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Income Transfer and Inequality Among Farm Households in Orlu Agricultural Zone of Imo State, Nigeria

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Abstract: This study determined the level of income transfer among farm households to be 26% of the total farm household income (N60, 197.87). The incidence of poverty and extreme poverty were determined to be 34 and 2%, respectively. A per capita income of N7, 524.73 was determined. The Gini-coefficient of income distribution among the farm households was found to be 0.488. The ration of mean per capita income between the poorest decile and the most wealthy decile was 1:6. Incomes were fairly uniform through the age of 55 years but declined for household heads of 65years and above. There is negative correlation between the mean age at death and the income share of bottom 20% in national income analysis. This implied that the higher the share of the poor in national income, the less would be the mortality differentials.

Key words: Income transfer, inequality, farm households, agriculture zone, Nigeria

INTRODUCTION

A large part of the problem of inequality of incomes is due to the pricing of the labour services that people have to offer. Factor pricing and hence the distribution of income is a by-product of the market allocation system. This allocation helps to determine both the quantities of the goods and services that are produced and the methods by which they are produced (Lipsey *et al*., 1984). Although national inequality of incomes is amplified if incomes are less equally distributed within industrial sector, but it should be noted that the primary cause of national income inequality is the income gap between the agricultural and industrial sectors (Matlon, 1979). Among the developing countries, inequality between sectors has been found to explain under one-third of overall national inequality with the greatest proportion attributable to factors related to within sector disparities. This reflects the pre-growth distribution of income among traditional farm producer and the emergence of economic dualism within agriculture.

Experience in countries which have witnessed the introduction of fertilizer technologies has shown that the pattern of adoption is importantly affected by the existing distribution of incomes. If successful adoption requires increased use of factors which are positively related to current income, a skewed tradition distribution can both retard modern sector expansion and contribute to greater overall income inequality and poverty. This underlines the need for detailed knowledge of the distribution of income at the farm household level. Information is definitely needed to answer the following questions: what is the degree of relative income inequality in Orlu agricultural zone of Imo State, Nigeria; what is the level of income transfer among the farm households; Is there an incidence of extreme poverty at the farm household level? The demographic structure of the farm households are examined to determine the presence of life cycle income factors.

MATERIALS AND METHODS

The basic unit of analysis in recent Farming System Research (FSR) has been the farm household. Adeyelonnu, defined the farm household as a unit of compound consisting of people eating the same bowl and sharing the same catering services, this definition was adopted in this study. The choice of Orlu agricultural Zone of Imo State was due to the fact that it is predominantly a traditional farming zone, under high population pressure. The study area is easily accessible and the farmers within the agricultural zone are mainly small-scale farmers. This study then provided an insight into farm household income and income transfers in a traditional setting.

Farm households were selected from the 10 Local Government Areas that are in Orlu agricultural zone. The sample farm households were randomly selected from a list of farm household competed for this study. From the list of farm households, 10 farm households were selected randomly from each of the 10 Local Government Areas. This gave a total of 100 farm households as respondents.

Data was collected through intensive cost-route approach. This implied frequent weekly interviews and the establishment of good report with participating farm households. Data for this study were collected with for this study were collected with the aid of a questionnaire for a period of 12 months. The questionnaires were directed to the farm house hold heads in the study area. Descriptive statistics were used to analyse the data collected. Gini coefficient was used to analyse the income distribution. The poverty line was set at two-thirds of the mean per capital income of the sample farm households. A lower poverty line was set at one-third of the mean per capital income of the farm households. Income transfers include all types of kind payments in the study area (both monetary and non monetary payments).

The analysis of income inequality in this study was based on Gini-co-efficient of income distribution. The Gini-co-efficient is more sensitive than the logarithmic analysis of variance to changes in the grouping of data, and consequently is a better measure of year to year changes in income (Matlon, 1979).

For the analysis of income inequality the model specified below was used Gini-Coefficient.

$$= (\tfrac{1}{2} n^2 U) \sum_{i=1} \sum_{j=1} / Yi - Yj /$$

Where,

n = Number of observations
U = Mean income
Yi = Income observation i
Yj = Income observation of all other observations

Poverty is used to define whole people's welfare, not according to what they want to be, but according to what they lack and are expected to become. Income is a blunt indicator of the actual living conditions of those families not fully integrated into a money economy. In this study poverty refers to a situation in which individuals, groups or communities at a given point in time experience a level of income below that which is needed to provide a desirable minimum level of living standard. In the southeastern states and Imo State in particular the differences between the wealthy and the poor are particularly pronounced in the rural areas (World Bank, 1996). The poor are those whose income is below the poverty line. The poverty line for this study as determined at 2/3 of the mean per capita income of the sample farm households and lower poverty line of 1/3 of the mean per capita income of the sample farm households. These poverty lines were held constant throughout the study. The current practice for identifying a single monetary indicator of household welfare is to let the indicator for the ith household be denoted yi. This tends to be either total expenditure or consumption or total income over some period. This study adopted total income over a year period. The poverty line was denoted Z_i and is defined as 2/3 of the mean per capita income of the sample farm households. This estimate the cost to the household of the level of welfare needed to escape poverty. This means that it is agreed implicitly, that lower values of Y_i/Z_i mean that a typical household is poorer. Aggregate poverty measure is identified which summarizes the information in the measured Y's and Z's. The most common measure is the head count index or incidence of poverty which is given by the proportion of the population for which Yi/Zi <I

Where ,

Yi = Household welfare indicator
Zi = Poverty line

RESULTS AND DISCUSSION

A Gini-co-efficient of 0.488 was determined in the study area. This is higher than the World Bank value of 0.450 estimated in 1996. This showed a higher level of income disparity among the farm households. The ration of mean per capital incomes between the poorest decide and the most wealthy decide (the tenth and the first deciles) was found to be 1:6. This ratio showed that incomes were not highly concentrated but varied around the low overall mean level income of N7, 524.73. This is expected in a population where mean earnings do not greatly exceed the subsistence level of income. This has implication for savings, investment and rural agricultural development.

A close relationship between inequality as measured by the Gini-co-efficient and life expectancy has been reported by Pandy and Nathuvani (1979) suggesting that overall population mortality increases with income inequality. There is a negative correlation between the mean age at death and the share of bottom 20% of the population in national income implying that the higher the share of the poor in national income the less would be the mortality differentials (Lind, 1992). Poverty is normally used to define people's welfare. In the south eastern states and Imo State in particular, the difference between the wealthy and the poor is pronounced. The extreme poor in this study are those whose income is below the lower poverty line. This lower poverty live was 1/3 of the estimated per capital income or N2, 508.24. The proportion of people in extreme poverty was estimated to be 2 % of

the population. This existence of extreme poverty calls for urgent attention by the policy makers. The incidence of poverty was found to be 34% of the population, this has implications for rural development. Although the poverty line is relatively small when compared with the per capital N5, 016.49 and N7, 524.73, respective its level suggests that a large segments of farm households are concentrated near the poverty line and are vulnerable to becoming poor with only a modest decline in their incomes.

The exchange of gifts in the form of money, food, clothes or other items is popular in the study area. Contributions of cash are commonly made in connection with marriage, funeral ceremonies and as a form of income support for the families. Income from transfer payments was recorded and found to be positively correlated with farm household income. Availability of this transfer income increases the disposable income of the households who receive them. This has implication for the purchase of improved farm inputs and agricultural production.

The average amount of transferred income in the study area was found to be 26% of the average farm household income or N15, 651.45 the potential role of unofficial flows of funds from urban to the rural areas through unofficial autonomous networks has been ignored by many researchers. Although this deprives the government its ability to control the destining of the rural farmers, attention must be paid to this hidden factors of development, especially towards discovering organizational potentials of the autonomous networks involved.

To determine the presence of a life cycle earning pattern, the contributions of age of farm household to income distribution was examined. It was found that the decline in incomes for household heads occurred later with respect to age of the household head. Incomes were fairly uniform through the age of 45-55 years but decline for head of households of 65 years and above. This is in line with the life cycle hypothesis which argues that consumption is based on income over a life span.

CONCLUSION AND RECOMMENDATIONS

It is a fact that not all poor households in the study area could be rescued by economic growth, even in the long run. The hard core or the extreme poor would always require help in form of income supplement or transfers. Welfare programmes should be designed to assure a minimum standard of living not too close to the poverty line. Welfare programmes for poverty should be in form of safety net. This will eliminate those who are not truly in need, from benefiting in poverty alleviation programmes. It is also important to note that the growth of the Nigerian economy if detached from the development of rural agriculture would worsen income distribution in Nigeria.

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