

EXTENDING CREDIT TO SMALL-SCALE FARMERS: THE CASE OF AGRICULTURAL FINANCE CORPORATION IN THE CENTRAL RIFT AREA OF KENYA

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1. Introduction

Agriculture is the backbone of Kenya's economy and obviously holds the key to possible revival of the nation's economic growth. Its contribution to Gross Domestic Product (GDP) in the past decade averaged 30 per cent. Agricultural products contribute about 70 per cent of the total exports and thus are responsible for most of the country's foreign exchange.

In the current plan period, growth rate of 4.5 per cent is required in the agricultural sector to give the overall economy the necessary impetus it requires to achieve the targeted growth rate of 5.4 per cent in the plan period (Kenya, 1989). However, it is to be noted that the best recent record in the growth rate of the agricultural sector was in 1979 - 1983 when an annual average growth rate of 3.4 per cent was observed; in 1980 - 1984, it was only 2.6 per cent (Godfrey, 1986). This is not all. Recent production figures have also shown that the domestic food supply in the country has not been able to meet the demand in the face of the very high annual population growth rate of about 3.8 per cent. In effect, the government has resorted to food importation to close the supply deficit.

In terms of agricultural production however, the bulk of the crops are produced by small-scale farmers who own less than 5 hectares of farm land. Apart from wheat and sisal which are produced mainly on large farms, most other crops are produced on small-scale farms. 90 per cent of Kenya's maize is grown by small-scale farmers. Other food crops grown exclusively in small holdings include sorghum, millet, rice, potato, beans and cassava (Lugogo, 1983).

The inability of the agricultural sector to produce enough food for the country and to attain the projected annual growth rates has been attributed to a number of problems. Rukandema, (1978) identified the problems to include biased weather conditions, sudden attack of pests and diseases, inadequate knowledge of modern farm practices, poor infrastructural base and general poverty. Donaldson and von Pischke, (1984) however singled out the problems of poor financial base of the small-scale farmers as the major reason for the low agricultural production in the country. They observed that although the small-scale farmers produce the bulk of the country's agricultural output, they face relatively higher cost of production due to small sizes of their farms. This particular problem is compounded by the fact that these farmers generally belong to the low income class with limited ability to accumulate a reasonable amount of farm capital. It therefore stands to reason that credit should be extended to the small-scale farmers if they are to accomplish the difficult task of producing enough food for the country.

It is on the basis of the above argument that one expects that a greater percentage of the agricultural loans should go to the small-scale farmers who produce more than 70 per cent of the total agricultural output in the country.

2. The Need for the Study

The Agricultural Finance Corporation (AFC) was established in 1963 by the government of Kenya for the purpose of providing loans to Africans (particularly Kenyans) who purchased farms from departing white settlers around independence. It was later (1966 unofficially, 1969 officially) amalgamated with the Land and Agriculture Bank which had been the main source of agricultural loan to settlers before independence (Grosh, 1987).

In addition to loaning to Kenyans who took over the large farms, the AFC is supposed to loan to several groups who would not qualify for loans from commercial Banks. These targeted groups include group ranches borrowers without land titles, and particularly the small holder farmers who cannot produce enough collateral to qualify for loans from other financial institutions in the country like the commercial banks. And so by 1990 when this study was carried out, the corporation had a network of 49 branch offices spread all over the country. Also, during this period, the AFC was serving 49,383 active borrowers who were operating 93,718 loan accounts (Kenya, 1990).

However, there is little evidence that most of the agricultural loans from the AFC go to the small-scale farmers who produce the bulk of the country's agricultural output. Instead, the contrary appears to be the situation. In fact, Donaldson and von Pischke (1973, *op. cit.*) reported that when the AFC was established, only 25 per cent of its credit went to small-scale farmers who then produced about 50 per cent of the country's marketed output. However, with the sub-division of many large farms to the extent that small-scale farmers now form the backbone of Kenya's agriculture, it is only logical that more of the credit from AFC should go to the small-scale farmers.

This study therefore wishes to explore the role played by AFC in extending credit to small-scale food producers in the Central Rift Area of Kenya. The study was limited to food crops because of the emphasis of the government on self sufficiency in food production in the country and because of the fact that farmers in the study area engaged mainly in food crop production.

In particular, the study will raise the following questions and as much as possible find some pertinent answers. To what extent have the small-scale farmers in the study area

benefited from the credit granted by the AFC?

Do these small-scale farmers derive some economic benefits (in terms of profit) from the loans granted to them by the AFC?

Are the small-scale farmers efficient in the transformation of their quantities of inputs (including capital) to output?, and

What problems militate against efficient credit extension and utilization in the study area?

The general objective of the study is to evaluate the performance of the AFC in extending credit to the small-scale farmers in the Central Rift Area of Kenya and to quantify the impact of such credit on the agricultural production of the farmers.

Subsumed in the overall objective are the following specific objectives:

- i) To investigate the lending pattern of AFC with particular reference to the small-scale farmers.
- ii) To examine the extent to which the small-scale farmers in the Central Rift Area benefited from the credit of the AFC during the period under study.
- iii) To assess the efficiency of the small-scale farmers in the utilization of all inputs including credit obtained from AFC.
- iv) To investigate the problems encountered by the corporation and the farmers in the disbursement and procurement of credit respectively and consequently offer suggestions and recommendations for possible improvement.

3. Literature Review

The issue of extending credit to small-scale farmers in the developing countries has long been of considerable interest to economists. This is because of the general consensus that generous credit to small-scale farmers is important for increasing and sustaining agricultural production in these countries. In line with this view, Baker (1973) among others argued that the organization of small-scale farmers for profit is difficult and perhaps unrewarding since it is impossible to separate the input requirements for household consumption and the input requirement for farm production. In fact, he went further to pose the question: where is the money for predicted and unpredicted events such as weddings, funerals and other ceremonies expected to come from? That is to say, farmers should have funds over and above household consumption levels before

extra cash can be invested on the farm to employ new technologies of production, buy more input and hire additional farm labour during the period of peak labour demand.

In most developing countries however, the provision of credit to millions of small-scale farmers scattered all over the nation sometimes presents some serious problems. As observed by the FAO (1965), the extension of agricultural credit can constitute an arduous task since the provision of credit to farmers is not simply a banking process. Olodimu and Fabiyi put it succinctly when they stated that "the provision of credit presents a difficult form of activity to classify when categorizing government effort in agricultural development and it is even more difficult to design effectively. To act as a facilitating investment factor, the lack of credit *per se* is not as much the problem as the evolution of an adequate credit policy".

Thus, several agencies and individuals have continued to examine critically the *modus operandi* of agricultural credit in various developing countries with the view of making it more efficient. Dwivedi (1972) in the study of new strategy for agricultural development in India, noted that the major problems facing credit acquisition and utilization by small-scale farmers in India and other similar developing countries consist of several variables that are both within and outside the farmers' control. He therefore recommended ways by which the farmers working with the policy makers can resolve some of the problems. In particular, he recommended among others, the mobilization of rural savings to act as a base for rural credit acquisition and the costing of the credit using the market interest rate in order to cover all expenses on administration and risk of lending to farmers.

In a study related to Dwivedi (1972 *op cit.*), the World Bank (1982), carried out a comprehensive analysis of the credit policies of agricultural finance institutions in developing countries and reviewed the changes that had taken place in those institutions to ensure better credit extension to small-scale farmers. Such changes, the bank stated, included increasing the number and spread of credit institutions, changing the security needed by the credit institutions from items like land, machinery, debentures and so on which cannot be afforded easily by small-scale farmers, to items based on production potentialities of the farmers. Others included raising the interest charged on agricultural credit to cover all operation costs and opportunity costs, increasing the rate of supervision on the farmers and provision of subsidy by the government in form of guarantees to the loaning institution. The bank also noted that some of these developing countries have adopted the system of stimulating more savings in the rural sector to act

as credit pools from which farmers can then obtain credit. This type of institutional arrangement it argued, can not only make the farmers to become more committed to loan repayment but can also act as coverage during unintended default.

From the above, it can be seen that credit extension goes beyond the provision of physical cash and other inputs to the farmers. In fact, the nexus of activities involved in the extension of credit to small-scale farmers are both interwoven and complicated. It is therefore expected that the various factors that are at play in the extension of agricultural credit should be clearly understood, isolated and taken into consideration before efficient credit extension can be carried out. Otherwise, the mere provision of cash to the farmers may actually turn out to be a disaster to both the loaners and the beneficiaries.

4. Methodology

The sampling procedure for this study was carried out in two stages. First, a field survey was undertaken to identify the farmers in the area who obtained credit from the Agricultural Finance Corporation (AFC) during the 1989/1990 cropping season. The second stage involved the actual selection of the farmers from the list of all the small-scale farmers benefiting from the AFC credit scheme during the period of study. In selecting these farmers, a simple random sampling technique was adopted. The idea was to ensure that all listed farmers had an equal probability of being selected. In all, 103 farmers were randomly selected from a total of 32 farmers for the purpose of data collection and analysis.

Both primary and secondary data were collected. The secondary data mainly came from AFC's publications while the primary data were obtained directly from the farmers. The primary data were generated from the farmers by means of structured questionnaires administered through personal interviews with the help of enumerators and extension officers in the area.

Data collected included those on the socio-economic characteristics of the farmers, the quantities of major inputs (including credit) used in the production process and the amount of output of the various food crops produced by the farmers. Other information obtained were the farm inventory of tools and equipment used by the farmers.

For the data analysis, two major analytical tools, the budgetary and the production function analysis were adopted. The budgetary analysis was used to estimate the cost and

returns of the farmers while the production function analysis was used to identify (if any) the technical relationship between the output and the input variables in their production process. From the results of the production function analysis, the profit maximizing ability of the farmers with respect to each of the variable inputs was determined. In particular, the relationship postulated was of the form

$$Y = f(X_H, X_L, X_C, e) \quad (1)$$

Where Y = Value of output in Kenya Shillings

X_H = Amount of land (hectares) put under cultivation

X_L = Total amount of labour (mandays) employed by farmers in production

X_C = The total amount of credit in Kenya Shillings

e = Random error term

Various functional forms of the above models were fitted and based on the usual (economic, econometric and statistical) criteria for evaluating the results of a regression model, the double log function was chosen and used for further analysis and interpretation of results (Koutsoyiannis, 1981).

In other words, the functional form chosen is as follows:

$$\ln Y = \ln \beta_0 + \beta_H \ln X_H + \beta_L \ln X_L + \beta_C \ln X_C + \ln e \quad (2)$$

where the variables are as defined above.

5. Results and Discussion

5.1. Socio-economic Characteristics of the Farmers

Several socio-economic factors affect farmers' productive ability and hence influence directly or indirectly their demand for credit. These factors include their ages, level of education, family size, farm size and level of interaction with extension agents. These factors were studied with the aim of highlighting their impact on the production patterns of the farmers.

The study on the distribution of the ages of the farmers revealed that about 20.3 per cent of the respondents were less than 30 years of age, 41.7 per cent were

between 30 and 39 years while 19.4 per cent were between 40 and 49 years of age. About 11 per cent were between 50 and 59 years while only 4.9 per cent were more than 60 years of age. This finding shows that about 64 per cent of the respondents were below 40 years, an indication of active participation of the youth in food production in the study area.

The farmer's family size is also another important socio-economic variable capable of influencing his demand for credit in agricultural production. This is because the farmer has to satisfy the consumption needs of the family before excess capital can be invested.

The study of this variable revealed that the average family size in the study area was 10 persons per family distributed as follows: 9.9 per cent of the respondents had 1 to 4 persons; 23.3 per cent had 5 to 8 persons; 46.6 per cent had 9 to 12 while 11.7 per cent had between 13 and 16 persons in the family. A small percentage of 8.7 had more than 16 persons in the family.

The farmer's farm size was also studied. On the whole, it is expected that as the farm size increases, the farmers's need for cash will increase assuming other things remain equal. The study of the farm size as a socio-economic variable showed that most of the small-scale farmers had farm sizes between 3.0 and 5.0 hectares, with less than 4.0 per cent cultivating more than 10 hectares of farm land. The average farm size in the study area however was 4.2 hectares. The study also showed that farmers in the area acquired their land through inheritance, renting, leasing and outright purchase.

Another socio-economic variable studied was the level of education of the farmers. This is because of the importance of this variable in credit acquisition from formal sources where some level of literacy is needed for the farmer to complete the necessary procedure associated with this kind of credit (Mbata, 1991). The results of this survey revealed that 9.7 per cent of the respondents had no formal education, 58.3 per cent had only primary school education, 21.3 per cent had up to high school education though some did not actually complete their schooling. The remaining 10.7 per cent of the respondents went beyond the high school level.

Farmers benefit heavily from interaction with extension agents. This is because through such interactions, modern farm techniques are extended to the farmers. Viewed in this perspective, this variable is therefore an important socio-economic factor that affects farmers' demand for credit since the adoption of new farming techniques, more often

than not, implies additional farm expenses on the part of the farmers. From the results, it was seen that as much as 33.0 per cent of the respondents had no interaction with the extension agents during the 1989/1990 farming season. 15.5 per cent of the respondents were visited once during the same period while 19.4 per cent of the respondents were visited twice. However, as many as 33 farmers representing 32 per cent of the respondents were visited for more than three times by the extension agents.

This result showed that a good number of the farmers did not come into good contact with the extension agents during the period under study. It was also observed that the extension agents tended to visit the same group of farmers regularly while many of the other farmers remained unvisited for periods as long as one year. The farmers themselves gave a number of reasons that accounted for the apparent lack of interest of the extension agents for visiting them: 20.4 of them believed that inadequate number of extension workers was a major cause of inadequate number of visits by the extension agents, 26.2 per cent believed that it was due to the distance of their farms to where the extension agents resided, 28.2 per cent believed that it was due to the bad and inaccessible rural roads while the remaining 25.2 per cent believed that it was due to a combination of two or more of the above factors.

5.2. Lending Patterns and the Share of Credit of the AFC to Small-Scale Farmers in the Study Area

The AFC, unlike most other financial institutions in the country, does not accept deposits from the public. The capital which the AFC lends comes from grants and loans as well as accumulated general reserves. Much of the capital is obtained from loans from international agencies such as the World Bank and the United States Agency for International Development (USAID) which is onlent by the government to AFC.

AFC has three broad categories of credit schemes: the Small-Scale Credit, Large-Scale Credit and the Special Seasonal Crop Credit Schemes. Any farm development credit that is not more than KShs. 50,000 is regarded as a small-scale credit (Kenya, 1990). Under the AFC's credit schemes, different types of loans for different projects are available for on-lending to farmers. These loans are extended to farmers for different lengths of time but attract more or less the same interest rate. Table 1 shows the type of loans, the interest rates charged and the repayment periods for the different types of loans.

The Agricultural Finance Corporation offers mainly secured loans to small-scale farmers. The securities required depend on the type of loan but would generally include

one or more of the following: title deeds to land, letter of land allotment (lease issued by Land's Department pending survey and issue of title deed), shares and bonds of public companies, mortgages and debentures. The AFC also charges service fees for loan granted to farmers though this depends on the amount of loan. For a loan of about KShs. 50,000, a nominal fee of KShs. 50.00 is often charged. Tables 2 and 3 show the number and amount of loans approved by AFC during the 1989/1990 financial year. The tables show that although the small-scale farmers constituted about 50 per cent of the absolute number of farmers obtaining loans from the AFC, in terms of loan amount, they received 20 per cent of the total amount disbursed for that particular period.

Table 1

TYPES OF LOAN WITH THE CORRESPONDING RATES OF INTEREST AND REPAYMENT PERIOD DURING THE 1990/91 CROPPING SEASON.

Type of Loan	Use of Loan	Interest Rate Per Annum (%) and Repayment Period
Special Seasonal Crop Credit	adoption and cultivation of hybrid maize and wheat	14.0 repayable within 12 months
Small-scale loans	All farm development loans up to KShs. 50,000	13.0 repayable within 3-5 years
Mechanization loans	Purchase of tractors and other implements	12.0 repayable within 3-5 years
Water development loans	Construction of water tanks, wells, pumps, irrigation, etc.	12.0 repayable within 10 years
Ranch loans	For the development of beef cattle and shoats for meat production	12.0 repayable within 5-10 years
Sheep and goats loans	Purchase of breeding stock buildings of sheds, dips etc.	12.0 repayable within 5-10 years
Poultry loans	Construction of poultry house, purchase of day old chicks, feed, etc.	repayable within 3 years

Sources: i) Agricultural Finance Corporation, Statistical Digest, December, 1990.
ii) — Newsletters, 1991.

The credit from the AFC is often in kind. Farmers are expected to repay the money through the sales boards like the Kenya Grain Growers Co-operative Union (KGGCU) and the National Cereals and Produce Board (NCPB) who are the sole buyers of the farmers' produce. The interest rate for most credit is 12 per cent per annum. This rate

is low when compared with the average prime lending rate of 19 per cent charged by other financial institutions in the country. The low rates charged by the corporation, it has been argued, are responsible for the slow rate of expansion of the institution (Grosh, 1987). According to Adams and Graham (1981), a good credit institution should provide credit that not only yields benefits to the farmers but also produces some returns that cover the costs of credit administration. In addition, it has been observed that the cost of providing credit is inversely related to the amount and duration of loans but directly related to the amount of ancillary services provided. In other words, the cost of credit and hence the interest rate should be relatively higher for small-scale farmers than large-scale farmers.

In fact, the World Bank (1982, *op. cit.*) is of the opinion that the average interest rate of 22 per cent per annum should be charged to all credit advanced to small-scale farmers. It argues that the actual opportunity cost in real terms, of using funds for agricultural credit is at least 8 per cent per annum. To this, the World Bank opines that another 5 per cent, 3 per cent and 6 per cent should be added to cover the cost of administration, "normal" default costs and supervisory services respectively. Going by the World Bank's recommendation, it therefore means that the 12 per cent charged by the AFC is rather too low and may be affecting the profitability and hence the viability of the corporation. It is not surprising therefore that the AFC has continued to rely heavily on government loans and grants instead of generating its own pool of funds for self-sufficiency and thus achieve greater autonomy (Grosh, *op. cit.*).

Table 2

NUMBER OF LOANS APPROVED IN 1989/90 FINANCIAL YEAR FOR THE DIFFERENT TYPES OF SCHEMES.

Area	Type of Scheme				small-scale as a % of total
	large scale	small scale	seasonal credit	total	
North Rift	43	165	1,260	1,468	11.2
Central Rift	83	322	337	742	43.4
South Rift	27	191	147	365	52.3
Western	36	116	546	698	16.6
Nyanza	7	134	5	146	91.8
Eastern	97	405	10	512	79.1
Mt Kenya	36	1,370	50	1,456	94.1
Coast	6	58	0	64	90.6
Total	335	2,761	2,355	5,451	50.7

Source: Kenya, (1990). Agricultural Finance Corporation, *Statistical Digest*, December, 1990.

Table 3

LOAN AMOUNT APPROVED IN 1989/90 FINANCIAL YEAR (MILLION OF KShS) FOR THE DIFFERENT TYPES OF SCHEMES.

Area	Type of Scheme				small-scale as a % of total
	large scale	small scale	seasonal credit	total	
North Rift	42.43	6.27	70.64	119.34	5.25
Central Rift	28.76	11.00	21.14	60.90	18.06
South Rift	15.98	6.70	88.92	111.60	6.00
Western	6.03	4.00	15.71	25.74	15.54
Nyanza	2.69	4.41	0.09	7.19	61.34
Eastern	54.76	13.44	0.85	69.05	19.46
Mt Kenya	11.54	45.09	2.91	59.54	75.73
Coast	0.71	1.89	0.00	2.52	71.83
Total	162.90	92.72	200.26	455.88	20.34

Source: Kenya, (1990). Agricultural Finance Corporation, *Statistical Digest*, December, 1990.

5.3. Analysis of Farm Productivity and Resource Use Efficiency of the Farmers

The aim of the analysis here is to estimate the profit (loss) associated with farming operations of the farmers using the budgetary analysis. In addition, the efficiency of resource use is computed by comparing the marginal value product (MVP) for each input, obtained from the regression analysis with its marginal cost (MC).

The budgetary analysis involves the estimation of total cost and total revenue for the particular enterprise and the difference between the two estimates gives the profit or loss associated with that enterprise. In this study, the total cost consisted of the costs of hired labour, fertilizer, tractor hiring, pesticides and seed. Other costs included the imputed values for family labour and land. An average interest rate of 12 per cent was used to reflect the implicit cost of capital while the farm implements were depreciated over their estimated life span to account for their wear and tears.

The total revenue on the other hand included the revenue obtained from the sale of farm output and the imputed value for output not sold. Table 4 presents the results of the budgetary analysis. The result of the budgetary analysis shows that the farmers obtained an average net farm income of KShs. 2,124.1 per hectare. Based on the results of the budgetary analysis, one can therefore say that food crop production is a profitable enterprise in the study area. However, in determining the resource use efficiency of the farmers, the results of the regression analysis given in Table 5 were employed.

From the results of the regression analysis, it can be seen that all the estimated coefficients bear the right signs and are statistically significant. In particular, the coefficient associated with the land variable is significant at 1 per cent level while those of labour and credit variables are significant at 5 per cent. In addition, the R^2 value (coefficient of determination) shows that about 79 per cent of the variation observed in the dependent variable (gross value of output) is due to the included explanatory variables.

Table 4

COST AND RETURNS PER HECTARE OF FOOD CROPS PRODUCTION IN THE STUDY AREA IN 1989/90 CROPPING SEASON

Item	Quantities	Cost/Value (KShs)
<i>Crop output</i>		
Maize (Kg/ha)	1,970.4	5,268.6
Beans (Kg/ha)	2,790.6	13,953.0
Potatoes (Kg/ha)	5,193.3	12,983.3
Wheat (Kg/ha)	2,570.4	14,137.2
Tomatoes (Kg/ha)	1,644.0	9,864.0
Gross Revenue from crop output (KShs/ha)		11,241.2*
<i>Variable inputs</i>		
Labour (Mandays/ha)	187.6	3,752.0
Fertilizer (Kg/ha)	154.4	1,007.0
Seed (KShs)		750.6
Pesticide (Kg/ha)	3.3	196.3
Transportation (KShs)		450.0
Tractor hiring (KShs)		600.0
Total Variable Cost		6,755.9
Imputed value for farmers' land (KShs/ha)		1,000.0
Interest on capital		810.0
Estimated depreciation allowance on farm tools		550.5
Total Cost		9,117.1
Net Farm Income (KShs/ha)		2,124.1
Average Net Farm Income (KShs per farm)		8,921.2

* Gross revenue is obtained by dividing the total revenue from the farms (mixed and sole) by the total number of hectares

However, since in the Cobb-Douglas function, the estimated coefficients represent the elasticities, we need to compute the marginal contributions of the variable inputs in order to test for the efficiency of resource use of the farmers under study. Table 6 shows the marginal influence of the variable inputs included in the regression model.

Table 5

ESTIMATED COEFFICIENTS (DOUBLE-LOG) OF FARM PRODUCTIVITY OF THE SMALL-SCALE FARMERS IN THE CENTRAL RIFT AREA OF KENYA

Variable	Parameter	Estimated coefficient	Standard error	t-value
Constant	β_0	4.6650		
Land	β_H	0.4160**	0.2032	2.0472
Labour	β_L	0.2490**	0.1268	1.9332
Credit	β_C	0.3736***	0.1262	2.9604
R ²		0.7894		
F-Ratio		12.6135***		

n = 103, df = 99

*** significant at 1%

** significant at 5%

Table 6

MARGINAL VALUE PRODUCT OF THE VARIABLE INPUTS

Variable	Elasticity	Geometric mean values	Marginal Value Product (MVP) ^b
Land (ha)	0.4160	4.2	1113.4
Labour (mandays)	0.2490	266.6	10.5
Credit (KShs)	0.3736	26,500.0	0.2

^b When a dependent variable is expressed in monetary terms, the marginal influence of each of the independent variables is the same as its marginal value product.

To test for economic efficiency in the use of the resources, the marginal value product for each input was compared with its marginal cost. An input is efficiently utilized if there is no significant difference between the value of its marginal product and the marginal cost (Ladipo, 1977).

Table 7

COMPARISON OF MARGINAL VALUE PRODUCT (MVP) AND MARGINAL COST (MC) OF THE VARIABLE INPUTS

Variable Input	MVP (KShs)	MC (KShs)	Ratio of MVP to MC	t-value
Land	1,113.40	1,000.00	1.11 ^{n.s.}	1.381
Labour	10.50	20.00	0.53***	2.463
Credit	0.20	0.12	1.67**	1.984

n = 103, d.f. = 101

*** significant at 1%

** significant at 5%

n.s. not significantly different from 1.

The results of the study (Table 7) indicate that the land input was efficiently utilized as the ratio of MVP to MC for this input is not statistically different from 1. However, the labour input was over-utilized while credit was under-utilized. This implies that the amount of credit extended to the farmers is barely enough to sustain production, hence labour is substituted for capital. Similar results have been reported elsewhere by Osuntogun (1980) and Mbata (1991, *op. cit.*) on excessive use of farm labour but insufficient use of capital among small-scale farmers in traditional agriculture.

5.4. Problems Encountered by AFC and the Farmers in the Extension and Procurement of Credit

Several factors on the side of both the AFC and the farmers militate against efficient operation of the AFC's credit scheme in the study area. Prominent among these is the high rate of default in repayment by the farmers. This has seriously affected the performance of the corporation. Among the farmers interviewed, 37 per cent were found to have fallen into arrears of repayment. The farmers themselves gave several reasons for defaulting and these ranged from unfavourable weather conditions which adversely affected output, low output prices offered by the KGGCU or NCPB who marketed the farmers' produce on behalf of the AFC to fixed interest rates and repayment schedule which do not consider the eventual output obtained by the farmers.

It is important however, to note that the farmers are not the only party contributing to this serious problem afflicting the corporation. The corporation itself is lax in its collection procedures. Paulson (1984) examined the record of the AFC collection in 262 loans in arrears and found out that about one third of the farmers in arrears had no record

of loan servicing and another 23 per cent had only a notice from AFC. She further noted that it is impossible to know what percentage of these notices ever reached the clients since in most cases these small borrowers had no personal postal addresses.

Collection efforts by the AFC are hindered by political pressure. Paulson (1984, *op. cit.*) reported that the granting of loans by the AFC in the first place is a political process and that AFC loan officers are also under heavy pressure to give favourable treatment to clients introduced by politicians. It is therefore not surprising that the AFC has continued to bear the heavy burden of high default rate among its clients and this has been the major problem limiting the efficient operation of this corporation that has been in existence for the past three decades.

On the other hand, some farmers complained of the elaborate and complicated procedures involved in loan application and processing before funds are finally approved and disbursed for farming operations. This, they argued, resulted in delays which invariably affected their productivity because of the seasonal nature of agricultural production.

6. Conclusions

This study has shown the need to increase the amount of credit granted to small-scale farmers in the study area. This is because the results of the production function analysis showed that credit was grossly under-utilized by the farmers, a factor that has resulted in their excessive utilization of the labour input. In addition, it was seen that food crop production in the study area is a profitable enterprise and therefore farmers in the area have the potentials to repay the credit granted to them. Increasing the amount of credit extended to the farmers however, without adequate credit recovery procedure, would be like "pouring" money in a bottomless pit. The current high rate of default in repayment that has adversely affected the liquidity and performance of the corporation can only be redressed if a more aggressive loan recovery procedure is adopted by the corporation. It is only through efficient loan recovery that the bank can make progress and become self sustaining and thus serve its clients better.

Finally, loans approved for on-lending to small-scale farmers should be disbursed on time to synchronize with the various farming operation if the full benefits of this important input are to be realized. Loans disbursed when the farming operations are over can only encourage funds diversion which invariably leads to default in repayment to the detriment of both the corporation and the farmers.

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Abstract

The Agricultural Finance Corporation (AFC) was established to provide credit to small-scale farmers, among others who cannot produce adequate collateral to qualify for loans from the commercial banks.

How well the corporation has performed in extending credit to small-scale farmers in the Central Rift Area of Kenya and the impact of the credit on this group of farmers during the 1989/90 are the basis for this study.

The results of the study revealed that about 20 per cent of the total amount of credit granted to the farmers in the area went to the small-scale farmers, an indication that most of the loans from AFC still go to the large scale producers. Empirically, it was observed that there is a need to increase the amount of credit granted to the small-scale farmers in the area. This is because the results of the budgetary analysis showed that small-scale farming with the use of credit was profitable whereas the results of the production function analysis indicated that credit as an input was under-utilized as the ratio of its marginal value product to marginal cost was statistically greater than 1. In addition, it was observed that the high rate of default among the farmers as a result of the lax collection procedures of the AFC has seriously affected the liquidity and performance of the corporation, while the complicated procedures in loan application, approval and disbursement have contributed to the inefficient utilization of the credit extended to the farmers.

Based on the findings of the study, it is recommended that the amount of credit available to small-scale farmers should be increased and disbursed promptly to ensure an optimal utilization of the input. Also, for increased liquidity and for the corporation to become self-sufficient, it should improve its loan recovery procedure and make desperate efforts to stem the high rate of default that has seriously affected the performance of the corporation.

