

## **An Assessment of the Effect of LEEMP on Poverty Reduction in Logo Local Government Area of Benue State**

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### **ABSTRACT**

*The study assessed the effect of Local Empowerment and Environmental Management Project (LEEMP) on poverty reduction in Logo Local Government Area of Benue State. Data for the study were obtained through well-structured questionnaires. Data generated were analyzed using descriptive statistics, t-test and logistic regression analysis. Results from the study shows that there was a reduction in the distance to safe water, increase in school enrollment and improved access to health facilities after LEEMP's intervention. The estimated logistic regression equation showed that while access to safe water and household size increases the log likelihood of being poor, incomes from non-farm sources, educational level of household, access to health facilities, and access to educational facilities reduce the log-likelihood of being poor. It was recommended that safe drinking water should be provided in the Local Government Area more teachers and health workers should be recruited.*

Keywords: Poverty, LEEMP, Logo LGA.

### **Introduction**

Poverty is a global problem of mankind, which undermines human dignity. It is a condition of living that affects billions of people around the world and limits their freedom and longevity, despite the general trend of global economic expansion, liberalized markets and increased trade (Omonona, 2001). In Nigeria, poverty is widespread and pronounced even though the country is richly blessed with abundant human and natural resources. As noted by World Bank (1996), this is actually a paradox of experiencing poverty in the mist of plenty.

In Logo Local Government Area (LGA) of Benue State, popularly acclaimed the Food Basket of the Nation, about 70% of the land mass is rural where the same per cent of the population who are primitively farmers live, hunger and starvation are the order of the day and the state is among the poorest in the country (Yuwa, 2004). The National Bureau of Statistics (2012) confirmed this state of poverty as Benue State poverty incidence in 2010 stood at 73.1 per cent; this figure was higher than the National average which was 69.0 in 2010.

In recent years, poverty reduction has attracted the attention of various government organizations as well as non-governmental organization all over the world. Eradicating poverty is regarded as the most important goal of human endeavor. In her effort towards eradicating poverty to achieve the Millennium Development Goal (MDG) by the year 2015, the Federal Government of Nigeria sought and obtained assistance from International Development Association (IDA) of the World Bank towards the implementation of a 5-year Local Empowerment and Environmental Management Project (LEEMP). It was launched on the 26<sup>th</sup> July, 2004 in Benue by the Benue State Government with expected results to assist benefiting communities in participating states to have planned, co-financed and implementable environmentally sustainable and socially inclusive multi-sectoral micro-projects.

The LEEMP which implementation lasted for five (5) years came to an end in Benue State in 2009. Within the period of five years, the LEEMP was expected to have achieved its pre-determined objectives and made some impact on the socio-economic lives of the people in Benue State. Given the poverty situation in the State, and the bottom-top approach to poverty reduction adopted by LEEMP for the past 5 years, the question now is, has there been any improvement in the socio-economic status of the people in Benue State? In other words, have the activities of LEEMP any impact on the poverty situation of the Benue people? It is in line with these that this work has assessed the effect of LEEMP on poverty reduction in Logo LGA of Benue State.

In view of the above, the study was broadly designed to assess the effects of LEEMP in alleviating poverty in Logo Local Government Area of Benue State, specifically to assess the extent to which the project has enhanced the communities' access to health, education, safe water and improvement in income. This paper is divided into five sections. After this introductory section is section two which is the literature review, the methodology is presented in section three; section four presents the results and discussions while conclusion and recommendations are made in section five.

## **Conceptual and Theoretical Review**

There are many definitions of poverty in the literature. There is no universally agreed definition of poverty. Poverty is complex and multidimensional and has various perceptions. It is experienced differently by men and women and can differ according to geographical area, social group, and political or economic context.

Many people consider poverty as simply a lack of income. Others extend the concept to lack of education and health facilities. However, as highlighted in 2000 World Development report, Nobel prize winner Amartya Sen in World Bank (2002) emphasize a much broader approach, that poverty is also;

- i. Lack of voice; people need awareness to express their needs or obtain redress.
- ii. Lack of empowerment; people need the resources and authority to take charge of programme meant for their benefit.
- iii. Lack of good governance; people are worse off when officials are corrupt, unresponsive to the local demands, and unaccountable.

Sen in this light sees local empowerment as a form of poverty reduction in its own right, quite independent of its income effect. LEEMP as a local empowerment project hoped to improve the lives of the beneficiaries in Logo LGA of Benue State.

The theory adopted for this paper is the cumulative and cyclical theory of poverty by Myrdal (1957). This theory presupposes that poverty is a serious problem which has a lot of causes leading to a cascade of negative consequences. The theory shows how multiple problems cumulate to cause poverty and the solution to these problems needs to be equally complex and from a multifaceted approach.

Poverty in Logo LGA of Benue State is no exception; therefore, there is need to address these problems from different angles which are through the provision of income generating assets, education and skills, provision of safe surrounding and access to health care, so that the circle of poverty can be broken. This is the major thrust of the cumulative and cyclical theory of poverty. Thus, the study assesses how LEEMP has used these different approaches, in trying to tackle the problem of poverty in Logo LGA of Benue State

## **A Review of Poverty Reduction Programmes in Nigeria**

The major programme that the government launched in the 1970's to eradicate poverty was Operation Feed the Nation (OFN), in 1976. During the second republic, in 1980 Operation Feed the Nation was dropped and replaced with Green Revolution; this had a twin objective of curtailing food importation while boosting crop and fibre production. As reported by Maduagu (2001), when the programme ended in 1983, ₦2 billion tax payers' money was expended on the programme. In 1986 the Directorate of Food, Roads and Rural Infrastructure (DFRRI) was created for rural development. This was meant to provide feeder road, portable water and toilet facilities for the rural dwellers, the project gulped ₦1.9 billion, it ended in 1993 Maduagu (2001).

The military regime of 1993 created Family Support Programme (FSP), this programme was expected to serve as a model for African countries in their efforts in tackling poverty problems, Maduagu (2001) reported that by the time the programme ended in 1998, it had gulped over ₦10 billion. The Family Economic Advancement Programme (FEAP) started in 1997 as an offshoot of FSP and was aimed at improving the standard of living of low income people. The programme received a budgetary allocation of ₦4.1 billion in 1997 and ₦3.3 billion in 1998, it did not start implementation until June 1998 with the disbursement of ₦250 million to the successful applicants, it ended in 1998 (Ijaiya, 2002).

In the third republic, the Poverty Alleviation Programme (PAP) was launched in 1999. According to Ajegi (2002), the government earmarked the sum of ₦10 billion for its Poverty Alleviation Programme and it was envisaged that the amount would be used to create 200,000 jobs nationwide with beneficiaries earning ₦3000 monthly for twelve months, the programme failed to address the real issues involved in poverty and at the end, ₦10 billion disappeared for a programme not executed. The National Poverty Eradication Programme (NAPEP) was also introduced in 2001; an important objective of NAPEP was to help eradicate extreme poverty by the year 2010, in line with the United Nations Millennium Development Goal (MDG) of reducing the proportion of people living in poverty by half in the year 2015. The National Coordinator of NAPEP, asserted that in the life of the National Poverty Eradication Programme from 2001 till date, the agency has received a total of ₦11.8 billion. This average about ₦1.5 billion per year (Emejor, 2009).

### **Evaluation of Poverty Reduction Strategies in Nigeria**

The programmes that have been highlighted and reviewed are in no way exhaustive of the poverty reduction strategies attempted or implemented in this country, Billions of Naira have

been used in various efforts to reduce poverty but the poverty level in the country has been on the increase. Records indicate that the poverty level rose steadily from 28.1 per cent in 1980 to 34.1 per cent in 1992. It then rose to 69.2 per cent in 1997, and reduced to 54.4 per cent in 2004. The population growth rates have meant a steady increase in the number of the poor from 39 million in 1992 to 69 million in 2004 (National Planning Commission 2006). According to the National Bureau of Statistics (2008), poverty level in Nigeria increased to 67.6 per cent, 69.9 per cent and 70.6 per cent in 2005, 2006 and 2007 respectively, giving an increase in the number of the poor to 97 million, 108 million and 113 million in 2005, 2006 and 2007 respectively.

In assessing the effectiveness of these programmes, it has been observed that those who captured the benefits of the initiatives were not the poor; they were the rich and the powerful. Ajegi (2002) opined that political interference is the major impediment to poverty alleviation under the current civilian administration, that the programmes instead of being executed with the aim of benefiting the real victims of poverty were seen as avenues for rewarding political allies. He stated further that the inability of government to adequately mobilize the victims of poverty ensure their full participation in the identification and design of the programmes as well as guaranteeing their sustainability have all contributed to the failure of poverty alleviation programmes. Instead of a bottom-up approach, the programmes are designed from the top and handed down on the poor. As Maduagu (2001) puts it;

*government claims to know and understand what poverty is, who the poor are and what they need in order to alleviate their poverty. The Abuja big men cannot possibly understand what it is to be poor, only the poor man understands poverty and it is only the poor that knows how their poverty could be alleviated.*

Of great policy importance then are shifts from the way the past programmes were initiated and implemented so as to ensure that citizens actively participate in formulating and implementing projects of which they are supposed to be beneficiaries.

## **Empirical Review**

Chaudhry (2003) conducted a study on an empirical analysis of the determinants of rural poverty in Pakistan: A case study of Buhawalpur District with special reference to Cholistan. The study made use of primary data and an econometric analysis. The logistic regression results indicated that Household size, Dependency ratio, and Households made houses by mud and straw are variables that were positively and significantly correlated with the probability of being poor while variables such as educational attainment of household, Household has a latrine in his house, participation rate, Age of Household head, Household visits to health center, Household has access to drinking water by pump and landholdings are negatively and significantly correlated with the probability of being extremely poor.

In analyzing the impact of socioeconomic and demographic characteristics of households on poverty, Chaudhry et al, (2009) using primary data collected in the village of BettiNala in Tehsil Jatoi district, Muzaffargarh in Southern Punjab used two distinct approaches: (i) a poverty profile, and (ii) an econometric approach in their empirical analysis. Findings revealed that Size of the household, Dependency ratio, household head is female, household head in non-farm worker and household residence had odd ratios more than 1 which confirmed their positive relation with the probability of being poor. On the contrary, the variables Household education level, Female-male ratio, Household head's literacy rate, Participation rate, Age of the household head, Household visits to health center, Household head is farmer, Household head in agricultural laborer (-0.44), Household's land holding (-0.69), Population of livestock per household, and Household's physical assets all had odds ratios lower than 1, which means that the variables were negatively correlated with the probability of being poor. The Study concluded that efforts should be made to improve Socio-economic factors in general and demographic factors in particular to alleviate rural poverty in remote areas of Pakistan, while land should be allotted to landless households.

Hashmi and Sial (2008) in a related manner carried out a study on Trends and Determinants of Rural Poverty using a Logistic Regression Analysis of Selected Districts of Punjab. Data was analyzed using binary logistic model and head count measure. The household data set used in the analysis was made up of 14 rounds of the International Food Policy Research Institute (IFPRI) sample from 1986/87 to 1990/91, together with a sub-sample of panel data households included in the 2001/02 Pakistan Rural Household Survey (PRHS). The results showed that the chance of a household tripping to poverty increased due to increase in

household size and dependency ratio, while, education, value of livestock, remittances and farming decreased the likelihood of being poor.

Another study in this line is that conducted by Yusuf et al (2008) on the Assessment of Poverty among Urban Farmers in Ibadan Metropolis to examine the poverty status of urban farm households. Data generated were analyzed using descriptive statistics, poverty indices and logistics regression analysis. Findings revealed that households engaged in crop farming had the highest poverty level (50%), while mixed farming households had poverty level of 37% and livestock, 17%. The estimated logistic regression equation showed that crop farming activity engaged in and household size increase the odd ratio of being poor while age of urban farmers, educational status, years of experience in farming and livestock farming decrease the odd ratio of being poor. The study concluded that mixed farming and livestock farming are antidotes to reducing poverty among urban farmers.

## **Methodology**

The study was conducted in Logo Local Government Area of Benue State. Logo Local Government Area was selected because it was one of the initial pilot Local Government Areas that benefited from LEEMP's activities in 2005.

To carry out the study, primary data was sourced with the use of questionnaires, interviews and observations from 5 LEEMP communities in the Local Government. These communities were selected purposely being the beneficiaries of the LEEMP's project. They are Nenzev, Ukemberagya/Tswarev, Yonov(wende), Abeda-Ugondoza, and Azege/Anyibe, In each community; Twenty (20) households were randomly selected, making a total of one hundred (100) households selected from the study area. The analytical tools used were descriptive statistics, t-test analysis and the logic regression model. The logic regression model was used to examine the impact of LEEMP on the poverty status of beneficiaries. This approach is in line with Chaudhry et al, (2009); Hashmi and Sial (2008); Yusuf et al (2008); and Chaudhry (2003).

The implicit form of the model is:

$$\ln(P/1-P) = Z = \alpha + \beta X + u$$

Thus the model is explicitly expressed as:

$$Z = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + u$$

Where:

Z = Poverty Status (poor = 1, if household earns less than US\$1.5 per day (Naira equivalent)

on-poor = 0, if household earns more than US\$1.5 per day (Naira equivalent)

$\alpha$  = constant

$\beta_i$  = (where  $i = 1,2,3,4,5$ ) = parameters to be estimated

$X_1$  = Household size (number of people living in a household)

$X_2$  = Income from non-farming activities (in naira)

$X_3$  = Access to safe drinking water (1 if household access drinking  
Water by tap, borehole or protected well, 0 if otherwise)

$X_4$  = Educational status of household (the total number of years all members of the  
household spent in a formal educational institution.)

$X_5$  = Access to educational facilities (the number of household members attending a  
formal educational institution from 2005 to date)

$X_6$  = Access to health facilities (1 if household member visits health center in  
community, 0 if otherwise)

U = error term

### ***A priori* expectations**

The  $X_1$  coefficient is expected to have a positive sign, while  $X_2, X_3, X_4, X_5$  and  $X_6$  coefficients are expected to have a negative signs.

## **Results and Discussions**

### **Change in Distance to safe Water**

The analysis in Table 1 established a level of success of the project on the socio-economic life of the beneficiaries. On distance to safe water before and after LEEMP intervention, the mean difference (0.050) and  $t$  ratio (2.039) is positive, indicating that distance to safe water before LEEMP intervention was more than the distance after LEEMP intervention. The  $t$  value is found to be significant at 5% level. The implication is that the respondents do not need to travel long distances to source for water and as such, save time and energy for other activities.



### **Change in Access to Education**

According to Table 1, there was a significant difference ( $t=-3.531$ ) between the respondents access to education before and after LEEMP intervention. In the result, the mean difference (-90.80) and  $t$  ratio (-3.531) is negative, indicating that school enrollment after LEEMP intervention was more than school enrollment before LEEMP intervention. The  $t$  value is found to be significant at 5% level. The implication is that more children will be trained in schools; high educational attainment may imply a greater set of employment opportunities and specifically in the rural context, a better awareness of the full potentials of new agricultural technologies and associated agricultural practices.

### **Change in Access to Health**

Table 1 also presents result on access to health facilities before and after LEEMP intervention. In the result, the mean difference (-455.733) and  $t$  ratio (-2.265) is negative, indicating that attendance to health clinic after LEEMP intervention was more than attendance to health clinic before LEEMP intervention. The  $t$  value is found to be significant (0.040) at 5% level. The implication is that with more people attending health clinic especially women attending anti-natal clinics, there will be reduction in deaths, since they will be receiving medical care during child births. Also immunizations from these clinics will reduce childhood killer diseases.

### **Impact of LEEMP on the Poverty Status of Beneficiaries**

Table 2 presents the logit regression result. This was used to measure the impact of LEEMP on poverty status of beneficiaries. The result indicate that the coefficient of household size is positive and in line with *a priori* expectation. This means that an increase in household size increases the probability of being poor. This agrees with Hashmi and Sial (2008), who also recorded a positive coefficient and reported that likelihood event of being poor were more if a household had large number of the member (household size). However, the effect is insignificant (0.968). This may be because family size has tremendous advantage of guaranteeing labour availability. This result agrees with Chaudhry (2003) who reported that squaring the household size implies that the probability of being poor will reduce.

As expected, income derived from non-farming activities is capable of reducing the probability of being poor, given the negative sign (-0.015), of the variable's coefficient and it

is significant (0.002) at 1% level. This is possible because as respondents' spend more time on other income earning activities provided by LEEMP like agro-processing mills, livestock farm and speed boats, the income gotten from these activities will improve their poverty status. This is in line with *a priori* expectations, thus income derived from these activities is capable of reducing the probability of being poor.

Access to safe drinking water has a positive sign (1.771), and is significant (0.004) at 5% level. This means that this variable significantly increases the probability of being poor. This is not in line with *a priori* expectation. This may be due to the poor water situation in Logo LGA. This underscores the need for more effort to be geared towards the provision of portable water in the rural areas.

The household educational level has a negative coefficient (-0.035) in line with *a priori* expectation. This is more so because as family members' gets higher education, the tendency for them to engage in white-collar job is very high; hence, they may therefore get additional income even if they are still engaging in farming. So, for additional years spent in gaining formal education, the probability of being poor decreases. This increase in household education level is significant (.053) at 10% level. This result is in line with Onoja and Unaeze(2009) who found that as community members get higher education, the tendency to boost their income increases. The result of this study also agrees with the findings of Chaudhry et al, (2009) who reported that the more an individual is educated, the greater the potential to exploit resources and technology and avoid poverty. The finding conforms to Hashmi and Sial (2008), that education is a vital factor which reduces the chances of being poor.

The number of household members attending a formal educational institution from 2005 to date also has a negative sign (-0.031) in line with *a priori* expectation. Which means that the number of people attending school since 2005 to date have the possibility of reducing the probability of being poor. Although this is not significant (0.743) this may be due to the fact that these children are still young and mostly in primary schools.

Finally, access to health facilities also has a negative sign (-4.823), this is also significant at 1% level. This means that an increase in availability of health facility leads to more people visiting these facilities for treatment, immunization, anti-natal and post-natal care, and this leads to the reduction in the probability of being poor. This conforms to *a priori* expectation. This finding agrees with the findings of Chaudhry (2003) who also reported a negative value

and reported that a healthy and typical household in the rural areas may enhance his income through hiring out his labour wage. The finding also conforms to the findings of Chaudhry et al, (2009).

## **Conclusion**

The LEEMP has been implemented in the state for the past 5 years and based on the assessment of this analysis it has recorded success so far especially in the provision of educational facilities, health facilities and income from other sources other than farming whose income is seasonal in nature. These have boosted the socio-economic characteristic of the beneficiaries' of LEEMP in Logo LGA. This finding implies that poverty in the study area could be reduced given the success achieved in these areas. While access to safe water and household size increases the log likelihood of being poor, incomes from non-farm sources, educational status of household, access to health and access to education reduces the log-likelihood of being poor.

## **Recommendations**

Based on the findings of this study, the following recommendations are made:

- i. Efforts should be made towards the provision of safe drinking water especially in the rural areas, this is because most communities in Benue State are still obtaining their drinking water from streams and ponds, provision of safe drinking water is one sure way of reducing poverty in these rural communities.
- ii. More teachers should be employed by the Government and deployed to the schools where new educational facilities are constructed since there has been increase in enrollment of children in such schools.
- iii. Similarly, health workers should be employed into those health centers provided by LEEMP in other to cater for the increase in attendance to clinics in these areas.
- iv. Creation of job opportunities in these communities is very vital to the development of these rural areas, this is because as more people are enrolling into schools, there is tendency for more graduates and school leavers to be turned out, therefore creating jobs for them will be a means of creating incomes and reducing the vicious circle of poverty in these rural areas.
- v. Finally, Government in her effort to reduce poverty in Nigeria and in Benue State in particular should embrace the Community Driven Development approach to poverty

reduction in all her poverty reduction programmes, since it is only through this bottom-up approach that poverty will be reduced in Nigeria.

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**Table 1: T-test result on Changes in Socio-economic variables before and after LEEMP Intervention**

Variable	Mean	Mean Difference	Standard deviation	t-ratio	Sig. (2-tailed)
<b>Distance to</b>					
<b>Water source</b>					
2004	1.34				
2009	1.29	0.050	0.219	2.039**	0.045
<b>Attendance to</b>					
<b>Health clinic</b>					
2004	284.73				
2009	740.40	-455.74	779.15	-2.265**	0.040
<b>School</b>					
<b>Enrollment</b>					
2004	216.00				
2009	306.80	-90.80	57.51	-3.531**	0.024

\* t-ratio is significant at 1% level; \*\*t-ratio is significant at 5% level

**Table 2: Logit Regression result for the Impact of LEEMP on the Poverty Status of Beneficiaries**

Variables	Coefficients	Standard Error	Sig. (2-tailed)
Constant	-6.131	1.821	0 .001
Household Size	0.004	0.092	0.968
Income from Non-farm	- 0.015*	0.000	0 .002
Access to Safe water	1.771	0.611	0.004
Educational Level of household	-0.035	0.018	0 .053
No of children Attending sch.2005 To date	-0.031	0.094	0.743
Access to health Facilities	-4.823	1.128	0 .000

\* Significant at 1% level; \*\* Significant at 5% level

Log likelihood ratio = 67.2; Nagelkerke R<sup>2</sup> = 70%

Chi-square statistic 105.161; Significance of chi-square = 0.000