the above, Incidence of poverty was higher with non-beneficiaries than with beneficiaries. The implication of this is that micro credit has reduced the

incidence of poverty among beneficiaries and that micro credit can be a veritable tool for poverty alleviation (Coker, 2003).

Table 32: Incidence, Intensity and Severity of poverty

Indices	Beneficiary	Non Beneficiary	F cal.	F tab
Incidence of Poverty (P_0)	0.210	0.430	2.05	1.00
Intensity of Poverty (P_1)	0.041	0.111	2.71	1.00
Severity of Poverty (P_2)	0.008	0.029	3.63	1.00

Intensity (P_1) and Severity (P_2) of Poverty

The intensity of poverty measures the gap between the poor household and the poverty line (Afonja and Ogwumike, 2003). The intensity of poverty among the non-beneficiaries (0.111) was higher than that of beneficiaries (0.041) as shown in Table 32 and Figure 28. What this mean is that the gap between poor non-beneficiaries and the poverty line was 11.11% while the gap between poor beneficiaries and the poverty line was 4%. The implication of this is that poor non-beneficiaries would require about two hundred and twenty Naira, nine kobo only (N224.09k and poor beneficiaries would require eighty one Naira, fifty five kobo only (N84.55k) every month to be able to move above the poverty line. The depth of poverty between beneficiaries and non-beneficiaries was statistically significant since F-calculated (2.71) was greater than F-tabulated (1.00) at the degrees of freedom of (129, 61).

Severity (P_2) of poverty measures the extent of poverty in an area. Poverty was more severe among poor non-beneficiaries with a poverty severity index of (0.029) than poor beneficiaries with an index of (0.008). It indicates that the distribution of poor below the poverty line was more uneven with non-beneficiaries than with beneficiaries. It can therefore be deduced that access to micro credits alleviates poverty and improves the economic status of beneficiaries.

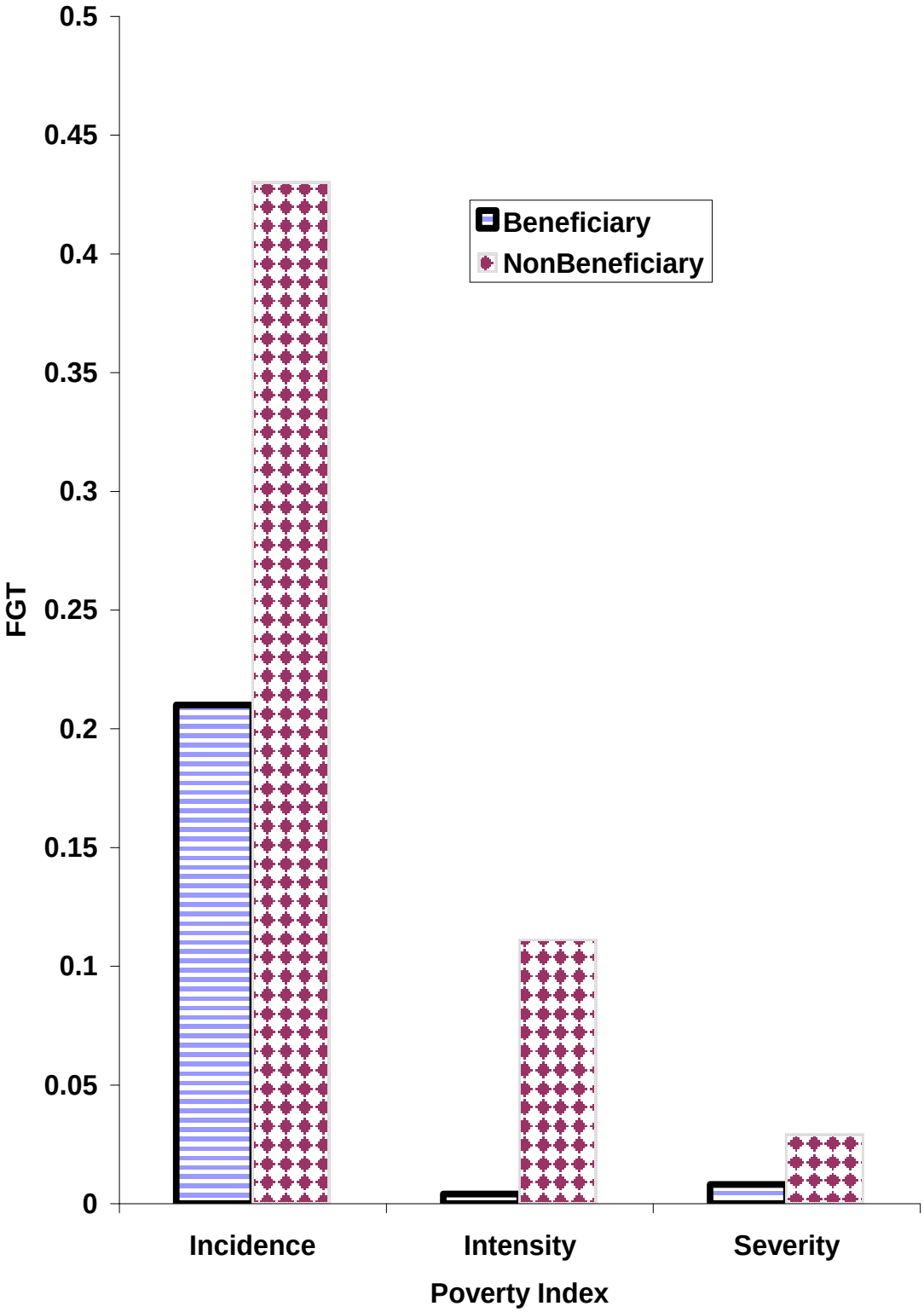

Fig.28: Poverty Profile of Respondents

4.31: Results of Hypotheses

Table 33: Test of the Difference between Means (z-test)

Variable	Degrees of Freedom	Calculated Z - value	Tabulated Z - value
Income	299	8.076**	2.576
Output	299	2.294*	1.96
Expenditure	299	8.161**	2.576
Farm Size	299	2.594**	2.576
Age	299	4.266**	2.576
Household Size	299	6.455**	2.576

* Significant at the 0.01 level

** Significant at the 0.05 level.

Income

The test of the difference between the income of beneficiaries and non-beneficiaries of the micro credit financing at 5% level of significance indicated that Ho be rejected and Ha accepted because calculated Z – statistics of 8.076 was greater than the tabulated Z – statistics of 2.576 as shown in Table 33.

This implies that the analysis did not support the null hypothesis that there was no significant difference between the income of beneficiaries and non-beneficiaries of the micro credit scheme. In fact, there was significant difference between the income of beneficiaries and non-beneficiaries of the micro credit scheme. The income generating capabilities of beneficiaries have been enhanced by the proceeds of the credit. It could be inferred here that the increase in the income of beneficiaries was not due to chance but was as a result of the loan they received from the micro credit organization.

Output

The test of difference between the output of beneficiaries and non-beneficiaries of the micro credit showed that there was a significant difference between the two. At the 1% level of significance, the calculated Z – statistics of 2.293 was greater than the Z – tabulated of 1.96. This indicates that the null hypothesis (Ho) be rejected while accepting the

alternative hypothesis that there was a significant difference between the output of beneficiaries and non-beneficiaries. The implication of this is that those who took credit from the micro credit organization had higher output than those who did not.

Expenditure

The test of difference between the expenditure of beneficiaries and non-beneficiaries of the micro credit financing revealed that there was a significant difference. The expenditures of beneficiaries were significantly different from that of non-beneficiaries. At the 5% level of significance, the calculated Z-statistics was 8.161, which are greater than the tabulated Z-statistics. This means that we reject the null hypothesis that there is no significant difference between the expenditure of beneficiaries and non-beneficiaries and accept the alternative hypothesis that there is a significant difference between the expenditure of beneficiaries and non-beneficiaries.

The implication of this is that beneficiaries had more money to spend on both inputs and consumption than non-beneficiaries. This also goes along way to better their lots as investments on inputs enhance productivity and income.

Farm Size

There was a significant difference between the farm size of beneficiaries and non-beneficiaries as the calculated Z- value was 2.594 while the tabulated Z- value is 2.576 at 5% level of significance. The implication of this is that there was a marginal increase in farm size of micro credit beneficiaries as compared with that of non-beneficiaries. This means that loan beneficiaries invested part of their proceeds on acquiring additional parcels of land for farming. This has the effect of increasing productivity and income of beneficiaries. From the analysis above, we reject the null hypothesis (Ho) that there is no significance difference between farm size of beneficiaries and non-beneficiaries while accepting the alternative hypothesis (Ha) that there is a significant difference between the farm size of beneficiaries and non-beneficiaries.

Age

Test of difference between the age status of beneficiaries and non-beneficiaries of the micro credit scheme revealed that there was a significant difference at the 5% level of significance as the calculated Z-statistics of 4.266 was greater than the tabulated Z- statistics of 2.576. The implication of this is that the beneficiary farmers were more in the active age group of between 20 – 60 years. About 96% of the beneficiaries were in this age bracket while 85% of the non-beneficiaries were in this age

bracket. Also, less of the beneficiaries (4%) were above the 60 years of age and about 14% of non-beneficiaries were in this age bracket. Non-beneficiaries had more of the redundant age bracket than the beneficiaries.

We reject the null hypothesis that there was no significant difference in the social/ economic characteristics of beneficiaries and non-beneficiaries of the micro credit scheme and accept the alternative hypothesis that there was a significant difference between the social/economic characteristics of beneficiaries and non-beneficiaries of the micro credit scheme.

Household Size

The test of difference between household size of beneficiaries and non-beneficiaries shows that the household size of beneficiaries was larger than that of non-beneficiaries on the average. The average household size of beneficiaries was 6.70 while that of non-beneficiaries was 6.04. The analysis revealed that there was a significant difference between the household size of beneficiaries and that of non-beneficiaries at the 5% level of significance since the calculated Z- statistics of 6.455 was greater than the tabulated Z – statistics of 2.576.

We therefore reject the null hypothesis that there was no significant difference between the household size of beneficiaries and non-

beneficiaries of the micro credit scheme and accept the alternative hypothesis that there was a significant difference between the household size of beneficiaries and non-beneficiaries of the micro credit scheme.

Poverty Incidence

The test of variability of poverty incidence between beneficiaries and non-beneficiaries revealed that there was a significant difference at both 1% and 5% level. The calculated F-value of 2.05 is greater than the tabulated F-value of 1.00 at the 5% level as shown in Table 32 above. This means that we reject the null (Ho) hypothesis that there is no significant difference in poverty incidence between beneficiaries and non-beneficiaries and accept the alternative hypothesis that there is significant difference in poverty incidence between beneficiaries and non-beneficiaries of the micro credit scheme.

Poverty Intensity

The test of variability of the intensity of poverty revealed that there was a significant difference between beneficiaries and non-beneficiaries of the micro credit scheme since the calculated F-value of 2.71 is greater than tabulated F-value of 1.00 at 5% level of significance. We reject the null hypothesis that there is no significant difference in the intensity of poverty between beneficiaries and non-beneficiaries of the micro credit

scheme while accepting the alternative hypothesis that there is a significant difference in the intensity of poverty between beneficiaries and non-beneficiaries of the scheme.

Poverty Severity

The test of variability of the severity of poverty revealed that there is a significant difference in severity of poverty between beneficiaries and non-beneficiaries of micro credit. The calculated F-value of 3.63 was greater than the tabulated F-value of 1.00 at the 5% level of significance. We therefore reject the null hypothesis that there is no significant difference in the severity of poverty between beneficiaries and non-beneficiaries and accept the alternative hypothesis that there is a significant difference between the intensity of poverty of beneficiaries and non-beneficiaries of micro credit.

From the above analysis, it can be inferred that micro credit has helped in alleviating poverty of beneficiaries as evidenced in the incidence, intensity and severity of poverty of respondents.

CHAPTER FIVE

5.0: SUMMARY, CONCLUSION AND RECOMMENDATION

5.1: Summary

This study was carried out to assess the effect of micro credit financing on poverty alleviation among rural crop farmers in Edo State, Nigeria. It examined specifically, the effect of micro credit lending on income, output, farm size, expenditure and socioeconomic characteristics of farmers and the various factors that affects their income generating capacities, hence poverty alleviation.

Methodology used in achieving these objectives included a multi – stage sampling procedure in collecting primary data, comprising of four hundred respondents each of beneficiaries and non-beneficiaries of the micro credit schemes. Three hundred copies of questionnaire each of beneficiaries and non-beneficiaries that were completely filled out were selected for analysis

Descriptive statistics and quantitative techniques were used in the analysis of data collected. The descriptive statistics used here was measure of central tendencies while the quantitative techniques used included multiple regression analysis, differences in mean, test of variability were used to test hypotheses and Foster, Greer and Thorbecke (FGT) weighted poverty index.

Socioeconomic characteristics like sex, age, educational status, land ownership, and expenditure of respondents were examined and their relationship with credit usage and income generation and hence poverty alleviation was analyzed.

The study revealed that the beneficiary farmers were older in age, have larger family size than the non-beneficiaries. Educational status was found to be in favour of the non-beneficiaries. More beneficiaries were found to be in the 'no education and completed primary school' categories than the non-beneficiaries. About 68% of the beneficiaries were in this category while 65% of non-beneficiaries were in this classification. The study also showed that beneficiaries cultivated larger expanse of land than non-beneficiaries.

It was observed that more men participated in farming than women in the study area, beneficiaries of the micro credit financing had larger family size, smaller farm size and were more in the 'no education' category than the non-beneficiaries counterpart.

It was also found that those farmers who did not benefit from the micro credit arrangements were more in poverty (43%) than those who benefited (21%). The mean per capita income of beneficiaries of two thousand, three hundred and eighty nine Naira, fifteen kobo (₦2, 389.15) was higher than that of non-beneficiaries of two thousand, two hundred and fourteen Naira, thirty five kobo only, (₦2, 214.35). Non-beneficiaries

would require a monthly increase in income of about two hundred and twenty Naira, nine kobo (₦220.09) while beneficiaries would require monthly increase in income of eighty one Naira, fifty five kobo only, (N81.55) to move above the poverty line.

From the analysis of data, it was discovered that 68% of the respondents were not poor, 30% belong to the core poor class and the remaining 2% were in the hard-core poor level. The result of the analysis indicated that access to micro credit had alleviated poverty and improves the economic status of the beneficiaries better than that of non-beneficiaries.

5.2: Conclusion

There have been doubts about the efficacy of micro credit in alleviating poverty in many quarters in Nigeria, but this study has shown that micro credit financing in Edo State has had a remarkable influence on the poor. It has not only reduced the magnitude of poverty among farmers in the State, it has also contributed significantly to the reduction of the intensity and severity of poverty. Farmers that benefited from the micro credit scheme had higher output, larger farm size and more income than those who did not benefit hence with more micro credit organizations, many more farmers would be reached.

It can therefore be concluded that for farmers to be able to alleviate their poverty situations, there is the need for injection of fund in the form of micro credit financing.

5.3: Recommendation

Based on the findings, poverty exist among farmers in Edo State and it was also found out that income, output, credit, household size, farm size, and education can be linked to the occurrence of poverty in the State. Hence, any attempt at improving these factors will have a direct consequence on poverty alleviation among farmers in the State. Therefore, we proffer the following recommendations to alleviate poverty among farmers in Edo State. Informal groups that are involved in agricultural lending should be strengthened and encouraged as a viable option of credit delivery to small-scale farmers.

More micro credit organizations should be created to serve as sources of agricultural credit to farmers.

- Micro credit organizations should embark on effective enlightenment campaigns on its activities to create more awareness on the farmers.
- Micro credit organizations should give priority attention to training beneficiaries on proper use of improved technology of production, as this will enhance productivity.

- Micro credit organizations should monitor credit use to avoid loan diversions
- Credit should be given more in kind to halt or minimize fund diversion into other uses aside agriculture.
- Non-member farmers should be encouraged to join cooperative societies to take advantage of economics of scale in the purchase of inputs and the marketing of produce.
- Non-beneficiary farmers should be encouraged to access credit from both formal and informal sources to expand their scale of operations.
- In order to stimulate or encourage the young ones to continue in farming, government should put in place a policy frame work that would guarantee stability in agricultural prices, make land available to the landless, provide basic infrastructural facilities in the rural areas and create a market oriented economy for agricultural produce and
- The maximum amount of twenty five thousand Naira (₦25, 000) that is given out to farmers, as credit should be increased to make credit more meaningful for poverty alleviation.

Other related areas being suggested for further research include the followings:

- The determination of the optimum amount of credit that would be required by an average farmer to move out of poverty.
- The determination of a generalized poverty line for farmers rather than the present situation where two-thirds incomes of farmers is used as the poverty line.
- The determination of an optimum farm size that will be economically viable for alleviating poverty, all other thing remaining constant.

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APPENDIX 1

AN ASSESSMENT OF THE EFFECT OF MICRO-CREDIT FINANCING ON POVERTY ALLEVIATION AMONG FARMERS IN EDO STATE NIGERIA.

This research work is designed to generate information for an indepth study of the effect of micro credit financing on poverty alleviation.

The researcher will be delighted if you will honestly provide the information required from you by filling out the questionnaire.

Your cooperation in this regard will be highly appreciated.

Beneficiary/Non Beneficiary: **K.O. ILAVBARHE**

CORE WELFARE INDICATORS

Code No: ……..

1. LOCATION

i. LOCAL GOVERNMENT AREA ……

ii. VILLAGE/TOWN ……

iii. WARD ……...

2. RESPONDENT

Name …….

Sex **Male** ☐ **Female** ☐

Age Under 20 years ☐ between 20 and 40 years ☐

between 41-60 years ☐ above 60 years ☐

Number of Household …….

How many members of your household are into food crop production?

Who own the land you are cultivating

Self ownership ☐ Government ☐ Lease part ☐

EDUCATIONAL LEVEL

	Yes	No
No Education		
Some Primary School		
Completed Primary		
Some Secondary School		
Completed Secondary		
Tertiary School		

Specified other

……..

Literacy Level

Can your read the English Language

Can you write the English Language

Can you read the Local Language

Can you write the Local Language

Status of farmer

Individual ……

Cooperative …….

Other ……

If respondent is a farming household, please the size of your labour force.

Male	Adult	Children	Total
Female			
Total			

How long have you contributed to household income

Never less than 6 months 6 months and above

What is your relationship with household?

Head Spouse Child Parent Domestic Worker

Separated Windowed

If polygamous, number of spouse ……..

Occupation of household head

Full time farming ☐ art time farming Others ☐ ☐

What productive resources are available to you

Labour C☐l Land ☐ Managen☐ ☐

Which of these is most limiting

Labour ☐ ☐nce Other☐ ☐

If not finance what role is finance playing in your farming business ……...

……..

Are you a member of any credit/ saving group or association Yes No ☐ ☐

How often do members meet Weekly Forthnightly M☐y Quarterly ☐ ☐ ☐

How much contribution have you made to the group within the last twelve (12) months ₦ ……

Before joining this group/association, what was the total size of your farm

Small scale 0 – 2ha M☐n scale 2.1 – 5ha Large scale ov☐a ☐

What was the average yield from your farm before joining the association

Crop	Average yield
Yam tubers (in tubers)	
Cassava tuber (Fertilizer bags)	
Maize (dry) (Fertilizer bags)	
Melon (Fertilizer bags)	
Tomatoes (Big basket)	
Okra (big Basket)	
Cocoyam (Fertilizer bags)	
Pepper (Big basket)	
Vegetables (Warps)	

Indicate the average price of the following items in your area before joining the organization.

Items	Price
Yam tubers (in tubers)	
Cassava tuber (Fertilizer bags)	
Maize (dry) (Fertilizer bags)	
Melon (Fertilizer bags)	
Tomatoes (Big basket)	
Okra (big Basket)	
Cocoyam (Fertilizer bags)	
Pepper (Big basket)	
Vegetables (Warps)	

How many hired labourers did you use for the following operations before joining the association.

	Number of labourers and duration				
Type of operation	**Men**	**Day worked**	**Women**	**Day worked**	**Children**
Land preparation					
Planting					
Weeding					
Staking					
Training of vines					
Application of fertilizers					
Processing					
Total					

Give an average cost of labour per day Men ~~₦~~ ……. Women ~~₦~~……. children ……

How many of your children were enrolled in school before the loan ……...

How many family members visit health care centers or hospital before the loan ….

How much have you received from your association ₦ ……

On which of the following items did you spend your receipts from association on

Farm development	
Family upkeep	
Medical care	
Payment of school fees	
Wedding	
Funeral ceremony	
Others	

Are you aware of any micro credit group in your area Yes ☐ No ☐

If yes, are you a registered member of the micro credit group Yes ☐ No ☐

How much have you borrowed from the micro credit association ₦ ……..

Have you borrowed from any other sources outside the micro credit association.

Yes ☐ No ☐

If yes, how much ₦ ……

Do you have other sources of income apart form farming Yes ☐ No ☐

If yes, income apart from farming in ₦ ……

In addition to the loan already obtained, have other members of your household obtained loan Yes ☐ No ☐

If yes, pleas state

Agency	Amount	Interest rate	Purpose	Security

Have you restricted your borrowing because you were not in a position to obtain more credit Yes No

If yes, please state ☐ ☐

Additional Requirement	**Purpose**

Have you any difficulty in loan repayment Yes No ☐ ☐

If yes, please give reasons

Inadequate income	
Crop failure	
Death or sickness of family member	
Not approached by the lender	
Low market price of output	

What is the amount involved ₦ ……..

What action was taken against you by the lender in such difficulty

Warning/Reminder	
Legal Action	
Taken possession of property	
Engage you in labour service	
Other action	

How much do you spend on food items monthly ~~₦~~ ……..

How much do you spend on non food items monthly ~~₦~~ ……..

What is the penalty of not being able to repay the loan

Penal/Additional Interest	
Surrender of produce	
Furnish additional security	
Other penalty	

What are your reasons for borrowing from the micro credit group rather than other groups

Lack of knowledge of such group inadequacy to loan amount	
Urgency of loan	
Inadequate security	
Purpose not eligible for financing	
Easy accessibility	

Others……..

Since benefiting from the micro credit organization, what is the average yield of the following

Crop	Average yield
Yam tubers (in tubers)	
Cassava tuber (Fertilizer bags)	
Maize (dry) (Fertilizer bags)	
Melon (Fertilizer bags)	
Tomatoes (Big basket)	
Okra (big Basket)	
Cocoyam (Fertilizer bags)	
Pepper (Big basket)	
Vegetables (Warps)	

Since benefiting from the micro credit organization, how many hired labourer have you used in a give year for the following

	Number of labourers and duration				
Type of operation	**Men**	**Day worked**	**Women**	**Day worked**	**Children**
Land preparation					
Planting					
Weeding					
Staking					
Training of vines					
Application of fertilizers					
Processing					

Give an average cost of labour per day Men ₦…….. Women ₦ ……. Children ₦….

Which of the following assets have you acquired after the loan.

Radio	
Television	
Video player	
Stove	
Gas cooker	
Refrigerator	
Grinder	
Generator	
Bicycle	
Motorcycle	
House	
Excess land	
Share	

How many of your children are enrolled in school after loan …….

How many family member visit health care centers or hospital after the loan …..

Give the average of the following

Amount spent a year in your farming business ₦ ……

Quantity of output of your farm ……

Value of output of your farm ₦ ……

Indicate the number of farm tool/equipment you have

	Before loan	After loan
Cutlass		
Hoes		
Shovels		
Shade		
Indian hoe		
Local weeding machetes		
Tractors/implements		
Work bull		

What other services do the micro credit organization provides

Supply of input	
Processing of output	
Marketing of produce	
Equipment of produce	
Equipment leasing	
Training in Appropriate Technology	

Others …….

If training is provided, are you better off than before the training

Yes ☐ No ☐

If yes, can you state what aspect of your business it has affected

…….

Please indicate the followings

	Before loan	After loan
Farm size		
Output		
Income		
Expenditure		

Are you better off now than before the loan Yes ☐ No ☐

If yes how? ……

If No, why ……

Which of these services did you have access to

1. Health care/hospital ☐ Yes ☐ No
2. Pipe borne water Yes ☐ No ☐
3. Transport facilities Yes ☐ No ☐
4. Clothing Yes ☐ No ☐
5. Housing Yes ☐ No ☐
6. Food (3 square meals) Yes ☐ No ☐
7. Gain employment Yes ☐ No ☐

Thank you.