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# ENVIRONMENT AND RURAL POVERTY REDUCTION IN NIGERIA.

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ABSTRACT

The rural poverty is aggravated by occupational distribution dictated by the environment, lack of infrastructure and marginal dependence on the land. Conventional theorists see the rural poor as an environmental foe. This work has been able to illustrate on optimal action between land intensification and land extensification to preserve both the environment and habitat. Given appropriate orientation and assistance, the rural poor can turn an environmental activist- environmental protector while his poverty is according reduced.

## INTRODUCTION

Inter-generational mobility and tradition demand for occupational transferability. Environment which is the sum total of man's biosphere (with attendant biodiversity) has crucial influence on choice and selection of occupation. The Webster's New Collegiate Dictionary (1976:794) describes occupation as:

(i) an activity in which one engages
(ii) the principal business of one's life

Sociologists define occupation as a complex of activities which;

a) Is differentiated from other complexes of activities and is performed singularly.
b) Provides goods and/or services to other persons in the society.
c) Constitutes a regular means of support; and
d) Requires appropriate training, entitling the individual to pursue the occupation specifically as an occupation that is to perform its functions regularly for the benefit of others in exchange for means of support (Ekong, 1988: 254)

In Nigeria, there are vegetational differences across all regions of the nation, from the creek and lagoon of South-Western Nigeria to Bornu and Chad Depression (Udo, 1994). The rural regions are believed to inhabit the rural populace considered to be more than 70% of the population of Nigeria. These different regions distribute different occupations.

The greater proportion of economic activities in the Nigerian rural areas depend directly or indirectly on the exploitation of the land. Because the rural poor earns much of his livelihood from the land and is believed to live on the margin and "dangerously" exploits the environment for his survival, he is always adjudged environmental foe. This is the conventional school of thought. The poor is considered to be a powerful contributor to the growth of environmental deterioration, which according to Mendie and Akpan (1994:10) include, growth of gullies, ecological change, flora extinction, silting of rivers and streams and flooding.

The oppositional paradigm sees the poor as an environmental activist who protects the environment for his sustenance.

The objectives of this paper are:

(i) To examine how environment determines occupations and why such occupations cannot alleviate poverty;
(ii) To examine whether the poor is an environmental friend or foe; and
(iii) To offer suggestions that can lead to the alleviation of poverty among the rural poor and protection of the environment.

## THEORETICAL FRAMEWORK

Governments over the world use budgets as an instrument of economic manipulation to achieve planned objectives. These budgets whether surplus, deficit or balanced is aimed at the achievement of the broad objectives of macroeconomics-full employment, price stability, balance of payments equilibrium and economic growth and development.

The issue of attainment of full employment stands out very distinctively, because full employment seeks to reduce poverty. Incidentally poor people abound whether in developed or developing countries.

Even though poverty is experienced by the poor and observed by the rich, its definition has been with much difficulty. According to Ekong (1991:14) "Poverty is a concept that has defied universally accepted and objective definition or assessment because it is not only an expression of life situation, but equally a state of mind and a perception of self in the complex web of social relations". Following this, are three types of poverty, namely: absolute, relative and zero-sum poverty. Absolute poverty is defined as a misery linked to an insufficient resources base, lack of income, narrow margins, high risk of failure, hunger, disease, etc.

Relative poverty is misery linked to experiencing outcomes which are less satisfactory than those of relevant others while not being able to do much about improving one's own outcome so that one has to adapt one's aroused aspiration to one's inescapable unsatisfactory outcomes instead of through innovations (Ibid:15).

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The zero-sum poverty is misery linked to patronage, oppression, exploitation, usurpation, extraction and abuse by powerful ones (Rolling and Zeeuw, 1983).

According to Ekong, poverty in the rural area seems to be a compound of the three. Samuelson (1976:235) also mentions three kind of poverty:

(i) ancient poverty due to famine and inadequate production potentials.
(ii) Unnecessary poverty in the midst of plenty, such as poverty due to only bad purchasing power behaviour of the system.
(iii) Poverty due to uneven and bad distribution of income and affluent total Gross Domestic Product (GDP) – poverty amidst plenty. These classification of poverty seem to agree when blending semantics and take a look at their causes, relative density and severity.\

McConnell (1975:735) adds that the poor are heterogeneous; they can be found in all geographical regions; they may be whites or non-whites, or and urban people and they may be both young and old.

## BASIC NEEDS AND POVERTY

Basic needs are those things that an individual must have to help him survive as human being. These are clean water and air, balanced food, physical and emotional security, physical and mental rest and appropriate clothing. Poverty therefore can be defined in term of basic needs. A group of development workers in Uganda, defined poverty as the inability of an individual, a community or a nation to satisfactorily meet its basic needs (Burkey, 1993). They defined relative poverty as the condition which basic needs are met but where there is an inability to meet perceived needs. The poorest of the poor were considered to be the physically, mentally and socially handicapped and are unable by themselves to meet their basic needs.

The various measurements and standard to quantify these needs are food: calories per day, water-litres per day, shelter-square meters per person. There are other immeasurable factors like happiness, security, togetherness, etc.

## IDENTIFICATION AND MEASUREMENT OF POVERTY

A nation's wealth is measured through the quantum of Gross National Product (GNP). From here income per capita is also calculated. Low-income, medium-income and high-income countries are determined through this process.

According to Burkey (1993), in 1987 Ethiopia had one of the lowest income per capita $120, Norway had $17100, Thailand $840 and Guatemala $940. Thailand and Guatemala were described as middle-income countries. Yet both these countries have hundreds of thousands of people who are very little better off than an average Ethiopian.

There is the counter measurement, which is the Physical Quality of Life Index (PQLI) that has been developed. It deals with people's health and welfare. The explanatory variables are life expectancy, child mortality and adult literacy.

## CAUSES OF POVERTY

According to Burkey (1993:12) the general causes of poverty are always considered to be ignorance and disease as if the solution seems to lie with book and medicine. He has listed five possible causes of poverty in Third World Countries (TWCs) to include:

(i) Lack of modernization tendencies.
(ii) Physical limitations.
(iii) Bureaucratic stifling
(iv) Dependency of Third World Countries.
(v) Exploitation by local elites.

There are also the physical limitations that cause poverty among the rural populace. They include drought, rain-causing flood and water logging, soils becoming thin and delicate cyclones and earthquakes. A catalogue of causes of poverty has been known to include; illiteracy, malnutrition, poor sanitation, laziness, deforestation, lack of market, colonialism, tradition and lack of transport, over population, hunger, indebtedness, lack of tool, low prices, poor management, lack of credit and mistrust. Also some causes are lack of clean water, low productivity, poor housing, superstition, corruption, exploitation, unemployment, lack of skills, lack of industry, lack of initiative and lack of cooperation (Burkay, 1993).

## THE RURAL POOR AND THE ENVIRONMENT

Unfortunately, environment has never been static. It has continued to deteriorate exposing human race to danger of self-induced extinction. The seriousness of danger of environmental deterioration varies from place to place. However, this tends to be more serious in developed counties (because of increased industrialization) and commercialized urbanized and densely populated areas. But there are some aspects of environmental pollution that cut across geographical boundaries, races and continents like global warming and rising sea level. Changes in environment has had effects on different occupations, sustainability and even on health.

> Environmental stress has often been seen as the result of the growing demand on scarce resources and the pollution generated by the rising living standard of the relatively affluent. But poverty itself pollutes the environment, creating environmental stress in a difficult way (Broad, 1994:811).

Those who are poor and hungry will often destroy their immediate environment in order to survive: they will cut down forest, overgraze the grassland with their livestock, over use marginal land and in growing numbers they will crowd into congested cities. The cumulative effect of these changes is so far-reaching as to make poverty itself a major global scourge (Ibid: 881).

In other words poverty is viewed as one of the primary causes of environmental destruction. The poor may happen to be the victims, and also the agents and the perpetrators. The balance is that the poor cannot singularly earn all acquisitions of environmental pollution when we consider pollution as emanating from actions

like oil drilling, accidental blow-outs, oil pipeline leakages so on.

## ENVIRONMENT AND CHOICE OF OCCUPATION

The choice of occupations by the rural poor is significantly influenced by the environment. Table 1, (see appendix) shows us major possible regions in Nigeria, associated states and towns and corresponding occupations. One thing is discernibly observed. Farming is a paramount occupation in all the regions of the nation, stretching from the creeks and lagoon of south-western Nigeria to Bornu and Chad Depression.

Rural dwellers are principally occupied in farming, animal husbandry, fishing, hunting, food processing, timber, canoe paddling, firewood selling, palm fruit cutting, sawing, wild vegetable gathering and palm wine tapping. Other non-farm oriented occupation include pottery, weaving, carving, leather works, carpentry, bicycle repairing, black-smiting, knitting and dress making, dyeing, retail trading, hair dressing, teaching, illicit drink production, transport operation, entertainment, preaching, motor-cycle repairing and so on.

These and other various occupations are sustained by two means the environment and intergenerational transferability. For instance, fishing as an occupation must be practiced in riverine areas covering regions like the Creek and Lagoon of south-western Nigeria, Niger-Delta, Cross River basin, and the palm Belt of Southern Nigeria. Planting of cocoa is done in the Cocoa belt of the Yoruba land. Timber is viable in the forest belt of the nation. Animal husbandary, apart from indicatively practiced in southern part of the country is vastly done in regions like the Middle Niger Region, the Kano Region, the Sokoto and Rima basins and the Bornu and the Chad Depression.

Culture and tradition encourage the son taking after the father's trade or occupation. Perhaps only Western Education may seem to discourage this trait either by encouraging rural-urban drift or outright change of occupation and orientation. Farmers teach their your ones when and how to farm while artisans do same to their youth or through a planned apprenticeship.

## OCCUPATION, ENVIRONMENT AND POVERTY

In section 2.4, the rural poor was portrayed as an environmental foe because he intensively exploits the environment for the survival and therefore cause environmental degradation. If the poor destroys environment they live, then people cannot practise sustainable development, implying that poor people are short-term maximizers.

Yet another widely accepted component of the relationship underlying the conventional paradigm (Broad, 1994:863) focuses on the need for economic growth to break the poverty-environment downward spiral. This logic stems from oppositional thinking: the dichotomy is between non-environmentalism and the poor versus environmentalism and the rich. What may likely follow from here is that if much of environmental problem is poverty then eliminating poor people through growth and development becomes a viable option to saving environment.

Another school of thought sees the poor as the protectors of the environment. Sheldon Annis as quoted by Broad states:

> Such poor but not impoverished farmers typically manage resources with great care, even elegance. They optimize the use of every microscope scrap of resource – every ridge of soil, every tree, every channel of water and every angle of sunlight. They protect what they must live on for their families' future (Broad, 1994: 873)

Many analysts document the poor becoming not victims doomed to be downward spiral, at least not agents of destruction, and not merely sustainers but positive actors – participants in grassroots ecology management. Broad quotes Fantu Cherk an Ethiopian as saying that from the Naam movement in Burkina Faso to women trees planting cooperatives in Kenya; grassroots organizations across Africa have taken a leading role against environmental degradation.

Again as put by Broad, a lady who participated in prevention of commercial logging in Philippine explained:

> Without trees there is no food, and without food there is no life. The forest are disappearing, and so the soil of our rice field washed to the sea. There will be no soil left by the time our children are grown. What, I wonder will become of them? How will they grow rice?

Once environmental degradation began to cause the poor to live extreme marginal lives they react by preserving the ecosystem. In the Phillipine too, there were pockets of miners who had been mining gold without threat to the area's ecology but made a good livelihood. The Benguet Corporation came in with vast gold mining concessions from the Phillipine government and they bulldozed open pits mines which brought a lot of problem to the residents, disruption of water supply, toxic chemicals and air pollution. The pocket miners reacted and blocked the move. As board remarks:

Longer term inhabitants who have developed an intimate knowledge of the ecosystem on which they live are in the words of the Ecologist, displaced by enclose who once they have taken over land... unlike families with ties and commitment to the soil, can mine, log, degrade and abandon their holdings, and then sell them on the global market without suffering any personal losses.

Ravalion and Sev (1994:824) see landholding as an instrument of poverty reduction among the rural poor.

To improve agricultural returns to the rural poor some have suggested agricultural modernization. Some argue that agricultural growth has led to broad based improvements in rural condition (Garha, 1988; Leaf, 1983; Barnum and Squine, 1979, Sev, 1975; Randhawa 1975) Others maintains that gains from rural modernization have not resolved labour and welfare problem (Otsuka, Cordova and David 1992; Sen and Grown, 1987, Rai, 1969) or that the benefits have been unfairly skewed toward richer farmers leading to

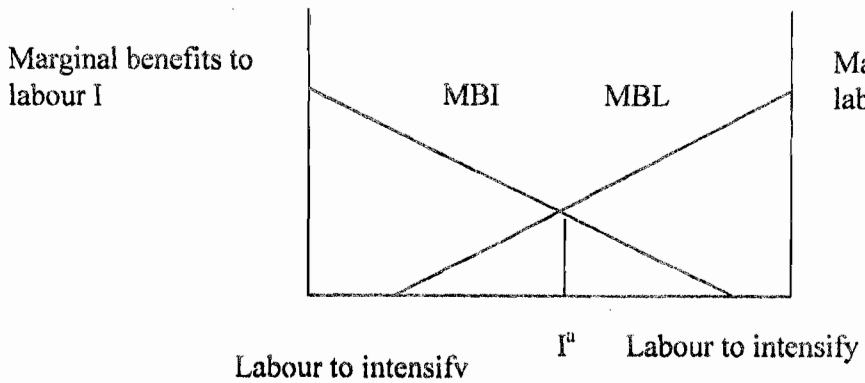



Fig. 1

The Farm Labour Allocation Problem

ıcreasing inequalities and inequalities in the :ountryside (Agarwal, 1986; Epsein, 1973, Frank, 1971).

Farming takes two dimensions: intensified arming and extensified farming. To the rural poor ıensified farming (without application of inorganic ıanure) leads to poor yield, land degradation, erosion ncouragement and so on. Extensified farming is elieved to lead to cutting down of trees and increase esertification. In trying to optimize the rural farmer's ehaviour Larson's model (1994) is used:

he household has T units of labour for production. It ecides the amount of labour to allocate to clearing new land (of course virgin lands abound in Nigeria-see land use decree, 1979) and producing on it denoted as I. What is allocated to existing plots or farm is L where L = T-I. The household decides to farm on both lands. They will allocate labour up to the point where the benefits from additional labour allocated to intensification marginal benefits of L (denoted as MBL) equals the benefits from additional labour allocated extensification (marginal benefits I denoted by MBI).

This condition is accordingly fulfilled at $I^a$, where the marginal benefit from intensification equal the marginal benefit from extensification.

From figure 1, any increase in demand for

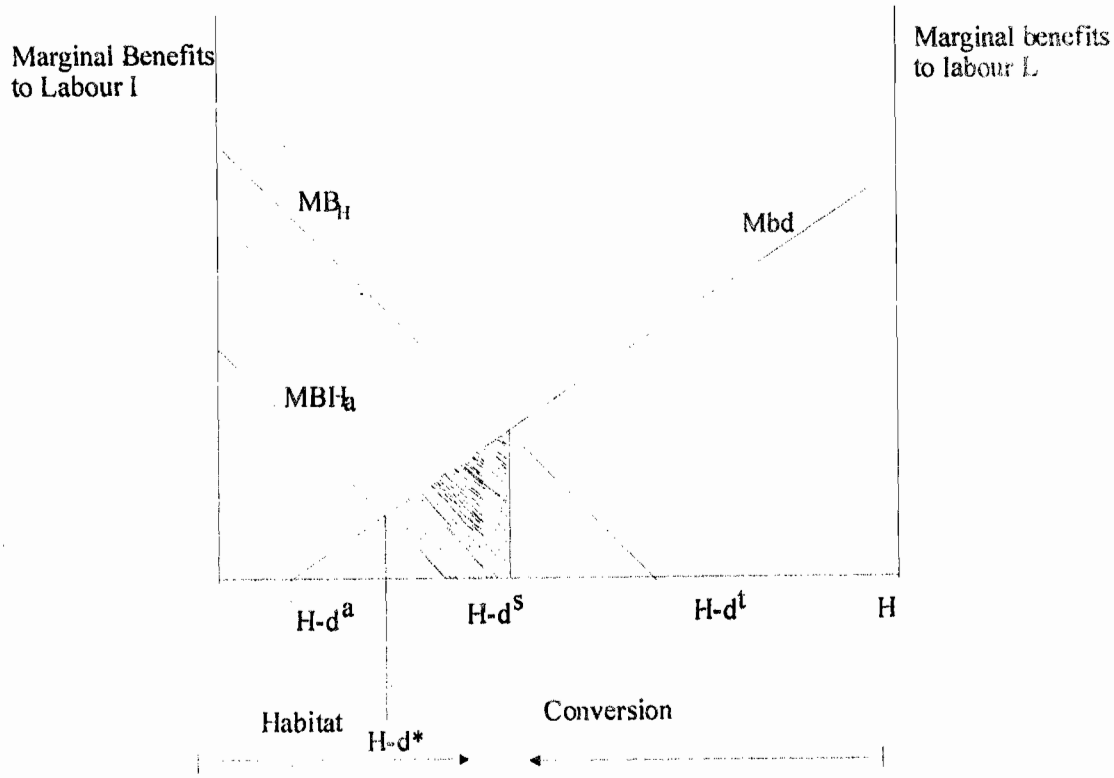



Fig. 2 Incentives for habitat Preservation and Conservation

intensification (increase MBL) or decrease in demand for extensification (decrease in MBI) will result in labour being allocated to existing plots and less to converting of new land. This results in low deforestation.

Given the demand for extensification/ deforestation in fig. 1, the relationship between the demand for deforestation and demand for habitat preservation is presented in fig.2.

The marginal benefits from habitat or biodiversity preservation, the demand for preservation are denoted $MB_H$. The demand for extensification $MB_1$ from fig. 1 translates into the demand for deforestation MBd in fig.2. The optimal amount of labour required for extensification in Fig I denoted as $1^a$ translates into deforestation as $d^a$ as in fig 2. At $d^a$ level of afforestation, the optimal amount of remaining habitat would be-$d^a$, from the farmers' point of view.

The demand for habitat preservation represented as $MB_H$ in fig. 2 portrays on-site benefits such as potential future tourism revenues, species preservation for discovering of new and valuable pharmaceutical products, beautification and off site benefits such as erosion and food control.

From the farmer's perspective, the optimal level of habitat is H-d, where MBHa = MBd. From the perspective of those who value the non-consumptive uses of existing habitat such as tourists, H-$d^t$ represents the optimal amount of habitat preservation and $d^t$ presents in their view the much habitat that should be converted to agricultural uses. Should policy makers or government cared about consumptive and non-consumptive uses equally, then H-$d^s$ would represent some socially optimal level of habitat and $d^s$ would represent the right amount of agricultural conversion[1].

Assuming deforestation levels d are considered too high. There must be some underlying factors responsible and these must be found in three area.

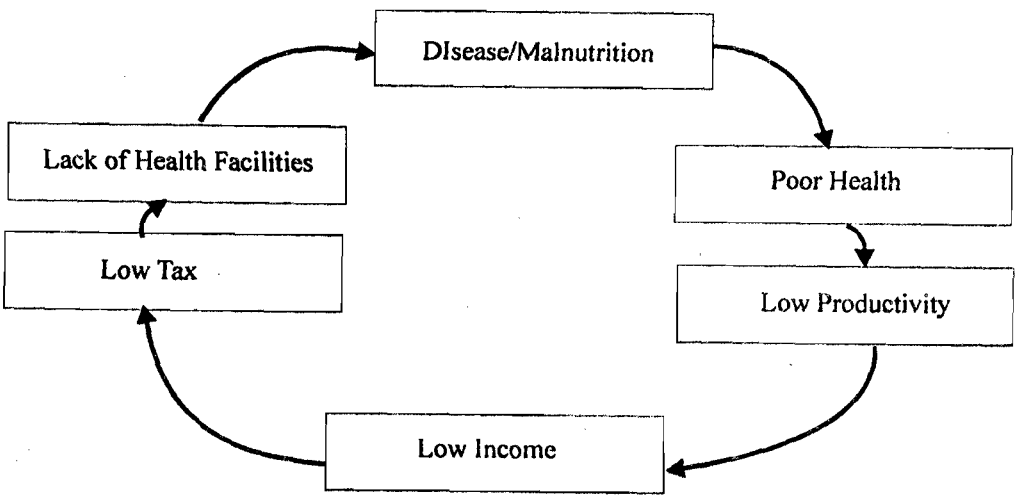
First, setting up protected areas is government's responsibility and to take control of certain area and change habitat conversion from d to $d^s$ or $d^t$. This direct public control may or may not be feasible for the comparatively small amount of the remaining stock of habitat, although it will not affect incentives on the remaining unguarded habitat stocks. Establishing protected areas brings a change in property right[2].

In fig.2 the shaded portion represents the amount farmers would lose with this institutional change from d to $d^s$. The costs associated with this change indicate how much farmers are hurt by the change of property rights. These costs pose problems for protected or controlled area managers to actually enact and enforce property right changes.

A second approach would be to increase to total marginal benefits $MB_H$ which accrues to farmers MBHa. One way to do it could be through education and awareness in order to increase the understanding of the existing habitats for water and soil management or by sharing the proceeds from tourism through employment (which also depends on educational level of the ruralites) or evolve an acceptably formula of revenue sharing that is morally loaded. The success for this must depend on whether education is a felt-need and whether tourism generates sufficient revenue and whether the revenue shared are directly tied to preservation of the specific habitat area.

The third approach is to change the factors that are driving force in demand for agricultural extensification and by extension deforestation. These include poor pricing, technologies, infrastructure, population growth, property right and so on. Government can take steps to address these issues. Even the optimal position of rural farmer between extensification and intensification hardly bails him out of poverty.

In section 3.0, a number of non-farm occupations was mentioned which can probably alleviate the rural poverty. The problems here are that appropriate infrastructure for healthy cottage industries developments are not there, the economies of scale is




Adapted from Burkey, 1991

Fig. 3 A Vicious Circle of Poverty

TABLE 1: UDO, R. K. (1994) GEOGRAPHICAL REGION OF HEINEMANN, NIGERIRA

| REGION | STATE/TOWN | OCCUPATION/PRODUCTS |
|---|---|---|
| The Creek and Lagoons of South-Western Nigeria | Lagos, Badagry, Ikeja Ikorodu, Epe, etc. | Fishing, Food-crops |
| Cocoa belt of Yoruba land. | Ondo, Abeokuta, Ijebu Etc. | Farming-cocoa and cola-nut, weaving, dying, pottery, metal work |
| The Benin Lowlands | Asaba, Benin, Abak | Farming, rubber and timber, hunting and gathering crafts – brass casting, wood carving and ivory |
| The lower Niger Valey | Lokoja, Idah, Initsha, Igala | Trade, fishing, Collecting and processing palm fruits, hunting |
| Palm Belt of South Eastern Nigeria | Owerri, Oron, Uyo, Ikot Ekpene,Ogonls, Aba | Trade, farming – oil palm, livestock |
| Cross River Basin | Abakaliki, Enug, Oban, Afikpo, Calabar. | Farming – Rice, fishing |
| South – Western Nigeria | Abeokuta Oyo | Farming – Tobacco, Rice, Cotton, Corn, Cattle rearing, Forest reserve, Craft. |
| The Middle Niger Region | Ilorin, Niger, Kabba, Yanuri Emirate etc. | Farming – rice, Groundnut, Guinea corn, Suger. |
| Jos Plateau | Jos | Tin mining, farming – acha, millet, yam, cocoyam. |
| Bauchi & Gongola Basin | Bauchi, Gombe, Gongola, Biu, etc. | Farming- guinea corn, millet cassava, groundnut. |
| The central High Plains of Northern Nigeria | Zaria Minna, Nassarawa, Kaduna | Farming – sugar, ginger, tobacco |
| The Sokoto and the Rima Basin | Sokoto, Rima, Grandu | Farming – cotton, Rice, Maize, Millet, Guinea Corn, Animal Husbandry. |
| The Kano Region | Kano, Katsina Timbuctoo, Kukawa Maghrab | Farming – guines corn, millet, groundnuts cowpea, livestock |
| Bornu and the Chad Depression | Bornu, Kanuri | Farming – Cotton, Millet, Indigo, Animal husbandary. |

**Source: compiled from Reuben K. Udo (1978: 16-193)**

lacking and the products are not competitive.
Ekong (1988:254) has stated most of the characteristics of rural no-farm occupation as follows:

(a) They mostly entail low capital investment (less than N5, 000.00 at times) and often do not use complex machine.
(b) They employ few people usually less than 50.
(c) It often goes with one –man ownership.
(d) Low level of division of labour.
(e) Sometimes done as part time.
(f) Each apprentice tends to graduate to a sole entrepreneur with no indication towards partnership.
(g) It usually involves minimum or no restraining of workers for increased productivity.
(h) No proper accounts are kept.
(i) Level of production is usually low.

The position is that neither the direct farming nor the non-farm occupation is vibrant enough to liberate the rural poor from poverty.
Below, fig. 3 shows vicious circle of poverty prevalent among ruralites

What also contributes to poverty is the lack of cooperation and mistrust among the ruralites that they cannot therefore pool their resources together.

## GOVERNMENT'S ROLE IN POVERTY REDUCTION IN RURAL AREAS.

Government's intention to effect development in Nigeria, including the rural areas is not new. Really lagged development has been noticed by the federal Government of Nigeria (FGN) as contained in the Third National Development Plan (1975:29) that: development should be generated simultaneously in all geographical areas of the country and emphasized that " lagging regions" in the country can no longer be tolerated.

Rural development implies making conscious efforts to contribute to the overall rate of economic growth and the process of structural and attitudinal transformation of rural areas (Enoh, 1991: 101).

Even before the Government's concern about development (as expressed in the Third National Development Plan) there had been some schemes launched or initiated to boost agriculture in Nigeria. For instance in 1963, the Fund for Agricultural and Industrial Development (FAID) was established by Eastern Nigeria Government to boost agricultural production. The unfortunate thing about this scheme was that the rural poor had no access to it (Iniodu, 1991: 151). In 1972 and 1973, the then South Eastern State Government established the Farmers Credit Schemes as a means of granting loans to farmers and fishermen (Ndaeyo, 1982). The Federal Government also in 1973 came with Agricultural Credit Guarantee Scheme Fund (ACGSF) that was implemented through the Nigerian Agricultural and Cooperative Bank (NACB). The mandate was to provide credit facilities to farmers and improve the level and quality of agricultural production and elevate the welfare of the rural population throughout the country (Okorouen, 1982:2). Table 2 (see appendix) indicates number of households (in rural areas) by farming activity during the season, 1986/87. Out of a total households of 9,014 (measured in thousand units) in the then 19 states, 2979 or 30% were engaged in crop farming, 200

TABLE 2: NUMBER OF RURAL HOUSHOLDS BY FARMING ACTIVITY 1986/87

| STATE | CROP FARMING ONLY | LIVESTOCK FARMING ONLY | NON - FARMING | LIVESTOCK AND CCROP FARMING | TOTAL HOUSEHOLDS |
|---|---|---|---|---|---|
| Anambra | 301 | 13 | 99 | 441 | 824 |
| Bauchi | 142 | 2 | 12 | 266 | 422 |
| Bendel | 268 | 12 | 247 | 71 | 589 |
| Benue | 153 | 1 | 86 | 135 | 375 |
| Borno | 155 | 5 | 82 | 181 | 423 |
| Cross River | 256 | 25 | 153 | 77 | 511 |
| Gongola | 103 | 1 | 8 | 163 | 275 |
| Imo | 357 | 11 | 208 | 426 | 1,002 |
| Kaduna | 184 | 4 | 68 | 716 | 972 |
| Kano | 79 | 22 | 33 | 764 | 898 |
| Kwara | 56 | 11 | 112 | 59 | 238 |
| Lagos | 5 | 0.12 | 37 | 9 | 51 |
| Niger | 79 | 3 | 19 | 57 | 158 |
| Ogun | 29 | 9 | 37 | 19 | 94 |
| Ondo | 90 | 13 | 128 | 39 | 270 |
| Oyo | 89 | 21 | 129 | 64 | 303 |
| Plateau | 146 | - | 2 | 259 | 417 |
| Rivers | 120 | 54 | 281 | 49 | 484 |
| Sokoto | 367 | 13 | 93 | 1,126 | 1599 |
| **Nigeria** | **2,979** | **200** | **1,834** | **4,901** | **9,914** |

Source: Agricultural Sample Survey
Federal Office of Statistics, Lagos, p. 13 1986/87.

or 2.0% in livestock farming, 4901 or 49% were engaged in livestock and crop farming while non-farming was 1834 or 18.6%.

Within the same year the total area of 8996000 hectares was farmed while crop failure in terms of area covered 982000 hectares (see Rural Agricultural Survey, FOS, Lagos pp. 14 and 24). The failure rate of 11% (landwise) might seem tolerable but the equivalent financial loss might be quite enormous. With average number of five per household it followed that 49,570.000 were engaged in farming while 9,170,000 were engaged in non-farming business in the rural areas during the 1986/87 period. The low price of farm produce, coupled with lack of storage facility (Nto, 1991) and substantial portion of the farm produce consumed by the households indicates that little or nothing was left for the market and the rural farmers remain in vicious poverty.

In 1987, the Basin Loans Scheme, the National Small Agricultural farmers Credit programmes were launched. The National Livestock Development Project (NLDP) and the National Directorate of Employment (NDE) were introduced. Nearly all of these programmes failed to achieve their objective of improving agriculture and the living standard of the rural poor because the rural poor were not reached and the implementations were fraught with corruption (Adawo, 1996).

Relatively recent had been the introduction of the Directorate for Food, Roads and Rural Infrastructure (DFRRI). Through this organ the rural areas were to be electrified and feeder roads opened and maintained. Though a few Local Government Authorities have had epileptic electricity supply with extremely low current, the DFRRI did not succeed in opening and maintaining any reasonable roads in the areas. Trouble ensured when some communities either through their men or women would construct a road for their usage only for the DFRRI officials to erect a sign post with inscription indicating such effort as DFRRI project or DFRRI sponsored.

These programmes and their implementations have not in any form alleviated the rural poverty because most of them were organized top-down. Undue emphasis was placed on formation of cooperative; corrupt practices were embedded; information dissemination was almost absent, cheat and dishonesty abound and above all the rural poor had never been educated on causes and consequences of environmental degradation.

In addition Leger (1984) has offered the following reasons for disappointing results of traditional rural development programmes.

(a) Target groups are not homogeneous
(b) Technical options do not always correspond to the motivations of target groups and to the constraint of the environment.
(c) Equitable distribution of revenues may be a myth.
(d) Government and Non-governmental Organizations (NGOs) strategies for project conception and implementation do not necessarily represent the aspirations and interests of target groups.
(e) The human and social factors are too often neglected.
(f) Projects are planned in a rigid manner, based on the overly idealized economic, political and institutional environment.
(g) The already existing or newly created organizational entities do not foster efficient/effective project management.

## SUMMARY, SUGGESTION AND CONCLUSION

The rural poor exist everywhere. It cuts across all geographical space and absolute poverty is the most worrisome type. For the poor to survive, he exploits the environment and sometimes violently thereby causing environmental degradation.

But whatever the poor does to earn a living at wherever he finds himself is dictated by the environment. Occupational distribution among the rural poor is significantly influenced by the environment. Across the nation (Nigeria) with vegetational differences, different occupations are practiced in all regions of the nation. There are also non-farm occupations. Both farming and non-farm occupations are unable to alleviate the poverty in the rural areas because of poor pricing, crop failures, natural disaster, dis-economies of scale, low capital base and unpreparedness for innovations.

Because the rural poor depends on environment for survival, he is conventionally considered to be an environmental foe. This work has illustrated some examples when the rural poor becomes and environmental activist – environmental protector. The paper has also demonstrated (using Larson's model) a sort of optimization in farm intensification and farm extensification to reduce environmental degrading.

There has been Government's effort to alleviate rural poverty but the impact has never been felt by the rural poor because of implementation methods.

## SUGGESTION

Since it is impossible to eliminate poverty especially among the rural poor, it is appropriate to evolve suggestions/programmes that would effectively reduce it.

(i) One good reason why government programmes on poverty alleviation have not worked is that the poor is hardly reached. We therefore suggest geographic targeting in reaching the poor. Among targeting options, geographic targeting has been very popular region-wide. Examples include the 'Mexican Tortilla' and 'Milk programmes and the Honduran Food Stamp Programme'. All of these use geographic locations in conjunction with other mechanisms to target direct transfer programmes to the poor (Barker and Gosh, 1994:983). The attraction of geographical targeting is its simplicity. Regions can be assigned priority on basis of existing aggregate data. Programmes to improve social services, infrastructure or transfer programmes can then operate in those identified regions.

(ii) There is the need to create development centers in different local government areas across the nation. Development agents can therefore have avenues to pass on information and have first hand reaction. Resources inventory should be noted at each center. This will inform programme implementers about what is available and with what to start. This is necessary for meaningful planning of rural development because it forms the basis for both agricultural and industrial development.

(iii) Modern technology should be reduced to appropriate technology where the rural poor is adequately schooled in. Sequel to this, the introduction to the use of inorganic manure (fertilizer) to improve agricultural yield is irrelevant when there is no money to buy them and there are little chances for the fertilizers to reach them. Appropriate measure is to evolve a method of improving organic manure where the rural poor can prepare it themselves and use it with little or no cost. With these, agriculture, fishing and industry will improve.

(iv) Provision of basic infrastructure in the rural areas as an instrument of poverty reduction is a necessity. Elevated commission should be set up in each state whose responsibility would be the provision of electricity in all the local government areas starting from the headquarters. China did this in the 1950s and succeeded. We simply need commitments. The laying of infrastructure (such as roads, water, housing, health and education for food production and distribution) is necessary for genuine rural development.

(v) Economic Deregulation or guided deregulation notwithstanding, a census of rural poor farmers through village heads should be obtained and from here subsidies paid directly to them for improved agriculture. Though it is an organized agriculture, America with all her capitalism still subsidizes agriculture.

(vi) Grassroot education is needed to inform the rural poor on causes and effects of environmental degradation. Possibly suggestions should be made on quality of occupation that does not adversely affect the environment.

(vii) Government as a matter of right should pay retired people their legitimate benefits, most of them are in the rural areas to set up small scale businesses and employ themselves and few others.

(viii) The Nation's minimum wage should be reviewed upward to increase the purchasing power of the poor.

## CONCLUSION

The rural poor is not entirely an environmental enemy. Given proper orientation, adequate infrastructure, appropriate modernization, his poverty will be alleviated and he is likely to turn an environmental activist. The rural poor is handicapped and should be discouraged from going cap-in-hand.

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[1]The model draws from Larson's model, 1994.

[2]Inspite of Land Use Decree, the ruralites are so culturally attached to their land.