Journal of Agriculture, Biotechnology & Ecology, 2(3), 286-294, 2009
ISSN: 2006-3938

On-Lending Credit Scheme to Crop Farmers in Nigeria: An Appraisal of Ekiti State Agricultural Credit Agency (ESACA) Scheme

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ABSTRACT

We performed an empirical economic analysis of the on-lending loan scheme of the Ekiti State Agricultural Credit Agency (ESACA), Nigeria. Specifically, we compared the cropping practices of the ESACA's loan beneficiaries and non-beneficiaries as well as the structure of cost and returns and factors affecting farmers' output. One hundred and sixty farmers' households, comprising eighty beneficiaries and eighty non-beneficiaries were surveyed across Ekiti State. Descriptive statistics was used to examine respondents' socio-economic characteristics while multiple regression analyses were used to identify factors affecting their level of food crop production. We found that a typical loan beneficiary was young, with at least the basic/primary education. The loan sum disbursed to each beneficiary was small; thus, the resultant gross margin from cropping activities of loan beneficiaries was low. However this was higher than that of non-beneficiaries because the beneficiaries farmed diversified crops, including a mix of food and cash crops. There is need for more funding of the ESACA scheme for enhanced performance. However, the agency should ensure better management and prompt disbursement of funds to farmers. Undue and unnecessary hurdles like collaterals and complex loan application processes should be avoided while farmers should be encouraged to venture into the more lucrative cash crop production.

Keywords: Agricultural loan, beneficiaries, non-beneficiaries, crop production, Ekiti, Nigeria.

INTRODUCTION

Agriculture plays a basic role in the economic development of Nigeria. It provides food for its growing population, employment for majority of the population as well as raw materials for agro-industries. The agricultural sector also serves as markets for products of the non-farm sector and contributes to the nation's gross domestic products (GDP) (Ojo,1991; Ajibefun, 2003). Despite its importance, agriculture in Nigeria is till faced with numerous problems such as inadequate funding, non-availability of complimentary inputs in the right quantity and quality, under-developed marketing system and poor and inadequate infrastructural facilities for production which in turn warrants farmers' need for credit (Fakayode, et al, 2008). Ijere (1998) suggested that credit in the poor farmer's hand will enable him reap the economies of scale, discover new and cheaper products, create demands where none exists and provide utilities to satisfy a wider market. Further, it will generate in him the optimism and determination to venture into new fields.

Because of the crucial role of credit in farming, successive governments in the country implemented several Agricultural Credit Programmes. Between 1964 and 1977, various Development Finance Institutions (DFIs) were established in Nigeria. These DFIs included the Nigerian Industrial Development Bank (NIDB) in 1964, Nigerian Bank for Commerce and Industry (NBCI) in 1993, Nigerian Agricultural and Cooperative Bank (NACB) in 1973 and the Federal Mortgage Bank of Nigeria (FMBN). The Nigerian Industrial Development Bank (NIDB) evolved from the restructuring of an existing Investment Cooperative of Nigeria (ICON). At conception, NIDB's mandate was that of developing new industrial enterprises and expanding existing ones through the provision of medium and long term loans and equity participation. The Nigerian Bank for Commerce and Industry (NBCI) was established to provide funding to small and medium scale enterprises. The scheme was aimed at developing micro-enterprises. The Nigerian Agricultural and Cooperative Bank (NACB) was conceptualized to specifically enhance the development of the nation's agricultural sector. However, the bank was restructured in 2000 into a new one called 'Nigerian Agricultural Cooperative and Rural Development Bank' (NACRDB) from the amalgam of the former Peoples Bank of Nigeria, the NACB, and the Family Economic Advancement Programme (FEAP). The new institution is mandated with the responsibility of accepting deposits from customers and offering loans and or advances whose interest rates are stratified according to the purpose for which they are obtained.

Other credit schemes established included the operation feed the nation (OFN), in 1979, the Green Revolution (GR) in 1980, the Agricultural Credit Guarantee Fund Scheme (ACGFS) and the Rural Banking Scheme in 2002. Under the later scheme, the Commercial and Merchant Banks were coerced by the Central Bank of Nigeria to open and operate a number of their branches in the rural areas. Despite these governmental programmes and

policies aimed at channeling credit to farmers, their credit problems have persisted. Most of these farm credit programmes have been criticized on account of their low recovery rate and inadequate diversified portfolio amongst others. In addition, government sectoral allocations to agriculture has over the years been inconsistent. These inconsistencies and the arbitrary reversal of monetary and credit policies impact negatively on both the volume and structure of investments in the economy, particularly in agriculture and the food subsector (Olayemi, 1996). These institution's sophisticated mode of operation were incapable of dealing with the peasant rural dwellers (Fakayode et al, 2008). Thus, not much progress has been achieved in providing credit to the small scale farmers who contribute about 95 percent of the total agricultural produce in Nigeria.

Given the compelling nature of the credit problems of farmers across the country, the government of Ekiti state established the 'Ekiti State Agricultural Credit Agency (ESACA) in May 1999. The Agency's mandate is to alleviate the credit problems of farmers in the state. In this study, we assessed its "on-lending" activities to crop farmers in the State by determining:

a) How much loan farmers may access under the ESACA scheme.
b) Whether beneficiaries actually gain from the loan sum accessed in terms of increased agricultural output and
c) What factors constrain farmers' production under the scheme.

MATERIALS AND METHODS

Study Area and sampling

This study was carried out in Ekiti State ($7^{o}15^{1}$ - $8^{o}5^{1}$ N; $4^{o}45^{1}$ E), Nigeria. The State consists of 16 Local Government Areas and covers a total land area of 23,212.64 square kilometers. It is dominated by derived savannah vegetation in the north and forest savannah in the south. Agriculture in the state is rain-fed while mixed cropping is widely practiced. The state is categorised into two Zones, A and B, based on agronomic and ecological considerations (Fakayode et al., 2008). Average annual rainfall in the area ranges between 1,200mm and 1800mm, almost evenly distributed throughout the wet season while temperatures range between 21 and 28^{o}C. Major crops grown in the state include oil palm, cocoa, coffee, yam, cassava, maize, vegetables and fruits.

The target population for the study was the farm household beneficiaries and non-beneficiaries of the Ekiti State Agricultural Credit Agency (ESACA). Our sampling followed a two stage procedure. The first stage comprised a random selection of eight communities across the four ESACA demarcated

zones in the State. The second stage involved random selection of eighty (80) farm household beneficiaries of ESACA scheme and eighty (80) non-beneficiaries. These farm households/respondents were interviewed via the use of structured questionnaires.

Analytical Techniques

We used descriptive statistics, gross margin and the Ordinary Least Square (OLS) multiple regression for analyzing data. Descriptive statistics was used to determine socio-economic background of respondents while the gross margin analysis was used to determine the structure of costs and returns in the farm production activities of the respondents. For estimating the farmer's gross margin, we determined the total value of the respondent's output (TVO), total variable cost (TVC) and rate of returns thus:

$GM = TVO-TVC$ (1)

Where GM = gross margin, TVO = total value of output, TVC = total variable cost

The OLS regression tool was used to identify factors affecting farmer's output. The regression function run was stated as:

$Y = f(X_1, X_2, X_3, X_4, \mu)$ (2)

Where Y = total value of output in naira (₦), X_1 = farm size in hectares, X_2 = labour in man-days, X_3 = purchased inputs in naira (₦), X_4 = access to ESACA credit dummied as 1 for beneficiaries and 0 for non-beneficiaries.

RESULTS AND DISCUSSION

The summary socio-economics of farmer respondents is presented in Table 1. The typical farmer beneficiary of the ESACA lending scheme was young, about 44 years old and was farming over the past 8 years. The beneficiaries had large households that comprised about 9 persons who together cultivated 2.2 hectares of land. On the other hand, a typical non-beneficiary, though also aged about 52 years had been farming over the past 11 years. This group also had a large household size of 8 persons and cultivated smaller scattered plots of 1.2 hectares. The fact that respondents had large households could imply a likely reduction in their cost of hired labour incurred during farm operations. Most respondents (beneficiaries and non-beneficiaries) had at least 9 years of formal education (Table 1), implying they had at least the basic primary school education and could possibly comprehend and use improved agricultural technologies on their farms.

Table 1: Socio-economic background of ESACA farmer beneficiaries and non-beneficiaries.

Variables	Beneficiaries	Non-beneficiaries
Farm size in hectares	2.2	1.2
Age in years	44	52
Farming experience in years	8	11
Household size	9	8
Education in years	9	9

Farming Practices of Respondents

Under the farming practices of respondents, we considered whether crops or animal production to a large extent determined their income receipts (Tables 2 - 3).

Table 2: Type of crops cultivated by ESACA farmer beneficiaries and non-beneficiaries.

Crop type	Beneficiaries (%)	Non-beneficiaries (%)
Food	52.3	67.7
Cash	23.1	29.2
Cash & Food Crops	24.6	3.1

About half and two-thirds of beneficiaries and non-beneficiaries respondents engaged in food crop production including maize, yam and cassava while a quarter of both groups were engaged in cash crops production that comprised cocoa, banana and plantain (Table 2). About a quarter of beneficiaries produced both cash and food crops while only few (about 3%) of non-beneficiaries produced both types of crops. About half of both the beneficiaries and non-beneficiaries were engaged in poultry production (Table 3), while the remaining respondents raised goats and sheep. Thus, it seemed that the ESACA scheme has little influence on farmers engagement in profitably/commercial chicken and goat farming, given the equal or much less involvement of beneficiaries.

Table 3: Type of animals raised by ESACA farmer beneficiaries and non-beneficiaries.

Husbandry	Beneficiaries (%)	Non-beneficiaries (%)
Poultry	56.7	50.0
Goat	23.3	37.5
Sheep	20.0	12.5

Amount of loan obtained by ESACA beneficiaries

Majority (about 80%) of the loan beneficiaries obtained loan sums ranging between N10,000 and N50.000.(Table 4). Such a sum is rather too small for any profitable agricultural production, yet half of the non-beneficiaries reported that they did not obtain the loan because their applications were not granted. However, only few of the respondents (16.9%) were not aware of the ESACA scheme while the remaining respondents were not interested in the loan for reasons given in Table 5 or possibly because of its small size.

Table 4: Amount of loan obtained by beneficiaries under the ESACA scheme.

Amount in 000' naira	Frequency	Percentage %
10-49.99	52	79.7
50-99.99	8	12.5
100-149	5	7.8
Total	80	100.0

Table 5: Reasons why non-beneficiaries did not obtain loan.

Reason	Frequency	Percentage %
Not aware	11	16.9
Not Interested	25	38.5
Application not Granted	29	44.4
Total	65	100.0

Costs and Returns

There was some variability in the costs and revenue estimates of farmers. The estimated farmers' gross margin per hectare is shown in Table 6. On average the beneficiaries got better returns from their farming operations. Their total revenue and gross margin per hectare were ₦110,468.2 and ₦34,924.9 while

those for the non-beneficiaries were ₦102,462.9 and ₦25,863.7 respectively. However the gross margin estimates per hectare for both beneficiaries and non-beneficiaries were so low, especially considering the prevalent inflationary trends in the nation. In the case of beneficiaries, their low gross margin may be attributed to high rate of interest (10 %) on the ESACA loan and the delay in the disbursement of such loans to farmers. The later constraints adversely affected timely planting of arable crops.

Table 6: Seasonal gross margin estimates of beneficiaries and non-beneficiaries of the ESACA loan scheme in ₦ per Hectare (₦/ha)

Farmer	Land area (ha)	Total variable Cost (₦/ha)	Total Revenue(₦/ha)	Gross Margin (₦/ha)
Beneficiary	1.61	75,543.3	110,468.2	34,924.9
Non-beneficiary	1.93	76,499.2	102,462.9	25,863.7

120 Naira equals US 1 Dollar.

Results of regression analysis

The lead equation selected for ESACA farmer beneficiaries and non-beneficiaries was the Cobb-Douglas model (Table 7). Farm size (X_1), purchased inputs (X_3) and access to ESACA loan (X_4) had the expected positive *a priori* signs. However, the variable co-efficients for labour did not conform to the *a priori* expectations and was negatively signed.

Table 7: Pooled regression estimates of ESACA loan Beneficiaries and non-beneficiaries.

Functional forms	Constant	Parameters				R^2	F
		Farm-size X_1	Labour X_2	Purchased Input X_3	Loan acess X_4		
Linear	-181348.8 (-9.094)	-4283.2 (-1.411)	-905.13 (-1.506)^x	93032.11 (13.073)^x	-2520.39 (-1.534)^x	0.651	43.42
Double-log	-77073.48 (-11.634)	1865.96 (3.472)^x	-2.900 (-509)	10956.04 (17.572)^x	2400.64 (-2.203)^x	0.756	88.466
Semi log	-35021.1 (-3.970)	-2934.86 (-3.970)	403.329 (2.754)*	52.32 (2.001)*	1182.93 (0.806)	0.394	17.407
Exponential	97241.52 (13.013)	-17003.37 (3.370)^x	3.230 (1.005)	332.019 (1.313)	373.41 (-2.967)^x	0.541	67.432

*Significant at 5 per cent level.
Note: t-values are in bracket

The implication is that those variables that are positively signed - farm size, purchase inputs and access to ESACA loan contributed to farmers output while the labour variable with negative coefficients limited their output. The labour variable co-efficient was negative most probably because the resource was not efficiently utilized in production by the respondents. Variable co-efficients for farm size, purchase inputs and access to ESACA loan were significant at the 5% level and therefore had substantial contributions to farmers' output. Labour input showed no significant influence on output because it was not optimally utilised. The R^2 value (0.756) was reasonable, implying that variables hypothesized as affecting farmers' output in our regression model accounted for about 75.4 per cent variations in the output levels of farmers with the f-ratio of 88.46 which was significant at the 5% level of probability.

CONCLUSION AND RECOMMENDATIONS

This study examined the impact of the "on-lending" scheme to crop farming in Ekiti State, Nigeria, under the State Agricultural Credit Agency. We found that beneficiaries of the loan facilities were young (about 44 years old) with at least the primary level education and well experienced in subsistence arable cropping. The loan sum disbursed was small; consequently, the resultant gross margin from cropping activities was low (only ₦34,924.9), though this was higher than the gross margin for non-beneficiaries. The ESACA loan beneficiaries undertook diversified cropping practices involving a mix of food and cash crop production which enhanced their gross margins compared with non-beneficiaries. Purchased inputs and farmer's accessibility to ESACA loan facility were major determinants of farmers (beneficiaries and non-beneficiaries) crop output. Non-beneficiaries of the scheme attributed their situation to heavy bureaucracy in loan processing; even the beneficiaries complained that late disbursement of loans negatively affected their cropping schedule.

We conclude that the ESACA initiative was well intentioned and should be better funded. However, considering the large sum already committed to the programme, there is need to ensure better fund management and prompt disbursement to farmers. Undue and unnecessary hurdles like collaterals and complex loan application processes should be minimized so that the loan can readily get to the targeted small scale farmers for increased production. Farmers may also be encouraged to venture into the more cash cropping.

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