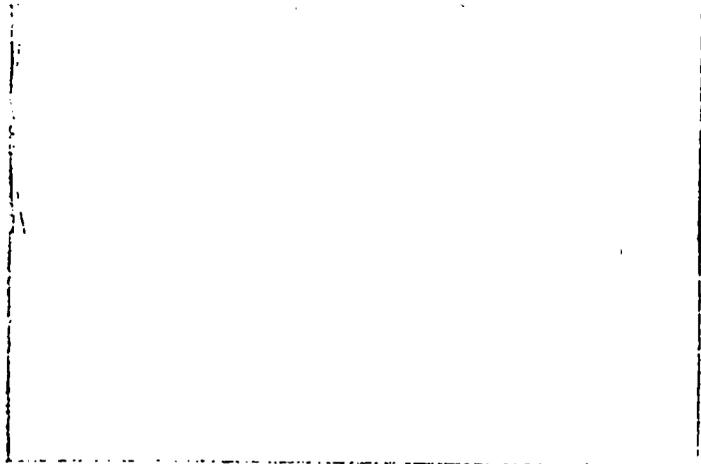


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# STUDIES IN RURAL FINANCE



## AGRICULTURAL FINANCE PROGRAM



Department of Agricultural Economics and Rural Sociology

THE OHIO STATE UNIVERSITY  
COLUMBUS, OHIO  
43210

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A REVIEW OF THE FARM LOAN REPAYMENT  
PROBLEM IN LOW INCOME COUNTRIES

By

Kojo Boakye-Dankwa

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Agricultural Finance Center  
Department of Agricultural Economics and Rural Sociology  
The Ohio State University  
2120 Fyffe Road  
Columbus, Ohio 43210

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## ABSTRACT

This paper is a review of the magnitude, causes and effects of the farm loan repayment problem in low income countries (LIC's). The rapid expansion of financial services and credit in many LIC's is stressed. A basic model used for agricultural credit in many countries is presented. Delinquency and default on loans have been found to be major impediments to the success of most credit programs. Problems with measurement and terminology of lending institutions are identified as major weaknesses in loan repayment studies. Failure to repay loans was found to be common to small and large farmers with the latter accounting for most of the poor repayment records. The main effect of non-repayment of loans is that it tends to weaken the financial viability of credit institutions. The main causes of non-repayment of loans reviewed are:

1. Factors related to farm income (the ability to pay).
2. Attitude of borrowers (the will to pay).
3. Ineffective policies within credit institutions.

Concessionary rates of interest and the non-sanctioning of defaulters are also found to encourage non-repayment of loans. The paper concludes by suggesting possible areas of research to help provide insights to the repayment problem.

A REVIEW OF THE FARM LOAN REPAYMENT  
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Introduction

Financial services have expanded substantially in rural areas of many low income countries (LIC's) during the past couple of decades. Included are very large increases in the amounts of formal credit, adding many new financial institutions, and in a few cases mobilization of large amounts of financial savings [2]. Credit is now recognized as an important component of the development strategies for the agricultural sector of many LIC's. Some countries have experienced increases in amounts of agricultural credit of 50 to 100 percent in a single year [1].

Unfortunately, a large number of these credit programs have very serious problems. Many programs are not helping societies achieve their expressed goals of increasing agricultural output, expanding the productive capacity of the agricultural sector and assisting the rural poor [2, 19, 24]. A number of cases can be identified, however, which indicate that augmented credit supplies have supported agricultural output increases. In all too many cases, however, formal agricultural credit is diverted to non-agricultural uses, substitutes for private savings, and ends up in the hands of those who are already economically secure. Loan repayment problems are also often very pressing.<sup>1/</sup>

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\*Graduate Research Associate, Department of Agricultural Economics and Rural Sociology, The Ohio State University, Columbus, Ohio.

<sup>1/</sup> See The Agency for International Development's (AID) 1973 Spring Review Papers and Gordon Donald's book [8] for a discussion of these problems.

In many countries, the basic model used for agricultural credit is as follows: the Government or Central Bank lends money to an agricultural bank which in turn relends the funds to small farmers either directly or through cooperatives. Farmers use the funds to purchase productive inputs such as fertilizer, seeds, pesticides, etc., which are combined with family labor to produce more output. The additional output is sold and the proceeds are expected to be sufficient to repay the loan and leave the farmer better off. Payments received from the farmers by the agricultural bank are expected to be sufficient to regenerate lending capacity, to cover administrative costs and to pay the interest on the government loan. Such a program consumes no resources; the money committed simply constitutes a revolving fund. The loans are repaid and sufficient to cover costs and any defaults [7,11].

Yet experience, as shown by many studies, belies the model. Agricultural production may increase very little. Because of a high rate of default, the funds provided to agricultural credit are not regenerated. Interest payments do not cover costs. Somewhere between model and reality something often goes wrong. Delinquency and default <sup>2/</sup> are major problems plaguing many financial institutions in LIC's. The effects are multiple and almost invariably negative. This paper reviews some of the underlying reasons which contribute to or aggravate the repayment problem, particularly in LIC's. The approach will be from the borrower's and lender's point of view.

#### The Repayment Problem

Failure of farmers to repay their debts on time, or to repay them at all is a serious problem facing all too many agricultural credit institutions.

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<sup>2/</sup> Delinquency is used here to refer to short run delays in repayment and default to the long run delays which eventually lead to non-repayment.

most successful methods of broadening small farmer access to credit; the strongest array of incentives to lending institutions to provide such credit, and the most enlightened policies within these institutions, are of no avail if many borrowers fail to repay loans. Massive defaults and delinquencies destroy long-run efforts to create viable small farmer lending institutions. Annual rates of delinquency of 20 to 30 percent or more appear to be common, though not universal, in small farmer lending. How much of this delinquency ends in default is, however, not well documented [7]. Table 1 gives a summary of World Bank estimates on delinquencies and defaults by country and program [24]. The table presents two measures of arrears where available: unpaid loans as a percentage of the total portfolio and as a percentage of payments coming due and those overdue. The latter percentage is called the arrears rate. The figures cited should not be used to make invidious comparisons among countries or programs because they reflect a wide variation in definition and in the quality of information. Nevertheless, the import of the data is clear. In most programs, delinquency rates are very high, frequently as much as 50 percent of amounts due. Some agencies are thought to have even higher rates of arrears than reported in the table, but these are concealed, primarily through the refinancing of unpaid debts. High rates of delinquency have been reluctantly tolerated, however, as long as small farmer credit was seen as a restricted, welfare-oriented activity, a minor side show in the overall credit picture [8].

Default is not only a major impediment to credit programs but is essentially unjust. The great majority of farmers that repay loans subsidize the minority that default, and there is no reason to believe that the latter are anymore likely to be poorer, or in other ways more deserving than the former. There are of course, genuinely poor farmers who cannot repay debts on time, as might

Table 1  
 Annex 12  
 Measures of Loan Delinquency of Selected Institutions<sup>1/</sup>  
 (Percentages)

Country	Institutions	Arrears to Portfolio	Arrears Rate <sup>2/</sup>
<b>Africa</b>			
Ethiopia	Volcan <sup>3/</sup>	--	3
	CADU <sup>3/</sup>	--	50
Ghana	COB	--	55
Ivory Coast	BNDA	--	15
Kenya	CPR	25	33
	APC <sup>3/</sup>	51	36
Malawi	Lilongwe <sup>3/</sup>	--	7
Niger	CIICA <sup>3/</sup>	11	29
Nigeria	NSACC	52	10
	PAID	--	95
Morocco	SOCAP	--	50
	ONCA <sup>3/</sup>	13	5
Sudan	COOP	--	26
	ASS	--	13
Tanzania	NICA <sup>3/</sup>	28	50
Tunisia	BNT <sup>3/</sup>	66	50
	Local credit unions	--	50
Uganda	COOP	10	--
<b>Asia</b>			
Afghanistan	ADBA <sup>3/</sup>	37	77
Bangladesh	AB	43	76
	IRDP	--	40
India	PCCS	34	7
	PLDB <sup>3/</sup>	12	20
Iran	ACBI	--	44
Jordan	ACC <sup>3/</sup>	41	82
Korea, Republic of	NAFC <sup>3/</sup>	7	15
Malaysia	BPM	6	21
Pakistan	ADB <sup>3/</sup>	26	65
Philippines	Rural banks <sup>3/</sup>	20	18
Sri Lanka	New credit scheme	50	41
Thailand	BAAC	--	50
Turkey	AbT	29	43
Viet-Nam, Republic of	Rural banks	--	5
<b>Latin America</b>			
Bolivia	Agricultural bank <sup>3/</sup>	1	68
Chile	INDAP	16	60
Colombia	Caja Agraria	19	--
	INCORA <sup>3/</sup>	4	16
Costa Rica	BSCR, BCR	35	--
El Salvador	ABC	37	81
Honduras	BNF, Sup. Credit	10	18
Jamaica	ADD	31	10
Peru	Plan Costa	33	--
	BFA <sup>3/</sup>	30	--

<sup>1/</sup> Also see [8] for worldwide data on loan delinquency.

<sup>2/</sup> The arrears rate is equal to 100 minus the repayment rate.

<sup>3/</sup> Institutions involved in World Bank-assisted projects.

Note: These measures have various shortcomings. Most agencies consider rescheduled loans as having been repaid. A low ratio of arrears to portfolio may not mean much when loans are expanding rapidly and not yet due, while at the same time the repayment rate on previous loans is poor.

Source: Agricultural Credit, Sector Policy Paper, World Bank, May, 1975.

be the case, for example, after a bad harvest. But as noted by Donald [7], a generalized tolerance of non-repayment does not necessarily help such people, while it does reward unscrupulous farmers of all income levels at the expense of the responsible majority.

#### EFFECTS OF NON-REPAYMENT OF LOANS

Throughout the period of the World Bank's involvement in agricultural credit, a major concern has been to strengthen the credit institutions within the borrowing countries, and particularly to ensure their financial viability. The main reason is that institutions without financial viability if they survive at all, depend on annual appropriations from governments to help cover costs and are therefore, susceptible to political influence. In fact, without substantial subsidies, few existing credit institutions would survive. For most of them, costs have exceeded revenues, and inflation plus defaults have eroded their capital structure. From an overall economic point of view, defaults are transfer payments to the defaulting farmers. But this is one of the least desirable or equitable forms of carrying out income transfers. It destroys the financial viability of the credit institution, and farmers who know they will not be required to repay are more likely to use the borrowed funds for consumption purposes. From the social point of view, this is one of the most costly aspects of the default problem. Some of the effects of non-repayment of loans are discussed below.

Impact on Resources: Arrears are expensive for a lender. Recovery of overdue loans requires staff time and paperwork. It may involve transportation costs for visits to defaulters' farms, legal expenses, etc. Thus, the costs of administration of overdue loans usually increases the overall costs of lending without increasing revenue by the same amount. By decreasing lenders' net returns, arrears diminish the ability of the lender to generate resources

internally for institutional growth. In addition, arrears limit the lender access to external sources of funds, restricting institutional freedom and development. Also, loans not collected are loans which cannot be recycled to the lender to new borrowers. Farmers who might otherwise have had access to credit may be denied credit because those with loans are not prompt repayers.

Staff Morale: The accumulation of arrears indicates to anyone with a professional approach to accounting and finance that the situation is out of control. The realization tends to weaken staff morale, and the individuals who have a professional approach to these functions may become discouraged and seek employment elsewhere or else divert their energies in a testimony to the apparent futility of bringing a professional approach to their work [23]. Accumulation of arrears deserve the serious attention of a credit institution's senior management. While preoccupied with arrears, senior management is not able to devote the same energy which it would otherwise focus on long term planning.

Welfare and Equity: While it may superficially appear that permitting arrears and cancelling loans is one means of helping poor farmers who have suffered reverses, the issue is seldom this simple. First of all, the really poor mentioned are generally not those who have access to credit. Loans tend to go to larger farmers as shown by many small farmer credit studies. Even among borrowers in arrears, it is very difficult to ensure that only the poorest benefit from not being forced to repay. Credit does not therefore appear to be an efficient mechanism for income transfer - credit worthiness and "need" are the opposite extremes of the social welfare spectrum.

Spread Effect: Another undesirable feature of defaulting is that it tends to spread. A frequently observed tendency in Spring Review credit programs was for repayment to be relatively good when a program starts, and then to fall and reach levels that mean trouble for the lending agency [4, 7]. In part,

this is explainable as a function of a program's growth rate. If the main sanction against defaulters is the loss of a borrowing privilege, there is an economic incentive to repay a given loan in a new and growing program in hopes of getting a larger loan the next year. But if the loan funds are not expanding, or if the average borrower cannot expect to get more credit the following year than the amount currently owed, this sanction is weakened and default becomes more attractive. The attraction to default is greater when a credit program is perceived by farmers as temporary. There is some sort of a vicious cycle here, since it is the impact of default as much as any other factor which causes many farm credit programs to be curtailed, reorganized or ended.

#### MAGNITUDE OF THE PROBLEM

A major difficulty reported by most researchers in measuring defaults is the way non-repayment is handled in the accounts of credit institutions [7, 12, 20, 21]. In the statistics issued by lending agencies, the line between default and delinquency is either ignored or is defined in different ways. This confusion results partly from an unavoidable uncertainty as to which loans will eventually be repaid in full, and if so when. For some purposes, it is not only easier but also correct to treat all debts alike. Most data reports the value for total payments overdue on a particular date. Usually there is no way of knowing how long the payments have been overdue. In cases where there is a breakdown by due dates, rather short run delinquencies of one to two months make up the largest share of the total.

Another cause of variability in the reported statistics stems from the different ways of handling longer-term debts that have passed beyond the normal delinquency period however defined. Some credit institutions will simply keep these loans on the books as accounts receivable for an indefinite period; others will write them off as bad debts, eliminating them from the asset/liability

account [7]. The relatively high values for cumulative arrears found in most institutions suggest that the latter procedure is rather infrequent. Other researchers look at the variation in definition of terms used by lending institutions as a major problem pertaining to measurement of repayment. For example, how long a period should elapse before a delinquent loan is classified as non-collectible and written off? What is the amount of arrears concealed by the refinancing of unpaid loans which may then be counted as having been repaid or current? One common measure of delinquency is the percentage of a institution's loan portfolio which is overdue as of a given date [5, 12, 21, 24]. A high ratio would certainly be a warning of possible serious trouble, but it should be noted that the ratio fails to reveal as much as could be desired about the nature of the problem. For example, short-term loans, which may be delinquent for a month or two and may soon be repaid, are included on the same basis as those on which no payments on principal or interest have been received for several years and which probably are not collectible.

VonPischke[20], reports three types of data problems he found in his attempt to analyze the repayment performance of agricultural borrowers in Kenya. The first problem relates to the fact that some key intermediaries have not been keeping adequate accounting records. Evidence of this assertion consists of the liberal use of suspense accounts, delays in postings and the consequent tardiness of the publication of annual reports and accounts. The second problem of measurement is that comparable in research studies may not be identical to those of the managements of the various lenders. Commercial bankers, for example, may not feel it worthwhile in terms of accounting time and energy to produce separate performance data for agricultural loans. The third problem in measuring repayment performance is one of interpretation and comparison. Two lenders reporting the same collection ratio may not be achieving

the same level of performance because accountancy provides a number of choices to those who wish to compute a collection ratio <sup>4/</sup>. Such problems of classification and definition, in addition to the research methodology employed in data collection complicates the study of loan repayment.

#### Incidence of Default - Large vs. Small Farmers

Failure to repay is common to large and small farmers alike. Small farmers are more likely to use borrowed funds for consumption and, in poor crop years, are less able to generate the marketable surplus needed to repay their loans. Not only is there little evidence that the poor farmers generally account for most of the defaults but, since formal agricultural credit tends to gravitate toward the upper parts of the farm income spectrum, non-repayment of institutional debts is an ineffective way of reaching the poor farmers with any income transfer. In a number of countries, larger farmers create the principal default problem. This was found to be the case in Colombia (Tinnermeier), Bolivia (Royden), Bangladesh (Solaiman, et. al.), Costa Rica (Gonzalez-Vega), Ethiopia (Holmberg), Sri Lanka (Gunatilleke, et. al.), and elsewhere [4, 6, 7, 24]. In many of these countries, it appears that delinquencies by large farmers are deliberate as they use their political power to protect themselves against sanctions. Delinquency also occurs where agrarian reforms are expected or are already in effect [24]. Vogel's study of delinquency rates in Costa Rica [18, 19] has shown that delinquency rates are low for agriculture in general and for small farmers in particular. He concluded that the particularly low delinquency rates for small farmers reflect the ability of Costa Rican Bank officials to select farmers with the best repayment potential. The fact that small farmers have lower delinquency rates than large farmers,

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<sup>4/</sup> See VonFischke [20, 21, 22] for a thorough discussion of methods of quantifying loan repayment performance.

thus, indicates that loans to small farmers are rationed more severely than loans to large farmers because of the lower returns and higher costs of lending to small farmers.

#### CAUSES OF NON-REPAYMENT OF FARM LOANS

Various approaches have been used in analyzing the causes of non-repayment of agricultural loans. Multiple regression analysis to estimate factors affecting non-repayment, for example, was employed by Samman [15], Best [5], and Ames [3]. Discriminant function analysis was used by Pandey, Muralidhara [13] and Igben [8] to classify borrowers according to their willingness to repay loans on the basis of differences in their socio-economic characteristics and to assess the degree of risks involved (credit worthiness) with the loan applicants. Others like VonPischke [20, 23], Stansbury [16] and Sacay [14] tackled the problem by looking at the borrower's and lender's side, and the general conditions of the environment. The results from most of these studies indicate that factors affecting delinquency or repayment as the case may be, are numerous and interrelated. The next section summarizes some of the major causes of non-repayment from the borrower's and lender's point of view.

#### BORROWER'S SIDE

Several issues are involved when looking at the borrower's side. The economic benefits from the use of the loan may not have lived up to expectations for a number of reasons. In some cases the problem may be lack of profitable technology which the farmer could use, or his poor managerial ability. In others, it can result from unsatisfactory market conditions, or from failure to use borrowed funds for productive purposes. Other causes stem from poor weather conditions and other natural causes beyond the borrower's control [6, 7, 12, 14, 16, 19, 24]. In some of these cases, refinancing or postponement of the maturity date may be justified.

### Technology and Delinquency

Although the evidence is inconclusive, there appears to be a direct relationship between loan repayment and the availability of new and profitable technology. Only a few of the credit projects covered in the Spring Review had loan repayment rates above 90 percent and, in most cases, these projects successfully provided profitable technology to the farmer [7, 17]. One of these was the Puebla project in Mexico which significantly improved corn yields. As reported by Timmermeier [16], income for participants doubled or tripled as a result of this program. Other programs in which new technologies resulted in increased farm incomes were the CADU project in Ethiopia, the Comilla program in Bangladesh and the INCORA and ACAK programs in Colombia and Brazil respectively.

New technology would thus seem to be an essential condition for a successful credit program. One would hasten to note, however, that it is not a sufficient condition for success. For some programs the technology was available but the inadequacy of price, land tenure, marketing policies or the risky nature of the new technology made its adoption unprofitable. A Nicaraguan credit program, for example, significantly increased corn yields, resulting in a 50 percent drop in price at harvest which caused repayment problems [17]. It is also known that the few high productivity programs are not the only ones with high repayment levels. The BNDA in the Ivory Coast is an example of a good repayment record with no attention to technology or loan uses [7]. Vogel's work in Costa Rica [18, 19], also indicated low delinquency rates which were not due to new technology; nor did gains in productivity always bring high repayment rates, as for example Sri Lanka [7].

Thus, the notion that new technology should make an important contribution to repayment potential is acceptable, but it need not be the only factor at

work, even in highly productive programs.

#### Borrower's Attitude

Most studies attempting to identify the causes of non-repayment of agricultural loans have noted that in many cases the borrower had sufficient income to repay his loan but chose not to repay [6, 7, 12, 16, 24]. Whether or not funds for repayment are available is not always clear-cut. If ability to repay were the only factor involved, defaults would normally be higher among poor farmers, and would increase as incomes fell. But a strict relationship between productivity/income and repayments cannot be accepted in view of the reports of high default rates among richer farmers [7, 18, 19]. Clearly, there are some farmers who could repay but refused to do so. Thus, we must face up to the reasons why so many farmers do not wish to repay their loans when able to do so. If default were a function of poverty, defaulters could be easy to identify. But when the will to repay is involved, the identification becomes more uncertain. The difficulty lies in distinguishing the poor farmer with good intentions from the delinquents who become real defaults. Among the latter are those who may intend to repay but keep postponing repayment and finally give up. Then there are farmers whose intention to default is strong, and who may eventually respond to repeated pressures that cost the credit agency more than it gets back in payments. Beyond this point, there are farmers who feel all along that they need not repay and cannot be convinced to do so.

The question is what are the reasons for intending to default, or for a farmer sliding from one category to the next and finally becoming a hard core defaulter? Some repayment funds are usually available and farmers have to establish priorities for their uses. Apparently, repaying public sector credit is accorded low priority compared to loans from private lenders. This

stems from the electioneering promises of politicians in some cases, but more generally from the diffuse quality of traditional obligations in patron-client relations which allow social debts to be discharged in various ways.

Another kind of defaulter has also been identified--the rich farmer who manipulates a credit program to his advantage. If he is in a position to default with impunity but still receive another loan by exerting influence, he will be the most difficult customer for a credit agency to handle. Another point reported by many authors is that defaulting, or prolonged delinquency, can be stimulated by imitation. Farmer A sees Farmer B getting away with it, and begins to think "Why shouldn't I?". Others will follow the example, and if the trend goes on long enough, the credit institutions standing will become damaged in the farm community to a point where overall recovery is difficult or impossible. For this reason, analysis of individual defaulter characteristics as a guide to borrower selection by lenders has severe limitations because the same farmer who is likely to repay one year may be less likely another year.

In some cases, farmers have the impression that credit is a gift made to ensure their loyalty and future support. Governments sometimes do little to change this attitude, and may even encourage it in times of political uncertainty. Lack of enthusiasm to repay is worsened by the unwillingness of governments to impose sanctions through their credit institutions and judicial systems on those whose debts are over due. If land is pledged as collateral, government credit institutions rarely foreclose [24]. Denial of new loans is the usual penalty for failure to repay. This is often a weak sanction, especially for short term credit, since the farmer has less incentive to repay when the size of a recurring loan levels off. This is reflected in lower repayment percentages as programs mature.

Lack of proper records and effective collection procedures also contribute

to poor repayment performance. Many farmers do not perceive the value of a good credit rating which tends to complicate the default problem. At times, non-repayment stems from corruption within the credit agency itself. It is alleged that some officials are more interested in getting bribes from delinquent borrowers than in the difficult, and personally less remunerative task of recovering the arrears.

#### LENDER'S SIDE

Some studies identify a series of factors associated with the lending institutions which affect loan delinquency and default [4, 7, 12, 14, 16, 23, 24]. Credit institutions are initiated for various reasons. Some of the more prevalent of these reasons are profit, economic and social development [16]. Some credit institutions have a combination of these objectives. Thus, the operational procedures and the types of borrowers to whom a credit institution lends depends upon its objectives. A credit institution whose only motive is profit would be expected to lend only to proven borrowers. When economic development is the objective, however, the borrowers are often riskier. When social development is added to economic development, as is the case in many LIC's, the borrowers and enterprises are even more economically marginal. Thus, some causes of poor repayment performance are beyond the control of the lender. In many cases, however, the lenders (or their shareholders, in the case of public sector institutions) are the source of blame for poor collection performance.

Loan Processing: In many cases, credit institutions fail to approve loans in time and in other cases, loan funds are disbursed too soon. The result is that the proceeds in cash or in kind reach the farmers at the wrong time and are diverted to other purposes. In other cases, when credit is available, the inputs to be acquired are delayed.

Repayment Arrangements: The schedule of repayments is often not adapted to the flow of receipts. Farmers need time to sell their produce, and this may be a matter not entirely under his control. It would be most unfortunate for the lender to force them to sell their produce at unfavorable conditions. On the contrary, it is in the lender's own interest to help borrowers obtain the best possible price. Some credit programs expect borrowers to make long trips to repay their loans. This is not an unreasonable expectation, perhaps, when the borrower lives close, but frequently a trip to the lender's office involves a long inconvenient journey on the part of the borrower.

Payment Records: Poor collection performance may reflect the fact that a significant portion of loans may be improperly documented, making it impossible to enforce repayment. Accounting problems make it difficult for farm credit institutions to know exactly the repayment position of specific borrowers. A lender without accurate accounting information cannot follow up defaulters very effectively.

Credit Allocation: Many loan allocation processes often depart from the financial optimum [23]. Poor credit decisions may be made because of information problems and lack of decision maker's experience in lending to specific target groups. Political pressures may skew the distribution of funds away from the pattern envisaged in project design. If political interference diverts credit away from target groups towards those with relatively smaller repayment capacities, it may jeopardize loan recovery. Also, if political pressure is present during the loan allocation process it will probably also impinge on collection activities, restricting the lender in the exercise of his best judgement.

Farmer Education: Many credit institutions have failed to stress loan repayments in their educational programs or have not vigorously pursued loan collection,

thereby nurturing the idea that the consequences of default are not serious. Some loans are not repaid because borrowers anticipate a change in credit policies or because they lack confidence in the credit institutions ability to provide credit in the following year. In studies conducted in Western Nigeri and Kenya, Miller [12] found borrower education (referred to in the studies a "farmer repayment morality education") to be positively related to high repayment rates.

Sanctions: Another major factor causing poor repayment is that public sector lenders experience problems in effectively sanctioning poor payers. One sanction commonly used is to deny defaultry borrowers further access to credit, b this policy may conflict with the impression that poor payers include those farmers who "need" credit the most. The ultimate sanction of course, is fore closure--seizing and selling the borrower's assets. Government institutions established to assist farmers do not like to take the beneficiary's primary asset, his land, cattle or implements. The idea of not exercising sanctions, at least against those able but unwilling to repay, inevitably leads to accumulation of arrears.

#### IMPACT OF INTEREST RATES ON DEFAULT

Unrealistically low interest rates, frequently charged by farm credit agencies in LIC's, encourage poor repayment. Low interest rates encourage the diversion of funds borrowed for consumption purposes. Diversion is more likely with richer farmers who are less likely to be subjected to enforcement of requirements that loans be used only for designated purposes. Their political power and influence makes such enforcement difficult. Little urgency is attached to repay money provided at a discount. With nominal interest rates exceeded by the rate of inflation, lenders are actually paying borrowers to delay payment. Such low cost money makes it more tempting to borrow from

institutions for consumption purposes, either by directly spending in this fashion or by using such funds to pay off money lender loans [7].

In their study in Bolivia, Ladman, et. al. [10], found that the relatively inexpensive cost of borrowing causes farmers to use credit where the expected rate of return is less than the opportunity cost of the funds elsewhere in the economy. Since credit is fungible, the funds may be subject to agricultural "illusion" where the funds are borrowed for agricultural purposes but actually used for other purposes. The problem of loan collection is worsened, when funds are channeled into non-agricultural pursuits, particularly, if they go to consumption or activities which do not provide sufficient income to repay the principal and interest in the required time. VonPischke [23], observes that inflation tends to make it easier to repay later. This is because many borrowers can obtain a profit by employing these cheap funds at higher rates of return on their farm land and in alternative uses.

#### CONCLUSIONS

This paper reviewed several issues related to the non-repayment of loans, particularly the causes and effects. The review has clearly shown that the most successful methods of broadening small farmer access to credit, the strongest array of incentives to lending institutions to provide such credit, and the most enlightened policies within these institutions, will be of no avail if borrowers fail to repay their loans. Certainly, for many credit programs, loan repayment must be improved if small farmer credit is ever to be established on a broad, self-sustaining basis.

Crop insurance has been suggested as a possible way to improve loan repayment by protecting both the borrower and lender against the vagaries of nature. But this approach involves difficulties of administration and may prove costly. Group lending to farmers' associations, rather than to individual farmers, has

also been advocated as a means of reducing delinquency and default rates. Relatively few studies have been done on group credit but some evidence suggests that it may be a promising means of tackling the repayment problem under certain conditions.

Additional research is required on the issue of loan delinquency and default since there are few empirical studies done in this area. Insights from the study of credit use on small farms should provide considerable assistance for improving loan repayment since the two areas are closely related. Since the study of credit use will be longer-term, there is need for more short-term research focusing on causes of loan delinquencies and possible solutions. One such area would be a study focusing on the costs and benefits of a good credit rating. Emphasis should be on the value or quality of loan service since it is expected that a system which substantially reduces the loan transaction costs would result in higher repayment. Other priority research topics include: delinquency definition and measurement; role of informal groups in credit use and repayment; delinquency problems in formal and informal markets; causes and effects of delinquency; impact of collateral and other requirements on repayment; technology adoption and delinquency; loan guarantees; crop insurance and other approaches to reduce delinquency.

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