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Chita Tanchoco-Subido

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The title of the paper sounds defeatist. If small farmers and other agricultural borrowers are not expected to pay their debts, we might as well throw up our hands and dole out the money. However, this is a negative way of looking at it. The issue is presented here in order that the government and the lenders may face squarely the facts of small farmer credit. Lending to the likes of Mang Jose who tills 1.7 hectares of riceland, supports a family of seven, earns no more than ₱3,500 a year, and is beset by price control policies, marketing difficulties and various deficiencies in the productive structure, certainly entails a not-so-small degree of risk, uncertainty and costs. It's not different with the subsistence fishermen who cast their nets and hardly eke out a living.

This paper seeks to define the nature and extent of the loan repayment problem over time and trace its root causes. The impact on the lenders and borrowers is ascertained and measures to mitigate the

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problem pinpointed. It poses a question of whether or not the cost of delinquency is to be considered a socio-political cost of development and therefore, to be assured by government.

How Much is Not Being Paid?

Up till recently with the TBAC studies and reports, policy-makers could not get a firm hand on the extent and nature of the loan repayment problem. Firstly, the institutions and program implementors vary in their measures of loan arrearages. For instance, the ratio of uncollected loans to total loans falling due has been used versus other indices such as past due ratios, i.e. the per cent share of loans past due to total loans outstanding, or the ratio of past due loans to loans granted. Financial institutions have also been reluctant to reveal this type of sensitive data. Secondly, the true story on loan arrearages could not emerge because of various practices such as rolling over loans, payment of the past due loans from the proceeds of the current or new loan, simulation of loan payments, etc. Thirdly, there was nc systematic way by which the data on arrearages was being gathered, collated, analyzed and reported from different lending institutions to give a total picture of the situation. Even now, we can not pinpoint the exact magnitude of the total past due loans in agriculture for the whole financial system. What we have are broad indications of this magnitude derived from reports and surveys.

TBAC conducted the first comprehensive study of the non-repayment of agricultural loans in the Philippines. Covering the years 1975 to 1977, and 82 financial institutions and 1,113 farmers from

10 regions and 22 provinces throughout the country, the study analyzed the character and magnitude of the loan repayment problem, its major causes and impact on the lenders and borrowers.

The survey findings reveal an uptrend in past due loans, as shown below (see Annex Table 1 also):

	Past Due Loans of Sample Financial Institutions		
	1975	1976	1977
Average Agricultural Loans Past Due	₱ 14.4 M	₱ 20.7 M	₱ 21.6 M
Ratio of Agricultural to Total Past Due Loans	75.7%	72.0%	71.7%
Average Agricultural Past Due Ratios	13.2%	13.7%	16.9%

More recent data from reports of the banks to TBAC in connection with the appraisal of the Integrated Agricultural Credit Plan confirm the increase in the volume of past due agricultural loans. From ₱2.846 billion in 1977, it rose to ₱3.322 billion the following year but declined slightly to ₱3.087 billion in 1979, and finally ended up at a level of ₱3.486 in 1980 (Table 2). The past due ratio, however, showed a more optimistic sign, declining steadily from 27.2 per cent in 1977 to 18.3 per cent in 1980.

The savings and mortgage banks had the smallest loan exposure to agriculture as well as the lowest agricultural past due amount and ratio. The commercial banks including PNB fared very well. Despite their substantial agricultural loans outstanding which amounted

to ₱939 million, or roughly 27 per cent to total past due agricultural loans. Their past due ratio was only 9.3 per cent in contrast with the 27 per cent past due ratio of the rural banks and the 43 per cent experienced by Development Bank of the Philippines.

Focussing on small farmer credit, the scenario is more grim. The cumulative arrearages of Agricultural Credit and Cooperative Financing Administration (ACCFA) in the 1950's when they instituted the first non-collaterized lending scheme for small farmers amounted to ₱21.0 million indicating an overall delinquency rate of 42 per cent. The record of Agricultural Credit Administration (ACA), the successor of ACCFA in 1963, was only slightly better, 37 per cent, after 14 years in operation.

To this date, M99 has yet to collect ₱1.9 billion out of the total loans granted of ₱5.8 billion, as of December 1980. Other supervised credit programs such as the Maisan 77, Gulayan sa Kalusugan Program, Integrated Agricultural Financing Program for Virginia Tobacco and the Cotton financing program showed deteriorating recovery rates (Table 3). The performance in small scale fisheries program of the Development Bank of the Philippines followed the same pattern. In fact, it was much more dismal at 16 per cent.

From all indications, the "monster" of loan delinquency has grown in volume and scope through time, attacking the basic fabric of the rural financial system.

Who Are the Loan Delinquents?

A loan delinquent would most likely be a small tenable producer of rice, corn, vegetables, tobacco, cotton, livestock or fish borrowing under a supervised credit scheme on a non-collateralized basis and usually for a short term period only. Using chi-square and equality of ratios tests, the TBAC study made comparisons between supervised, non-collateralized, and small agricultural borrowers on one hand and the nonsupervised collateralized, and big agricultural borrowers on the other as well as between short term borrowers and term borrowers.

The repayment performance was found to be lower among supervised credit borrowers (M99, M55, GSK, IAF-Tobacco, and IBRD), around 60 per cent, compared with the 72 per cent average of the ordinary borrowers (Table 4). A similar pattern was observed for non-collateralized borrowers who are mostly supervised and who posted a 50 per cent repayment rate against the 64 per cent of repayment performance of collateralized borrowers. On the basis of size, there were significantly more borrowers belonging to the ₱500 to ₱5,000 loan size group who were delinquent than those with loans over ₱5,000 (Table 5). In terms of the maturity of the loans, the repayment record of term borrowers was better than the short term borrowers (Table 6).

These results are not unexpected. The big and collateralized borrowers are usually more affluent with larger farms, greater assets and higher incomes; consequently, a higher debt repayment capacity. The superior repayment experience of term loans is also associated with the fact that these are usually extended to big borrowers who can put

up the collateral requirement. Collateral also provides a psychological restraint on the borrower's inclination to default on his loan obligation since it represents the borrower's stake which he would hate to lose and it is usually valued at much less than its market price. The cost of defaulting would therefore be higher than the cost of repaying.

Loan Defaults: Why?

Inspite of the number of researches conducted on delinquency the problem has remained unabated. As far back as 1961, loan defaults were investigated by Sacay in his survey of 400 farmers and 27 Farmer Cooperative Marketing Associations (FACOMAs) in nine regions. The National Food and Agriculture Council (NFAC) and Sycip Gorres and Velayo (SGV) Field Performance Review in 1975 focussed on M99 rice production, Phases I-II and Masaganang Maisan Program. A nationwide survey was conducted by the Bureau of Agricultural Economics (BAEcon) in the same year to look into the causes of delinquency of short term loans. Previous studies were also made by TBAC on arrearages- one in 1979 utilizing secondary data sources and another in 1976 on the reasons for high loan defaults of M99 farmers in Central Luzon in Phases IV and V. The Special Studies Division of the Ministry of Agriculture undertook a series of debt repayment capacity studies of palay-farmers in Ilocos Region, Iloilo, and Zamboanga del Sur. Individual contributions to the repayment literature were also made by Generoso Octavio (1975), Anwarul Karim (1976), Bruce Best (1977) and Carlos Arnade (1977), examining various angles of the problem.

The findings from these researches are summarized in Table 7. The factors that were hypothesized to influence loan delinquency are classified according to whether they are within the control of the farmers, the banks, the program implementors, or not any one of them. In this manner, the causes may be directly traceable to the specific participating groups in the credit program and measures to minimize the problem may be properly evaluated. The factors are not mutually exclusive of each other, in fact they are highly interrelated. For example, low income may be due to poor production and low market prices which may be related to misuse of loan proceeds, lack of technical supervision, inefficient government policies, force majeure, small farm size and other factors.

Lack of Ability to Repay

The common thread that seems to run through all the studies is the role played by the economic viability of the borrowers alternatively measured by net income, production level, marketable surplus, etc. In the 1977 TBAC study, the good borrowers tended to have a higher value of assets, production value, sales income, net income, savings and material quality of life than the delinquent borrowers (Table 8). Crop failure was cited as the major impediment to loan repayment by Sacay, the NFAC-SGV Study, the BAEcon, and the SSS studies. Using chi-square tests of significance, the TBAC Central Luzon Study showed that the volume of production, quantity of palay sold, and ability to generate marketable surplus heavily influenced loan repayment (Table 9).

Sheer poverty seems to be the primary root cause of loan delinquency. Even the level of indebtedness, the misapplication of loan and sales proceeds, low educational attainment and tenurial status may be associated with the low level of incomes of the farmers. The small rural people are heavily in debt because they need credit to cover up their chronic cash deficits and sustain their subsistence level of expenditures.

The loan and sales proceeds are not utilized for their intended purposes in the production process because priority expenditures such as food, medical care, education etc. preempt the productive purposes of the loan. Around 30 per cent in the 1977 TBAC survey admitted using the loans for family expenses and only 41 per cent of the 71 per cent who reported applying the loan for the crop production actually used the loans for farm expenses (Table 10).

There is a two way relationship between education and poverty - the poor people cannot afford to give their children good education and poor education begets poverty. It was observed in the same TBAC Study that the majority (59.5 per cent) of the delinquent borrowers had at most elementary schooling while 54 per cent of the good sample borrowers attained high school and college education.

The impact of tenurial status on loan repayment is also related to the income variable. Owner-operators are more likely to have higher income and net worth than the share tenants. Thus, a larger percentage of good borrowers (46 per cent) were owner-operators compared with the delinquent owner-operators (31.2 per cent) while share tenants accounted for a larger proportion (27.1 per cent) among delinquent

When the real rate of interest was plugged in, the coefficient was negative and insignificant. Meanwhile, the income variable coefficient was always positively and highly significant. Although these empirical evidences pertain to aggregate savings, the TBAC-UPBRF findings on rural saving behavior are consistent with these studies.

The 1981 TBAC-UPBRF study on rural savings behavior tested the permanent income hypothesis of Milton Friedman and found mixed results. Defining permanent income as the average of three years income and savings inclusive of changes in inventories, a larger proportion of transitory income, around two thirds, was saved, while only about 37 per cent of permanent income was saved in the year 1977. However, if changes in inventories were deducted from savings, the savings propensity, around 28 per cent, out of transitory income was not any different from permanent income.

When income was disaggregated into agricultural and non-agricultural income, the MPS out of agricultural income ranged from 0.301 to 0.423 which were significantly higher than the MPS out of non-agricultural income ranging between 0.109 and 0.129. The explanations offered were the practice of setting aside a certain portion of the current year's agricultural output for future use as seeds, feeds or home consumption plus the fact that most non-agricultural incomes were in the form of cash readily available for spending. Tests were also conducted on the explanatory power of other variables such as the dependency ratio, educational indices, interest rates and rates of return but the results indicated either a wrong sign or statistically insignificant coefficients.

can afford to do so?", practically everyone disagreed. In other words, if a farmer has the ability to repay, then he should not be delinquent in paying his obligations. But there is a precondition of adequate repayment capacity, which goes back to our thesis that low income seems to be the major reason for nonrepayment.

Banks and Implementors: Partly to Blame

The farmers, of course, are not to be totally blamed for the repayment debacle. The banks and the program implementors share in the responsibility. Bruce Best showed through multiple regression analysis that bank management and farm extension are the significant variables affecting loan repayment. On the other hand, using a number of statistical tests, TBAC concluded that the quality of management and personnel, operating efficiency and size of bank resources are important in achieving good recovery rates. These variables were found to be intercorrelated with each other, making the task of isolating their effects on nonrepayment extremely difficult. On the part of the program implementors such factors as incompetent technicians, "selda" system, unfavorable policy environment, inadequate irrigation facilities, and lack of provision for incentives to repay were pointed out. Best, for example, stressed that lack of incentives for farmers to repay is a major cause of arrearages since the delinquent borrowers end up having more savings than those who continually pay and acquire new loans.

The factors that affect loan repayment but are outside the control of the program participants include calamities, small farm size, and low prices in the market. It may be noted that these factors do not

affect repayment directly but only through the "ability to pay" variable. If substantial improvement in the productive and marketing structure could be made, then farmers would be able to earn higher incomes and pay their debts.

Impact of Arrearages on Lenders and Borrowers

There are tremendous repercussions of loan delinquency on lenders and borrowers. The inability to recover loans and feed back the funds to the credit stream endangers the viability of the credit program and the very existence of the rural financial system. The arrearages-ridden rural banks have not been able to recover after their heavy exposure to M99 and like Atlas, they are still bearing the brunt of the burden associated with loan arrearages.

The 1977 TBAC study estimated the effects of loan repayment performance on bank operations. Collections had the biggest impact on bank liquidity and profitability based on the regression coefficients: a unit increase in collections increases current assets four times; triples debts, risk and total assets; doubles lending capacity, and raises gross and net income levels by 20 to 25 per cent (Table 11). A decline in collections would of course have the reverse effect in the same magnitude.

In terms of the past due ratio, the findings indicate a significant and inverse relationship to income levels, debt position, loan portfolio, asset levels and profit rates. A unit increase in the past due ratio will result to a reduction in the values of the variables concerned (Table 12). The two-variate correlation and regression analysis conducted by TBAC confirms the two-way relationship between

loan repayment and bank performance indications. Repayments are influenced by the banks' operating efficiency and financial condition, and vice versa.

Borrowers: Tinge of Regret?

From the evidence, there are all the reasons to believe that the banks are hurting. A few unscrupulous bankers may have profited from the arrearages problem by pocketing the money supposedly loaned out to farmers but these are isolated cases which are difficult to document. The borrowers, on the other hand, have not been spared of the ordeal. Although the impact of arrearages on the borrowers has neither been quantified nor systematically investigated, we can deduce from existing data and trends whether the farmers are better off or worse off.

The immediate and visible effect of loan delinquency is the disqualification of the farmer from the credit program. This is apparent from the precipitous decline in the loans granted under the M99 program from its peak in 1974-1975 to recent years (Table 13). The farmers have also sunk deeper in the quagmire of indebtedness, as shown by the rising level of outstanding obligations borne by the rural sector. The ineligibility of delinquent borrowers to participate in the formal lending system has also brought booming business to the informal channels of credit - the private moneylenders, traders, landlords, and others. In a number of surveys conducted by Special Studies Division (MA), only 12 per cent of the M99 program dropouts have been able to self finance. Most have gone to the informal and traditional sources of credit. This is confirmed by the TBAC Survey on M99 dropouts and the upsurge in informal

economics loans noted in the TBAC study on informal rural financial markets (Table 14).

The other side of the coin is the fact that the loan arrearages represent a form of transfer payments to the farmers. Funds have flowed to the hands of the borrowers which they have utilized for their specific purposes but have not returned. The sudden increase in the sales of appliances in the rural areas in 1974-1975, claimed by some quarters but hardly validated by empirical data, is supposed to reflect the misapplication of the farm revenues generated from credit.

Where the balance of the scales tip off is not known. The farmer is probably better off in the short run because he can get funds to finance his production activities. According to the simulation analysis of Bruce Best, those who did not pay their loans had more savings than those who religiously paid and got new loans. However, in the long run, the farmer would be worse off since he would have no access to the banks and could only resort to the higher cost of informal sources of credit in times of need.

Is Loan Delinquency Inevitable?

Given the low level of income of the target clientele, their socio-psychological make up, educational attainment, debt burden, number of dependents; given the imperfections of the production structure, the inadequate infrastructure, the unfavorable terms of trade for agricultural products, the uneconomic farm size; given the state of the quality of bank operations and farm extension, then delinquency seems

inevitable. Credit, to work and be useful, needs to be mixed with a lot of other critical ingredients. If the vital conditions are not met, providing credit is like pouring money into a bottomless pit.

If loan delinquency in small farmer credit is inevitable, should this be considered a social and political cost of development to be borne by the government? To our minds, the cost of arrearages cannot be considered totally the responsibility of government. To the extent that farmers have not been given the full support of irrigation, roads, marketing assistance, inputs, pricing policies, and technology to enhance their economic viability and debt repayment capacity, then the government should assume part of the costs. The government should also be ready to accept a certain level of nonrepayment and not live in a dream world of 100 repayment rate. Too often, policymakers and program administrators take a constricted view of the credit program and the repayment ability of the farmer. They just look at the rate of return of the enterprise being financed not at the entire farm household system. If this is positive, then they conclude that the farmer can repay out of his produce neglecting the fact that besides paying for the loan, the produce has to feed, shelter, clothe, educate, nurse, entertain the farmer and his household members. Thus, although the production proceeds would be in excess of the loan amortizations, the surplus is hardly enough for the family to subsist on.

The situation is not however hopeless. There are measures that can be substituted to minimize loan delinquency. At the farmer borrower level, efforts should be focussed on enhancing the farmer's

viability through the provision of irrigation, adequate input supply at reasonable prices, better prices and marketing facilities, improved technology and effective extension services. The farm management capability and credit responsibility of the farmers ought to be strengthened via informal or formal training programs. On the side of the institutions, bank management and personnel have to be upgraded, and the pre-loan approval procedures and bank record keeping, improved.

Credit cannot be treated anymore in isolation. An integrated credit package considering the production, marketing and processing phases of the agricultural activity, treating the borrowing entity as a farm cum household, meeting all its short term, medium and long term credit needs, looking at the farm enterprise as a network of activities rather than on a single commodity basis - has greater chances of success. Then, there need not be a conflict between small farmer credit and a viable rural credit system.

Table 1

PAST DUE LOANS OF SAMPLE FINANCIAL INSTITUTIONS[a/]
1975-1977

Institution[b/]	No. of Reporting Institutions[c/]	Average Agricultural Loans Past Due (₱000)			Ratio of Agricultural to Total Past Due Loans (%)			Average Agricultural Past Due Ratios (%)[d/]		
		1975	1976	1977	1975	1976	1977			
TOTAL	64	14,418.8	20,725.0	21,647.8	75.7	72.0	71.7	13.2	13.7	16.9
PNB	14	9,168.8	13,319.0	9,772.4	73.6	68.7	65.7	15.1	23.5	19.1
DBP	10	4,428.7	6,182.1	10,204.9	80.8	85.5	83.6	13.2	13.8	20.6
LBP	1	-	128.0	288.0	-	92.8	50.3	n.a.	2.0	10.6
RBs	30	743.2	832.9	948.5	91.9	90.9	90.9	22.3	24.0	27.6
KBs	9	78.1	263.0	434.0	26.4	27.8	24.5	2.4	5.0	6.8

[a/] Past Due loans include loans in litigation, except for PNB.

[b/] Other institutions sampled like ACA, SBs, PDBs and SSLAs had no available data.

[c/] For agricultural past due ratios, the number of reporting institutions for LBP, RBs and KBs are 2, 29, and 7 respectively. Total number reporting equalled 62.

[d/] Past due ratios were computed as follows: $\frac{\text{Loans Past Due (including loans in litigation)}}{\text{Loans Outstanding}}$

n.a.-no data available

Source of data: TBAC, "A Study on the Nonrepayment of Agricultural Loans in the Philippines", 1978, pp. 41 and 43.

Table 2

AGRICULTURAL PAST DUE AMOUNTS AND RATIOS OF FINANCIAL INSTITUTIONS, 1977-1980[a/]
(Amounts in ₱M)

Institution	1977			1978			1979[b/]			1980			1977-1980
	Agr. Loans Outstanding	Agr. Past Due	Past Due Ratio (%)	Agr. Loans Outstanding	Agr. Past Due	Past Due Ratio (%)	Agr. Loans Outstanding	Agr. Past Due	Past Due Ratio (%)	Agr. Loans Outstanding	Agr. Past Due	Past Due Ratio (%)	Ave. Agr. Past Due Ratio (%)
TOTAL	10,445.7	2,845.9	27.2	12,543.5	3,322.1	26.5	15,212.5	3,087.1	20.3	19,010.2	3,486.0	18.3	23.1
PNB	2,123.5	339.2	16.0	2,670.3	360.2	13.5	2,690.3	373.6	13.9	3,747.2	352.1	9.4	13.2
DBP[b/]	2,179.3	1,419.3	65.1	2,327.2	1,610.7	69.2	2,562.6	1,175.4	45.9	2,796.7	1,198.7	42.9	55.8
LBP	74.7	5.2	7.0	309.2	22.8	7.4	627.1	35.8	5.7	981.0	82.0	8.4	7.1
KBs	2,998.5	286.6	9.6	3,573.2	456.7	12.8	4,911.0	424.1	8.6	6,361.7	587.3	9.2	10.0
SMBs	269.7	69.9	25.9	300.0	5.3	1.8	345.7	6.7	1.9	491.3	10.9	2.2	7.9
PDBs	202.9	39.1	19.3	249.0	70.6	28.4	302.0	85.4	28.3	391.3	108.7	27.8	25.9
RBs	2,597.1	686.6	26.4	3,114.6	795.8	25.5	3,773.8	986.1	26.1	4,241.0	1,146.3	27.0	26.2

[a/] ACA and SSLAs were excluded due to unavailability of data.

[b/] As of June 30, 1979 for LBP.

[c/] Before 1979, all unpaid loans of DBP were transferred to past due accounts upon maturity of each loan amortization. Effective 1979, however, transfers to past due accounts are done up to 1 year after maturity of every loan amortization.

Sources of data: PNB, DBP, LBP, CB-DER, CB-SRO.

Table 3

VOLUME OF ARREARAGES IN SMALL FARMER CREDIT, BY PROGRAM, 1980
(Amounts in ₱M)

Credit Program	As of December 1980						1977-1980[a/]	
	Loans Granted	Loans Collected	Loans Outstanding	Loans Past Due	Repayment Rate (%)	Past Due Ratio (%)	Ave. Repayment Rate (%)	Ave. Past Due Rate (%)
Masagana 99[b/]	5,813.5	3,650.3	2,163.2	1,900.9	65	88	69	80
Maisan 77	523.2	405.4	117.8	115.8	78	98	76	97
Gulayan sa Kalusugan	23.1	15.8	7.3	6.4	71	88	73	87
IAF-Tobacco[c/]	43.1	34.2	8.9	3.1	87	35	77	37
Cotton Financing[d/]	54.6	25.4	29.2	5.7	82	20	77	28
TOTAL	6,457.5	4,131.1	2,326.4	2,031.9				

[a/] Average of ratios from 1977-1980. For IAF-Tobacco, period covered was from 1977 to 1979.

[b/] For RB data, rediscounting availments were adopted whenever they exceeded loan grants on a per phase basis.

[c/] Data as of 1979.

[d/] Includes RB data only.

Note: Repayment Rates and Past Due Ratios were computed as follows:

$$\text{Repayment Rate} = \frac{\text{Loans Collected}}{\text{Loans Matured}} \qquad \text{Past Due Ratio} = \frac{\text{Loans Past Due}}{\text{Loans Outstanding}}$$

Loans for the latest phase or crop year were assumed to be all current loans.

Sources of data: TBAC, "1977 Agricultural Credit Plan Appraisal and 1978 Credit Budget"; "Agricultural Creditrends", Volume II and 1979; "1980 Year-End Agricultural Credit Plan Appraisal.

Table 4

DISTRIBUTION AND AVERAGE REPAYMENT RATES OF SAMPLE BORROWERS, BY CREDIT STANDING, SUPERVISED OR NON-SUPERVISED, WITH OR WITHOUT COLLATERAL, 1977

	Sample Distribution Number	Sample Distribution In Per Cent	Average Repayment Rate Number	Average Repayment Rate In Per Cent
A.				
1. Supervised Credit Borrowers				
TOTAL	881	100.0	549	59.6
Good	309	35.1	135	91.9
Delinquent	572	64.9	414	47.6
2. Ordinary Credit Borrowers				
TOTAL	136	100.0	71	71.9
Good	45	33.1	25	82.7
Delinquent	91	66.9	46	53.5
B.				
1. With Collateral				
TOTAL	486	100.0		63.9
Good	196	40.3		91.6
Delinquent	290	59.7		49.1
2. Without Collateral				
TOTAL	540	100.0		50.0
Good	159	29.4		86.9
Delinquent	381	70.6		41.4

Source of data: TBAC, "A Study on the Nonrepayment of Agricultural Loans in the Philippines", 1978, p. 58.

Table 5

DISTRIBUTION OF SAMPLE BORROWERS,
BY SIZE OF LOANS GRANTED, 1977

Size of Loan	Good Borrowers			Delinquent Borrowers			T o t a l		
	Number	Per Cent	Cumulative Distribution (%)	Number	Per Cent	Cumulative Distribution (%)	Number	Per Cent	Cumulative Distribution (%)
TOTAL	668	100.0	100.0	769	100.0	100.0	1,437	100.0	100.0
₱ 1 - ₱ 499	42	6.3	6.3	41	5.3	5.3	83	5.8	5.8
₱ 500 - ₱ 1,000	94	14.1	20.4	165	21.5	26.8	259	18.0	23.8
₱ 1,001 - ₱ 2,000	117	17.5	37.9	158	20.5	47.3	275	19.1	42.9
₱ 2,001 - ₱ 5,000	123	18.4	56.3	201	26.1	73.4	324	22.5	65.4
₱ 5,001 - ₱ 10,000	71	10.6	66.9	57	7.4	80.8	128	9.0	74.4
₱10,001 - ₱ 50,000	132	19.8	86.7	92	12.0	92.8	224	15.6	90.0
₱50,001 - ₱100,000	50	7.5	94.2	25	3.3	96.1	75	5.2	95.2
Over ₱100,000	39	5.8	100.0	30	3.9	100.0	69	4.8	100.0

Source of data: TBAC, "A Study on the Non-repayment of Agricultural Loans in the Philippines", 1978, p. 60.

Table 6

DISTRIBUTION AND AVERAGE REPAYMENT RATES OF SAMPLE BORROWERS BY CREDIT STANDING, BY CREDIT PROGRAM AND MATURITY, 1977

	Sample Distribution Number	In Per Cent	Average Repayment Rate Number	In Per Cent
A. Supervised Credit				
1. Supervised Short-Term Borrowers				
TOTAL	559	100.0	365	49.2
Good	162	29.0	72	83.8
Delinquent	397	71.0	293	40.7
2. Supervised Long-Term Borrowers under CB-IBRD				
TOTAL	96	100.0	76	69.0
Good	38	40.0	25	100.0
Delinquent	58	60.0	51	53.8
3. Supervised Long-Term Borrowers under DBP-IBRD				
TOTAL	226	100.0	108	71.0
Good	109	48.0	38	100.0
Delinquent	117	52.0	70	55.2
B. Ordinary Credit				
1. Ordinary Short-Term Borrowers				
TOTAL	76	100.0	46	57.8
Good	18	24.0	14	65.4
Delinquent	58	76.0	32	32.2
2. Ordinary Long-Term Borrowers				
TOTAL	60	100.0	25	85.9
Good	27	45.0	11	100.0
Delinquent	33	55.0	14	74.8

Source of data: TBAC, "A Study on the Nonrepayment of Agricultural Loans in the Philippines", 1978, p. 59.

Table 7

SUMMARY OF FACTORS AFFECTING LOAN DELINQUENCY

Factors		Studies Where Cited[a/]
Farmer-Related Factors		
1. low income/poverty/poor production	:	Sacay, O.J. (1961), NFAC-SGV (1975), PCARR-BAEcon (1975), TBAC (1975), TBAC (1976), SSD-MA (1977), Karim, A. (1976), Best, B.A. (1977), Matienzo R. (1977), MSAC-NSDB (1979).
2. low volume of produce sold	:	TBAC (1976), Octavio, G.G. (1975), Matienzo, R. (1977).
3. level of indebtedness	:	Sacay, O.J. (1961), PCARR-BAEcon (1975), TBAC (1976), Best, B.A. (1977).
4. misapplication of loan proceeds/sales proceeds	:	Sacay, O.J. (1961), NFAC-SGV (1975), PCARR-BAEcon (1975), TBAC (1975), TBAC (1976), SSD-MA (1977), Octavio, G.G. (1975), MSAC-NSDB (1979).
5. negative attitude towards credit/"dole-out" mentality	:	Sacay, O.J. (1961), NFAC-SGV (1975), PCARR-BAEcon (1975), TBAC (1975), Octavio, G.G. (1975), Karim A. (1976), Best, B.A. (1977).
6. unfavorable attitude towards lending institutions	:	PCARR-BAEcon (1975), Octavio, G.G. (1975), Best, B.A. (1977).
7. low educational attainment	:	Karim, A. (1976)
8. tenurial status	:	Sacay, O.J. (1961)
9. household size	:	Octavio, G.G. (1975), MSAC-NSDB (1979).
Bank-Related Factors		
1. bank experience and management	:	Octavio, G.G. (1975), Best, B.A. (1977)
2. inaccurate loan information	:	Sacay, O.J. (1961)

[a/] Bibliography of Completed Studies on Loan Delinquency.

Table 7
Page - 2

Factors		Studies Where Cited
3. inadequate collection policies	:	Sacay, O.J. (1961), NFAC-SGV (1975), PCARR-BAEcon (1975), Octavio, G.G. (1975), MSAC-NSDB (1979).
4. delayed release of loans	:	Sacay, O.J. (1961)
5. lack of supervision	:	Sacay, O.J. (1961), Karim, A. (1976)
6. double financing of borrowers	:	NFAC-SGV (1975)
Program Implementors		
1. inefficient technicians	:	NFAC-SGV (1975), Octavio, G.G. (1975), Best, B.A. (1977).
2. lack of incentives to pay	:	Best, B.A. (1977)
3. "selda" system	:	TBAC (1976), SSD-MA (1977), Octavio, G.G. (1975).
4. unfavorable policy environment	:	TBAC (1975)
5. unavailability of irrigation water	:	Octavio, G.G. (1975)
Outside the Control of Program Participants		
1. calamities	:	NFAC-SGV (1975), PCARR-BAEcon (1975), TBAC (1975), TBAC (1976), SSD-MA (1977), Octavio, G.G. (1975), MSAC-NSDB (1979).
2. farm size	:	Sacay, O.J. (1961), Best, B.A. (1977), Matienzo, R. (1977), MSAC-NSDB (1979).
3. high prices of inputs	:	Matienzo, R. (1977), MSAC-NSDB (1979).
4. low market prices of produce	:	SSD-MA (1977), Octavio, G.G. (1975), MSAC-NSDB (1979).

Table 8

COMPARATIVE ECONOMIC INDICATORS, 1977

Economic Indicators	Good Borrowers	Delinquent Borrowers	All Borrowers
A. Mean Values (₱) of:			
1. Assets	160,111	115,246	130,776
2. Sales Income	23,236	21,428	22,054
3. Income from other sources	14,824	13,424	13,908
4. Net Income	14,886	13,442	13,942
5. Production	28,494	26,104	26,931
6. Savings	2,893	2,043	2,337
B. Material Level of Living Percentage of Borrowers Using :			
1. Permanent Type of Dwelling	49.3	34.0	33.5
2. Kerosene and Electricity	40.3	30.2	33.7

Source of basic data: TBAC, "A Study on the Nonrepayment of Agricultural Loans in the Philippines", 1978, pp. 29, 69-72.

Table 9

RESULTS OF THE TBAC CENTRAL LUZON ARREARAGES STUDY,
USING CHI-SQUARE TESTS OF SIGNIFICANCE, 1976

	X^2	Critical Value of X^2 a/	Results
1. Volume of production			Production performance of farmer-borrowers influences strongly their capacity to repay loans.
a. with irrigated lands	23.52	11.07	
b. with rainfed lands	14.82	11.07	
2. Quantity of palay sold	43.70	7.82	The repayment capacity of farmer-borrowers is heavily influenced by the quantity of palay sold.
3. Percentage of quantity sold to marketable surplus b/	11.10	5.99	The ability of the farmer to dispose his marketable surplus had a positive effect on his paying capacity.

a/ At 5 per cent level of significance.

b/ Marketable Surplus = Production - (Cost of production + Consumption)

Source of data: TBAC, "A Survey of the Causes of High Arrearages of Central Luzon Farmers in Phases IV and V of the M-99 Program", 1976.

Table 10

DISTRIBUTION OF SAMPLE BORROWERS, BY ACTUAL USE OF LOAN, 1977

	Good Borrowers		Delinquent Borrowers		T O T A L	
	Number	In Per Cent	Number	In Per Cent	Number	In Per Cent
TOTAL	741	100.0	1,559	100.0	2,300	100.0
Farm Operating Expenses						
Purchase of Inputs	69	9.4	159	10.2	228	9.9
Payment of Hired Labor	239	32.3	483	31.0	722	31.5
Farm Capital Expenses	201	27.1	428	27.4	629	27.3
Family Living Expenses	140	18.9	246	15.8	386	16.8
Personal Care	33	4.4	129	8.3	162	7.0
Education	7	0.9	40	2.6	47	2.0
Home Repairs/Construction	19	2.6	15	1.0	34	1.5
Purchase of Appliances	18	2.4	14	0.9	32	1.4
Paying-off Other Debts	-	-	7	0.4	7	0.3
Social Obligations	15	2.0	38	2.4	53	2.3

Source of data: TBAC, "A Study on the Nonrepayment of Agricultural Loans in the Philippines", 1978, p. 77.

Table 11

REGRESSION COEFFICIENTS USING COLLECTIONS
AS DEPENDENT VARIABLES

Variables	Regression Coefficients
Current Assets	4.3548
Risk Assets	3.0770
Total Assets	3.3643
Total Liabilities	3.1006
Agricultural Loans Outstanding	2.3013
Gross Income	0.2488
Net Income	0.1876

Source of data: TBAC, "A Study on the Nonrepayment of Agricultural Loans in the Philippines", 1978, pp. 121-124.

Table 12

REGRESSION COEFFICIENTS USING
PAST DUE RATIO AS DEPENDENT VARIABLE[a/]

Gross Income	-8.9387
Net Income	-2.6360
Net Income/Equity	-8.2599
Total Liabilities	-75.4811
Agricultural Loans Outstanding	-52.5161
Current Assets	-66.0628
Risk Assets	-78.3385
Total Assets	-86.8344

[a/] Only for rural banks

Source of data: TBAC, "A Study on the Nonrepayment of Agricultural Loans in the Philippines", 1978, pp. 121-124.

Table 13

MASAGANA 99 LOANS GRANTED, BY PHASE, 1980[a/]

Phase/Crop Year		Loans Granted[b/] Amount (₱)	Loans Granted[b/] Growth Rate By Crop Year (%)	Farmers Financed Number	Farmers Financed Growth Rate By Crop Year (%)
TOTAL		5,813.5		2,097,026	
I	1973-1974	369.5		401,047	
II		240.6		235,105	
III	1974-1975	720.7	112.0	528,881	39.0
IV		572.3		355,599	
V	1975-1976	681.1	(23.4)	303,310	(50.0)
VI		308.8		139,059	
VII	1976-1977	336.6	(41.9)	143,242	(47.3)
VIII		238.7		89,772	
IX	1977-1978	353.0	10.3	139,411	(0.4)
X		281.4		92,667	
XI	1978-1979	379.7	15.6	120,101	(12.6)
XII		353.4		82,685	
XIII	1979-1980	403.2	(11.6)	112,510	(11.8)
XIV		245.1		66,345	
XV	1980-1981	280.4	(49.2)	85,268	(38.8)
XVI		49.0		24,272	

[a/] Covering such participating institutions as PNB, RB and ACA.

[b/] For RB data, rediscounting availments were adopted whenever they exceed loan grants on a per phase basis.

Source of data: TBAC, 1980 Year-End Agricultural Credit Plan Appraisal",

Table 14

DISTRIBUTION OF SAMPLE MAŚAGANA 99 PHASE IX DROPOUTS,
BY METHOD OF FINANCING, 1977

Method of Financing	Eligible (self-financed)		Not Eligible (bec. of past due loan)		TOTAL	
	Number	In Per Cent	Number	In Per Cent	Number	In Per Ce
TOTAL	13	100.0	133	100.0	146	100.0
Income from palay production	3	23.1	15	11.3	18	12.3
Income from other products	2	15.4	30	22.6	32	21.9
Income from farm labor	6	46.1	19	14.3	25	17.1
Income from own business	1	7.7	37	27.8	38	26.1
Cash contributions from members of the family	1	7.7	32	24.0	33	22.6

Source of data: TBAC, "Survey of Masagana 99 Dropouts in Nueva Ecija", 1977, p.14

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