

**Cooperative  
Credit for Farm  
Production  
In Mysore State, India**  
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October 1973

Bulletin 520

## PREFACE

This bulletin is an outgrowth of efforts by the University of Tennessee to strengthen relationships with rural social scientists and development programs in other countries through informal research cooperation. The aim has been to enable faculty and students at Tennessee to become better acquainted with the problems and progress of developing nations, as well as make modest contributions to the pool of knowledge about agricultural modernization. Financial support for this undertaking has been provided in large part by the Agency for International Development, U.S. Department of State, through a grant made to the University of Tennessee (Grant AID/csd-1927) as authorized by Section 211(d) of the 1966 Foreign Assistance Act.

Development leaders in South India have come to regard the ready availability of production credit to small farmers as a key element for increasing food production and reducing rural poverty. It was in this context that arrangements were made with the Mysore University of Agricultural Sciences (MUAS) and other organizations for the senior author to go to Mysore State to conduct the Ph.D. dissertation research on which this report is based.

It was possible for Dr. Ames to be in India for only 13 weeks. But the help from MUAS and various officials enabled him to make many contacts, compile considerable information, and complete a survey of credit cooperatives and farmer-borrowers in parts of three districts. While much of the information about credit institutions and experiences will not be new to development specialists in India, perhaps the findings will help to document and highlight some critical aspects of repayment problems that deserve further attention.

The problems of agricultural change and cooperative financing encountered in Mysore State are not unlike those to be found elsewhere in India and the developing world – small farms, lack of funds, inability to absorb setbacks, and the need to help many farm families. Although this study focuses on experience in only one region, the findings should be of interest to development specialists, officials, and students in other places. For those not acquainted with production credit programs in India, this report may be a source of information about the institutional setting and operational practices.

In developing this study, the authors received valuable suggestions from Dr. Dale Adams at the Ohio State University, the Land Tenure Center at the University of Wisconsin, and Dr. Merton Badenhop at the University of Tennessee. Among the persons in India who provided assistance, special mention is due Dr. Revanna Ramanna, Chairman of the Department of Agricultural Economics at MUAS, and his colleagues. Help with the survey was provided by B. T. Muni-krishnappa, MUAS graduate student. Appreciation is extended also to G. K. Sangameswar, G. Halasiddappa, and M. K. Venkataram Gowda, Deputy Registrars of Cooperative Societies in Bangalore, Mandya, and Mysore districts, and their staffs.

The content of this report is the responsibility of the authors. Observations and conclusions presented do not necessarily reflect positions of A.I.D., the U.S. Government, cooperating institutions in India, or the various individuals who helped.

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## SUMMARY

India, as many developing nations, is trying to improve the availability and effectiveness of production credit for small farmers. One channel that has received attention are the cooperative credit societies. But despite help from state and national financial institutions, many local agricultural credit cooperatives in India have had problems of getting farmers to repay loans and, in turn, retaining their own viability. Societies with more than half of their loans in arrears have not been uncommon.

This study examined the relationship between repayment of crop production credit and various characteristics of a sample of farms and cooperative societies in selected areas of Mysore State, India. Lending policies and administrative procedures of the district cooperative central banks were also examined. Specific objectives were: 1) to depict the organizational efficiency of these agricultural credit cooperatives, 2) to identify their lending practices and operational problems, and 3) to ascertain sources of difficulty encountered by farmer-borrowers in repaying crop production loans.

Information from 35 local cooperatives in three districts of Mysore State was obtained in 1972. A sample of 136 of their farmer-borrowers was interviewed. The cooperative societies were compared according to 1970-71 short-term loan repayment experience. Tabular analysis was used also to compare farmers who had and had not defaulted on their crop production loans, grouped according to farm size. In addition, regression analysis was applied to this farm level information to examine the relationship between amount of crop production credit overdue and several socioeconomic variables.

Information from officials at the district and state levels disclosed that, in response to their 1969 "nationalization," several commercial banks in Mysore State were helping to finance local agricultural credit societies. In 1972 they were encountering some problems of gaining experience in working with small farmers, revitalizing local cooperative leadership, and reaching agreement with the cooperative banks about which local societies to be assigned. Close supervision of the credit cooperatives, along with educational help to farmers and local cooperative officials, was viewed as an important success element.

Processing farmer loan applications took from 9 to 45 days—21 days on the average. Recent improvements had apparently been made. Most often mentioned as reasons for delays were: difficulty of farmers obtaining the information required in application forms, the need to update titles of land used as security, and transmittal lags between local societies and the district banks.

Local societies charged on 9.0 to 9.5 percent interest for short-term loans. However, loan applicants had the additional expense of membership fees, cooperative share capital, documents, and transportation. All together, total cost of a 100-rupee loan was about 21 rupees (Rs.).

The average credit cooperative in the survey had 390 members, and had made 148 short-term loans in the 1970-71 season, of which 38 percent were overdue. Relative to those with few overdues, the average society with very poor

repayment experience had fewer members, had made short-term loans to a lower percent of its members, charged a slightly higher interest rate, and had a much higher percentage of its overdue loans owed by large farmers.

There was evidence that the leadership of many local credit cooperatives has been dominated by large farmers. Of the management committee directors in the average cooperative, 71 percent were farmers who owned more than five acres.

Short-term loans from the cooperatives accounted for only 19 percent of the outstanding debts of the farmers surveyed. Sixty-six percent of the outstanding debt of small farmers was owed to private moneylenders. Debts of large farmers were spread more evenly among several sources.

Compared with nondefaulters, the average farmer with overdue cooperative credit had less land in crop production; owned fewer assets; had more currently financed investments; had lower operating expenses; had lower net output per acre; had lower farm output and income; and earned more nonfarm income.

Large farmers spent considerably more than small farmers for such special family items as weddings, births, funerals, annual festivals, and education. Large farmers were not in default on cooperative credit spent more for these items than did those who were in arrears. But, among the small farmers, it was the defaulters who spent more on the average.

Regression analysis of the farm survey information showed a rather similar pattern. Positively associated (at the .10 probability level or better) with amount of 1970-71 crop production loan overdue were: currently financed capital investments, short-term loans as a percentage of operating expenses, acres in crop production (large farmers only), and nonfarm income (large farmers only). Large farmers with heavy overdues tended to have lower expenses for marriages, other ceremonies, and education. Net output per acre was not strongly associated with amount of loan overdue.

Farmers who had repayment difficulties gave a variety of reasons. Drought, flood, pests, and other natural adversities were mentioned most frequently. Family illness, injuries, and medical expense were not unusual explanations. Small farmers sometimes indicated that lack of marketable surplus, meeting other obligations, and diversion of crop production loans to unintended uses (such as for weddings or buying livestock) had led to repayment problems.

# Cooperative Credit for Farm Production in Mysore State, India

by

Glenn C. W. Ames and David W. Brown

## INTRODUCTION

**P**roblems of providing adequate credit services to farmers have assumed special significance in recent years with the adoption of economic development programs and with the spread of the Green Revolution. Agricultural cooperatives were promoted as the partial solution to farmers' production problems and development programs. In many cases agricultural cooperatives were asked to provide extensive amounts of credit, production inputs, and marketing services without revitalizing their weak structures.

In many Asian countries, agricultural cooperatives have been functioning since the beginning of this century. Their major and often only activity has been the provision of credit. Their scope has been limited to a fraction of the agricultural population. In 1969, approximately 35 percent of the rural Indian families (both cultivators and others) were served by agricultural cooperatives. However, only about 38 percent of the farmer-members actually borrowed from their cooperatives.<sup>1</sup>

Large amounts of overdue loans prevented financial institutions from adequately financing farmers. For example, the district cooperative central banks in Bangalore, Mandya, and Raichur had overdue loans ranging between 44 and 62 percent of repayment obligations in 1967-68.<sup>2</sup> The typical primary agricultural credit cooperative society in Mysore State had overdues which exceeded 40 percent of its outstanding loans at the end of 1966-67 and 1967-68.<sup>3</sup>

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<sup>1</sup>Reserve Bank of India, *Statistical Statements Relating to the Cooperative Movement in India*, n.p., Reserve Bank of India, 1968-69, quoted in Mohinder Singh, "Challenge of Agricultural Cooperative Financing," *Modern Government*, XIII, No. 6 (August, 1972), p. 39.

<sup>2</sup>Report of the All-India Rural Credit Review Committee, B. Venkatappiah, Chairman (Bombay: Reserve Bank of India, 1969), p. 525.

<sup>3</sup>Report, p. 255.

## THE PROBLEM

Cooperative credit in Mysore State presents a picture of uneven development. In a few districts, the cooperative credit structure is fairly weak in terms of resources and operational efficiency.<sup>4</sup> Even within districts where cooperatives are supplying cultivators with credit on a regular basis, the operation of individual cooperatives varies greatly. Many cooperatives throughout the state are nearly defunct due to the heavy amount of overdue loans and the resultant ineligibility of many farmers for additional financing. Difficulties with the crop loan system are the major problem.<sup>5</sup>

## OBJECTIVES

The overall objectives of this study were to document the nature and causes of farmer-member-borrowers' difficulties in repaying short-term crop production loans from primary agricultural credit cooperative societies. The analysis includes three specific components:

1. Examination of the organizational structure of agricultural cooperative credit in India and Mysore State with respect to repayment problems.
2. Identification of existing cooperative lending practices, their difficulties in dealing with farmer-member-borrowers, and cooperative officials' ideas about reducing repayment problems.
3. Examination of selected farming situations in both dryland and irrigated areas to ascertain credit sources used (specifically, institutional credit), the repayment of credit, and the climatic difficulties encountered in repaying loans.

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<sup>4</sup>Operational efficiency of cooperative societies is defined as providing timely credit to farmers and their repayment of short-term crop production loans at the end of the harvest season. This is essentially the definition used by the All-India Rural Credit Review Committee in its 1969 study and it is consistent with the Mysore State District Cooperative Central Bank's concept of cooperative efficiency. For example, a cooperative with 75 percent of its loans repaid would be considered more efficient than a cooperative with 50 percent of its loans repaid. Other measures of efficiency, which are also relevant, are the timely availability of credit, the percentage of crop production credit going to small farmers, and the increase in agricultural production attributed to inputs from cooperative societies. **Report**, p. 257.

<sup>5</sup>The observations in this study on the Mysore State cooperative agricultural credit structure were based on a review of the literature on agricultural credit available at the University of Tennessee, the Land Tenure Center at the University of Wisconsin, and the Capital Formation Project at the Ohio State University. In addition, interviews with G. V. K. Rao, Development Commissioner, Government of Mysore; A. Shanker Alva, Minister of Cooperation, Government of Mysore; G. K. Sangameswar, Deputy Registrar of Cooperative Societies, Bangalore District; and K. Raja Rao and K. Ankegowda, Project Officers, Small Farmers Development Agency, supported the information on Indian cooperatives in the literature review.

**INDIAN AGRICULTURAL CREDIT COOPERATIVES,  
DEVELOPMENT POLICIES AND OPERATIONAL  
PROCEDURES**

**The Cooperative Movement in India**

The cooperative movement in India, which began in the last decades of the 19th century, has passed through several phases of growth, consolidation, and development. Although the movement started for the purpose of granting short-term loans to people of limited resources, it now embodies several phases of agricultural and industrial production as well as cooperation in marketing and consumption.

In 1904 the first Cooperative Credit Societies Act was enacted and was later altered and amended by the Cooperative Societies Act of 1912. Under these laws, the Indian government took the initiative for the introduction of the cooperative movement, and the government provided such services to the cooperatives as annual audits, inspections, and exemptions from income taxes, stamp fees, and registration fees. The intention was to create conditions under which the societies could function as autonomous bodies with limited interference from the government. However, as the cooperative movement spread, the authorities took an active interest in the promotion and development of cooperative societies into efficient instruments for promoting general welfare.<sup>6</sup>

The cooperative movement was inactive during the Great Depression of 1929-35. Production outlets dried up, assets were frozen, and overdues mounted rapidly. Many cooperative financing institutions severely limited their activities to a few societies. Cooperatives recovered from the shock of the 1930's with the return of prosperity during the Second World War.<sup>7</sup>

In the post-Independence period, cooperatives became integral parts of the Five-Year Development Plans. In 1954 the Reserve Bank of India published its **All-India Rural Credit Survey**, which devised an elaborate plan for the reorganization and development of cooperatives. The Reserve Bank suggested a more business-like approach to peasant farming in which cooperatives would finance cultivators as producers of crops, not as owners of land. One result of the Reserve Bank's recommendations was the crop loan system.<sup>8</sup>

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<sup>6</sup>J. C. Ryan, "Co-operatives in Asia: Recent Developments and Trends," *International Labour Review*, LXXXII, No. 6 (December, 1956), pp. 462-464. Another excellent reference which supports Ryan's theme is Eleanor M. Hough, *The Co-operative Movement in India* (4th ed., London: Oxford University Press, 1959).

<sup>7</sup>Kewel Krishan Dewett, Guru Charan Singh, and J. D. Verma, *Indian Economics* (22nd ed., New Delhi: S. Chand and Company, Ltd., 1972), p. 304.

<sup>8</sup>Daniel Thorner, *Agricultural Cooperatives in India: A Field Report* (New York: Asia Publishing House, 1964), p. 15.

The Reserve Bank also recommended the integration of credit and marketing. This system works best with growers of cash crops like sugarcane, which requires high investment per acre and which must be sold quickly after each harvest.

Since the early 1950's and the First Five-Year Plan, the cooperative movement has made substantial progress in extending its activities to all sectors of the economy. The number of societies has more than doubled, the membership more than trebled, the share capital increased almost nine times, and the working capital increased more than 10 times.<sup>9</sup>

During the current Fourth Five-Year Plan (1969-74), the cooperative movement has extended its activities to include more people. Historically, the tendency has been to provide credit to the larger, higher-status farmers of the larger tracts more than small farmers on the smaller tracts and agricultural laborers.<sup>10</sup> Two new agencies have been created—the Small Farmers Development Agencies (SFDA) and the Marginal Farmers and Agricultural Labourers Agencies (MFAL). These agencies are intended to build up the proper infrastructure so that adequate credit is available to farmers with limited financial resources.

The cooperative movement has two main divisions—credit and noncredit operations. Each operation can, in turn, be divided into services to agricultural and nonagricultural clientele. This study concentrated on a limited part of the agricultural credit structure. (For the structure of the overall cooperative movement, see Figure 1.)

The cooperative structure handles short- and medium-term agricultural credit through a three-tier organization. Long-term credit has a separate but similar organization. In every state the short-term credit structure consists of the state cooperative Apex bank, the district cooperative central banks, and primary agricultural credit cooperatives at the village level. In 1970 India had 22 state cooperative banks, 425 district cooperative central banks, and 209,622 primary agricultural credit cooperative societies.<sup>11</sup>

The Reserve Bank of India grants loans to the state cooperative Apex bank at 2 percent interest below the current Reserve Bank rate; the Apex bank finances the district cooperative central banks; the district banks, in turn, make loans to the primary credit cooperatives at the village level. The primary cooperatives then finance the cultivator's seasonal agricultural operations through the crop loan system. Figure 2 shows the flow of credit and services to the cultivator.

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<sup>9</sup>Dewett, et. al., p. 304.

<sup>10</sup>For this study, small farmers were defined as cultivators who owned a total of 5 acres of land or less, whether or not any of this was irrigated. Large farmers were identified as those cultivators who owned more than 5 acres. The acreage owned by large farmers ranged from 5.5 acres to 112 acres.

<sup>11</sup>M. Sulaiman Kunju, "Whether the Three Tier System Is to Be Continued," *Co-operative Training College: Co-operative Management for the Seventies*, VI (Special Number, 1970), p. 145.

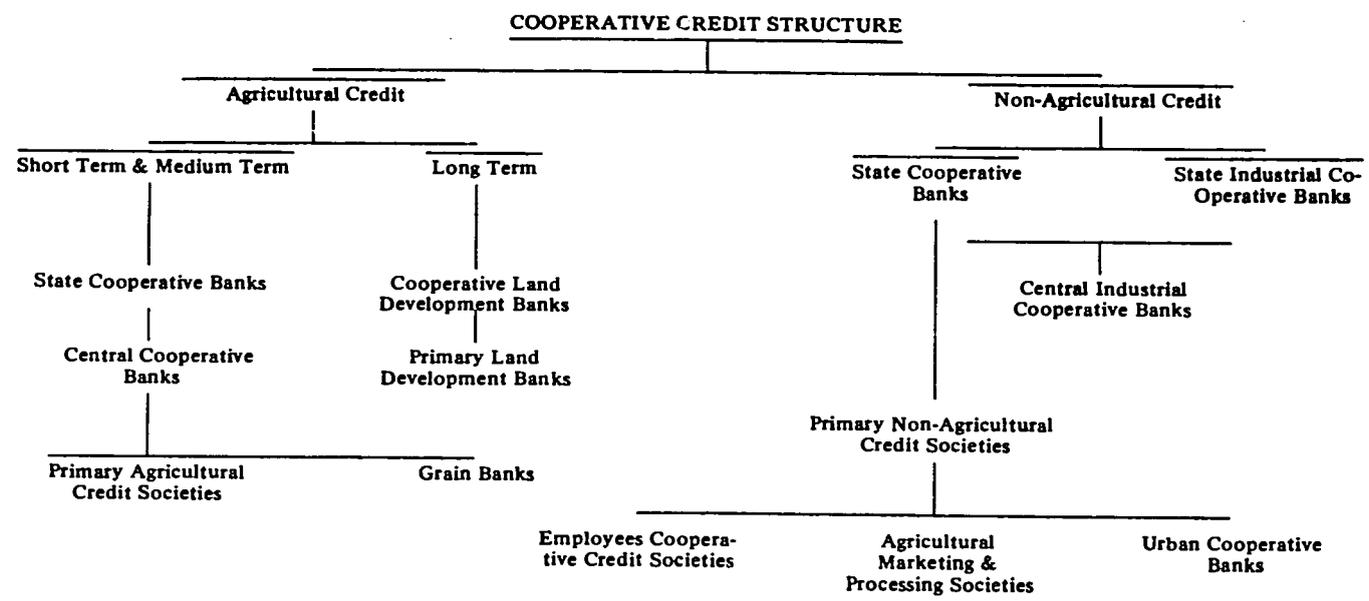
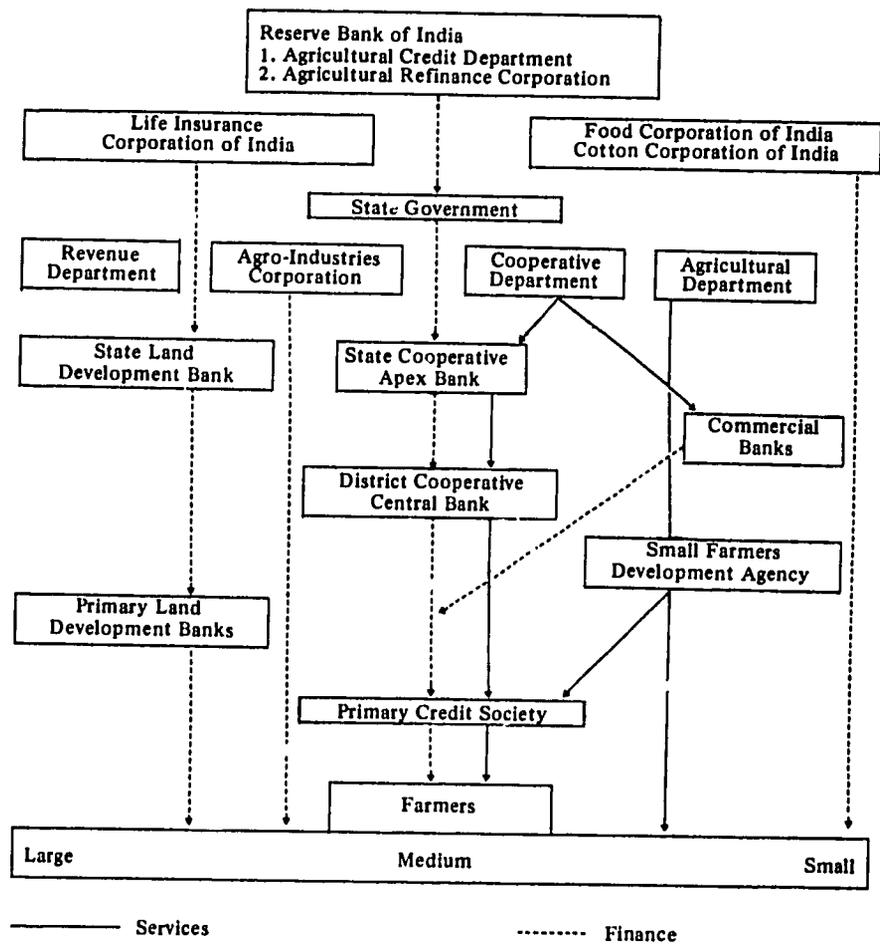


Figure 1. Cooperative credit structure in India.

Source: Report of a Study Group of the National Credit Council, Organizational Framework for the Implementation of Social Objectives (Bombay: Reserve Bank of India, 1969), p. 12.

**FLOW OF SERVICES AND INSTITUTIONAL FINANCE  
PRIMARY CREDIT SOCIETIES**



**Figure 2. Cooperative Agricultural Credit Structure in India.**

The primary agricultural credit cooperative societies are the central links in the three-tier structure. If the primary credit societies are expected to repay their loans to the district cooperative central banks, the cultivator-borrowers must repay their crop production loans and medium-term loans to the societies. If the primary credit societies are overdue to the district cooperative banks, these banks, in turn, cannot repay their loans to the state cooperative Apex banks. As a result, the Reserve Bank of India heavily subsidizes the state cooperative Apex banks.

#### **Role of Commercial Banks in Financing Cooperatives**

The nationalization of 14 major commercial banks in 1969 was one of the most significant steps affecting economic development in India since Independence (1947). Nationalization has provided a new impetus for increasing credit for agriculture on a selective basis. Ever since planning started in India, planners have argued that agriculture was the weakest economic sector of the Indian economy. Limited amounts of money flowed into the agricultural sector from commercial banks, with the exception of plantations and large-scale farming enterprises.

Under government pressure, commercial banks have been financing agriculture on a larger scale since 1969. Success has been mixed. Under the new system, commercial banks have channeled their loans to farmers through cooperative societies. Since the commercial banks were assigned cooperatives that formerly had been financed entirely by district cooperative central banks, they now face the same problems of high overdues and defaulting farmers that stifled the district banks. However, the commercial banks are trying some promising new experiments in the field of agricultural credit.

In 1970 a system for financing primary agricultural credit by commercial banks was introduced in seven districts of Mysore State. The district cooperative central banks in these districts were administratively and financially ill-equipped to meet the credit needs of farmers.<sup>12</sup> Commercial banks faced two important tasks—supplying crop production loans and medium-term credit to small farmers, and revitalizing the cooperative societies.

Revitalizing the cooperative societies has been a major undertaking for the commercial banks. The district cooperative central banks usually allotted the commercial banks the poorest societies in terms of resources and operational efficiency. Because of overdues, many cooperatives could not borrow from district cooperative central banks. Under these circumstances, commercial banks were required to recover old debts as well as advance new loans. Consequently, many banks have had limited capability in financing cultivators through cooperatives.

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<sup>12</sup>Syndicate Bank, "Proceedings of the Seminar on Financing of Primary Agricultural Credit Societies by Commercial Banks," November, 1971 (Manipal, India: Syndicate Bank, 1971).

In 1970-71 commercial banks started financing primary agricultural credit cooperative societies in the Bangalore District. Until then, the Bangalore District Cooperative Central Bank was the only institution financing cooperative societies in the district, and it faced excessive overdue loans. During 1970-71, five commercial banks were allotted 72 cooperatives. They actually financed 60 societies to the extent of Rs. (rupees) 2,324,000. In total, 122 societies had been allotted to the six commercial banks as of March 31, 1972. These banks actually financed 64 societies with Rs. 3,084,000 in 1971-72. Further details concerning commercial bank financing of cooperative societies in Bangalore District are shown in Table 1.

The Syndicate Bank, a large commercial bank, was allotted 90 societies for its eight branches in Mysore State in early 1970. However, the Syndicate Bank expected to begin financing six societies in Bangalore District for the first time in 1972-73. The Syndicate Bank was active in financing cooperatives under the SFDA schemes in Mysore District. It expected to expand its financing of small farmers in conjunction with the SFDA in an effort to prevent the problems that have plagued the cooperatives in the past.<sup>13</sup>

The agricultural finance officers of the commercial banks reported several problems at the bank and village levels. First, commercial banks lacked experience in financing small farmers and faced tremendous problems of revitalizing the leadership of village cooperatives. Second, the commercial banks and the district banks continued to bicker over the selection and financing of cooperatives. Finally, the prevailing apprehension was that the entry of commercial banks into the cooperative movement would dampen the image of cooperative credit and weaken the cultivator's faith in cooperation.

The agricultural finance officers of the commercial banks in Bangalore District gave several reasons for the repayment experience of their respective institutions. The State Bank of Mysore, which had the highest rate of repayment, attributed its success to the superior training of the paid secretary at the village level and to the bank's technical officer, who showed the farmers how to utilize production credit. The Dena Bank's agricultural officer blamed poor leadership at the cooperative level for many of the repayment problems. The Dena Bank also recognized that the uncertain rains in the dry farming regions of Bangalore District created repayment difficulties for farmers. Several agricultural finance officers blamed the farmers' low net returns per acre as a major cause of repayment problems. In general, the agricultural finance officers agreed that close supervision of the cooperative societies was needed to insure repayment.

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<sup>13</sup>The SFDA gives a subsidy to small farmers. Because of this subsidy, many large farmers try to portray themselves as small farmers. Members of a single family identify themselves as separate small farmers, or large farmers may cite only a portion of their landholdings to qualify as small farmers. K. V. Belirary takes important notice of this in "The Symbolic Relationship Between SFDA/MFAL's and Commercial Banks" (paper presented to the National Seminar on SFDA and MFAL Programmes on 11-13 April, 1972, Vigyan Vhavan, New Delhi), p. 2 (Mimeographed).

**Table 1. Commercial and district cooperative bank financing of cooperative societies in Bangalore District for 1970-71 and 1971-72**

Source	Year	Number of cooperatives allotted	Number of cooperatives financed	Amount of short-term loans in Rs.	Percentage of repayment
Bangalore D.C.C. Bank	1969-70	n.a.	78	1,499,000	17
	1970-71	610	112	2,530,000	19
	1971-72	n.a.	165	4,992,000	25
Dena Bank	1970-71	7	7	121,000	37
	1971-72	10	10	109,000	17
United Commercial Bank	1970-71	34	34	1,519,000	60
	1971-72	38	29	1,203,000	54
Canara Bank	1971-72	43	3	50,000	n.a.
Canara Banking Corporation	1970-71	10	5	282,000	37
	1971-72	10	7	306,000	36
State Bank of Mysore	1970-71	11	9	314,000	99
	1971-72	11	11	316,000	53
Union Bank of India	1970-71	10	5	87,000	46
	1971-72	10	4	99,000	44

Source: G. K. Sangameswar, "Brief Note on Financial Assistance Provided by the Commercial Banks and the Bangalore District Central Cooperative Bank, Ltd., Bangalore to the Primary Agricultural Co-op Societies in Bangalore District" (Bangalore: Deputy Registrar of Cooperative Societies, Bangalore District, June 6, 1972), pp. 1-7 (Mimeographed).

### Cooperative Credit Administration and the Farmers

Members of primary agricultural credit cooperatives are provided credit on the basis of a rational assessment of their needs for agricultural purposes and their needs for agricultural purposes and their repayment capacity. A member is eligible for loans if he is not a defaulter and holds shares in the society in the prescribed ratio to the loan required or the limit sanctioned. Generally, the limit is 10 times the share amount.<sup>14</sup>

#### Loan Application and Sanction Procedures

The first step in the loan application procedure is to hold the annual district field workers' conference for recommending scales of finance<sup>15</sup> for crops and to have these norms finalized by the district cooperative central bank. Representatives of primary societies, prominent ryots (farmers), district cooperative bank officials, personnel from the Cooperation Department, and technicians from the Agricultural Department make up the field workers' conference. Since commercial banks are financing cooperatives, they are represented in the conference. Until recently, commercial banks and the district cooperative banks had different scales of finance for the same crops; however, conferences have produced uniform scales of finance. For example, the Bangalore District Cooperative Central Bank loaned Rs. 80 in cash and Rs. 170 in fertilizer per acre for irrigated ragi while the Union Bank of India provided Rs. 100 in cash and Rs. 150 in fertilizer for the same crop. In addition to fixing the cash and fertilizer components of the scales of finance, the field workers' conference determines the due dates for repayment and plans the cooperative's yearly administrative agenda. An example of scales of finance for cooperatives in Bangalore District is presented in Table 2.

On the basis of the scales of finance, the secretaries of the societies or bank supervisors prepare for each society a "normal credit statement" which serves as an application for the society which consolidates applications from individual members. The normal credit statement lists such information as each cultivator-member-borrower's name, record of rights and index of land, acreage, survey number, crop pattern, and the crops and acreage for which he is applying for credit. The committee of management or the general body of the society then considers the statement and recommends the amount of credit for each member. After deducting the society's resources available for lending from the total amount requested, the managing committee applies to the district cooperative central bank or to a commercial bank—if the society has been allotted to that sector—for the balance. Since most of the societies in the three districts surveyed were limited

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<sup>14</sup>Report of study by Shri Y. P. Rajput, Director (Administrative Intelligence), Department of Cooperation, Government of India, *Co-operative Structure in the Pilot Project Purnea Taken Up Under the Small Farmers' Development Agency Scheme* (n.p., n.d.), p. 15.

<sup>15</sup>Scales of finance fix the ratio of cash, chemical fertilizer, and pesticides in crop production loans on a per acre basis. See also, B. S. Pillai, "Concept of the Crop Loan System," *Cooperative Training College: Special Issue*, VII (March, 1972), p. 98.

**Table 2. Scale of finance for major crops financed by cooperatives in the Bangalore District**

Crops	Present loan scale			Revised loan scale			
	Cash	Ferti- lizer	Total	Cash	Ferti- lizer	Pesti- cide	Total
	rupees per acre						
Ragi irrigated	80	90	170	80	170	30	280
Ragi dry	60	110	170	70	100	20	180
Paddy local variety	80	150	230	95	125	30	250
Paddy high yielding	170	330	500	170	280	50	500
Groundnut irrigated	150	200	350	200	100	20	320
Groundnut dry	150	150	300	200	80	20	300
Hybrid maize dry	100	300	400	100	175	25	300
Hybrid maize irrigated	100	300	400	100	275	25	400
Hybrid jowar dry	---	---	---	100	175	25	300
Hybrid jowar irrigated	200	400	600	100	275	25	400
Potato irrigated	800	300	1,110	800	300	50	1,150
Sugarcane	450	550	1,000	500	550	50	1,100
Mulberry	100	200	300	100	200	100	300

Source: D. S. Gururaja Rao, "Scale of Finance (as revised) to be Enforced with Effect from May 1972" (Bangalore: Manager, Bangalore District Cooperative Central Bank, 1972).

in share capital and owned funds, the district or commercial banks provided nearly 100 percent of the loans.

The second stage of the loan application procedure occurs at the district cooperative bank's **taluka** or district headquarters—where the manager scrutinizes the normal credit statement, looking mainly into the cooperative society's repayment performance. The normal credit statement with the manager's report is submitted to the loan committee, which either approves or disapproves the loan and sets the credit limit.

In the third stage, the district cooperative central bank issues checks to the cooperative members to the extent of the loan approved by the bank. The cultivator-borrower takes his check, which he receives at the cooperative society, to the branch bank where he receives cash. For the fertilizer component, the primary cooperative credit society may issue its members delivery orders on the **taluka** agricultural produce marketing society, or the cooperative can distribute fertilizers directly to the borrowers if it has storage facilities.

#### Cost of Credit

The initial costs of obtaining credit from the cooperative societies in Mysore State are as follows: 1) Rs. 1.00 per member for admission to the society; 2) Rs. 0.25 for a share fee; and 3) at least one share in the cooperative society at Rs. 10.00 per share. The admission and share fees are not refundable, while the share capital is returnable if the cultivator withdraws from the cooperative. The farmer's loan application consists of the following documents: 1) loan application form, Rs. 0.05; 2) extracts of village revenue account (record of rights and index of land), Rs. 0.10; 3) in the case of tenancy, extract of **Phani** (register of crops grown), Rs. 0.05; 4) Encumbrance Certificate, Rs. 0.05; and 5) mortgage bond or declaration form, Rs. 0.05. The total cost of these documents is about Rs. 0.30.

The real cost of credit to the farmer-member-borrowers was therefore far more than the simple interest rate charged by the cooperative societies for short-term loans. In Mysore State, cooperatives charged 9.0 or 9.5 percent interest for their loans. The remainder of the cost came from application charges, certificates, transportation, share capital, and incidental items. Typical costs of obtaining 100 rupees of credit from cooperative societies in Mysore State were: 1) loan application documents, Rs. 0.30; 2) transportation, Rs. 1.00; 3) share capital at the rate of 10 percent of borrowings, Rs. 10.00; 4) share fee, Rs. 0.25; and 5) interest charges, assuming the higher rate, Rs. 9.50—a total of about Rs. 21.05.<sup>16</sup>

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<sup>16</sup>Letter from G. K. Sangameswar, Deputy Registrar of Cooperative Societies, Bangalore District, "Procedures for Obtaining Production Finance from a Co-operative Society," Bangalore, India, November 19, 1972.

## MYSORE COOPERATIVES – THEIR LENDING ACTIVITIES AND EXPERIENCES

### Characteristics of the Sample Cooperatives

Thirty-five cooperatives were selected through consultation with the deputy registrars of cooperative societies in Mysore, Bangalore, and Mandya districts of Mysore State during the spring of 1972. The deputy registrars in the three districts were asked to select 10 societies and alternates from one or two talukas under their jurisdiction. These were to represent good, poor, and very poor operation in terms of short-term credit repayment as they understood the classification based on studies by the All India Rural Credit Review Committee.<sup>17</sup> A good cooperative credit operation was classified in the analysis as one that had less than 25 percent of its crop loans overdue, while poor cooperatives had between 26 and 50 percent of their loans overdue. Very poor cooperatives had more than 5 percent of their loans overdue.

The rationale for classifying cooperative societies according to the percentage of their crop production loans overdue stemmed from the regulations governing the cooperatives. Before a primary agricultural credit cooperative can receive additional funds for crop production loans, it must recover at least 50 percent of the previous loans. However, in areas where the crop yields are below normal, the cooperative central banks may grant additional finance to societies whose recoveries are up to 25 percent, provided the committees of management of the societies have taken action against the defaulting members.<sup>18</sup> Commercial banks which are financing cooperative societies frequently insist upon 100 percent repayment of crop loans before granting a new crop production loan to the cooperative society.

The sample of primary agricultural credit cooperative societies included a broad spectrum of cooperative credit activities in southern Mysore State. A map of the areas surveyed is presented in Figure 3. The data relate to the 1970-71 crop production year and the status of the cooperative at the time of the interview.

In 1970 there were 19,763 cooperatives of all types in Mysore State. Of these, 8,722 were agricultural credit cooperatives with a total membership of 1,771,000 farmers. About 18 percent of all agricultural credit cooperatives in Mysore State are found in Mysore, Bangalore, and Mandya districts. The sample represented about 2 percent of all agricultural credit cooperative societies in the three districts. General characteristics related to all cooperatives in the three districts are given in Table 3.

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<sup>17</sup>Report of the All-India Rural Credit Review Committee, B. Venkatappiah, Chairman (Bombay: Reserve Bank of India, 1969), pp. 530-536.

<sup>18</sup>The Mysore State Co-operative Union, Ltd., *Proceedings of the Conference Held from June 7 to 9, 2nd Mysore State Co-operative Conference, 1968, Mandya* (Bangalore: Karnataka Co-operative Publishing House, Ltd., November, 1968), p. 32.



**Figure 3. Mysore State Map**

**Table 3. Characteristics of all primary agricultural credit cooperative societies in three districts of Mysore State, India, 1970-71**

Item	Mysore <sup>a</sup> District	Bangalore <sup>b</sup> District	Mandya <sup>c</sup> District
Number of:			
Agricultural credit cooperatives	568	610	423
Viable agricultural credit cooperatives	52	66	347
Weak and dormant credit cooperatives	448	438	57
Liquidated credit cooperatives	68	106	19
Members in credit cooperatives	111,000	96,000	138,142
Societies receiving short-term loans	239	244	n.a.
Small farmers identified by the SFDA	34,902	23,330	n.a.
Population of each district	2,073,568	3,346,405	1,152,763
Amount of short-term loans in Rs.	8,400,000	7,546,000 <sup>d</sup>	28,518,273
Members' and government share capital in Rs.	3,459,000	3,019,000	11,581,000
Members' share capital in Rs.	2,876,000	n.e.	8,593,000
Short-term loans recovered	67%	26%	69%
Short-term loans overdue	33%	77%	31%

<sup>a</sup>K. Balasubramanyam, Divisional Commissioner and Chairman, A Pilot Project on the Agricultural Development of the Small Farmers of Mysore District (Bangalore: Government Text Book Press, Mysore, 1970), pp. 32-55.

<sup>b</sup>The Small Farmers' Development Agency, The Small Farmers' Development Agency (Bangalore: Government of Mysore, 1971).

<sup>c</sup>A Note on the Progress Since Inception of the Intensive Agricultural District Programme, Mandya, Up to March, 1971 (n.p., 1971), pp. 23-28.

<sup>d</sup>G. K. Sangameswar, "Brief Note on Financial Assistance Provided by the Commercial Banks and the Bangalore District Central Cooperative Bank, Ltd., Bangalore to the Primary Agricultural Co-op Societies in Bangalore District" (Bangalore: Deputy Registrar of Cooperative Societies, Bangalore District, June 6, 1972), pp. 7-8. (Mimeographed.)

### Indicators of Cooperative Success

The cooperative societies in the sample were examined according to the percentage of their 1970-71 crop loans overdue to the financing agency. Certain differences existed among the good, poor, and very poor groups with respect to the interest rates charged, the amount of overdue loans from large farmers, and percentage of defaulters who were large farmers. (See Table 4.)

The interest rate which cooperative societies charged farmers ranged from 9.0 percent to 9.5 percent. In the good repayment category, 92 percent of the cooperative societies charged 9.0 percent interest and 8 percent of the cooperatives charged 9.5 percent interest. In the very poor repayment category, 27 percent of the cooperatives charged 9.0 percent interest and 73 percent of the cooperatives charged 9.5 percent interest.

The amount of overdue short-term loans from large farmers ranged from Rs. 1,500 to Rs. 61,610. Approximately 25 percent of the cooperatives had no crop production credit overdue from large farmers. The average percentage of overdue crop production loans from large farmers was 34 percent of the total overdue crop production credit in the good repayment category, 74 percent in the poor repayment category, and 80 percent in the very poor repayment category.

The percentage of all defaulters who were large farmers ranged from less than 1 percent to 100 percent. For one-fourth of the cooperatives, all of their overdue crop production loans were owed by large farmers. The portion of all defaulters who were large farmers was 16 percent in the good repayment category, 69 percent in the poor category, and 67 percent in the very poor category. The data indicate that large farmers were contributing to the cooperatives' overdue credit situation. Nevertheless, the implication that large farmers dominated the cooperative societies and thus were a major factor in the cooperatives' overdue credit problems needs further investigation.

One of the important improvements in cooperative administration in the last few years has been the reduction of time required to process the society's loan application by the district cooperative central bank. Among the sample cooperatives, processing time of the average loan ranged from 9 to 45 days. Loan applications were delayed for several reasons. First, application forms were often too elaborate and required particulars which were difficult to obtain. Second, the practice of requiring mortgage of land as security rather than accepting the cultivator's future harvest was responsible for delays since land titles and survey records were seldom up-to-date. Commercial banks were more inclined to require land instead of crops as security. Third, loan applications were often defective and incomplete. Finally, delays occurred in the disbursement of funds if the

**Table 4. Average characteristics of cooperative societies classified according to percentage of short-term loans overdue - 35 cooperative societies - three districts, Mysore State, India, 1970-71**

Item	Good	Poor	Very Poor	A!
	0-25% (13 co-ops)	26-50% (11 co-ops)	51-100% (11 co-ops)	(35 co-ops)
	----- average per cooperative -----			
Members of the cooperative society	443	451	277	390
Number of short-term loans in 1970-71 crop year <sup>a</sup>	191	183	62	148
Percentage of members who borrowed short-term loans	48%	36%	23%	36%
Number of overdue loans	20	65	40	40
Amount of short-term loans in Rs.	163,093	102,791	41,534	106,069
Short-term loans overdue in Rs.	10,878	32,260	32,856	24,428
Short-term loans overdue from large farmers in Rs. <sup>b</sup>	3,607	23,886	26,333	17,046
Short-term loans overdue from small farmers in Rs.	7,271	8,374	6,523	7,382
Percentage of:				
Short-term loans overdue from small farmers <sup>c</sup>	66%	26%	20%	34%
Short-term loans overdue from large farmers	34%	74%	80%	66%
Short-term loans overdue from all farmer-borrowers	9%	34%	77%	38%
Defaulters who are large farmers <sup>d</sup>	16%	69%	67%	50%
Directors of the committee of management who are large farmers	72%	72%	70%	71%
Time gap between receipt and sanction of average loan application by district central co-op bank in days	24	20	20	21
Interest rate in percent	9.03	9.13	9.36	9.17

<sup>a</sup>In most areas there were two cropping seasons per year, *Kharif* and *Rabi*, and loans were granted for each season. Sometimes sugarcane loans were issued separately from other crop production credit due to the longer growing season.

<sup>b</sup>Large farmers were defined as cultivators who owned more than 5 acres of land, while small farmers owned a total of 5 acres or less.

<sup>c</sup>Two cooperatives did not record farmer categories.

<sup>d</sup>Values for one or more cooperatives were not available.

district banks failed to communicate with the cooperatives once the loans were approved. Once these administrative problems are corrected, the flow of credit to the farmers could be greatly improved.

### **FARMER-BORROWERS – THEIR GENERAL CHARACTERISTICS**

To provide further insight about credit repayment difficulties, 136 farmers who were members of, and had borrowed from, the 35 sample primary agricultural credit cooperatives were surveyed. These 136 farmer-member-borrowers represented 11 percent of all borrowers of short-term credit from the sample cooperatives and about 1.5 percent of all cooperative members.<sup>19</sup> They were classified according to 1) farm size and 2) whether they had repaid their crop production loans for 1970-71. Their assets, cropping patterns, borrowing practices, and financial problems were compared using tabular analysis.

Farmers who had received a crop production loan and who had not paid both principal and interest by the due date were defined as defaulters. Defaulters were ineligible for new credit unless unusual circumstances warranted the conversion of their crop production loans into medium-term loans. Borrowers who had repaid interest on time were defined as nondefaulters. They were eligible for new crop production credit during the next season.

The farmer interviews were conducted between May and July, 1972. The information obtained related primarily to the current status of the farm family and the 1970-71 crop production year as recalled by the respondent. Farmers were selected among the borrowers available when the cooperative societies were visited. The secretaries of the cooperatives were requested to have an equal number of defaulters and nondefaulters at the cooperative headquarters and to provide financial records of the cooperative society. In cases where the farmers failed to respond to the secretary's request, alternates were randomly selected from the financial records. These farmers were located and interviewed to the extent that time and logistical constraints allowed. Data representing the farmers' average age, education, family size, resources, gross output, and income are presented by farm size for defaulters and nondefaulters in Table 5.

The farmers' major sources of agricultural credit were commercial banks, agricultural credit cooperatives, branches of the Mysore State Cooperative Land Development Bank (PLDB), and various noninstitutional avenues—moneylenders, relatives, traders, and merchants. The primary agricultural credit cooperative societies provided short- and medium-term credit, and the primary land development banks supplied long-term credit. Noninstitutional sources furnished credit to the farmers for marriages, house construction, land purchase, and a wide range of other purposes.

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<sup>19</sup>While the sample farmers represented borrowers of short-term credit, they were not necessarily representative of all members of these cooperatives. On the average, 64 percent of the members did not borrow crop production credit from their cooperatives.

**Table 5. Characteristics of the average defaulter and nondefaulter - by farm size - 136 farms in three districts - Mysore State, India, 1970-71**

Item	Small		Large	
	Defaulter (56) <sup>a</sup>	Non-defaulter (15)	Defaulter (49)	Non-defaulter (16)
Age of farmer in years	46.1	43.8	44.8	42.3
Education of farmer in years	2.7	3.2	6.1	5.6
Size of household				
Males	3.4	3.9	4.8	5.2
Females	3.1	3.8	4.1	5.1
Permanent servants	0.4	0.2	1.6	2.7
Land owned in acres				
Irrigated	1.2	1.5	3.5	7.3
Light irrigated	0.2	0.1	0.8	0.4
Rain fed	1.3	2.4	9.6	10.5
Land rented in acres	0.5	0.7	0.3	0.1
Acres in crop production	2.8	4.6	9.1	14.0
Assets owned in Rs.				
Land	16,245	17,560	50,079	78,888
Livestock	904	1,467	3,064	4,989
Equipment	244	498	827	1,124
Household utensils	229	759	1,036	1,520
Grain	140	547	778	1,407
Currently financed investments in Rs.	2,290	1,170	7,906	6,725
Operating expenses in Rs.	848	920	3,066	3,584
Annual family living expenses in Rs.				
Festivals	416	302	888	1,172
Education	431	188	960	1,018
Ceremonial expenses <sup>b</sup>	393	270	1,103	1,866
Short-term loan in Rs.	751	479	2,566	1,517
Gross farm output in Rs.	1,715	2,616	5,872	7,950
Net output per acre in Rs.	325	381	325	387
Annual farm income in Rs.	962	1,459	4,185	4,896
Annual nonfarm income in Rs.	432	65	596	256

<sup>a</sup>Number of farms by size.

<sup>b</sup>Ceremonial expenses included expenditures on marriages, births, deaths, and litigation.

Long-term credit reflected the cultivators' need for extensive improvements in their productive assets. In recent years, the Mysore State Cooperative Land Development Bank has approved credit for land improvement, purchase of tractors and power tillers, well construction and pump sets, and prior debt discharge for a period of 7 to 15 years at 9 percent interest to the borrower.<sup>20</sup>

The survey results of the farmers' major sources of outstanding credit are shown in Table 6. Since nondefaulters, by definition, did not have any short-term credit outstanding, the relative influence of primary agricultural credit cooperatives in their total amount of agricultural credit is not recorded.

Sixty-six percent of the outstanding debt of small farmers was owed to moneylenders. This high portion was in accord with the reports of other observers. Other sources were respectively: PLDB, 13 percent; cooperatives, 19 percent; and commercial banks, 2 percent. All small farmers had, on the average, Rs. 2,564 of credit outstanding.<sup>21</sup>

Large farmers had a higher share of their total outstanding credit from cooperatives. The distribution of their indebtedness by sources was: PLDB, 32 percent; cooperatives, 27 percent; commercial banks, 12 percent; and moneylenders, 29 percent. The average large farmer had Rs. 5,554 in loans outstanding.

Although most of the farmers surveyed asserted that they paid both interest and principal on their loans from moneylenders, the incomes of many were so low that they were not repaying even the interest.

#### FACTORS AFFECTING SHORT-TERM CREDIT REPAYMENT

The district cooperative central banks have a very limited basis for determining borrower's credit-worthiness. The information which they use to determine cultivators' eligibility for crop production credit is restricted to the normal credit statement and the cultivators' previous repayment record. Eligible farmers receive credit according to their acreage and cropping patterns. This method of evaluation ignores many economic and noneconomic factors which affect the borrowers' ability to repay loans and thus contribute to the problem of unpaid crop production credit.

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<sup>20</sup>The Mysore State Co-operative Land Development Bank, Ltd. (Bangalore: The Mysore State Co-operative Land Development Bank, Ltd. 1972), p. 3.

<sup>21</sup>Details of borrowings by farm size and source for the three districts can be found in Glenn C. W. Ames, "Ryots' Reward: A Study of Production Credit Repayment Problems of Small Farmers in Mysore State, India", (Unpublished Ph.D. dissertation, University of Tennessee, 1973), pp. 104-112.

**Table 6. Average farmer indebtedness by source, amount outstanding, and percentage of average debt outstanding - by farm size - defaulters and nondefaulters - Mysore State, India, 1970-71**

Source	Small farmers				Large farmers			
	Defaulters (56) <sup>a</sup>		Nondefaulters (15)		Defaulters (49)		Nondefaulters (16)	
	Amount <sup>b</sup>	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage
PLDB	395	13	112	18	1,928	28	1,237	65
Cooperatives (short-term loans)	628	20	0	0 <sup>c</sup>	2,018	30	0	0 <sup>c</sup>
Commercial banks	58	2	0	0	850	13	69	4
Moneylenders, relatives and friends	<u>2,005</u>	<u>65</u>	<u>505</u>	<u>82</u>	<u>1,951</u>	<u>29</u>	<u>593</u>	<u>31</u>
Total	3,086	100	617	100	6,748	100	1,899	100

<sup>a</sup>Number of farms surveyed.

<sup>b</sup>Amount in rupees.

<sup>c</sup>By definition nondefaulters did not have any short-term credit outstanding.

### **Relationship Between Socioeconomic Factors and Loan Overdues**

Additional insight into the relationships between loan overdues and various farmer characteristics was provided by linear regression analysis of the farm survey data. The results are presented in Table 7. The amount of 1970-71 crop production loan overdue, measured in rupees, was the dependent variable. The independent variables were amount of currently financed capital investments, "ceremonial" expenses (marriages, births, deaths, and litigations), annual festival expenses, annual educational expenses, short-term loans as a percentage of operating expenses, net output per acre, nonfarm income, and acres in crop production. In the case of nondefaulters, the value of the dependent variable was zero since they had repaid all of their short-term credit. Defaulters, by definition, had failed to repay the cooperative societies for all or part of their crop production credit. At the time of the survey, their repayments were 2 to 3 months overdue.

#### **Independent Variables**

The amount of currently-financed capital investments was included as an independent variable for the following reasons: 1) capital investments may have arrived too late in the cropping season to have been used for productive purposes; 2) capital investments may not have complemented short-term credit for local varieties of crops cultivated by traditional practices; and 3) institutional lending agencies may have overestimated farmers' repayment capacities for medium-term investments and crop production may have been diverted to repay medium-term investments.

"Ceremonial" expenditures included expenses for marriages, births, deaths, and litigations during the previous 5 years, averaged to give yearly amounts for these activities. Since these expenses were usually financed by borrowing, they represent extraordinary claims on farmers' incomes and reduced the amount of funds available to repay the cooperatives.

The sample farmers spent at least 15 percent of their gross farm output on celebrating various festivals throughout the year. These expenses were far more than the "puritanical austerity" that P. G. K. Panikar<sup>22</sup> contended it represented. The inclusion of annual festival expenditures, separate from marriages and other nonfarm expenses, attempted to examine the hypothesis that festival expenses reduced the amount of funds available to repay crop production loans.

Annual educational expenses represented the cultivators' costs of educating their children. These expenses contributed to a substantial claim upon the farmers' income. Also, they represented an awareness of educational opportunities and responsibilities.

Short-term loans as a percentage of operating expenses was included as an independent variable since the tabular analysis indicated that defaulters, on the average, borrowed a higher percentage of their expenses than did nondefaulters.

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<sup>22</sup>P. G. K. Panikar, "The Burden of Debt in Indian Agriculture," *Journal of Farm Economics*, XXXV, No. 1 (February, 1963), p. 203.

**Table 7. Factors associated with overdue short-term loans - 133 farms in three districts of Mysore State, India, 1970-71**

	Farm size		All farms
	Small	Large	
Constant term	-54.80	-496.99	-399.80
Capital investments	0.03* (0.016) <sup>a</sup>	0.12*** (0.03)	0.12*** (0.02)
Ceremonial expenses	0.18 (0.17)	-0.27* (0.15)	-0.20* (0.11)
Festival expenses	0.03 (0.15)	-0.39 (0.28)	-0.39** (0.19)
Educational expenses	0.06 (0.07)	-0.19* (0.11)	-0.15* (0.08)
Short-term loans as a percentage of operating expenses	176.02*** (19.14)	543.76* (315.58)	210.28*** (50.61)
Net output per acre	0.09 (0.17)	0.50 (0.49)	0.45 (0.32)
Nonfarm income	0.04 (0.07)	1.06*** (0.19)	0.74*** (0.11)
Acres in crop production	26.64 (40.04)	75.78** (38.95)	93.41*** (25.32)
Coef. of mult. det. (R <sup>2</sup> )	.61	.61	.56
F value	11.66	13.64	20.37
Mean of the dependent variable	504.90	1,504.79	1,003.38
Number of observations	69	64	133 <sup>b</sup>

\*Significant at the .10 level.

\*\*Significant at the .05 level.

\*\*\*Significant at the .01 level.

<sup>a</sup>Standard error of the b<sub>i</sub> are in parenthesis.

<sup>b</sup>Of the 136 observations in the data set, three had missing values for one or more of the independent variables.

Net output per acre measured the average returns per acre for all crops during 1971. This variable can be considered an unrefined proxy for the effectiveness with which a farmer manages his operations, combined with the innate productivity of his holdings.

Defaulters, on the average, had more nonfarm income than nondefaulters. Since defaulters also had less farm income than nondefaulters, this condition suggests that defaulters needed to supplement farming with other employment. In the small farmer category, 50 percent of the defaulters and 20 percent of the nondefaulters supplemented farming with nonfarm employment in public works projects, small blacksmith shops, and other subsidiary occupations. Large farmers followed a similar pattern of nonfarm employment—35 percent of the defaulters and 26 percent of the nondefaulters had nonfarm employment.

Farm size in terms of land in crop production was included as an independent variable. Acreage in crop production included owned and rented land. Very little tillable land was used for pasture or left fallow.

### Results of the Regression Analysis

Regression coefficients of the independent variables\* estimated through multiple regression analysis—along with their standard errors and coefficient of multiple determination, for all farms and for each category—are presented in Table 7. One very significant result of this analysis is that the amount of overdue short-term loans increases with the amount of currently-financed capital investments. Capital investments may not have complemented short-term credit during the 1970-71 cropping season. Consequently, cooperatives may have overestimated the cultivators' repayment capacity for short- and medium-term credit.

Ceremonial and festival expenses were inversely related to the amount of short-term credit in default. In general, the results indicated that farmers were better managers of their ceremonial and festival expenses, within their income levels, than other research would imply. Farmers may not have spent excessively for celebrations.

The amount all farmers spent on educational expenses was inversely related to overdue short-term loans. Cultivators who spent more on educational activities may have been aware of their repayment responsibilities to the cooperative societies; hence, they had better repayment records.

Short-term loans as a percentage of operating expenses was positively associated with the amount of overdue crop production loans. The tabulation analysis indicated that small farmers were overfinanced in terms of their repayment abilities. Borrowers apparently received more credit for crop production than they could productively utilize under their existing cropping patterns and practices. Thus, the scales of finance, which determined the size of farmers' crop production loans, over-financed small and large farmers.<sup>23</sup>

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<sup>23</sup>The revised scale of finance, adopted by the district cooperative central bank and the commercial banks in Bangalore District, did not contain the same recommendations as the Mysore University of Agricultural Science's *Farm Planning Manual*. For example, the bank recommended Rs. 60 for cash expenses and Rs. 100 worth of fertilizer per acre of *ragi* under dryland conditions. The *Manual* recommended Rs. 166 to cover cash expenses and Rs. 55.20 for chemical fertilizer per acre. See C. Naja Reddy, K. C. Hiremath, and Estel H. Hudson, *Farm Planning Manual* (Bangalore: Mysore University of Agricultural Sciences, 1970) p. 27.

The regression coefficient associated with the net output per acre variable was not statistically different from zero for any group of farmers.

Nonfarm income was positively associated with overdue crop production loans for large farmers. Apparently these defaulters needed to supplement their farm income with off-farm employment. It could be that large farmers with repayment problems had relatively more fixed obligations to meet than did small farmers.

Acres in crop production was positively associated with overdue crop production loans for large farmers. In essence, borrowers on larger farms repaid a small amount of their crop production loans. This finding was reasonable from the standpoint of the previous analysis of cooperative societies, which indicated that over 67 percent of all defaulters were large farmers and that they accounted for over 74 percent of all overdue short-term credit in the poor and very poor repayment categories. In addition, large farmers have dominated the cooperatives in recent years and have been able to obtain more loans than small farmers. Furthermore, large farmers have regarded cooperatives as residual claimants upon their repayment responsibilities. Also, large farmers considered the cooperatives as risk bearers since foreclosure proceedings were difficult to enforce.<sup>24</sup> Farm size in terms of cultivated land logically should be inversely related to overdue loans since additional acreage provides more income for debt repayment, family consumption, and other needs. However, the results indicate otherwise.

#### Farmers' Reasons for Default

Natural calamities were assumed to be one of the major reasons for farmers defaulting on their loans. During the survey, several defaulters reported total or partial crop failures due to drought, flood, or pests in the previous year.<sup>25</sup>

Defaulting farmers, both small and large, were asked to give their major reasons for nonrepayment of crop production loans in order of importance and to give any other reasons why they were unable to meet financial obligations in

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<sup>24</sup>At the time of the survey, there were 1,368 overdue loans for a total of Rs. 869,019 overdue from the 35 sample cooperatives. Since the rules and regulations governing foreclosure were cumbersome, the recovery of overdue loans was very time-consuming. In addition, recovery procedures were politically and socially unpopular. Sale officers were often threatened and manhandled by the entire village when they foreclosed on property. For example, see M. Manchaiah, "Practical Difficulties Encountered in the Recovery of Co-operative Over Dues," *Co-operative Training College: Special Issue*, VII (March, 1972), p. 118. Details on the foreclosure process are found in *The Mysore Co-operative Societies Act, 1959 and The Mysore Co-operative Societies (Amendment) Act, 1964* (Bangalore: The Director of Printing, Stationery, and Publications at the Government Press, 1967), sections 36, 100, and 101.

<sup>25</sup>The use of rainfall probabilities in the selection of the planting period for dry ragi in Bangalore District and other information on rainfall variability can be found in B. V. Surentranatha Baliga and P. C. Sridharan, "Rainfall Probabilities and Crop Planning for Dry Ragi," *The Mysore Journal of Agricultural Sciences*, Vol. 11, No. 3 (July 1968), pp. 170-181.

1970-71. The specified categories of reasons contained in the farm survey questionnaire included natural calamities, fall in agricultural prices, limited farm resources, rigid terms of repayment, and "other." In the "other" category, farmers included death in the family, injury and sickness, misutilization of credit, and a large variety of minor troubles. However, these other reasons were not mentioned often enough to be analyzed as separate categories.

Small farmer defaulters gave the following major reasons for their overdue short-term loans: 46 percent, natural calamities; 5 percent, fall in agricultural prices; 5 percent, limited resources; and 44 percent gave other reasons such as disease and medical expenses for the family, no marketable surplus, and the misutilization of cooperative credit for litigation, marriage, and livestock purchase. Late harvests were also a factor in a few small farmers' inability to repay their crop production loans on time. Frequently, a combination of the above factors contributed to the farmers' repayment problems.

Large farmers reported similar repayment problems. Fifty-six percent of the farmers claimed that natural calamities, usually drought, were the major causes of the repayment problems. Forty-four percent of the farmers gave other reasons such as death in the family and injury to the farmer as major factors affecting credit repayment. Overall, limited resources, fall in agricultural prices, and rigid terms of repayment were not the major reasons given by farmers for their repayment problems.

In addition to the independent variables used in this analysis, other factors, not included, could explain a significant amount of the variability in the repayment of crop production loans. For example, cultural values may explain why some farmers default on their crop production loans. In the past, politicians and government officials have encouraged debt relief programs and campaigned on promises of debt cancellation as a means of gaining support from the rural population. These practices may have encouraged farmers to default willfully, since they may have become accustomed to having their debts written off by credit agencies.

Another factor in the overdue situation may be the farmers' lack of understanding of institutional credit. Since the beginning of the Green Revolution, the need for production credit has increased greatly and subsequently many farmers have been drawn into active participation in the cooperative credit movement. Few educational programs to explain the function of the cooperative societies and responsibilities to their members have been undertaken in Mysore State.

The inclusion of certain economic variables might have improved the analysis. If the sample of small farmers had been large enough, a subsample of farmers producing predominately cash crops like sugarcane could have been compared with the repayment records of producers of predominately food crops like ragi and paddy. Farmers who grow basically food crops under traditional cultivation may consume most of their output and retain little to repay their short-term credit.

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