Poverty Determinant among Farmer - Beneficiaries of National Directorate of Employment (NDE) In Abia State, Nigeria

1K.C. Obike, 2O.O. Ukoja and 3C.I. Ezeh

1Department of Agricultural Economics, Abia State University, P.M.B. 7010, Umuahia Campus, Abia State, Nigeria
2Department of Agricultural Economics, Michael Okpara University of Agriculture, Umudike, P.M.B. 7267, Abia State, Nigeria

Abstract: This study investigated the poverty determinants among farmer-beneficiaries of the National Directorate of Employment (NDE) in Abia state, Nigeria. Foster -Greer-Thorbecke (FGT) model, regression analysis and frequency were used to evaluate poverty determinants in the area of study. Structured questionnaires from 120 respondents who are beneficiaries of the NDE agricultural services were used. A simple random sampling frame presented the list of farmers who registered with the NDE. The socio-demographic characteristics of the poor farmers in the sample were also presented, identified on the basis of an income-based poverty line measure. The result showed that, among the NDE beneficiaries were more married young males with minimal education and good farming experience. In addition, the result of the data analysis further revealed that farmers’ income, farming experience gave expected significant result at 1% level; however, credit obtained from NDE did not give expected result. This is because the data used was a cross-section which cannot allow the time needs for credit to influence income generation and alleviate poverty.

Key words: Poverty - Farm Household and NDE

INTRODUCTION

About 45% of the world’s population are living on less than US$1 per day. Africa is one of the regions most affected by poverty [1], the corresponding proportion for Nigeria being 65%, with two third of Nigerians living in rural areas as small holder farmers account for 80% Nigeria’s poor [2]. The United Nations Human Poverty Index (HPI) in 1999 which credited Nigeria with 41.6% HPI captured the phenomenon more succinctly as the figure placed the nation amongst the 25 poorest nations in the world [3]. This is regardless of the fact that since independence Nigeria is said to have realised $300 billion in oil and gas revenues and development aid [4].

The government has vigorously pursued a poverty alleviation programme through the establishment of many schemes and programmes, while other programme collapsed and phased out of the system at one point or the other. The National Directorate of Employment (NDE) has had a 17 year staying power up to date as established in 1984 to generate employment the law establishing the NDE present its mandate as follows:

- To design and implement programme to combat mass unemployment.
- To articulate policies aimed at developing work programmes with labour intensive potentials.
- To obtain and maintain a data bank on employment and vacancies in the country with a view to acting as a clearing home to help job seekers with employment opportunities in collaboration with other government agencies.
- To implement any other policies as may be laid down from time to time by the board established under the section of the enabling decree.

It has been recognised widely that expanding employment is central to reducing poverty [5]. Against this background this work tries to examine the institutional issues of the National Directorate of Employment (NDE) in poverty alleviation among farmers i.e. expanding employment in farming. Accordingly, establishment of NDE as the main organ for employment creation is a welcome development, given that poverty manifest itself in the forms of unemployment and
underemployment, the schemes/programmes of the NDE could be said to have poverty alleviation focus [2].

Amongst the four programme created by the NDE to achieve its goal is the Agricultural Sector Employment Programme. This programme operates under Graduate Agricultural Employment Schemes (GAESS), School Leaver Farmer Settlement Schemes (SLFSS) and School Leaver Farmer Training Scheme (SLFTS). The aim of the Agricultural programme of the NDE is to generate employment for the unemployed people with emphasis on self employment in agriculture. This is done by providing farm land, farm inputs, such as improved seedlings, fertilizers, farm tools, pesticides and herbicides, organising orientation programmes, training of farmers in modern agricultural practices plus provision of extension services.

Poverty is persistently high in Nigeria [6]. This implies that the method used in alleviating poverty in the country may have been ineffective. The major reason for this ineffectiveness may include programme inconsistency, poor implementation, poor targeting mechanism and failure to focus directly on the poor [7, 8].

Furthermore, the absence of basic information on the effectiveness of the NDE in poverty alleviation to farmers is a major problem. It is therefore not clear the extent the NDE had affected poverty alleviation particularly within the context of its agricultural programme.

There is therefore a compelling need to appraise the institutional framework work to ascertain the problem affecting its operation and possible solution which could serve as a guide to policy formulation to enable the institution reposition itself for effective poverty alleviation programme.

This study is aimed at examining the socio-economic characteristics of farmer-beneficiaries of NDE; it will also focus on identifying factors determining poverty among farmers and finally offer policy recommendation for improving NDE agricultural services as a veritable tool for poverty alleviation in the state.

Poverty alleviation is one of the most difficult goals of development efforts of any government. Since poverty is more prevalent amongst farmers and agriculture continues to dominate the economy of the poor, it is important to investigate the effectiveness of any poverty alleviation programmes to farmers like the NDE. This is required for effective policy formulation, evaluation and implementation. Since the NDE is one of the institutions that survived the SAP era and have continued to articulate development policies and programme with labour intensive potentials aimed at solving unemployment and poverty in Nigeria [9], it is necessary to evaluate the role it has played towards poverty eradication to farmers.

Achieving a high level of employment—preferably “full employment” is a universal goal among policy makers [10]. Employment expansion figured centrally among the concern of early development theories due to their high aggregate conceptualisation and slight regard for the institutional complexities of rural and urban labour markets in low-income economies [11]. Employment and the agricultural sector play key roles in the development process of any country [12]. It is interesting to note that any country undergoing structural adjustment increases their employment programmes for institution in poverty reduction, without much initial involvement of the institutions guiding the adjustment policies.

**MATERIALS AND METHODS**

This study was carried out in Abia state situated in the eastern part of Nigeria. Abia state has 17 local government areas clustered in 3 agricultural zones. The state lies on latitudes 4°N to 7°N of Equator and longitudes 6°E to 62°E of Green Witch Meridian [13]. The state was chosen for the study because agricultural activities is a major occupation of the inhabitants of the state. The state is endowed with land suitable for growth of various tropical crops and rearing of various livestock. The major crops cultivated in the state are maize, rice, wheat, sorghum, beans, yams cassava, oil palm, cocoa, groundnut, rubber and cotton. Major animals reared include poultry, goats, sheep, cattle and pigs.

Only primary data was used in this work. The instrument for data collection was a structured questionnaire. A total of 120 questionnaires were administered to farmers who have benefited from NDE.

The sampling frame is composed of a list of farmers who have benefitted from NDE agricultural services.

The techniques for data analysis used include frequencies, percentages, means, Foster, Greer and Thorbecke (F-G-T) poverty measure and multiple regression analysis.

In order to identify factors determining poverty among farmers we estimated the poverty line and also F-G-T poverty measure (using α = 2). This estimation of farmers’ poverty levels was then regressed on the variables which showcased the NDE services and other relevant variables.
The implicit form of the poverty function is given as:

\[ P_i = f(X_{1i},X_{2i},X_{3i},X_{4i},X_{5i},X_{6i}) \]

Where

- \( P_i \) = Poverty level of the \( i^{th} \) farmer
- \( X_{1i} \) = Labour employed in all farm enterprise (Man days)
- \( X_{2i} \) = Household size (number of persons in the household)
- \( X_{3i} \) = Value of variables supplied by NDE (₦)
- \( X_{4i} \) = Farm land provided by NDE as a percentage of total farm land.
- \( X_{5i} \) = Amount spent on children education yearly (₦).
- \( X_{6i} \) = Annual farm income (₦).
- \( X_{7i} \) = Farming experience (years).
- \( X_{8i} \) = Credit received from NDE (₦).

The F-G-T poverty measure [1-4] is given as:

\[ P = \frac{1}{n} \sum (1 - y_i / PL)^{\alpha} \]

Where

- \( P_i \) = Poverty for the \( i^{th} \) individual.
- \( Y_i \) = Household income below poverty line.
- \( PL \) = Poverty line.
- \( n \) = Number of household studied.
- \( \alpha \) = Varying parameters (i.e from 0-1 and 1-2) provides estimates of the intensity and Severity of poverty for the study \( \alpha = 2 \).

The Poverty Line Is Given as:

\[ PL = \frac{1}{2} (\sum HI) / n \]

Where

- \( PL \) = Poverty line.
- \( \sum HI \) = Summation of household income.
- \( n \) = Number of households studied.

### RESULTS AND DISCUSSION

**Socio-Economic Characteristics of Farm-Household Beneficiaries of NDE:** Males constituted about 80% of the NDE beneficiaries while only 20% of the respondents were female farmers as shown in Table 1. This could be an indication that men were more responsive to invitation to register with NDE as well as receiving NDE services than women. The implication is that male headed households utilized NDE agricultural services more than the female headed households. This is contrary to previously held opinion that more women were involved in farming than men [4].

The age distribution shows that a majority of the respondents, about 65% fall within the ages of 27 - 48 years. The implication is that farmers who benefitted and utilized more of the NDE services are about middle aged. Farmers within this age bracket are normally resourceful and productive and thus are expected to be more likely to respond to NDE invitations and programme, this can be seen in Table 2.

The marital status of respondents summarised in Table 3 shows that 80% of the respondents were married, 11.67% of them divorced, 6.67% widowed, while 1.67% were single. This implies that married respondents have potential source of farm labourers which consequently may lead to high farm output. The findings as summarised in Table 4 reveals that family size of 4-6 persons per household accounted for 43.33% of the respondents examined. The implication is that respondents with

### Table 1: Distribution of Respondents According to Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>90</td>
<td>80</td>
</tr>
<tr>
<td>Female</td>
<td>30</td>
<td>20</td>
</tr>
</tbody>
</table>


### Table 2: Distribution of Respondents According to Age

<table>
<thead>
<tr>
<th>S/N</th>
<th>Age Range (years)</th>
<th>Number of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>16-26</td>
<td>6</td>
<td>5.00</td>
</tr>
<tr>
<td>2</td>
<td>27-37</td>
<td>38</td>
<td>31.67</td>
</tr>
<tr>
<td>3</td>
<td>38-48</td>
<td>40</td>
<td>33.33</td>
</tr>
<tr>
<td>4</td>
<td>49-59</td>
<td>30</td>
<td>25.00</td>
</tr>
<tr>
<td>5</td>
<td>60-69</td>
<td>4</td>
<td>3.33</td>
</tr>
<tr>
<td>6</td>
<td>70 and Above</td>
<td>2</td>
<td>1.67</td>
</tr>
</tbody>
</table>

Source: NDE Farm Household Survey 2003/2004

### Table 3: Distribution of Respondents According to Marital Status

<table>
<thead>
<tr>
<th>S/N</th>
<th>Marital Status</th>
<th>Number of Respondent</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Single</td>
<td>2</td>
<td>1.67</td>
</tr>
<tr>
<td>2</td>
<td>Widowed</td>
<td>8</td>
<td>6.67</td>
</tr>
<tr>
<td>3</td>
<td>Married</td>
<td>86</td>
<td>80.00</td>
</tr>
<tr>
<td>4</td>
<td>Divorced</td>
<td>14</td>
<td>11.67</td>
</tr>
</tbody>
</table>

Source: NDE Farm Household Survey 2003/2004

### Table 4: Distribution of Respondents According to Family Size

<table>
<thead>
<tr>
<th>S/N</th>
<th>Family Size</th>
<th>Number of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1-3</td>
<td>26</td>
<td>21.67</td>
</tr>
<tr>
<td>2</td>
<td>4-6</td>
<td>52</td>
<td>43.33</td>
</tr>
<tr>
<td>3</td>
<td>7-9</td>
<td>20</td>
<td>16.67</td>
</tr>
<tr>
<td>4</td>
<td>10 and Above</td>
<td>22</td>
<td>18.34</td>
</tr>
</tbody>
</table>

Source: NDE Farm Household Survey 2003/2004
average household size of at least 4-6 members dominated the NDE agricultural programme and perhaps stands better chance of enjoying the benefit of poverty alleviation programme of the NDE.

The educational level of the respondents as summarised in Table 5 shows that respondents with only primary school education dominated the NDE agricultural programme. The implication is that farmers with primary education engaged more actively in farming. This probably may be because their reduced literacy level may be a handicap to engaging in a higher level of employment. However evidence show that this segment of beneficiaries are more receptive to assistance from institutions to improve farming activities this is however in conformity with work done by Central Bank of Nigeria [9].

Table 6 shows the respondents farming experience, from the table it can be deduced that 71.64% have been in farming for more than 10 years. The implication therefore is that, experienced farmers benefitted more from the NDE agricultural programme and perhaps had a better chance of overcoming poverty through these services.

Table 7 present the regression results of the determinants of poverty among farmers in Abia state, Nigeria. The results shows that annual farm income was negatively related to poverty, significant at 1% level, this is in conformity to a priori expectation which agrees that annual farm income is critical to poverty alleviation [5]. However, there was a positive relationship between poverty and credit obtained from NDE, this is against a priori expectation and disagrees with work done by Central Bank of Nigeria [9] and Simmons and Herchey [15] which states that credit has been essential to poverty alleviation. This finding suggests that beneficiaries of NDE may not have been able to utilize credit meant for farm purposes effectively. More so, there is a negative relationship between farming experience and poverty at 1% significant level. This confirms to a priori expectation and shows that as farming experience increases, poverty decreases, this is in agreement with work done by Bekouin [16] and National Directorate of Employment [17]. The amount spent in children education was negatively related to poverty, but significant at 1% level. This is against a priori expectation which states the more money is spent on children education the more poverty increases. This result is however expected in the long run, when the educated children starts receiving income as a result of the education they acquired.

RECOMMENDATION AND CONCLUSION

The study reveals that more young married men with little education dominated the NDE agricultural programme, the government can ensure that as more men benefit from the NDE, the women folk should also be encouraged to participate in the programme.

The engagement of experienced farmers in the NDE poverty alleviation programme can go a long way in reducing poverty among farmers. Government policies can take cognizance of this.

Pragmatic policy that guard against the diversion of credit meant for farming activities by beneficiaries of NDE should be put in place by the NDE official.
This calls for close monitoring of the credit given to farmers to ensure that the purpose of the credit given is achieved. More so, there is the need to review NDE credit upward to meet farming needs.

Incorporation of policies that can support poor farmer’s children education should be put in place; this is because farmer’s children education has a long-run effect of reducing poverty.

The NDE as an institution for poverty alleviation for poor farmers, this was reflected in farmers farm income and farming experience which gave expected significant result at 1% level respectively. Credit obtained from NDE did not give expected significant result, meaning that though credit is crucial in poverty alleviation its effect was not revealed in the result. The NDE can be re-engineered for better effectiveness following the recommendation given in this work. It is however, expected that poor farmers be properly enlightened so as to embrace and utilize NDE services. The expected response on the part of the government of Nigeria is to increase funding to the NDE for improved service delivery geared towards poverty alleviation.

REFERENCES