

**EFFECTIVENESS OF INSTITUTIONAL CREDIT FOR RURAL DEVELOPMENT IN
AFRICA:
A CONTROL-CASE STUDY OF RURAL BANKS IN GHANA**

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ABSTRACT

This paper examines the credit lending operations of a representative Ghanaian Rural Bank, the Kakum Rural Bank. Questionnaire and interview survey techniques are used to elicit information from a sample of Rural Bank staff, loan recipients, and other economically active people. Using case-control methodology, we find evidence that rural credit lending operations have failed to ensure loans are being used for intended purposes. We also find some evidence that bank operations may not have increased the living standards of credit recipients beyond those of economically active non-recipients.

I. INTRODUCTION

If current agricultural trends continue, by the year 2020 sub-Saharan Africa's food shortage will increase twenty times, to 250 million tons (Pinstrup-Anderson 1993). The lower calorie intake could lead to poverty, malnutrition and hunger. In an attempt to alleviate some of these potential problems, several institutional and non-institutional sources of rural credit have been made available to Africans. It is hoped that, in the long term, credit will enable the poor to invest in agricultural and non-agricultural productive assets, to adopt new technologies and farming methods, and to minimize environmental degradation.

Ghana, like other sub-Saharan countries, has traditionally experienced low productivity, low income levels, low domestic savings, unemployment, and malnutrition.¹ In 1976, the Ghanaian government, through the Bank of Ghana, established Rural Banks to channel credit to productive rural ventures and promote rural development. Rural development is a strategy intended to improve the economic and social life of the rural poor (World Bank 1975). Rural credit has been used in Ghana to enable the poor to weather shocks without selling the productive assets the poor need for protection against future shocks (FAO 1994).

According to the Moshi Conference (1969), the purpose of rural development is "a rise in the standard of living and favorable changes in the way of life of the people concerned." However, there is some anecdotal evidence that many beneficiaries of Rural Bank credit are salaried workers, whose likelihood of loan repayment is believed to be better than that of the small-scale rural producer. There is also some evidence that loan recipients use the credit for purposes other than those for which the loans are intended. To date, no one has analyzed the effectiveness of Ghanaian Rural Bank credit.

In this paper, we examine the credit lending operations of a representative Ghanaian Rural Bank, the Kakum Rural Bank. Questionnaire and interview survey techniques were used to elicit information from a sample of Rural Bank staff, loan

recipients, and other economically active people. Using case-control methodology, we find evidence that rural credit lending operations have failed to ensure loans are being used for intended purposes. We also find some evidence that bank operations may not have increased the living standards of credit recipients beyond those of economically active non-recipients. This is a weak test of the effectiveness of Rural Bank credit.

II. RURAL DEVELOPMENT AND GHANA'S RURAL BANKS

Since its independence in 1957, the Ghanaian government has made several attempts to promote rural development in an effort to increase the living standard of the people who reside in rural areas (Kudiabor 1974).² These projects have failed for several reasons, including the power of lobbying groups, the high cost of living for farmers, and the lack of coordination between government agencies (Amonoo 1977; Brown 1986; and Opoku-Afriyie 1974). In the last three decades, the Ghanaian government has instituted new changes in government organization and developed new sources of rural credit to encourage private investment.

The Need for the Rural Credit

The 1992 Constitution of the Republic of Ghana makes a commitment to rural development as part of a national strategy to improve the living conditions in rural areas. In an effort to mitigate the government agency coordination problems, the constitution incorporates a decentralization approach under which the national government establishes political and administrative Regions and Districts.³ The decentralization follows a fused hierarchy model, with close ties between the center and periphery.

Each of Ghana's 110 Districts is governed by a District Assembly, which is partly elected (75%) and partly appointed (25%). Ghana's District Assembly system requires government appointees and elected representatives to plan district activities together. Local participation for rural development is fostered.⁴ There is anecdotal evidence that the efforts of the District Assemblies are making improvements in the lives of the rural people. The primary areas of development have included the rehabilitation and building of new schools, feeder roads, places of convenience (public toilets), market places, health centers, and water treatment facilities.⁵

Despite the District Assembly governments' successes, the national government has recognized a need for rural credit. Access to rural credit increases the participation of rural people in development activities. A rural credit policy that mobilizes rural resources and redistributes them to the rural sectors creates the potential for more development.

Traditionally, rural development credit has been provided by two types of sources: institutional and non-institutional. In rural communities, non-institutional credit is provided by moneylenders, relatives, friends, traders, commission agents, co-operatives, consumers, distributors of farm inputs, and processors of agricultural products. Research has shown that the most common providers of loans in rural areas are friends and relatives who usually charge no interest or collateral (FAO 1994). This credit market is small, however, and the total credit from these non-institutional sources is insufficient to implement rural development programs.

For rural development to proceed at a smooth pace, larger institutional sources of credit need to be created. In Ghana, institutional sources of credit are the

commercial banks, the Agricultural Development Bank, the National Investment Banks, and the Bank of Ghana Rural Banks. Until recently very few rural people, other than wealthy farmers and businessmen, had access to credit from these sources.

The lack of interest in small rural credits by the National Investment Bank and the commercial banks is explained by the high cost of administering a large number of small credits spread over a wide area, coupled with the comparatively high level of default that has often accompanied small credits. The inability of rural borrowers to offer adequate security for loans, and the enormous risks associated with agricultural production, are the typical reasons given for the urban-based bias of commercial lending. The Agricultural Development Bank was created to service the rural sector in particular. It too, however, eventually began to concentrate on traditional urban-based banking activities.

To overcome many of these difficulties, the Ghanaian government, through the Bank of Ghana, introduced the idea of rural banking into the country in 1976. According to the Association of Rural Banks (1992),

“The aims of Rural Banks are:

- i. to stimulate banking habits among rural dwellers;
- ii. to mobilize resources locked up in the rural areas into the banking systems to facilitate development; and
- iii. to identify viable industries in their respective catchment [areas] for investment and development.”

Table 1: Growth in the Number of Rural Banks and Account Holders ^a

| Year | Number of Banks | Number of Account Holders |
|------|-----------------|---------------------------|
| 1976 | 1 | 1,124 |
| 1981 | 34 | 276,444 |
| 1984 | 117 | 553,000 |
| 1993 | 123 | 703,111 |
| 1995 | 125 | More than 703,111 |

^a Source: Bank of Ghana (compiled from returns submitted by Rural Banks to the Bank of Ghana, 1976-1995)

Table 1 shows the growth in the number of Rural Bank account holders between 1976 and 1995. The main catalysts for the increase in the number of Rural Banks were the 1983 Economic Recovery Programme, the pressures exerted on the Bank of Ghana in the early 1980's by the Cocoa Board, and the demands of prominent local citizens to have Rural Banks in their communities (Bank of Ghana 1995). As the number of these Rural Banks increased, the banks were seen as an alternative channel for providing financial intermediation at the rural level. Currently there are 125 rural banks operating in Ghana's 10 Regions. See Table 2 for the distribution of the rural Banks across regions.

Table 2: The Regional Distribution of Rural Banks in Ghana
(as of January 31, 1995) ^a

| Region | Number of Rural Banks | Percentage (%) |
|---------------|-----------------------|----------------|
| Ashanti | 22 | 17.6 |
| Brong Ahafo | 18 | 14.4 |
| Central | 22 | 17.6 |
| Eastern | 22 | 17.6 |
| Greater Accra | 6 | 4.8 |
| Northern | 3 | 2.4 |
| Upper East | 2 | 1.6 |
| Upper West | 2 | 1.6 |
| Volta | 14 | 11.2 |
| Western | 14 | 11.2 |
| Total | 125 | 100.0 |

^a Source: Bank of Ghana (1995).

Rural Bank Operations

The Bank of Ghana has streamlined Rural Bank lending operations to ensure that Bank credit actually benefits the small scale rural producer and the rural community. The Bank of Ghana has developed an Operational Manual for all Rural Banks.⁶ Applications are accepted from individuals, groups, associations, and companies. Recommendations to reject an application must be justified by specific and clearly stated reasons and cannot be based on vague suspicions.

Before granting a loan to a group, the Bank requires that there be mutual trust and respect among members. In the case of a group loan approval, members are held jointly and severally liable. The group cannot exceed 20 members, and the group leader must have a clean loan record.

The Bank of Ghana has developed a mandatory sectorial allocation for Rural Bank loans. The lending allocation guidelines are shown in Table 3. The allocation ensures that the bulk of the resources go to agriculture, the priority sector in Rural Bank lending. To ensure that resources assist small farmers, the Bank of Ghana requires that the maximum acreage a loan-eligible farmer can cultivate is 10 acres for vegetables and 100 acres for staple crops.

Table 3: Mandatory Sectorial Allocation of Rural Bank Loans ^a

| Sector | Credit Allocation |
|---------------------------------|--|
| Agriculture | A minimum of 50% of Total Loans Outstanding |
| Cottage Industries ^a | Approximately 30% of Total Loans Outstanding |
| Trade and Transport | A Maximum of 20% of total Loans Outstanding |

^a Source: The Bank of Ghana's Operational Manual for Rural Banks (1985).

^b Examples of Cottage Industries are furniture-making, construction, wood carving, Kente and cloth weaving, iron mongery, dressmaking, and tailoring.

The Rural Banks try to reduce the cash element in the loans to the minimum possible to prevent the diversion of funds for purposes other than those for which they are granted. The Banks arrange for inputs to be made available in kind (raw materials, seeds, fertilizers, equipment and machinery, etc).

Loan repayment conditions are determined with reference to the borrower's capacity to repay. A "grace period" is allowed between the loan approval date and the time the borrower is expected to generate sufficient income to repay the loan. During the "operation period" of the loan, the Bank's Project Officer monitors the borrower to ensure proper use of funds and punctual repayment. Routine and emergency visits by the Project Officer are common during the operation period of the loan. Rescheduling may be allowed if there are circumstances which the loans committee or board of Directors accepts as "unforeseen developments." If there is default on the loan, the case is sent to the Bank's lawyer(s) for action.

By 1990, the Rural Banks were experiencing negative profitability resulting in capital inadequacy and, in some cases, the inability to meet depositors' withdrawal demands. The Bank of Ghana ordered a restructuring of the Rural Banks. By December of 1991 all of the Rural Banks had undergone diagnostic study conducted by outside consultants.⁷ The restructuring was designed to determine financial strength, organizational capability, and management status in line with existing statutory requirements. The Banks updated and standardized accounts and procedures. The Banks introduced internal control systems and management information systems. After the restructuring process, the number of Rural Banks meeting the capital adequacy requirement increased from 2 to 55. The Bank of Ghana has instituted measures to maintain public confidence in the remaining mediocre and distressed Rural Banks (Bank of Ghana 1995).

Today, the Rural Banks are still given the opportunity to determine who should benefit from their credit resources. There is substantial anecdotal evidence of misdirection and misapplication of rural credit by the Rural Banks and the rural people. Many rural banks appear to give credit to people who do not fall into the Bank of Ghana target groups. It is not uncommon to see many credit recipients spending borrowed credit on land litigation and funeral ceremonies instead of productive ventures. The

Bank of Ghana initiated the Rural Bank system with the hope that small-scale rural producers and small towns would benefit from the new credit resources. It is uncertain whether or not the Rural Banks are fulfilling the basic functions for which they were created.

III. THE SURVEY DATA

A case-control study was designed to test several hypotheses concerning the utilization and welfare effects of Rural Bank credit. The case bank and control town were chosen carefully to allow for comparison. Then survey questionnaires and interviews were used to elicit responses from samples of the case bank's credit recipients and staff, as well as economically active people in the control region.

The Case Bank and Control Town

One Rural Bank, the Kakum Rural Bank (KRB) of Elmina, was chosen as the case bank. The KRB, located in the Central Region, was selected based on proximity to the research university and the Bank's brisk activities. Anomabo, a town also in the Central Region, was chosen as the control. Anomabo has characteristics very similar to Elmina, but does not have a Rural Bank.

The KRB was established and given a license on February 9, 1980 by the Bank of Ghana.⁸ The Bank's activities cover 5 of the 12 districts in the Central Region. The KRB has a staff of 35. At the time of this study, the KRB was one of the few Rural Banks performing well.

The KRB is located in Elmina. Elmina is a fishing village along the coast with a population of about 21,021.⁹ It is about 12 kilometers away from Cape Coast. Being one of the busiest fishing communities in the country, Elmina attracts fish dealers from several regions of Ghana. Foreign and domestic tourists are attracted to the castle and fort in the city. Elmina was the first town in and around Cape Coast to have a rural bank.

The KRB has six subsidiary banks or "mobilization centers." To discover the impact of rural credit in non-urban areas, the subsidiaries at Jukwa and Abura were selected for study.¹⁰ Jukwa is a farming community with a population of 3,686. There are some cottage industries in Jukwa. The town has a pipe-borne water supply, a secondary school, and a maternity clinic that serve people from the surrounding villages. Abura is a Cape Coast suburb with a population of 5,780. Abura has both traditional and urban characteristics. Many of the people are in economic activities such as farming and trading, while some others commute to Cape Coast to work.

The control town of Anomabo is a successful fishing community with a population of 8,376. The town has urban amenities such as a pipe-borne water supply, secondary schools, and a Health Post. Residents of Anomabo can reach Cape Coast by car in 20 minutes.

Data Collection Procedures

The respondents selected for the study comprised of the KRB's credit recipients, the KRB's staff, and economically active people in the control town of Anomabo. Due to differences in these three populations, different sampling techniques were used.

A random sample of 100 credit recipients was drawn from the total recipient population of 1,999.¹¹ This 5% sample was chosen because of the high money cost and difficulty of contacting credit recipients who are scattered over a wide area. A back-up list was also prepared from which absentee/difficult credit recipients could be replaced. A random sample of 20 KRB staff was drawn from the total staff population of 35. Simple random sampling, using a lottery method, was employed to pick the sample.

For the purposes of this study, “economically active” is defined to mean salaried workers or people who engage in the basic rural occupations such as agriculture, fishing, trading, or other small-scale industry. It was impossible to get a list of economically active people in the control town from which to draw a random sample. Twenty economically active people were selected using a convenience sample. No strict rules were followed, but the researcher relied on logic and judgment. Contacted respondents provided information about other possible respondents.¹²

One questionnaire and two interview schedules were designed to elicit information from the three samples. The questionnaire was designed to elicit information from the sample of KRB staff. Questions concerned bank operations, development promotion activities, and problems. One interview schedule was designed to elicit information from the sample of KRB credit recipients. Questions concerned the KRB’s operations and the recipients’ use of credit. The other interview schedule was designed to elicit information from the sample of economically active people in the control town. Questions concerned factors other than Rural Bank credit which might be important for rural development.

Pretests of the questionnaire and interview schedules were conducted in towns similar to the case and control towns.¹³ The pretest enabled the researchers to revise some of the questions.¹⁴ Three field assistants were trained for the main fieldwork. To ensure consistency and response quality, the field assistants were taught about the need for a brief initial introduction, good rapport, and verbal explanations.

The questionnaires and interview schedules were administered for a period of nine weeks, starting June 3, 1995 and ending August 7, 1995. Where attempts to get a convenient time to meet the respondents and explain the rationale for the study failed, the respondents were replaced using the back-up list. All 20 Bank staff responded to the questionnaire. All 20 economically active people in the control town responded to the interview. Responses were elicited from 89 of the 100 credit recipients in the sample. The overall response rate was 129 out of 140, or 92.1%.

IV. EMPIRICAL ANALYSIS AND RESULTS

Using the information elicited in the questionnaire and interviews, a profile of rural credit recipients and economically active individuals was created. Some responses provided insight into the use of credit for unintended purposes. Responses were also used to test hypotheses concerning the effectiveness of Rural Bank credit lending operations.

Profiles of Respondents

Table 4 lists some of the characteristics of the sampled credit recipients. The majority, 82%, were male. The mean age of the sample recipients was 42 years. Ages

ranged between 21 and 70. Almost three-quarters, 74%, fell between the ages of 31 and 50. The majority of the sampled recipients, 82%, were salaried workers such as police officers, prison officers, teachers, nurses, office workers, laborers and messengers. This is consistent with consistent with the KRB reported percentage of salaried workers in the recipient population, 84%. About one-fifth of the salaried workers in the sample were in the lower income bracket working as laborers, cleaners, and messengers.

Table 4: Characteristics of the Kakum Rural Bank Credit Recipients in the Case Towns and Economically Active People in the Control Town ^a

| Characteristic | Sample of Credit Recipients | Sample of Economically Active People |
|-------------------------|-----------------------------|--------------------------------------|
| Sources of Credit | | |
| Banks | 100.0 | 6.5 |
| Friends | 0.0 | 15.2 |
| Relatives | 0.0 | 28.3 |
| Moneylenders | 0.0 | 6.5 |
| Self Savings | 0.0 | 43.5 |
| Male (% of Total) | 82.0 | 55.0 |
| Mean Age (Years) | 42.0 | 40.0 |
| Occupation (%) | | |
| Farmers | 4.5 | 20.0 |
| Fisherman, Fish Mongers | 3.4 | 35.0 |
| Salaried Workers | 82.0 | 0.0 |
| Traders | 10.1 | 45.0 |

^a Source: 1995 survey of 89 credit recipients (sample drawn randomly) and 20 economically active people (sample drawn using the snowball technique).

Several occupational categories were not found on the KRB list of credit recipients: food sellers, vegetable sellers, shoeshine, shoe making, carpentry, welding, painting, and wheel pushing. It appears that a large majority of the rural poor remain outside of the Bank's credit lending operations. Perhaps people in these small and scattered occupations either do not have securities or their levels of operations are too low to be considered capable of repayment.

Thirty-six percent of the credit recipients in the sample had been granted credit for the first time. Some recipients were receiving their fourth loan. The amounts received ranged from 40,000 Cedi (\$35) to 500,000 Cedi (\$437), with the majority, 74%, receiving amounts below 200,000 Cedi (\$175).¹⁵ KRB requires Bank of Ghana consultation for any amount over 500,000 Cedi (\$438).

Table 4 lists some of the characteristics of the sample of economically active people in the control town of Anomabo. While the credit recipients described above all used the formal KRB, economically active people in the control town tended to use non-institutional sources of credit. We suspect many people in the case towns also use non-institutional sources of credit. Forty-five percent of the control sample was female. This indicates that informal sources of credit may be more important for women. Nearly half,

45%, of the economically active people in the control town were between the ages of 31 and 40, and only 5% were older than 50.

The economically active people in Anomabo who borrowed from private moneylenders all paid annual interest rates of at least 100%. About 90% of the economically active people in the control town agreed on the importance of a Rural Bank. The moneylenders usually required some property or products as security. Fifty-five percent of the economically active people had heard of the KRB, but non had transactions with the Bank. They explained that they were unaware that credit was available to them. Loans from non-institutional sources were similar in size to Bank loans. A majority, 73%, of the loans were not more than 200,000 Cedi (\$175).

Use of Credit for Unintended Purposes

The Bank of Ghana requires that of all rural credit resources, 50% support agriculture, 30% support small-scale industry, and 20% support rural area service sectors. Credit for these purposes is called “direct production credit.” However, credit for production activities, such as farming, trading, and fishing constituted only about 15% of the total loans in the sample.

Social and domestic need were the two most common reasons given for acquiring a loan from the KRB. Credit for these purposes is called “social credit.” About 82% percent of the sampled recipients used the loan for family obligations, health, education, and consumer items in the home. Another 3% of the respondents admitted misapplying credit from productive to social investment.

An informal discussion with Rural Bank managers revealed that the trend toward social credit is pervasive all over Ghana. The general consensus among managers was that the focus of the Banks was changing because of loan recovery problems. Additionally, interest on agricultural loans is capped at 35%, whereas interest for other purposes may be as high as 49%.

The Bank requirements for loan applicants may favor social credit over direct production credit. In 1995 the Bank’s customer repayment rate was only 68%. The Rural Banks provide loans to individuals who can provide some form of security: salary, group property, group security, or salaried worker guarantee. The Banks will often deduct loan repayments from workers salaries, at the employment source, thereby ensuring repayment. Security requirements favor salaried workers, who in the sample tended to purchase consumption items with the credit.

Testing of Rural Bank Credit Effectiveness

Some questionnaire and interview questions were asked to elicit information concerning the actual and perceived outcomes of investing in direct production. Hypotheses were constructed concerning differences in output, income, general welfare, employment creation, and community development effort between direct producers who have access to Rural Bank credit and direct producers who do not. Chi Square testing of differences was used to compare responses across the two types of respondents. Table 5 summarizes the results.

Hypothesis 1: There is a significant difference in output level between direct producers who have access to Rural Bank credit and direct producers who do not. It was expected that individuals with access to more credit (individuals in the case towns) would have higher output levels than those without access (individuals in the control

town). Increased output was measured by a Yes/No response. There was no significant difference found. This means that producers do not see a significant increase in output when they have access to Bank credit. This may be due to the small loan amounts from the KRB.

Hypothesis 2: There is a significant difference in income levels between direct producers who have access to Rural Bank credit and direct producers who do not. It was expected that individuals with access to more credit would have higher income levels. Increased income was measured by a Better/Same/Worse response. There was no significant difference found. This means that increasing income is likely not dependent on KRB credit. This may be due to the small credit amounts from KRB. Also, there are other sources of investment funds, like moneylenders, relatives and friends, available to those without access to the KRB.

Table 5: Differences between Case and Control Responses to Living Standard Questions

| Test: | | | | | |
|-------|--|-------------|----------------|--------------------------------|---------------------|
| 1. | <u>Has Output Level Increased in the Last Year?</u> | <u>Case</u> | <u>Control</u> | <u>Chi Square</u> ^a | <u>Significant?</u> |
| | Yes (%) | 76.2 | 58.8 | 1.311 | No |
| | No (%) | 23.8 | 41.2 | (3.841) ^b | |
| 2. | <u>Has Income Level Increased in the Last Year?</u> | <u>Case</u> | <u>Control</u> | <u>Chi Square</u> | <u>Significant?</u> |
| | Better (%) | 57.1 | 47.1 | 0.068 | No |
| | Same (%) | 19.1 | 29.4 | (5.991) | |
| | Worse (%) | 23.8 | 23.5 | | |
| 3. | <u>Has Welfare Level Increased in the Last Year?^c</u> | <u>Case</u> | <u>Control</u> | <u>Chi Square</u> ^a | <u>Significant?</u> |
| | Better Off(%) | 28.6 | 23.5 | -.---- ^d | No |
| | Same (%) | 14.3 | 23.5 | (3.84) | |
| | Worse Off(%) | 4.7 | 5.9 | | |
| 4. | <u>Employment Creation?</u> | <u>Case</u> | <u>Control</u> | <u>Chi Square</u> ^a | <u>Significant?</u> |
| | Yes (%) | 57.1 | 41.2 | 0.958 | No |
| | No (%) | 42.9 | 58.8 | (3.841) | |
| 5. | <u>Contribution to Community Development?</u> | <u>Case</u> | <u>Control</u> | <u>Chi Square</u> | <u>Significant?</u> |
| | Yes (%) | 42.7 | 41.2 | 3.569 | No |
| | No (%) | 44.9 | 29.4 | (5.991) | |
| | Don't Know (%) | 12.4 | 29.4 | | |

^a The Yates' Correction Factor for: Test 1 was 0.631; for Test 2 was 0.426; for Test 3 were 0.0004, 0.096, and 0.315 for Better, Same, and Worse, respectively; .

^b Critical Values are given in parentheses.

^c The categories "Quite a Bit Better Off" (Case = 23.8%, Control = 17.7%) and "Quite a Bit Worse Off" (Case = 28.6%, Control = 11.7%) were not considered specific enough to be included in the Chi Square analysis.

^d Chi Square Tests for Better, Same, and Worse: 0.123, 0.534, 0.024 respectively.

Hypothesis 3: There is a significant difference in welfare levels between direct producers who have access to Rural Bank Credit and those who do not. Welfare was measured using the Yes/No responses to eight questions concerning the ability of the individual to pay certain living costs more quickly than could be paid before the investment in direct production. The cost items, selected by the researchers to gauge general welfare were: school fees, rent, electricity bills, water bills, health bills, food cost, clothing cost, and the cost of radio/television sets. Both the case and control respondents stated that they could more quickly pay for more than half of these costs after direct production investment. A rating scale system was designed to convert the answers to the eight questions into a welfare scale.¹⁶ There was found to be no statistically significant difference in welfare between the case and control groups. Access to Rural Bank credit does not necessarily bring about improvement in welfare levels.

Hypothesis 4: There is a significant difference in levels of employment creation between direct producers who have access to Rural Bank credit and direct producers who do not. The negative results of the first three hypotheses indicated that KRB loans were not significantly increasing output, income, or welfare for the individual credit recipient. This fourth hypothesis is based on the assumption that, as producers get more access to institutional credit, their productive activities should create job opportunities for other people. Employment creation was measured by a Yes/No response. There was no significant difference found. In the separate survey of KRB managers, several managers stated that loan amounts were probably insufficient to have significant impact on local communities.

Hypothesis 5: There is a significant difference in contribution to community development effort between direct producers who have access to Rural Bank credit and direct producers who do not. The contribution to town development was measured by a Yes/No response. Several respondents were not sure and answered, "Don't know." There was no significant difference found. This implies that Rural Bank credit is inadequate to increase recipients' physical contribution to town development. This may be so because much of the income generated from economic activities may be spent on basic necessities, like food, water, and health. Furthermore, informal sources of credit may be sustaining some development in towns and Rural Bank credit does little to add to this effect.

These hypotheses provide a weak test of the significance of the Rural Bank credit on living standards. However, they do not prove that Rural Bank credit is ineffective. The lack of any significant differences might be due to two different effects: 1) the bank's selection of recipients, and 2) the credit's impact on selected borrowers. As described in the previous section, there is reason to believe the Kakum bank lends to individuals whose living standards are already quite high. In this case, we may not expect to see much gain from Rural Bank credit.

V. CONCLUDING REMARKS

Rural Bank credit is intended to improve the well being of the borrower and the borrower's community. This paper discusses the results of a 1995 survey of Rural Bank staff, credit recipients, and other economically active people in one region in Ghana. The survey results provide insight into the use of credit resources and the effectiveness of credit operations.

Rural Bank credit in Ghana is mandated by sectorial planning to be used in direct production so that resources will be invested and not consumed. Of the credit recipients sampled, 85% used their loans for purposes other than direct production. During the period of our study, most Rural Bank credit, 82%, was provided to salaried workers. These workers tended to use the credit for social and consumption items. Non-salaried workers, who received only 18% of the loans, were more likely to use the credit for direct production. The majority of the people in rural occupations like agriculture, trading, and fishing have no access to Rural Bank credit because of a lack of securities.

The effectiveness of Rural Bank credit can be measured by increased output, income, general welfare, employment creation, and community development effort. In this paper, the effectiveness of Ghana's rural credit program is tested using the case-control method. The results indicate that the impact of the case bank may be minimal. The case bank's rural credit recipients did not experience significantly higher welfare than that of the economically active people in the control town. For individual credit recipients there is no evidence of improvement in output, income, and general welfare. For the recipients' communities, there is no evidence of improvement in employment creation or community development effort. The study indicates that the major constraint faced by credit recipients is the inadequacy of the credit amount. Because it was not possible to control for borrower's income in the analysis, it is impossible to determine the effect of Rural Bank credit on living standards.

With inadequate credit for direct production, rural investors are not able to expand operations to employ new hands, increase output and income, and consequently increase purchasing power. The inadequacy of rural credit has negatively affected the direct contribution to community development. Even though the case bank, like other Rural Banks, is trying to support the welfare of the rural people, the Bank's efforts have resulted in very little improvement. If the effectiveness of the Rural Bank program is to be improved, more credit must be shifted to direct producers who will invest in productive activities. Further research should focus on the collection of borrower and non-borrower socio-demographic information.

ENDNOTES

¹ According to the UNDP Human Development Report (1993), 10.8 million (72%) of Ghana's 15 million people did not have access to sanitation, 6.9 million (46%) did not have access to safe drinking water, and 3.7 million (24.7%) had no access to health services.

² The Ghanaian government defines "rural" to be a village of 5,000 inhabitants or less. Most Ghanaian villages fit into this definition. The meaning of "development" has changed several times over the years. In the 1960's, development became synonymous with technological improvements and rapid economic growth (Rostow 1961). More recently, definitions of development have included improvement in material conditions, holistic and multi-dimensional development, good health, education, increased consumption, gender equality, human freedom and sound environment (Okonjo 1986).

³ Ghana's decentralization program is currently based on Local Government Law, PNDC Law 207 of 1988. Under the 1992 Constitution of the Republic of Ghana, Article 240, (1), a system of local government and administration is created and protected. Article 241 (3) invests in the District Assembly the highest political authority in each district.

⁴ The Constitution requires that the National Parliament develop a District Assembly Common Fund. Every year, the Fund must receive at least 5% of the total revenues of Ghana. When the common Fund began in 1994, the total monetary allocation granted to all 110 district Assemblies totaled 38.5 billion Cedi (\$41.7 million). In 1995, the allocation was 56.0 billion Cedi (\$48.9 million). Conversions to US dollars use the June 1994 and the June 1995 interbank market rates, as found on the Oando 164 Currency Converter (Olsen and Associates). Funds are distributed among the districts based on need, responsiveness, service, and other contingencies.

⁵ Non Governmental Organizations (NGO's) have also been important in Ghana's rural development plans. Some of the NGO's that have been instrumental include World Vision International, Global 2000, Association for the Advancement of Women in Africa, Amasachina, DANIDA, SASAKAWA, Planned Parenthood Association of Ghana, the Red Cross, and the Fishermen's Association of Ghana. Examples of their contribution are the provision of water, health, sanitation and agricultural facilities and schools.

⁶ The Operational Manual describes the application process and clearly defines the conditions any eligible credit applicant must fulfil. The specific requirements of the manual are available from the authors upon request.

⁷ SGC and Company of the Philippines was the primary accounting firm responsible for the diagnostic study. The Rural Banks were categorized on the basis of performance and compliance with Banking Law. The list of the banks by category are available from the authors upon request.

⁸ The bank was originally called Edinaman Rural Bank Limited.

⁹ Socio-economic information for the descriptions of Elmina, Jukwa, Abura, and Anomabo are found in Ghana's 1984 National Census Book. For simplicity, we will not cite each piece of socio-economic information.

¹⁰ The other four subsidiaries are in Agona, Moree, Abakrampa and Tantri in Cape Coast.

¹¹ A systematic sampling technique was used to draw 100 names from the list of 1,999 credit recipients. Simple random sampling of the first 20 names on the list was used to pick the starting point of the sample. Then, every 20th person was selected for the study.

¹² This sampling technique is sometimes referred to as the "snowball technique." See Fink (1995) for more information.

¹³ The pre-test questionnaires were self-administered by two bank staff . and the two sets of pre-test interview schedules were administered to ten credit recipients in Biriwa and five economically active people in Kormantse.

¹⁴ Two versions of the questionnaire were eventually developed: one for bank staff and another for bank management.

¹⁵ In this section, all conversions to US dollars use the June 1995 interbank market rates, as found on the Oando 164 Currency Converter (Olsen and Associates).

¹⁶ Respondents: answering yes to 7-8 of the questions were considered Better Off; answering yes to 6 questions were considered Quite a Bit Better Off; answering yes to 4-5 items were considered to have No Change; answering yes to 3 questions were considered Quite a Bit Worse Off; and answering yes to 1-2 questions were considered Worse Off.

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