

## AN ASSESSMENT OF THE MASAGANA 99 CREDIT SUBSIDY AS AN EQUITY MEASURE

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This study is an assessment of the redistributive potential of the Masagana 99 (M99) credit subsidy. While the M99 Program is a total package of production incentives to farmers that includes not only low cost production credit but also a fertilizer subsidy, price support, technical assistance and other agricultural support services, the present study focuses on the credit component of the M99 Program as a vehicle for income transfers to small rice farmers.

That "the overriding objective of the program is to achieve self-sufficiency in rice" (Subido, 1977, p. 19) may be explained by the fact that M99 was launched in 1973 primarily to boost the government's production intensification campaign for rice which had suffered a setback early in the seventies owing to a succession of natural calamities. M99 integrated under one umbrella the production, marketing and distribution aspects of rice production, all of which were uncoordinated in previous programs since the 1950s (Iglesias, 1975). The equity rhetoric accompanying the program is best understood in the context of the current popularity of small farmer credit programs as a means of effecting the redistribution of income in less developed countries (Adams, 1978). This popularity derives from the administrative ease of effecting the income transfers, i.e. through the financial system, as well as from its political feasibility. The existence of a specialized credit program offering low-cost loans to small farmers is a convenient way of publicizing concern for the rural poor without necessarily altering the prevailing structure of asset ownership. As Subido (1977, p. 4) notes: the "first attempt towards giving attention to small farmer-based financing came as a result of the worsening political situation."

The view that low-cost credit is the key to increasing farm productivity in the sense that farmers' borrowing costs are reduced and their self-sufficiency enhanced is a basic premise of the M99

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program (Presidential Committee on Agricultural Credit, 1977). This has provided the basis for the claim as well as the perception that the M99 Program is supportive of equity goals. This perception is further reinforced by the prevailing notion that farmer-borrowers are generally exploited by private moneylenders through usurious interest rates (Donald, 1976).

The M99 credit subsidy is a subsidy to rice production. Farmers are extended loans to be used for purchasing production inputs. The subsidy element is in the rate of interest of the M99 loan which is lower than the prevailing market and institutional rates. A transfer occurs in the sense that the farmer realizes a higher production income because of the reduced costs that borrowing under M99 makes possible. An income transfer also occurs when the farmer fails to repay the loan, although this is not the intention of the program. The transfer may be from the government or the lending institution depending on which one ultimately shoulders the burden of the subsidy.

This paper argues that the amount of government subsidy in terms of low-cost funds channeled to the M99 Program, while substantial, has accrued mainly to the financial institutions as incentives to lend to small farmers; that of the amount that gets passed on to farmer-borrowers, the distribution has been biased in favor of bigger farmers; and that the income transfers realized from the credit subsidy derive mainly from the non-repayment of loans, making the credit subsidy a costly vehicle for effecting income transfers without at the same time attaining the equity objective.

### The M99 Credit Subsidy

The status of the M99 Program as of April 1980 is summarized in Table 1. Since its start in 1973, the program has granted a total of ₱4.3 billion to farmer-borrowers. The highest registered amount of loans granted was in the third phase, ₱716.1 million, when an expansion in the coverage of the program was attempted. After this phase, however, a generally declining trend in the amount of loans granted may be observed. It is possible that the attempted expansion of the program in 1974 could have caused production technicians to become overly lenient in approving loan applications on the one hand, and encouraged even non-deserving borrowers to avail of M99 loans, on the other hand. The resulting defaults and the consequent disqualification of borrowers may explain the drastic reduction in loans granted in the succeeding phases. This explanation finds additional support in the noticeable decrease in farmer-borrowers over

Table 1 — Status of the Masagana 99 Program  
(As of April 30, 1980)

Phase	Number of Borrowers	Area Financed (has.)	Loans Granted (₱M)	Loans Collected (₱M) <sup>2/</sup>	Repayment Rate (%) <sup>2/</sup>	Average Loan/ha (₱)	Average Loan/Borrower (₱)	Average Size of Farms Financed (has.) <sup>3</sup>
I May-October '73	402,757	620,928	369.5	345.3	93.5	595.0	917.4	1.54
II November '73-April '74	236,184	355,397	230.7	213.3	92.5	649.9	976.8	1.50
III May-October '74	531,249	865,552	716.1	598.0	83.5	826.9	1,347.9	1.63
IV November '74-April '75	354,865	454,048	572.3	474.9	83.0	1,260.6	1,612.7	1.28
V May-October '75	302,762	558,315	573.0	441.1	77.0	1,026.9	1,892.5	1.84
VI November '75-April '76	139,155	255,884	255.5	194.8	76.2	993.0	1,836.1	1.84
VII May-October '76	145,202	253,749	274.1	215.4	78.5	1,079.1	1,887.1	1.75
VIII November '76-April '77	89,897	148,839	164.3	135.1	82.2	1,102.7	1,827.6	1.66
IX May-October '77	132,026	222,347	249.9	197.3	80.0	1,125.7	1,892.8	1.68
X November '77-April '78	92,814	155,909	179.2	145.2	81.0	1,148.7	1,930.7	1.68
XI May-October '78	116,479	202,177	237.1	178.5	75.0	1,173.8	2,035.6	1.73
XII November '78-April '79	88,830	169,085	181.1	127.0	70.1	1,071.6	2,038.7	1.90
XIII May-October '79	112,641	196,200	237.8	76.3	a	1,213.3	2,111.1	1.74
XIV November '79-April '80	54,250	90,898 <sup>1/</sup>	117.5	2.4	a	1,291.2	2,165.9	1.68

<sup>1/</sup> Derived by multiplying number of borrowers by 1.67, the average size of farms financed in Phases I-XIII.

<sup>2/</sup> Only as of December 30, 1979.

<sup>3/</sup> Average loan per borrower divided by average loan per hectare.

a — not all have fully matured as of reporting date.

Source: Technical Board for Agricultural Credit.

time. Over twelve phases, the repayment rate has averaged 81 per cent. However, it must be pointed out that the computation of repayment rates as they appear in official progress reports is not standardized for the length of time after the loans fell due. The repayment rates are computed based on the percentage of collections to loans granted regardless of what point in time the repayments were made. Hence the more recent the report on M99 one uses for the evaluation of repayment performance, the higher is the average repayment rate. A much lower figure would be obtained if the repayment rates were computed as of maturity. A study conducted by the Technical Board for Agricultural Credit (TBAC, 1978b) on non-repayments for years 1975-1977 shows that past due ratios for M99 averaged 37 per cent for Philippine National Bank (PNB) branches, 62 per cent for Agricultural Credit Administration (ACA) branches and 48 per cent for rural banks.

To estimate the amount of resource transfer from the concessional M99 loan rate, it is necessary to have some sense of how high interest rates would be without M99. This interest rate must be able to account for the effect of inflation since lenders, assuming competitive conditions, would increase their interest charges by the expected inflation rate to cushion their principal and interest receipts against price changes. At the same time, as long as potential lenders have productive outlets for their funds and as long as potential borrowers have productive investment opportunities, the real rate of interest that would equate the supply and demand for credit would be some positive rate (Vogel, 1977). Assuming perfect competition, no risks and administrative costs, this rate would be equal to that which would hold in the organized money market (Bottomley, 1964).

Column 1 of Table 2 shows estimates of the prevailing market interest rates for each of the six-month phases of M99. These were computed by taking the weighted average interest rate of the various types of securities traded in the money market for each six-month period corresponding to every M99 phase. Estimates of annual inflation rates for the same periods were then added. The estimated market interest rates ranged from a low of 18 per cent to a high of 52 per cent depending on the rate of inflation. The nominal M99 rate is reflected in Column 2. The interest rate subsidy on a M99 loan ranged from 4 per cent per annum to 38 per cent per annum. Applying the estimated subsidy rates to the amount of loans granted per phase yields the amount of resource transfer due to the preferential M99 rate. Over a seven-year period, the potential resource transfer from six-month M99 loans to farmer-borrowers amounted to ₱359.1

## Phases I-XIV

Phase	(1) Market Interest Rate (% per annum)	(2) Masagana 99 Nominal Rate (% per annum)	(3) Interest Rate Subsidy (% per annum)	(4) Potential Resource Transfer (PM) <sup>3</sup> /
I	23	14 <sup>1</sup> / <sub>1</sub>	9	16.7
II	44	14	30	34.6
III	52	14	38	136.1
IV	39	14	25	71.6
V	19	14	5	14.4
VI	18	14	4	5.1
VII	19	14	5	6.9
VIII	21	14	7	5.8
IX	19	14	5	6.3
X	19	14	5	4.5
XI	19	13 <sup>2</sup> / <sub>1</sub>	6	7.1
XII	23	13	10	9.1
XIII	35	13	22	26.2
XIV	38	13	25	14.8
Total				359.1

<sup>1</sup>/Interest of 12 per cent per annum plus service and bank charges not to exceed 2 per cent per annum.

<sup>2</sup>/Interest of 10 per cent per annum plus service and bank charges not to exceed 3 per cent per annum.

<sup>3</sup>/Obtained by multiplying amount of loans granted by interest rate subsidy and then dividing by two since a M99 loan has a maturity period of six months.

million. The term "potential" is used because the subsidy actually enjoyed by borrowers is not limited to the intended interest rate differential they are entitled to under M99. Non-repayments increase the value of this subsidy while the cost of transacting M99 loans may reduce it. These will be discussed later.

The M99 credit subsidy reaches the farmer-borrowers via the financial institutions mobilized by the government for the program: the PNB, ACA, and the privately-owned rural banks. M99 funds mainly come from the government in the form of "seed funds" under a Special Time Deposit (STD) arrangement with the rural banks or through rediscount availments from the Central Bank. These are then relented by the lending agencies to farmers at the prevailing M99 loan rate. The interest rates on STDs and rediscounts are 3 per cent per annum and 1 per cent per annum, respectively. Taking the difference between the market interest rate and these concessional rates, and applying these on the amount of STDs and rediscount availments yield ₱67 million and ₱994 million in subsidies for STDs and rediscounts, respectively.<sup>1</sup> From the government's viewpoint, the ₱1,061 million in total subsidies to the lending institutions constitute the cost of bringing the M99 credit subsidy to rice farmers. A portion of this total amount is expected to be transferred to M99 loan beneficiaries.

Aside from the credit subsidy for STDs and rediscounts for banks participating in the M99 Program, the credit subsidy includes the cost of maintaining the guarantee fund to protect the banks against losses and the cost of the collection campaign and the maintenance of the collection machinery. These costs are not included in the present estimates of the subsidy to credit agencies because of the unavailability of data. Hence, the credit subsidy estimates are understated.

### Distribution of the Credit Subsidy

#### A. Between Credit Agencies and Farmer-Beneficiaries

In performing their intermediary function with respect to the M99 credit subsidy, the credit agencies partake of the total credit subsidy made available by the government under M99. Because of the risks associated with small farmer lending, the subsidy to rice farmers would not be possible without the government subsidy to lending institutions.

<sup>1</sup> For the period being reviewed, STDs totalled ₱900.1 million and rediscount availments amounted to ₱4.34 billion. See Chapter 5 of Esguerra (1981) for related computations.

Table 3 shows the distribution of the credit subsidy extended by the government under the M99 Program between credit agencies and farmer-borrowers. The portion of the total credit subsidy captured by the lending agencies can be obtained by taking the difference between the total credit subsidy from the government and the subsidy to M99 borrowers. Over fourteen phases of M99, the total credit subsidy amounted to ₱1,061 million, of which only ₱359.1 million or 34 per cent was passed on to farmers; about ₱700 million or 66 per cent accrued to the credit institutions.

The per peso cost of the credit subsidy to M99 farmers in terms of the government credit subsidy to lending agencies is shown in column 4 of Table 3. Throughout seven years of M99, each peso of subsidy for farmers cost the government ₱2.95 in terms of the subsidy to lending channels. The per peso cost of the credit subsidy to M99 borrowers in terms of the credit subsidy to rural banks was ₱4.39. A lower ratio was obtained for PNB, ₱1.82. Overall, it cost the government more than double the amount of the subsidy to M99 farmers just to make the subsidy available to them.

That there is a great disparity between the cost of extending the M99 credit subsidy through the rural banks and that of doing the same through the PNB may not only be due to the fact that the PNB shares some of the costs of M99 lending. A more fundamental reason could be the possibility of fund diversion to other uses by rural banks as indicated by the excess of rediscounting availments over loans granted. Table 4 shows that rural banks' rediscounting availments under M99 have exceeded their loans granted by some ₱959.7 million for the period 1973-1980.

Fund diversion limits the flow of M99 funds to the intended beneficiaries, but it does not change the fact that the government has already incurred substantial costs in making the funds available to the rural banks with the expectation that these resources in turn be made available to farmers. The laxity in the administration of funds coupled with the risks of default attendant to small farmer lending has however encouraged the circumvention of regulations. It is possible that given the very concessional lending rates and the costs of non-repayment, rural banks find the subsidy extended to them as insufficient to cover their lending costs.<sup>2</sup> In any case, whether what accrues to the intermediaries of the M99 credit subsidy only covers their costs or is actually a windfall is immaterial to the argu-

<sup>2</sup>The findings of Quiñones (1978) do not support this claim. See also Villanueva and Saito (1978) and TBAC (1981).

Table 3 — Distribution of the Government Credit Subsidy and Per Peso Cost of the Intended Subsidy to Masagana 99 Borrowers in Terms of the Subsidy to Lending Agencies Phases I-XIV

Phase	Amounts in Million Pesos			Per Peso Cost of Subsidy to Farmers <sup>3/</sup>
	(1) Intended Subsidy to Lending Agencies <sup>1/</sup>	(2) Intended Subsidy to Borrowers <sup>2/</sup>	(3) Subsidy Accruing to Lending Agencies	
I } II }	143.0	51.3	91.7	2.79
III	160.2	136.1	24.1	1.18
IV	168.3	71.6	96.7	2.35
V	70.3	14.4	55.9	4.88
VI	41.7	5.1	36.6	8.18
VII	50.7	6.9	43.8	7.35
VIII	38.2	5.8	32.4	6.59
IX	48.5	6.3	42.2	7.70
X	43.8	4.5	39.3	9.73
XI	53.0	7.1	45.9	7.46
XII	69.5	9.1	60.4	7.64
XIII	111.7	26.2	85.5	4.26
XIV	62.1	14.7	47.4	4.22
Total	1,060.1	359.1	701.9	2.95
Per Cent	100.0	38.8	66.2	

<sup>1/</sup> This is the sum of the interest rate subsidy for STDs of rural banks and the interest rate subsidy for rediscunts of rural banks and PNB. Refer to Chapter 5 of Esguerra (1981). A portion of this sum is supposed to be transferred to farmer-borrowers.

<sup>2/</sup> From Table 2. This is the subsidy passed on to the farmers by lending agencies.

<sup>3/</sup> Subsidy to lending agencies divided by subsidy to farmers.



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**Table 4 — Rediscounting Availments and Loans Granted by Rural Banks  
Under the Masagana 99 Program  
Phases I-XIV**

In Million Pesos

Phase	Rediscounting Availments	Loans Granted	Difference
I May-October '73	145.7	152.9	( 7.2)
II November '73-April '74	127.0	117.2	9.8
III May-October '74	308.2	303.5	4.7
IV November '74-April '75	270.9	333.3	( 62.4)
V May-October '75	341.9	235.4	106.5
VI November '75-April '76	180.5	127.2	53.3
VII May-October '76	201.6	139.1	62.5
VIII November '76-April '77	152.9	78.5	74.4
IX May-October '77	217.1	114.0	103.1
X November '77-April '78	197.5	95.3	102.2
XI May-October '78	216.4	118.8	97.6
XII November '78-April '79	257.9	85.6	172.3
XIII May-October '79	284.9	119.5	165.4
XIV November '79-April '80	123.0	45.6	77.4
Total	<u>3,025.6</u>	<u>2,065.9</u>	<u>959.7</u>

Source: Department of Loans and Credit, Central Bank for rediscounting availments.

Department of Rural Banks, Savings and Loan Associations, Central Bank for loans granted.

ment here. What is important is that only about one-third (34 per cent) of the total government credit subsidy ever reaches the M99 Program's supposed beneficiaries.

#### B. Between Small and Big Farmers

Access to the M99 credit subsidy depends on access to M99 loans. This is determined on the basis of some eligibility criteria set by the government. Generally, farmers who are holders of leasehold contracts, members of a cooperative, *samahang nayon*, *selda/damayyan* (joint liability group), beneficiaries of agrarian reform or landowner cultivators are eligible for M99 loans. The ricefield must also be fully irrigated and this must be attested to by the production technician. If the ricefield is rainfed, the farm plan and budget must indicate the ability to repay the loan which means the possession of some marketable collateral. Access to the low-interest M99 loans thus depends on the potential to be productive which is partly de-

terminated by the distribution of benefits from irrigation. Since land transfer certificates are acceptable as collateral, eligibility to borrow under M99 also depends on the speed with which potential land reform beneficiaries are identified. Finally, in order to continuously qualify for M99 loans, farmers must not have outstanding loans nor belong to a *selda* with a delinquent member (NFAC, 1978).

In the Philippines, the category "small farmer" generally includes those working on land of a size less than five hectares (TBAC, 1978a), whether such land is owned or rent is paid for its use. Employing this definition of the term "small farmer," this study estimates at least 1.5 million small rice farmers based on figures gathered from the 1972 Integrated Agricultural Survey of the Bureau of Agricultural Economics. Of these, roughly 1.1 million or 77 per cent are potential beneficiaries from M99, being eligible as per the program's criteria.

The number of farmer-borrowers per phase is an indication of those who, having passed all eligibility requirements, have opted to avail of M99 loans by following the borrowing procedures stipulated by the various implementing agencies. Table 1 shows that at its peak in 1974, the M99 Program financed some 531,249 rice farmers. Since then, the number of borrowers has been declining.

Not all M99 borrowers are small farmers. The TBAC study (1978b) on non-repayments reveals that some 11 per cent of borrowers from the government's various supervised credit schemes are "fictitious farmers." Assuming that this proportion applies as well to M99, then the number of legitimate M99 borrowers at its peak was about 473,000. Of these, about 364,000 or 77 per cent were small farmers; the rest were big farmers.

Table 5 summarizes the coverage of the M99 credit program. At most, about two-thirds of the actual number of M99 loan recipients were small farmers. This is roughly one-third of the number of small farmers qualified for M99 loans, and about one-fourth of the total number of small rice farmers in the country. If the reference figure is the lowest number ever financed by the program, i.e., 54,250 in November 1979 — April 1980, and the proportions of fictitious, small and big farmers are assumed unchanged, then the number of small farmers actually financed by the program is only about two per cent of the estimated total number of small rice farmers in the country and about three per cent of the qualified number of small farmers under the credit subsidy program.

Table 5 -- The Relative Scope of the Masagana 99 Credit Subsidy

	No. of Farmers	Per Cent to Small Rice Farmers	Potential Coverage	Per Cent to Actual Coverage
1) No. of Small Rice Farmers <sup>1/</sup>	1,457,526	100.0	—	—
2) Potential Coverage <sup>2/</sup>	1,126,668	77.3	100.0	—
3) Actual Coverage (total) <sup>3/</sup>	531,249	—	—	100.0
Small	364,065	24.9	32.3	68.5
Large	108,747	—	—	20.5
Fictitious	58,437	—	—	11.0

<sup>1/</sup> Defined as farmers with less than 5 hectares.

<sup>2/</sup> Number of small rice farmers qualified to borrow based on program's eligibility criteria.

<sup>3/</sup> The highest number of borrowers reported throughout the fourteen phases was taken as the total number of borrowers financed under M99.

Program coverage, however, is not the only limiting factor to the credit subsidy's redistributive potential. The size of the credit subsidy received which is a proportion of the size of the loan depends on the farm size of the borrower. The distribution of the credit subsidy is therefore lopsided in favor of the bigger farmers who can avail of bigger loans. Data on the actual distribution of M99 credit by farm size are not available, although the pattern of credit distribution suggested in Table 6 is instructive enough. Since only about 28 per cent of the total volume of formal credit finds its way to small farmers, the same proportion of the credit subsidy available to M99 borrowers may be assumed as going to small rice farmers. That is, in terms of the ₱359.1 million in potential resource transfers due to the preferential M99 lending rate, only about ₱100.5 million was supposedly received by small rice farmers. The rest, or ₱258 million, must have gone to either large farmers/landowners or to fake borrowers or fictitious farmers.

The pattern of distribution of formal credit presented above and the distribution of the credit subsidy that follows it are due to a variety of factors. Lenders' aversion to risk — since small farmers are generally perceived to be more prone to default — makes it difficult for small farmers to obtain formal credit in their required quantities and without additional transactions costs (Adams and Nehman, 1979). In view of the controlled lending rate, banks attempt to minimize cost by resorting to credit rationing, where in the process, political and social influence determine who gets how much. Economically, banks may find it less costly to administer fewer loans of bigger sizes than many small individual loans (Bottomley, 1963). Aside from the fact that small farmers are limited by their farm sizes from obtaining larger amounts of loans, the fear of being unable to repay these amounts in the event of crop failure may deter them from borrowing the required quantities (Lipton, 1979).

Higher transactions costs for small farmers as a group will reduce the absolute size of the credit subsidy accruing to them, thus widening the difference between the credit subsidy received by small farmers and that received by big farmers. Non-repayments will tend to increase the amount of the subsidy accruing to both groups. That small farmers are more likely to default will, however, change little, if at all, the distribution of the credit subsidy. One defaults after all on what one has borrowed. And big farmers are not necessarily good borrowers. Besides, where the big farmer has a greater scope for using his cheaply acquired funds for income-generating activities (other than that for which they are intended by government policy), the pain of defaulting on a M99 loan is less for the big than for the small farmer.

Table 6 — Distribution of Formal Credit by Farm Size,  
Philippines, 1974

Farm Size (In hectares)	Per Cent Share to Total Farms <sup>1/</sup>	Per Cent Share to Total Volume of Formal Credit <sup>2/</sup>
< 1	14	~ 0
1 — 3	47	19
3 — 5	24	8
> 5	15	72

<sup>1/</sup>Distribution of farms by size was based on the 1971 Census of Agriculture.  
<sup>2/</sup>Presidential Committee on Agricultural Credit (1977)

Source: Presidential Committee on Agricultural Credit (1977)

### Potential vs. Actual Subsidy

Aside from the interest and service charges which M99 borrowers pay, they are required to make contributions to the barrio Savings Fund and the Barrio Guarantee Fund, if they are *Samahang Nasyon* members, everytime they borrow under M99. The first contribution is deducted from the amount of the loan upon its release, while the second is taken in kind — a cavan of palay per hectare — come harvest time.

Additional out-of-pocket expenses for the borrower include the transportation cost incurred in visiting the lender. Typically, it takes at least three visits before the loan is approved and finally released (TBAC, 1978a), with the farmer having to travel on the average ten kilometers one way from his farm to the bank (Carlos and Vera Cruz, 1976). During these visits when the farmer and the technician discuss matters related to the M99 loan, the farmer usually spends for the meals. To all these one might add the opportunity cost of the farmer's time while transacting the loan. It takes an average of ten days to have a loan processed (Carlos and Vera Cruz).

David (1979) estimates that the effective cost of borrowing for M99 farmers is at least 30 per cent per annum. This estimate assumes two crop loans per year and thus, in addition to the annual interest rate of 12 per cent, doubles the other payments such as the Barrio Savings Fund contribution and service charges which are incidental to the M99 loan. Moreover, an additional 5 per cent was assumed for the borrower's transportation expenses. TBAC's case study of a small M99 farmer computes the effective interest cost as 25.53 per cent annually. This estimate does not include the effect of compulsory contributions on the M99 interest rate, but it includes estimates of borrower's transactions cost based on the case study.

The non-uniformity of transactions costs for different types of farmers makes it difficult to generalize and include these costs in the overall computation of the effective cost of borrowing under M99. In the computation that follows, only the incidental charges which uniformly apply to M99 borrowers are included. This yields an estimate of the effective interest rate facing all M99 borrowers. How much higher than this they actually pay depends upon how much additional cost they have to incur to have their M99 loans processed.

Table 7 shows the cost of a six-month M99 loan on a phase-to-phase basis. The interest charge is one-half of the quoted annual rate of 10-12 per cent (Table 2) while the service charge of 2-3 per cent per annum applies just the same for a six-month loan because it is treated as a one-time charge collectible upon the release of the loan. Automatic deductions for the Barrio Savings Fund and the Barrio Guarantee Fund started in Phase II of M99. The contribution to the Barrio Guarantee Fund is computed as a ratio of the price of a cavan of palay to the loan ceiling per hectare. The price of the cavan of palay is based on the prevailing official support price for palay paid by the National Grains Authority<sup>3</sup> during the periods considered. Although these contributions apply to *Samahang Nayon* members only, it seems safe to assume that they apply uniformly to M99 borrowers since most M99 borrowers are *Samahang Nayon* members anyway, such being an eligibility requirement.

Adding up the interest and other charges on a M99 loan yields an effective cost that ranges from 8 per cent to 19 per cent for six months. If these rates are annualized, the effective rate would be between 16 and 38 per cent per annum. Now if transactions costs are included, a much higher effective rate would be obtained.

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<sup>3</sup> Now the National Food Authority.

Table 7 — Interest and Other Charges on a Masagana 99 Loan as a Percentage of the Maximum Loan per Hectare  
Phases I-XIV

Phase	(1) Loan Ceiling Per Hectare (₱)	(2) Interest <sup>1/</sup> (%)	(3) Service Charge <sup>2/</sup> (%)	Contributions		(5) Barrio Guarantee Fund <sup>4/</sup> (%)	
				(4) Barrio Savings Fund <sup>3/</sup> (%)			
I	700	6	2	—	—	—	8
II	700	6	2	5	5	5	18
III	900	6	2	5	5	4	17
IV	900	6	2	5	5	6	19
V	1,200	6	2	3	3	4	15
VI	1,200	6	2	3	3	4	15
VII	1,200	6	2	3	3	4	15
VIII	1,200	6	2	3	3	5	16
IX	1,350	6	2	3	3	5	16
X	1,350	6	2	3	3	4	15
XI	1,350	5	3	3	3	4	15
XII	1,350	5	3	3	3	4	15
XIII	1,350	5	3	3	3	4	15
XIV	1,350	5	3	3	3	5	16
						5	16

<sup>1/</sup> Since M99 loan is for six months, interest charge is one-half of the quoted annual rate.

<sup>2/</sup> Service charge is a one-time charge collected upon loan release.

<sup>3/</sup> Barrio Savings Fund contribution is also a one-time charge deducted upon release of loan.

<sup>4/</sup> Computed as a ratio of the prevailing NGA support price for a cavan of palay to the loan amount.

Table 8 compares the actual cost of borrowing per phase with the subsidized or nominal cost of borrowing. The latter is computed on the basis of the M99 interest and service charges applicable for a six-month period without the effect of the mandatory deductions. One might say that this represents the theoretical expenditure of M99 borrowers on their loans based on the subsidized rate of interest.

The fact that farmer-borrowers actually incur a higher borrowing cost than the theoretical or subsidized cost means that the intended interest rate subsidy is not being realized at all, or is only partially realized. Earlier, it has been shown that on the basis of the preferential M99 rate, the farmers could have benefitted from an implicit transfer of ₱359.1 million, i.e., they would have saved such amount in interest payments. The additional costs conservatively estimated at ₱378.6 million over the same seven-year period, however, more than offset the amount of the potential income transfer that would have accrued to M99 borrowers on account of the concessional M99 rate. As Table 9 (Column 3) shows, over fourteen phases of M99, the resource transfer to farmers was negative. From the foregoing, one is led to conclude that on the basis of the interest rate subsidy alone, M99 borrowers can hardly expect to realize any income transfer. For those who are qualified to borrow, however, the probability of getting away with non-repayment of M99 loans may be enough incentive to borrow.

#### Non-Repayments: The Unintended Subsidy

Default constitutes a *de facto* transfer payment to defaulting borrowers. But since it impairs the financial viability of credit institutions and encourages the use of resources for other than their intended purposes, default is considered as one of the least acceptable forms of resource transfer.

Non-repayments totalled ₱736.9 million as of December 1979. The subsidy from non-repayments was computed on the basis of the amounts outstanding, their age as of December 1979, the relevant interest rate, penalty charges and the inflation rate.<sup>4</sup> In addition, amounts outstanding for two years or more were assumed as having been written off, thus constituting outright transfers. Taking all the above into consideration, an estimate of ₱946.6 million was arrived at. This estimate is on the high side because it considers non-repayments in their totality as income transfers. It is possible, however,

<sup>4</sup> Refer to Chapter 4 of Esguerra (1981) for computations.



Table 8 -- Difference Between Actual and Subsidized Costs of Masagana 99 Loans, Phases I-XIV

Phase	(1) Loans Granted (₱ M)	(2) Nominal Rate 6 months <sup>1/</sup>	(3) = (1) . (2) Subsidized Cost 6 months (₱ M)	(4) Effective Rate 6 months (%)	(5) = (1) . (4) Actual Cost 6 months (₱ M)	(6) = (5) - (3) Difference (₱ M)
I	369.5	7	25.9	8	29.6	3.7
II	230.7	7	16.2	18	41.5	25.3
III	716.1	7	50.1	17	121.8	71.7
IV	572.3	7	40.1	19	108.7	68.6
V	573.0	7	40.1	15	86.0	45.9
VI	255.5	7	17.9	15	38.3	20.4
VII	274.1	7	19.2	16	43.9	24.7
VIII	164.3	7	11.5	16	26.3	14.8
IX	249.9	7	17.5	15	37.5	20.0
X	179.2	7	12.5	15	26.7	14.2
XI	237.1	6.5	15.4	15	35.6	20.2
XII	181.1	6.5	11.8	15	27.2	15.4
XIII	237.8	6.5	15.5	16	38.0	22.5
XIV	117.5	6.5	7.6	16	18.8	11.2
Total	4,358.1		301.3		679.9	378.6

<sup>1/</sup>Nominal rate for six months is one-half of the total of interest and service charges quoted in annual terms.

Table 9 — Estimates of Actual Masagana 99 Credit Subsidy, Phases I-XIV  
(In Million Pesos)

Phase	(1) Interest Rate Subsidy <sup>1/</sup>	(2) Interest Cost in Excess of Subsidized Cost <sup>2/</sup>	(3) = (1) - (2) Realized Interest Rate Subsidy	(4) Non-Repayment Subsidy	(5) = (3) + (4) Actual Credit Subsidy
I	16.7	3.7	13.0	46.5	59.5
II	34.6	25.3	9.3	32.5	41.8
III	136.1	71.7	64.4	207.8	272.2
IV	71.6	68.6	3.0	164.1	167.1
V	14.4	45.9	(31.5)	203.1	171.6
VI	5.1	20.4	(15.3)	88.9	73.6
VII	6.9	24.7	(17.8)	78.7	60.9
VIII	5.8	14.8	( 9.0)	37.1	28.1
IX	6.3	20.0	(13.7)	60.7	47.0
X	4.5	14.2	( 9.7)	8.7	( 1.0)
XI	7.1	20.2	(13.1)	10.4	( 2.7)
XII	9.1	15.4	( 6.3)	8.1	1.8
XIII	26.2	22.5	3.7	—	3.7
XIV	14.7	11.2	3.5	—	3.5
Total	359.1	378.6	(19.5)	946.6	927.1

<sup>1/</sup> From Table 2

<sup>2/</sup> From Table 8

that non-repayments may have been due to natural calamities. In such cases, no subsidy is realized by the defaulting farmers; both lender and borrower lose their investment. To the extent that the loan is restructured, what the farmer experiences is not an income gain but a loss reduction. Unfortunately, it is not possible to ascertain given available data what portion of the unrepaid amounts could have been due to factors beyond the farmers' control. Nevertheless it seems clear from Table 9 that the only way farmers can expect to realize positive income transfers from M99 is by willfully defaulting on their loan payments. That the M99 credit subsidy has totally come from non-repayments implies that the transfers were wholly unintended.

From the viewpoint of income distribution, ₱927 million spread out over seven years and among at least 200,000 farmers means at most a ₱100 yearly addition to a farmer's income. This hardly makes any dent on the existing pattern of income inequality. First, because access to this subsidy depends upon access to a M99 loan; and as argued earlier, the scope of the credit program is limited. Second, since the subsidy largely comes from non-repayment, and hence is accidental, its impact on income distribution cannot be determined *a priori*. It all depends on who gets the loan, who defaults, how much is not repaid, and what the reasons are for default. Thus the subsidy may even go to big farmers, fictitious borrowers, lending agencies, government officials, etc.

Finally, the cost of delivering the subsidy to the farmer-borrowers must be considered. The government has had to subsidize the lending agencies' costs of lending under M99 with no assurance that the subsidy will be eventually passed on by these agencies to the target beneficiaries. Additional resources are also being spent on collection campaigns and the loan guarantee scheme, but repayment rates have remained far from satisfactory and lending agencies, particularly the privately-owned rural banks, have grown more dependent on government financial assistance. There seems to be little sense in subsidizing credit institutions which in the first place can transfer income to farmers only randomly through defaults. As an equity measure, the M99 credit subsidy is not only ineffective; it is also expensive to implement.

### Concluding Note

In assessing the problem of non-repayment, the government enumerates a number of possible reasons: (1) low production due to factors like inadequate assistance and supervision from production

technicians; insufficient adoption of the recommended package of technology; natural and man-made calamities; (2) attitude of farmer-borrowers who view credit as a dole-out from the government and guarantee coverage as a condonation of non-repayment; (3) misuse of credit proceeds; and (4) the increasing financial burden of farmer-borrowers due to the Barrio Savings Fund, Barrio Guarantee Fund, land amortizations, irrigation fees, taxes, etc., all of which limit their repayment capacity (PCAC, 1977).

With the exception of natural and man-made calamities, it seems that the above possible reasons for non-repayment of loans are to be expected given the concept and the strategy of implementation of M99. Inadequate assistance and supervision from production technicians is a likely occurrence given the practice of assigning each extension agent to supervise more than a hundred farmers.<sup>5</sup> Surveys conducted by the Agriculture Ministry show that on-site visits to farmers as a manner of supervision are outnumbered by other less direct ways technicians resort to which do not make possible even a glimpse of the actual farm situation (Carlos and Vera Cruz, 1976). About 60 per cent of M99 farmers surveyed in three separate surveys (Medina and Carlos, 1977; Vera Cruz and Opelanio, 1978; Medina 1979) report that they received no assistance at all from production technicians. Where assistance was given, this was mainly in the area of loan application and preparation of the farm plan and budget. That extension agents have functioned more as loan processors rather than production technicians may be due to the fact that their incentive pay is based on the number of loan applications approved. This explains the finding by Lynch and Barrameda (1974) and Medina and Carlos (1977) that these production technicians have failed to involve a substantial number of borrowers in the preparation of farm budget plans, the reason probably being that more loan applications could be processed if less time were allotted to each of the more than a hundred farmers needing supervision.

The foregoing may have been the result not only of the incentive system for production technicians but more exactly the all-out public relations effort of the government to speed up the expansion of the credit program beyond its implementors' means to sustain it at some required level of efficiency.<sup>6</sup> Consequently, problems

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<sup>5</sup>The average farmer-technician ratio is 135:1 based on NFAC figures.

<sup>6</sup>Meanwhile production technicians complain about delayed salaries, lack of transport facilities which impairs their mobility, farmer resistance and delayed release of farm inputs (Carlos and Vera Cruz, 1976), the latter making their presence inconsequential to the supervised farmers.

related to insufficient employment of the recommended package of technology and misuse of credit proceeds arose as both qualified and non-qualified borrowers took advantage of the situation. The difficulty of enforcing loan use regulations surfaced partly because of inadequate supervision, but more so because of the fungible nature of credit given the interdependence of farm-household decision-making vis-à-vis production and consumption.

A related reason is the context in which the credit program is being implemented. In the absence of fundamental tenurial changes, farmers' repayment capacity has remained limited. This is true for about 75 per cent of M99 borrowers who are not free from making land rental payments despite the current land reform in rice areas.<sup>7</sup> Valencia (1980) shows why not really much can be expected from the land reform program by way of a wealth transfer even for those within its already narrow coverage.

Given the small farmers' limited repayment capacity, efforts to expand the coverage of M99 have only aggravated the non-repayment problem characteristic of small farmer credit programs. Inevitably, the discriminatory mechanism of credit allocation induced by concessional interest rates has to reassert itself. The survival of the credit program for small farmers has then become the very reason for the allocation of loan funds away from such farmers.

In sum, while a substantial amount of resources has been devoted to subsidizing credit institutions created to deliver credit to small farmers, the policy of subsidizing small farmer credit has achieved little in terms of reaching the majority of its target beneficiaries. If a reduction of rural interest rates is deemed desirable on equity grounds, measures other than subsidizing the lending costs of institutional credit sources ought to be attempted. Improvements in the small farmers' repayment capacity are likely to have a more lasting impact on the level of rural interest rates than legislated ceilings. A thoroughgoing and genuine land reform may still be a more effective approach to the equity problem.

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<sup>7</sup>See Carlos and Vera Cruz (1976), Medina and Carlos (1977), Vera Cruz and Opelanio (1978) and Medina (1979). These studies were conducted by the Ministry of Agriculture. Refer also to the TBAC study (1978b) on non-repayments.

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