AGRICULTURAL CREDIT IN GAL OYA IRRIGATED SETTLEMENT SYSTEM

Research Study No. 77

January 1987

AGRARIAN RESEARCH AND TRAINING INSTITUTE,
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SRI LANKA

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IN

GAL OYA IRRIGATED SETTLEMENT SYSTEM

Prepared for the Water Management Project of the Government of Sri Lanka and the United States Agency for International Development.

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FOREWORD

Agricultural Credit in Sri Lanka has had a long and chequered history. It has been a perennial problem to the Governments in power as well as to the banks which have been trying to have a stable system of institutional credit particularly for the small farm sector. During the past few decades numerous attempts have been made to improve credit delivery mechanisms, redefine objectives and simplify procedures through various credit schemes. However, the problem still remains as grave as ever and this is testimony to the complex nature of the problem of agricultural credit.

The present study approaches the problem in terms of farmer efficiency and productivity with special reference to paddy cultivation. The scale of operation has emerged as a major variable in this study and therefore variations of input use, yields and farmer behaviour in the rural financial market are sought to be described and explained. The report seeks to highlight the fact that there is a process of social differentiation in the paddy sector and therefore a universal policy of credit would not cater to the different farmers in the same way since the credit needs are not homogeneous. The analysis of farmer behaviour in the rural financial market has brought into light that the big farmer operating more than five acres dominates low interest institutional credit as well as the interest free non-institutional credit market while the small farmer operating less than three acres is mostly dependent on non-institutional commercial sources of credit. It is suggested that the small farmer should be encouraged by way of differential rates of credit to form into farmer groups operating more than five acres and adhering to productivity yielding strategies such as land consolidation, land improvement etc. This seems all the more relevant in the light of the economic analysis concerning costs and returns in paddy farming which demonstrates that paddy farming is economically remunerative for the big operators whose methods are less labour intensive and who contributes the minimum amount of own inputs such as family labour. He has been able to reduce his average cost of production concomitantly gaining the highest comparative returns. All other types of farms are family farms and the report indicates that for these farmers, as individuals, participation on a long term basis in financial credit market for obtaining institutional credit may not be feasible. Especially in these family farms, paddy production is pursued more as a socio-economic activity for subsistence and the prevalence of non-monetary relations of production may

not permit the banks to operate through individual customer approach for instituting viable formal credit arrangements. In the context of general poverty among small farmers perhaps a special institution for their development may be set up. However, due to the specificities involved, it seems necessary that considerable flexibility is allowed at the local level, while only broad policies may be formulated at the national level.

This study was undertaken as a sub-study under the Gal Oya Water Management Project which was funded by USAID. The researcher was Mr. G. Wickramasinghe, Research and Training Officer of this Institute. My thanks are due to him for his effort and USAID for making financial assistance available to make the study possible.

T.B. Subasinghe
DIRECTOR

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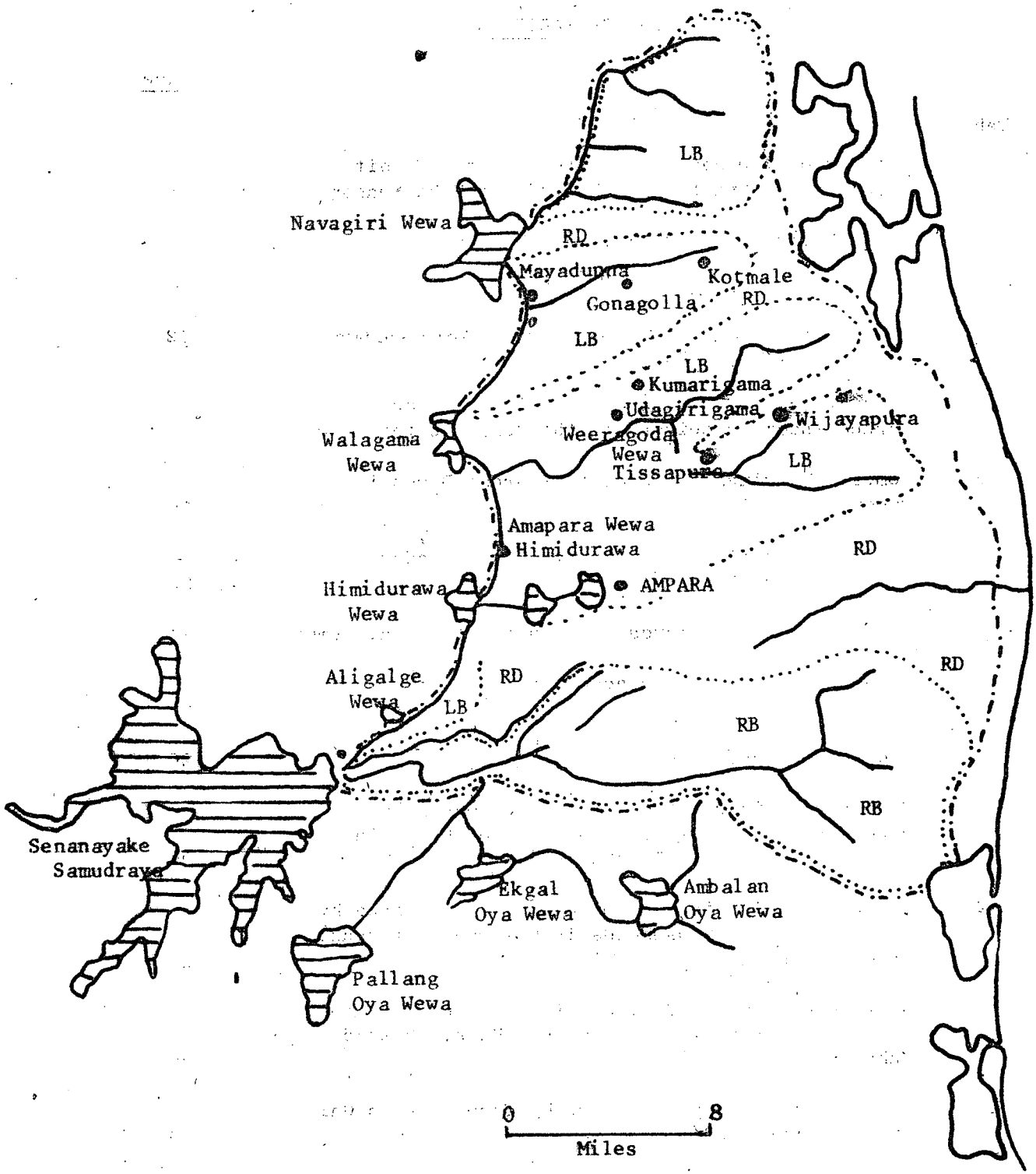

LB: Left Bank
RB: Right Bank
RD: River Division
..... River Division Boundary
-.-.-.-.- Gal Oya Scheme

GAL OYA IRRIGATION SYSTEM SHOWING THE SAMPLE COLONIES

CHAPTER I

INTRODUCTION

1.1 Justification and Scope

It has been recognized that Credit is often a key element in the modernization of agriculture. Not only can credit remove a financial constraint but it may accelerate the adoption of new technology. It is an integral part of the process of commercialization of the rural economy (World Bank, 1975: 5).

Accordingly the unavailability or lack of supply of credit may have serious repercussions on the development of agriculture in the country. The present study however, is not based on the assumption that credit is unavailable in sufficient quantities in the Sri Lankan rural economy. There are many sources for the supply of credit, both formal and informal, public and private. It is acknowledged that giving more credit may help increase the production from a given unit of land and labour. However, it would be naive to assume that credit, even when it is offered at the most reasonable rates to the small farmer, can guarantee higher productivity. Unlike in the developed agriculture of western countries the small holder paddy farming in Sri Lanka operates within completely different parameters. There are various forms of exchange relations which may have implications for credit, and the productivity as well as the attractiveness of credit depends on many factors, such as its cost, its flexibility, and the increases attainable from the technology employed through the facilities of credit. It will be necessary to carry out studies to refine the general statement that credit is a determinant of input use.

Cultivators are not an undifferentiated mass. Their behaviour or performance with regard to credit seems to vary according to the socio-economic variations within the farming populace. Our assumption is that credit is important for certain types of farmers at certain times due to the type of agriculture they pursue and that they go for different sources of credit for different reasons. The beneficial or adverse consequences are also presumably different in relation to the different farmer types. These consequences are crucial for

those types of farmers who are unable to generate enough surplus due to the relatively low level of capital and labour-intensity of the agriculture that is pursued by them or the low quality and the quantity of land. Low income and its seasonality entangle these particular cultivators in a process where they are dependent on credit even to maintain production at subsistence level.

Thus, some farmers can be identified as credit-dependent farmers. It is both interesting and necessary to probe into this phenomenon. Some farmers are dependent on formal sources of credit while others on informal sources of credit. Some of the farmers operate both in the informal financial market as well as in the formal financial market. The informal sources of credit are divided into two categories, i.e, Commercial and Non-Commercial, based on whether credit obtained should be settled with interest or without interest.

Sri Lanka has had a relatively long history of extending formal credit to paddy agriculture in particular through state intervention, in addition to providing for infrastructure. Yet attempts to provide formal credit on a long-term basis to the small farmer have not been successful.

This is because of delinquency or defaulting, which is another dimension of the credit problem in the formal sector. It has been said that as defaults increase, the amount of loans advanced by the banks to the rural economy decreases which in turn would retard the development process in the rural sector (Ministry of Finance of Planning, 1984). According to a contrary point of view, it is an oversimplification if not a misconception to describe the problem of agricultural credit as a problem of lack of recovery (Gilletee and Uphoff, 1973). Even a one hundred percent recovery rate by lending institutions does not always demonstrate success. 'Success' should be defined in terms of development:increasing productivity and social wealth accompanied by positive attitudes. Nevertheless, it must be recognized that the high incidence of default is a problem.

The reasons for defaulting have been well documented (Central Bank, 1973: 23; Khan & Gunadasa 1974: 30; Ganewatte, 1974: 14: Sanderathna, 1977: 2;

Gunawardana, 1981: 4-5; Carr & Wanasinghe, 1982: 39-42; Siripala de Silva, 1982: 34-38). They include crop failures, defects in the agrarian structure seasonality of income, attitudes not conductive to repayment of loans, defects in the institutional set-up and procedures, and a host of other reasons.

The defects in the agrarian structure include a variety of tenurial arrangements. It is said that due to the existence of tenancy, many farmers default in the repayment of bank loans. But, it has also been shown that, although tenancy is prevalent more among the defaulters, tenancy by itself cannot be considered as a constraint to loan repayment given that the occurrence of tenancy among the non-defaulters was also considerable (Wanasinghe and Carr, 1982: 58). In another study by the People's Bank conducted in Polonnaruwa district, which is a major rice producing area and a good performance area as far as loan recoveries are concerned, it was found that even where incomes and assets are identical, there were variations in defaulting (Silva, 1982: 36).

Since the reasons for defaulting have been documented and the implications of land tenure for agricultural credit have been already studied, the present study does not intend to give a repetition. It attempts to understand the phenomenon of credit performance in terms of farmer types which are defined in terms of the type of agriculture pursued by them within the sector of small-scale paddy production. Size of operational holding is taken as a key variable determining the intensity of capital and labour employed. Accordingly, the variations within the Gal Oya farming community are identified and the analysis is based on four such different farmer types, i.e. the 'micro farmer' operating less than one acre of paddy, the 'small farmer' operating more than one acre but less than three acres, the 'middle farmer' operating three to five acres and the 'big farmer' operating more than five acres.

1.2 Objectives

(i) To identify different sources of credit and their consequences on different farmer types in addition to investigating the reasons

for the use of particular sources of credit by farmers.

(ii) To explore the implications that the type of agricultural operation may have upon the credit performance of the farmer.

(iii) To ascertain the relationship between farmer type and the formal and informal credit sectors, and to seek ways of improving such connections with a view to contributing to the development of the food producing sector.

(iv) To compare situations where formal credit institutions have been successful in expanding small farmer credit and to study farmer perception towards such schemes.

1.3 Research Procedure

The research procedure adopted involved the following:

i) Review of literature
ii) Household survey
iii) Interviewing officials of the formal credit institutions
iv) Interviewing non-formal credit sources
v) Participant observation

The sampling procedure adopted for the survey was based on the simple random sampling technique using random tables. The first stage of sampling in the Ampara District concerned itself with the selection of colony units. For this purpose, the original list of colony units in Gal Oya Left Bank numbering forty which is maintained by the Kachcheri, was up-dated by including the subsequently regularised hamlets numbering fourteen (14). From the total size of the sample population which stood at fifty four (54) villages or colony units, a sample of fifteen percent was drawn. The assistance of the knowledgeable officials in the Kachcheri of Ampara was sought in this connection. The second stage of sampling was the selection of households from the randomly-selected villages for the detailed survey. For this survey, a sample of twenty percent of the households from each of these units or villages were selected using random tables. A sample of

this nature and size was considered to be of sufficient magnitude to cover the second and third generations and the different farmer types which were mentioned earlier.

The decision to have a larger size sample (20%) was also prompted by considerations on the possibilities of subsequent drop-outs and deletions for deliberate under-reporting due to for instance, the incidence of informal tenancy arrangements and sub-division of land among the members of the second and third generations.

The following table gives an idea of the sample villages and their proportional distribution.

Table 1.

Details of the Sample Selected for the Credit Study of Gal Oya Left Bank, 1984/85 Maha Season.

Colony Village unit number	Name of Colony	Total number of Farm Households	Sample Size
19	Tissapura	209	42
31	Gonagolla	138	33
03	Vijayapura	165	35
LBC 11	Himidurawa	228	45
KC	Kotmale	105	22
20	Kumarigama	206	41
24	Udagirigama	172	34
30	Mayadunna	292	58

Due to security reasons the Tamil colony units were deleted from the sample.

Fieldwork was conducted from December 1984 through May 1985 in Gal Oya Left Bank. Each respondent was visited at least four times during this

period for collecting information relevant to the study.

1.5 Organization of Report

The organization of this report is as follows: What follows is basically an analysis of the processes and mechanisms of financing paddy farms in the irrigated settlement of Gal Oya. As spelled out in the preceeding sections, the main thrust of this report is on the aspect of financing the small farm. Specially, the different types of farmers in the farming populace in the irrigated settlement of Gal Oya, and the different mechanics of financing sought by the different farmer types, are identified in addition to examining their workings and consequences. Chapter Two is an overview based on the review of literature of farm credit at national level. It deals with trends in credit, savings, defaults, production and productivity. The intention of this chapter is to provide the context for the analysis that follows thus going from the general to the specific. Chapter Three is on paddy agriculture in the planned settlement of Gal Oya Irrigated Settlement Scheme. It deals with the processes at work relating to the production of paddy in the specific situation of Gal Oya. Chapter Four deals with the way in which rural financial markets operate in Gal Oya and the consequences it has upon different types of farmers. Chapter Five brings out the conclusions and recommendations. Though the conclusions arrived at from one study done at one point of time at one particular place naturally suffer from limitations on wider applicability, it is hoped that at least some of the recommendations have wider implications.

One of the objectives of the present study, namely the one which relates to the provision of institutional credit to small farmers elsewhere in Sri Lanka, is not addressed to in this report. It will be the subject of a separate report which includes data from the Matara district where reportedly successful and innovative credit schemes have been in operation for a number of cultivation seasons.

Chapter Two

NATIONAL SITUATION

This Chapter describes and analyses the general situation related to the credit question concerning paddy agriculture in Sri Lanka. It deals with such aspects as the small scale nature of paddy cultivation, trends in paddy production, productivity, profitability, adoption of new technology, provision and recovery of credit, savings and socio-economic status of the farming population.

2.1 The Small Scale Nature of Paddy Cultivation

It may be relevant to consider the national situation of the distribution of paddy holdings as it is related to the question of the viability of small holder paddy agriculture on the one hand and the credit question on the other. When there are too many tiny holdings characterised by low yields, it may not be worthwhile from a commercial bank's point of view, to give priority to extend credit for paddy agriculture, for the high transaction cost involved as well as the risks and uncertainties associated with the type of agriculture pursued. When agriculture is characterised by low yields, it does not lend itself to the inflow of capital. On the other hand, it raises the problem as to who would be willing to invest in this sector of tiny holdings.

According to the Agricultural Census data, the average size of a paddy holding has declined from two acres in 1962 to 1.7 acres in 1982. The average size of holding per operator is about two acres, well below what was seen in the census of 1952, which was 2.5 acres.

Table 2 shows the distribution of paddy holdings by size. The decreasing of the average size of paddy holdings may have been preceded by progressive sub-division and fragmentation of paddy lands intensified by the incidence of share tenancy and the joint ownership.

TABLE 2 DISTRIBUTION OF PADDY HOLDINGS BY SIZE

Size Class	Number of Holdings	%	Area	%
Less than 1/2	140,687	19.1	350,70	2.8
1/2 - 1	179,069	24.4	107,351	8.8
1 - 2	174,555	23.8	210,267	17.3
2 - 3	114,325	15.6	250,760	20.7
3 - 5	84,116	11.5	278,865	22.9
5 - 10	257,695	4.4	193,229	15.9
10 and over	8,878	1.2	137,364	11.3
TOTAL :	734,505	100.0	1,212,906	100.0

Source: Adapted from the Department of Census and Statistics, Census of Agriculture, 1982, Colombo, 1984.

The small scale nature of paddy farms is clearly illustrated in the distribution of holdings. It can be seen from the above Table that 44% of the paddy holdings are below one acre accounting for 12% of the area. This has occurred despite the opening up of new land settlement schemes under which each settler gets two acres of paddy land. As one writer puts it, "holdings of 1/500th of an acre is not unknown in Ceylon" (Tilakerathna, 1963: 38). About 39% of the holdings are between one to three acres covering nearly 38% of the area. A little over 67% of the holdings are below 2 acres and they account for 30% of the area. It is significant to note that the bulk of the paddy holdings, ie. almost 50%, and the area, i.e. about 61% are concentrated within the size class of one to five acres. Only 5.6% of the holdings are above five acres although in terms of the area their share is 27.6%.

The continued sub-division and fragmentation of land is a phenomenon which seems a natural consequence of the lack of non-farm employment opportunities on the one hand and the perpetuation of the social value of land as a symbol of wealth and status in the agrarian society of Sri Lanka where the numerically most preponderent populace come from the highest caste of Govigama or the cultivator caste. The social practices concerning equal

rights to inheritance of parental property for all siblings continue to prevail. Further, with the contemporary practice of cultivating for the market, a new dimension, capital-value, has also come to be attached to land. As a result of all these processes, today there is a fairly widespread incidence of complex forms of land tenure including Thattumaru-Kattimaru systems of land tenure or rotational tenure (Moore and Wickramasinghe, 1978) and Ande systems or systems of share cropping, the actual extents of which are not exactly known. The Agrarian Services Department which is charged with the implementation of the Paddy Lands Legislations has however published the following data, while the 1982 Agricultural Census revealed that 33% of the paddy operators cultivate land belonging to others.

TABLE 3 TENURE OF PADDY LANDS

Form of Tenure	Extent	%
Share-croppers	368,511	28.2
Owner-cultivators	840,838	64.4
Owners cum share croppers	82,994	6.4
Others	13,021	1.0
Total :	1,305,364	100.0

Source: Weerawardena, I.K., (1977) Land Tenure Data, Department of Agrarian Services.

The small scale nature of paddy cultivation and the other complexities in terms of tenure relations have consequences for agricultural planning, credit, extension, marketing etc. It implies that agricultural development strategies have to go hand in hand with those of rural development. Such a process would produce conditions for a considerable section of the labour force to move out of agriculture to non-agricultural enterprises on the one hand and make available different packages of agricultural development for different types of farmers rather than expecting every farmer to adopt the same package which yields what may be called over-adoption.

2.2 Trends in Paddy Production and Productivity

Achievement of self-sufficiency in paddy has been adopted as a goal by all successive governments of Sri Lanka since political independence. As the Table 7 indicates total paddy output has increased from about 67 million bushels in 1970/71 to about 116 million bushels in 1983/84. Similarly, the average yield per acre has also increased from 46 bushels in 1970/71 to 70 bushels in 1982/83. According to the available data, the district averages have also generally shown upward trend in respect of output.

The extent under High Yielding Varieties has increased from 1.2 million acres in 1970/71 to 2.2 million acres in 1983/84. This constitutes about 90% of the areas cultivated with paddy.

Cropping intensity, defined as sown area as a percentage of asweddumized area, however, has remained relatively stagnant. It has changed from 120.4 percent in 1951/52 to 122.9 percent in 1981/82 while in the case of irrigated settlements this has rarely exceeded 140 percent (Wickramasekere, 1984).

Extent under paddy cultivation increased from about 1.8 million acres in 1970/71 to 2.4 million acres in 1983/84, which is reflective of the Government policy of opening up of new land settlement schemes provided with irrigation. The unit of land holding alienated as at present is 2.5 acres of which 0.5 acres is allotted for homestead. It is reasonable to assume therefore that the physical expansion of paddy production base should be more evident in the size classes of two to three acres and one to two acres, having made allowances for fragmentation and sub-division of holdings. In fact, as the Department of Census and Statistics points out, the number of holdings in the size groups of one to two acres and two to three acres, has increased by 25 percent and 31 percent respectively during the period between 1973 and 1982. The area in these holdings has also been increased by 25 percent and 29 percent respectively.

However, the important point to remember is that output growth has resulted from both the expansion of physical area and the yield increase.

Apart from the adoption of high yielding varieties, other dimensions of new technology, such as the use of chemical fertilizer, weedicides and pesticides in addition to tractor power, transplanting, greater attention on water management have also been progressing along contributing to the increasing production and productivity.

Mechanization of land preparation and threshing in particular has progressed rapidly and there is evidence of a power surplus in terms of tillage capabilities of the available stock of draught power, according a study carried out by the Agrarian Research and Training Institute (Farrington & Abeyratne, 1980, 1982). The extent ploughed by tractor was only 0.8% in 1946 and this has increased to 57% by 1983 (ILO/ARTEP, 1986). An estimated 10-15 mandays per acre is lost due to mechanization.

Another ARTI study has revealed that while hand-weeding has declined, weeding by chemical means has been increasing. Traditional systems of labour mobilization have also been weakened, further reducing the rate of labour absorption in paddy agriculture (ARTI, 1984 and 1986).

Rate of transplanting has increased, although it has been moderately low (less than 30%). Given the context of small holdings, the rate of transplanting can be described as low. (ILO-ARTEP, 1986).

Thus, the national level statistics indicate a rosy picture in relation to agricultural modernization. Both the volume of production and yields have increased and the modernization of paddy agriculture seems to be well underway. All this has been taking place in the context of small holdings which continues to be subject to the processes of sub-division, fragmentation and various forms of tenure, some of which are complex, which in turn indicate the dynamics of the social relations that occur in the process of paddy production in the specific context of Sri Lanka.

2.3 Profitability in Paddy Farming and Rural Poverty

Growth in output and yield coupled with the modernization of paddy agriculture needs a re-examination in terms of economic returns to the paddy producers as opposed to the cost incurred in the process of production

of paddy, since it leads us to identify the contribution that credit could possibly make to the process of paddy farming. It will also help assess the viability of paddy farming.

First, it is necessary to identify trends relating to the producer income. The guaranteed price for a bushel of paddy which stood at Rs.12/- in 1971 increased upto Rs.70/- in 1985, while the open market price per bushel of paddy increased from Rs.53/- in 1971 to Rs.79/- in 1985. Thus, it appears that the higher volume of production and higher prices fetched in the market have resulted in increasing the income of the paddy producer.

However, the cost of production as well as of living has considerably increased. In Polonnaruwa district, which is one of the well performed areas in terms of achieving a high volume of production and high rates of crop loans recovery and where a farm family has three acres of paddy lands on the average, the total cost of production per acre increased from Rs.1970/- in 1978/79 Maha (Ministry of Agricultural Development and Research, 1981)to Rs. 4430/- in 1984/85 Maha (Agriculture Department, 1985).

In 1984/85 Maha, the average yield per acre of paddy in Polonnaruwa was 87.32 bushels and the selling price of a bushel of paddy was Rs.80.11. The net return from an acre of paddy was as low as Rs.825/- per season. The following data taken from a publication by the Department of Agriculture (1985) illustrates this incidence.

TABLE 4 COST AND RETURNS IN PADDY FARMING, POLONNARUWA

Average income	- Rs. 5254.82
Average total cost	- Rs. 4430.32
Profit	- Rs. 824.49

Even if it is made Rs.1000/- and assumed that every farmer has three acres, his seasonal income from the three acre paddy holding would be only Rs.3000/-. If a season is taken as four months, his montly income would be Rs. 750/-, but since only two crops a year is cultivated, on the assumption that the identical situation prevails in Yala as well, his

general monthly income for the year would be only Rs. 500/-, if he is dependent solely on paddy cultivation. This is well below the official poverty line, which is Rs.700/- a month. If the farmers have larger families than the average family size of six persons, which the farmers generally have, their condition can be described as serious, even for the district which gives the highest average yield. The implication is that generally the farmers live below the official poverty line, if they are totally dependent on paddy farming.

In fact, these observations on the general context of poverty in the countryside are supported by other survey findings. The following Table gives the details.

TABLE 5 PERCENTAGE OF TOTAL INCOME RECEIVED BY EACH 20% RANKED INCOME RECEIVERS IN THE RURAL SECTOR

Ranked Income Receivers	1973	1978/79	1981/82
Lowest 20%	5.4	3.5	3.7
Second 20%	11.6	3.6	8.8
Third 20%	17.0	14.1	13.5
Fourth 20%	23.4	20.8	19.9
Highest 20%	42.7	53.0	54.1

Source: Central Bank of Sri Lanka, Consumer Finance Surveys, 1973 and 1981/82.

These data suggest that the income disparities in the rural sector, where the farmers live, have worsened in 1978/79 and 1981/82 as compared with 1973. It can be noted that the top 20 percent of ranked income receivers, earn an income which is fifteen times greater than what the lowest 20 percent receives.

Labour Force and Socio-Economic Survey of 1980/81 conducted by the Department of Census and Statistics in association with the Ministry of Plan Implementation, in their report on household income and expenditure has shown that the mediun income of a rural household is only Rs.600/- which is Rs. 81/- less than that of the estate sector.

When dealing with the credit problem in paddy agriculture, it is very important to bear in mind, therefore, that the general context within which the farmers are located is one which is characterised by general poverty. It does not need any reiteration that in the open market, price of locally produced rice has been rather stabilized over the past several years at a moderate level amounting to about Rs. 8/- a kilo, which is affordable to the great majority of the consumers. From time to time rice is imported when local prices of rice are high. In this context, one could argue that the farmers may have been subsidising the consumers. However, in the general context of poverty, resource flow may not be allowed to be determined by the price mechanism for its harmful consequences on social stability.

2.4 Savings and Credit

One of the natural consequences of low incomes is manifested in the incidence of low rate of savings. In fact, the Consumer Finances and Socio-Economic Survey of 1981/82 did reveal that the low income groups earning less than Rs.2000/- a month display a dissavings tendency (Central Bank, 1984: 273). Savings are an important source for raising funds necessary for extending credit facilities. The capital intensive strategies of development require a progressively large investment per unit and this can be sustained only if the economy is successfully mobilising a larger volume of savings. The lack of savings make it necessary for the external agencies to intervene in the form of pumping in necessary funds. But as a recent study has pointed out foreign assistance for capital formation may not be so readily forthcoming in view of changes in attitudes and policies of donor governments and also of economic difficulties experienced by them (Silva, 1984). Therefore, the importance of domestic savings must be stressed.

TABLE 6 DOMESTIC SAVINGS AS PERCENT OF GROSS DOMESTIC PRODUCT OF SRI LANKA

Year	Domestic Savings (Rs.Ml.)	Domestic Savings as % of GDP.
1977	6591	18.1
1978	6517	15.3
1979	7218	13.8
1980	7443	11.2
1981	9944	11.7
1982	11519	11.5
1983	17698	14.5
1984	31476	20.8

Source: Central Bank Annual Reports.

However, domestic savings, defined as the sum of investments less external resources, when taken as a percentage of Gross Domestic Product, have declined from 18.1 in 1977 to 11.5 in 1982 although in sbsolute terms it has increased from Rs.6.591 million to Rs.11,519 million during the reference period. The absolute figures however include inflationary effects experienced during the period. It must be noted from the above Table that the savings have increased in the subsequent years. However, later the Central Bank has redefined expenditure on consumer durables to be treated as savings. Therefore, these figures will have to be treated with caution.

The other important dimension regarding savings is the question whether the savings are re-invested in paddy agriculture or whether they are extractedto the urban centre. This is all the more important in the light of the fact that the state has been making all the capital and recurrent expenditure in regard to infrastructural development, roads, communication, irrigation, housing etc. In fact, it has been shown that savings from the rural sector are not being fed back to the rural sector but channelled elsewhere (People's Bank, 1983:10).

2.5 Institutional Changes

The contemporary history of institutional credit for the domestic sector of Sri Lanka dates back to 1906 when the first Co-operative Credit Society was established in Dumbara in the Central Province. This was followed by another important step of the colonial government, namely, the appointment of an Agricultural Banking Committee in 1909, which highlighted the gravity of the problem of rural indebtedness in the peasant sector of the economy. The committee advocated the establishment of Co-operative Credit Societies, which would enable the small farmer to borrow at a reasonable rate of interest for his agricultural needs while offering him an inducement to invest money in his lands, in manure, and in providing agricultural machinery etc., all of which could bring the farmer a return higher than what was commensurate with the expenditure he had incurred. Consequently, the Co-operative Societies Ordinance was enacted in 1911 and this is considered the beginning of organized credit for small farmers in the traditional sector of the economy (People's Bank, 1983:3). The Banking Commission of 1934 however observed that the Co-operative Credit System catered only to a small strata of the rural society, ie. the land owning class, while the peasants at large suffered from indebtedness.

Direct government intervention in this sphere of activity dates back to 1927 with the appointment of the Land Commission in pursuit of the new land policy, ie. the creation of a multitude of prosperous peasant proprietors (Land Commission, 1958: 118). Granting loans from a state-aided bank was seen as one of the foremost means to achieve this end. The earliest settlers of the colonies at Nachchaduwa and Tabbowa created before the Land Development Ordinance, No.19 of 1935, for example, were granted financial assistance in the form of loans. The Government's intention was to free the peasant from the clutches of the money lender by making available to him loans at low interests enabling him to market the produce and fetch the best possible price in the open market. Another intention was to eliminate inheritance of real property in undivided shares. Implicit in this policy and the programme was the understanding that the peasantry lacked capital and that the system of the transmission of property in undivided shares was inimical to the establishment of peasant proprietorship. However, the failure of these colonies themselves resulted in the failure

of this system of credit. Subsequently, after the promulgation of the Land Development Ordinance in 1935 when major colonisation schemes were commenced, the state undertook not only the financing of infrastructure development but also items of work on individual allotments. A subsistence allowance, until the first crop came in, was also paid. All these were outright grants. Since all expenses and investments relating to land development and production were met by the state in this manner, the necessity for agricultural credit did not arise, according to the policy of the state.

This generous policy could not be continued for it proved to be very expensive as the volume of land development on this basis increased annually and numerous other problems arose on account of the limited availability of capital. Therefore, revisions were made from time to time.

At the time of Independence in 1947, agricultural credit was granted through cooperatives and there were certain restrictions on the purposes for which credit was given. The government offered credit facilities to the cooperatives. Agricultural credit which was originally a function of the Land Commissioner, was given over to the Department of Food in 1951 and became the responsibility of the Department of Agrarian Services since 1957. In 1958 with the enactment of the Paddy Lands Act, a new Institution called the Cultivation Committee was set up primarily for the organisation and the management of paddy cultivation, which had a responsibility in the sphere of agricultural credit. Between the two institutions, ie. the Co-operatives and the Cultivation Committee, there was an overlapping of functions to some degree. The cooperatives eventually fell below expectations with both the farmer members and the banks with the cooperatives failing to repay their loans.

Then a decision was made to transfer the responsibility of agricultural credit to the commercial banking system. As a result of this step, the People's Bank was established in 1961. However, actual transfer only took place in 1967 when the People's Bank commenced its lending operations through its network of branches. The People's Bank in a very short period of its operation realized the high cost of extending banking and

agricultural credit to remote rural areas where there were a large number of small farmers and a very limited volume of banking business. The People's Bank therefore introduced and sponsored the extended credit scheme and continued to work through the multi-purpose cooperative network. A specialized institution called the Co-operative Rural Bank was set up in 1964 in selected cooperative societies to cater to the overall financial needs of the rural sector as the extended credit scheme did not perform in the manner it was expected. Then in 1967 the Government introduced a Refinance Scheme whereby it undertook to advance money to be used for issuing agricultural loans. The commercial banks were expected to pay back the amounts thus advanced by the Central Bank within a specified period of time irrespective of the amounts of loans recovered from the farmers. Upto this date the Central Bank under the Refinance Scheme lends at 1½% to the Commercial Banks who are allowed a margin of 7½%. In 1972, with the reorganization of the Multi-Purpose Co-operative Societies there was a rapid expansion of Rural Banks some of which were later converted to special branches. In the following year, a more effective scheme called the Comprehensive Rural Credit Scheme was introduced. There are several features of the Comprehensive Credit Scheme. Under this Scheme the Department of Agriculture, the Co-operative Department, the Marketing Department and the Department of Agrarian Services were provided with inter-linkages for the common goal of agricultural development. According to the procedures of the scheme, the first step was pre-sanction inspection by the bank officials to establish or verify that the farmer had land, the extent of land, its suitability for cultivation of the crop proposed and that he was not a defaulter in respect of loans granted previously. Secondly, the banks were expected to advance loans in accordance with the crop-wise scale of finance laid down by the Ministry of Agricultural Development and Research and the Central Bank of Sri Lanka together. Thirdly, credit guarantees and collaterals were also less demanding while loans were given for production and consumption as well. Fourthly, any person who operated paddy lands, irrespective of the scale and tenure, was entitled for an agro-identity card and is eligible to receive institutional loans on furnishing this card. Conceived as they were the procedures seemed to be fine, when viewed from the point of view of the commercial banks. Yet, as the Central Bank reports even the adoption of stricter criteria by the

banks to give credit to the most eligible farmers also did not result in any significant improvement in the recovery of loans (Central Bank, 1980:27).

This scheme however was never fully implemented. It nevertheless brought another state Commercial Bank, namely, the Bank of Ceylon, into the rural credit scheme, and even today the crop loans are issued under the Comprehensive Rural Credit Scheme. At present, in addition to the three state banks, ie. the People's Bank, the Bank of Ceylon, the Hatton National Bank, two other foreign banks, ie. the State Bank of India and the Indian Overseas Bank have been invited in Sri Lanka to play a role in agricultural credit owing to their expertise in this sphere of activity in India. The Central Bank of Sri Lanka has also been decentralized and Regional Rural Development Banks have also been set up as a new institutional mechanism with a view to training bank officials in what is called 'Development Banking'. Loan defaulters have also been made eligible to receive further loans under the previous loans rescheduling scheme.

It is relevant now to examine whether banking facilities are available adequately in the rural sector and whether the formal credit institutions have been able to cover the rural population adequately. A recent study has noted that in the rural areas, the number of commercial banks increased from 122 in 1970 to 475 in 1982 making an average annual increase of 12% while the rural banks managed by multi-purpose cooperative societies increased from 90 in 1970 to 804 in 1982 representing an average annual increase of 20 percent. According to this study, the population density per bank branch in rural areas in 1982 was 8567 (Silva, 1984). It must be remembered however that the incidence of increase in the number of bank branches was a result of policy decisions by the government and not a spontaneous move by the commercial banks themselves in response to any upsurge in the rural economic activities. One must also see if the banks' activities reflect an interest in agro-economic activities after setting up of these institutions, as it is more important than the number of banks. The population density per bank branch in rural areas remains much less than in the Colombo City, where there are 1000 persons per branch when banks and finance companies are taken together. The increase in the number of financial institutions in the city in contrast to the rural areas is more in response

to growing economic activities in the cities. Thus, it is clear that the low level of agricultural credit performance by the institutions cannot be totally attributed to lack of institutions.

Yet, the fact remains that the commercial banks give low priority to agricultural credit which is a gross disproportion considering that nearly 80 percent of the population of Sri Lanka live in rural areas and that Sri Lanka's non-export agriculture contributes 20% of the GDP. In fact, agriculture accounts for only 12% of the total national credit portfolio and of the total portfolio of the banking system, it is well below 1% (Ministry of Finance and Planning, 1984:7). The entire banking sector advanced loans to about 16,000 borrowers for paddy cultivation in Maha 1980/81, while the number of operational holdings of paddy was nearly 650,000 (Rasaputram, 1982:14). As Table 4 indicates, the agricultural credit schemes have accounted for only 0.4% of the loans, which means that only a minority of the peasants are served by the formal credit institutions.

Commercial banks with trained personnel in banking and financial management would not have rural development orientation, though they have branches in the rural areas and have excess liquidity problems at the centre. It may not be reasonable to expect the commercial bank employee whose career development depends not on the promotion of small holder agriculture and the rural development but on other criteria, to be geared to providing agricultural credit. Participation in Government sponsored credit schemes for commercial banks is costly because reporting requirements, targetting, supervision etc. make administrative costs higher than when they lend their own money. On the other hand, the banks have to lend at low interest rates specified by the government. Other projects sponsored by donor agencies, ie. tractor loans, also require the banks to offer relatively low rates of interest even on such capital investments thus re-orienting the commercial banks from the farmers to the government and other donor agencies.

Furthermore, in those family farms where outputs are small by any standard and where all capital developments are undertaken by its labour,

they are not pure economic concerns that provide justification for the continuation of these apparently economic systems. A recent study conducted in the wet zone where small holder paddy cultivation is prevalent, it was found that all kinds of concerns were centred around the small paddy farm. (Moore and Wickramasinghe, 1980). In such situations the 'credit needs' recognized by the bank and those recognized by the participants in the family farm are at divergence. It becomes difficult to separate economic interests from others and as a result 'production credit' in the economic sense of the term loses much of its meaning.

When agricultural credit is strictly defined by the banks to certain specific production activities therefore, the demand for such credit from this type of farms would be adversely affected. It has been shown that this factor in combination with several others, particularly, the procedural requirements of security and collateral, has the effect of turning the small farmer away from the bank on the one hand and developing attitudes undesirable for a healthy relationship between the banker and the small farmer in respect of credit (Wanasinghe, 1980). It could also be stated that where agriculture is not fully commercialized and complex social relationships are involved in credit transactions, it is doubtful, whether the commercial banks could operate effectively in the production process of small farms and eventually replace the socially institutionalized informal financial arrangements.

In the light of the above observations, a case could be advanced for the establishment of a specialized institution to provide credit for agriculture and rural development rather than requiring the commercial banks to play this role in the presently prevailing specific situation of Sri Lanka. It also underlies the importance of the differences that exist in the paddy farming situations which suggest the impracticability of translating one universal credit policy conceived at the centre into implementation countrywide.

2.6 Contribution of Institutional Credit

It could be observed from the preceding section that the government policy has resulted in the intensification of the delivery system and the refinement

of procedures. It is therefore relevant to examine whether there has been a discernible impact on the productivity front as a consequence of this process.

TABLE 7 IMPACT OF INSTITUTIONAL CREDIT ON THE PADDY SECTOR OF SRI LANKA

1	2	3	4	5	6	7
Cultivation Year	Total extent under paddy '000 (Acres)	Extent under HYV '000 (Acres)	Agric. credit per acre of cultivated paddy (current value)	Total output '000 (Acres)	Average Yield Bu./Ac.	Fertilizer Use Kg./Acre.
70/71	1794	1205	16.33	66895	45.90	48.23
71/72	1795	1252	N.A.*	62901	46.86	45.56
72/73	1792	N.A	N.A.*	62900	44.58	54.88
73/74	2038	N.A.	N.A.*	76794	45.87	60.15
74/75	1719	1285	N.A.*	55315	44.09	25.46
75/76	1789	1381	41.52	60034	44.97	41.17
76/77	2046	1710	48.48	80424	48.94	39.71
77/78	2162	1750	207.20	90517	50.76	52.39
78/79	2072	1649	35.69	91106	53.46	N.A.*
79/80	2087	1740	28.73	101603	56.91	271.37
80/81	2165	1977	44.75	106217	58.12	166.91
81/82	2086	2048	58.27	103270	63.30	N.A.*
82/83	2036	2105	75.14	118871	69.85	N.A.*
83/84	2447	2241	71.94	115609	59.48	N.A.*

Notes:
N.A* = Not Available.

Statistics in columns 2, 5 are taken from the Dept. of Census and Statistics, while those in columns 3 and 4 are from the Dept. of Agriculture and the Central Bank of Sri Lanka, respectively. Average yield in column 6 is calculated. Data in column 7 are adapted from those given in the Administrative Reports of the Commissioner of Agrarian Services and the Department of Census and Statistics.

It is discernible from the above Table that the total output as well as the average yield and the adoption of high yielding varieties have indicated an upward trend and this trend does not correspond to the amounts of agricultural credit disbursed. It is ironical to note that production increases have occurred along with a decline in the volume of agricultural credit disbursed through government institutions. Fertilizer use also does not seem to have been affected by the variations in the amounts of agricultural credit disbursed.

The question of finding a correlation between credit and production on the one hand and credit and productivity on the other becomes a little complicated in the Sri Lanka case as there has been an increase in the area under cultivation. In any case, one is kept from making a direct link between credit and productivity due to fungibility, or interchangeability (one unit of money is just like any other unit of money whether it is borrowed or owned) which makes it difficult to control the use of the additional liquidity provided by a loan. A borrower could substitute borrowed funds for owned funds already committed to the activity or divert the borrowed funds to some other activity not intended by the financial intermediary. In the case of family farms, wherein economic and non-economic factors are entwined it is very difficult to distinguish production credit needs in the economic sense of the term. It must be stated here that a farmer would take a loan and use it for the intended purpose only if he perceives the existence of a potential for the increase of farm income which is desirable to him and if the realization of this potential requires capital in excess of the financial resources he has within the family. Therefore, one could point out that even if credit is completely withdrawn, farmers would still cultivate. It is very difficult to establish the particular relationship on account of the incidence of informal credit on which reliable data are not available.

2.7 Formal and Informal Credit

The trend which was described above depicting a decline of the amounts of credit disbursed through institutions in the face of increasing production and yield may be used to substantiate the argument that institutional credit could only be a minor factor, if at all, in the overall increase.

Then the argument that credit has not been supplied in adequate quantities loses much of its effect. This however, does not mean that credit as such is not important at all. It only serves to reinforce the importance of identification of the types of agriculture prevalent in various different parts of the island which requires transformation, a process which could be supported by various forms of credit facilities. For example, there is a great potential for increasing productivity from a given unit of land as shown by the fact that the current average yield of new high yielding varieties remains at 2 tonnes per hectare whereas the potential yield of new high yielding varieties is 4.6 tonnes per hectare. With the prospects of new land to be brought under cultivation coming to an end, now the productivity consideration will assume greater significance, thus prompting a policy shift from physical expansion to intensive forms of farming and thereby transforming Sri Lanka domestic agriculture into a more developed form. At a more localized level, there is a case for the introduction of different packages for different farm types such as popularisation of varieties among the small farmers which give low but stable yields and which involve less cash inputs.

However, it appears then that the farmers may have resorted to other sources or types of loans to finance their farming activities. Even as far back as a decade ago, the majority of the farmers have entered certain production relations which provided at least part of the inputs necessary.

TABLE 8 OCCUPATION OF LANDLORDS: PERCENTAGE TO TOTAL NUMBER

District	White collar professionals	Traders	Landowners	Priests	Farmers	Others
Hambantota	26	11	22	13	13	15
Kandy	11	8	21	14	22	14
Colombo	26	11	19	4	12	28

Source: Agrarian Research and Training Institute, (1975), The Agrarian Situation Relating to Paddy Cultivation in Five Selected Districts of Sri Lanka: Comparative Analysis, Colombo.

The fact that a significant number of non-agriculturalists have entered paddy agriculture this way could be interpreted as a result of a new dimension, the capital value, that came to be attached to land. Though in one sense paddy agriculture is a part time activity given the technicalities of production, it is still relevant to note the point that part of the income derived by paddy operators from other sources may be expended on paddy agriculture while the landlords may also share the cost of production with the tenant cultivators in certain situations. In the case of family farms in particular, expenses connected with paddy production are not necessarily justified on economic grounds alone.

Informal lending is thus a very important source of credit in the rural financial market. According to reports on Consumer Finance and Socio-Economic Survey of 1978/79, done by the Central Bank, informal sources accounted for 79 percent of the loans in the rural sector. The same survey done in 1981/82 indicates a figure of 60%, showing a declining trend in its relative importance. However, 60% is still a high figure. The following Table gives the details.

TABLE 9 AMOUNTS OF LOANS TAKEN ACCORDING TO SOURCES OF LOANS IN SRI LANKA

Source	Percentage	
	1978/79	1981/82
Agricultural Credit Schemes	0.7	0.4
Rural Banks	3.5	65.1
Other Banks	16.0	33.1
Co-operatives	0.5	1.7
Money lenders	18.7	20.3
Friends and Relatives*	26.8	29.2
Others	33.8	10.2

Source: Consumer Finance and Socio-Economic Surveys of 1978/79 and 1981/82 Central Bank.

* In the 1981/82 survey, this category has been redefined as sources of credit without interest. The category "others" has remained but the redefinition might have resulted in some "friends and relatives" getting into the category of "others" and vice versa, thus making a comparison less meaningful.

Another feature relates to the pattern of borrowings of income groups. As the Consumer Finances and Socio-Economic Survey of 1981/82 indicates, the lower income groups rely heavily on informal sources for financial assistance while the banks increase in importance as income increases. For instance, the highest income group obtains approximately 94% of its loans from banks (Central Bank, 1984:298). Understandably the higher income groups satisfy the criteria laid down by commercial banks in connection with loans. It is small farmer credit which is problematic.

2.8 The Default Problem

The default problem has already been discussed to a certain degree in the preceding sections and the first chapter. Here statistics relating to the incidence of defaulting is presented to allow a rather unconventional interpretation.

TABLE 10 PADDY LOANS AND RECOVERIES

Year	Loans Granted ('000 Rs)	Loans Recovered ('000 Rs.)	% of Recoveries
1974	111057	60846	54.8
1975	85921	46995	54.7
1976	74544	47514	63.7
1977	102016	51980	51.0
1978	451952	129191	28.6
1979;	59643	50122	84.0
1980	60358	52775	87.4
1981	84920	71892	84.7
1982	1011520	83877	8.3
1983	148714	118047	79.4
1984	172391	115015	66.8

Source: Central Bank of Sri Lanka, Agricultural Statistics, Vol. III, December 1985.

Notes : The statistics contained in this Table refer to the loans granted under the Comprehensive Rural Credit Scheme by the People's Bank, Bank of Ceylon and the Hatton National Bank. The year 1982 experienced adverse weather conditions.

As shown by the above Table, there has been some variations in the repayment of loans. This has taken place in the general context of increasing output and yield (refer Table 7). However, the default rate has not been all that bad, considering the vagaries of weather and lack of irrigation in certain areas and the low prices of paddy. In most years, the recovery rate has been above 55% of the loans disbursed, while in the years after 1980, it has improved considerably. Even if this is much lower than what it actually has been, in the context of low prices not commensurate with the rising cost of inputs paid to the paddy producer, it might be argued that the direct paddy producer has been cushioning the effects of inflation on the non-producers to some degree, thereby subsidizing them. Seen in this light, it is debatable whether loan defaulting by the paddy farmer could be considered a problem needing serious attention.

2.9 Experiments on Rural Credit

Various "pilot projects" that have been conducted and are being carried out at present in various parts of the island form another important dimension of the credit question for the valuable insights they have provided. The People's Bank, the Agrarian Research and Training Institute, Participatory Institute for Rural Development and numerous other Non-Governmental Organizations have been doing such "pilot projects". These small scale pilot projects launched on an experimental basis have been described as successful. While it may denote that the credit question may be best tackled at micro-level, there is still a need to synthesise these experiences on the one hand and explore how the 'institutions' which are controlled by formal bureaucratic procedures emanating from the centre could adapt themselves in the light of the insights gained from instances of successful pilot projects concerned with agricultural and rural credit.

Several trends are discernible from the above discussion and analysis. Firstly, the paddy agriculture has emerged as the most dynamic sector in the economy and its achievements, yield and output growth have been achieved in the context of small holder agriculture. Secondly, these achievements have not corresponded to amounts of agricultural credit disbursed through institutions, although many changes have been made with regard to procedures in addition to the intensification of the delivery mechanism. Yet, it is

not an indication of diminishing importance of agricultural credit for there are many other non-institutional sources of credit and there is a potential role for institutional credit. Thirdly, considering the domestic sector's contribution to the Gross Domestic Product and employment generation, institutional credit supports to the domestic agriculture represent a gross disproportion. Fourthly, Commercial Banks are not geared to support small holder agriculture while savings mobilization and giving agricultural credit at low interest rates remain problematic in the context of general poverty, low prices for agricultural products and other factors,suggesting a case for the establishment of a specialized agricultural development bank. Fifthly, although domestic agriculture has performed well in terms of growth in output and yield, the income inequalities in the rural sector have widened. Sixthly, it is doubtful whether the default problem could be considered as a serious problem particularly because of the relatively low price paid to the paddy producer.

One important implication is that attempts to extend agricultural credit are being made or have to be made in the context of general poverty. Even in the case of paddy cultivation which has performed remarkably well, the net returns have been less attractive, suggesting the importance of non-economic factors behind the continuation of this supposedly economic activity. There is great diversity for a small island like Sri Lanka so far as its agriculture is concerned and one agricultural credit policy for the island as a whole may not work and there is a need to tie up agricultural development strategies with those of rural development. Further, there is a need to synthesize the experience of agricultural credit experiments that are being conducted in various parts of the country.

CHAPTER 3

AGRICULTURE IN PLANNED SETTLEMENTS

This chapter gives a brief account of paddy farming in Gal Oya and the characteristics of the sample. It will present some of the tendencies which are important in Gal Oya paddy farming while bringing into question some of the generally accepted views and giving the conclusions.

3.1 Paddy Farming in Gal Oya Irrigated Settlement: An Overview

Paddy farming in Gal Oya is practised on its Left Bank, the Right Bank and the River Division. On the Right Bank about 10,000 acres are cultivated with sugar cane. An estimated extent of 17,500 acres of paddy is also cultivated adjacent to the sugar cane estate. Towards the tail end of the Left Bank, a system of dry farming is practised in the Yala season. In Maha this area is also cultivated with paddy. In a normal Maha season an estimated extent of 60,000 acres of the Left Bank is cultivated with paddy. In the River Division an estimated extent of 30,000 acres is cultivated with paddy each season. The River Division however outproduces the Left Bank since its productivity is higher. The cultivation of paddy on lowlands during the yala is possible only with irrigation while in Maha, irrigation is needed as a supplementary source of water.

The unit of lowland alienated under the Gal Oya resettlement scheme has been progressively decreasing over time from 4 acres of lowland at the beginning to 2 acres at present. This occurrence shows the impact of increasing population on limited land available. In the recent past, new villages have also been created and encroachments on reserved lands and drainage areas have been regularised. These new villages are settled with members of the second and the third generations of the original allottees of the Gal Oya scheme. The settlers here have smaller families. Some of these villages have what they call 'their own tank' which are actually fed by Senanayake Samudraya. Small tanks such as Navagiri, Himidurawa, Aligalge, Weeragoda are prominent among these. It must be mentioned that although Gal Oya is a planned settlement scheme based on irrigation and pre-determined equal sizes of holdings, it shares many socio-economic characteristics found elsewhere in the unplanned village settlements, i.e. tenancy, indebtedness, fragmentation and sub-division of land. Further, during the Maha season,

it is a rule rather than an exception that there is hardly any 'irrigation' for land preparation: there is no necessity for farmers to depend entirely on irrigation for all activities in cultivation during this particular period in the year. In the Maha season therefore, a greater extent is cultivated under paddy than in the Yala season as rain is available. Irrigation water is used when the need arises for supplementary water. The problems such as pest attacks, diseases, weeds etc., experienced here are also of varying magnitudes depending on the season of cultivation as in other parts of the country. Pest problems and diseases are said to be greater in the rainy season. Accordingly, the expenses incurred in the Maha cultivation are generally greater while the yields are also somewhat lower than what is gained in Yala.

3.3 The Sample Characteristics: The Distribution of Paddy Lands

Table 11

Percentage Distribution of Sample Households According to Operational Holdings of Paddy in Gal Oya Left Bank, 1984/85 Maha.

Size Class	Households	Extent
Less than one acre	18	6
1 to 3	57	47
3 to 5	18	24
More than five acres	7	24
All Classes	100	100

It is clear from the above table that nearly a half of the total operational areas in the sample is cultivated by nearly one fourth of the sample.i.e. the farmer population in the size class operating more than three acres. Although four acres of paddy land were originally alienated, it is more important to note that some of them have increased their operational holding with some of them operating upto five acres.

In fact, a small minority of 7% of the farm households belongs to the group operating even more than five acres and they account for 24% of the cultivated area. The majority of the farmers are in the category operating extents of one to two acres. This situation shows the predominantly small scale nature of paddy cultivation practised in Gal Oya. This fact becomes even clearer when the first two categories are taken together. They account for 75% of the sample households but cultivate 53% percent of the total extents operated. When tabulated to find the extent of operational holding under two acres, we found that 53% of the holdings were being cultivated by 28% of the sample households. It must be mentioned that in our original sample 7.6 percent or 26 out of 342 farmers did not have any operational paddy holdings at all. They had mortgaged or leased out their land and lost control over it. They were naturally excluded from the credit study because they did not cultivate paddy though they were included in the sample.

3.3 Sample Population: Activities

The 342 farm households had a total population of 2061 which made the average size of a family to be 6.0. This figure is higher than the national average of 5.3 persons for the rural sector according to the Census conducted by the Department of Census and Statistics. This perhaps indicates the need for labour in the context of paddy farming in Gal Oya. The percentage distribution of the total population of the sample according to the activities people are engaged in, is given in the following table.

Table 12

Percentage Distribution of Activities Pursued by Members of Farm Households in Gal Oya Left Bank, 1984/85 Maha

Activity	Percentage
Farming	23.5
Helping in family farms	0.5
Labourers	1.6
Public/Private Sector employees	2.6
Business	0.5
Self employment (excluding business)	0.6
Housewives	17.3
Students	31.9
Infants	8.3
Others (old and disabled)	3.0
Unemployed	3.6

As the Table indicates the majority of the people are dependent on agriculture, a fact which also reflects on the other hand, the limited opportunities for non-agricultural employment. Most of the labourers given as 1.6 percent of the population are agricultural labourers. Housewives, students, infants, old and disabled plus the unemployed constitute 62.5% of the population which perhaps indicates a high level of dependency.

3.4 Gal Oya Economy: Social Differentiation

It is important to note that there is a process of social differentiation in progress in the Gal Oya community which has permeated in the way in which production is organized. In paddy farming in Gal Oya, it was seen that while some people have become landless, some others have been able to enlarge their operational holdings. It is also relevant to recall

that some of the original allottees have illegally sold out their allottments and left the scheme at an early stage. The Gal Oya agricultural economy has many facets including of livestock farming (buffalo and cattle), paddy farming, sugar cane farming and highland cultivation done in some areas with water and in some other areas without water. Gal Oya society includes the purana villagers (from purana villages incorporated within the scheme), the original settlers whose lands were developed by the River Valley Development Board, and young farmers (the second and third generations of the original settlers) who have encroached upon reservation lands but whose settlements have now been regularised and who were given no assistance by the state.

That paddy farming in Gal Oya cannot be understood in isolation from the other constituent parts of Gal Oya economy is evident in the case of the relationship between paddy and sugar cane. Both cropping systems receive water from the same source and distribution of water can therefore be a major source of social conflict and power. Those who control water or influence the control of water either directly or indirectly affect the rate and the type of improvement in the socio economic standing of the community as a whole or in part. For a long time the paddy farmers in the Left Bank have perceived the sugar cane growers in the Right Bank as farmers more articulate and powerful, due to a cabinet decision made in 1973 which gave priority to sugar cane cultivation. When decisions on water allocation were made, the Irrigation Department resorted to the practice of issuing the full or most of the allocation to sugar cane plantations. Murray and Mick Moore(1983: 36) have observed that if storage was below the level of 300,000 acre-feet, water deliveries to the Right Bank would be reduced but the percentage reduction had always been far less than what was made for the River Division or the Left Bank.

The sugar cane farmers in the Right Bank are reportedly those who conduct their farming on an entrepreneurial scale. They have larger holdings of paddy and sugar cane while some of them have both crops. The paddy cultivation in the Right Bank gets drainage water also from the water that is issued for sugar cane cultivation. Thus, when more water is issued

than what is required by the sugar cane plant, it works to the advantage of paddy cultivation in the Right Bank. A fair amount of interest in sugar cane farming shown by the politicians of the area and the members of the state bureaucracy is evidenced in the fact that they are engaged in the sugar cultivation in the Right Bank in contrast to their total or almost total non-involvement in paddy farming in the Left Bank. The River Division, the most prosperous paddy growing area of the Gal Oya Scheme, gets water from many sources in addition to the normal allocation.

The Right Bank's sugar plantations and the factory have not provided employment opportunities for the Left Bank's growing population, perhaps partly due to the incidence of staggered cultivation of paddy in the Left Bank itself. However, the farmers in the Left Bank complain and raise the question whether it is fair to issue water on a priority basis for sugar cane upon which a relatively smaller number of farmers in the Right Bank are dependent thus depriving the thousands of paddy farmers of the Left Bank from getting water. Another question raised by them is related to the contribution of sugar cane plantation of Gal Oya to the national production. This means that the Sugar Corporation is not making profits enabling the state to justify the priority given to sugar cane growers . The farmers of the Left Bank are of the view that their position of being disadvantaged in contrast to the farmers of the Right Bank who have received the state priority may be justified if the state could gain good returns through such priorities and reinvest them in or subsidize the farming in the Left Bank for the benefit of such disadvantaged sectors.

The process of socio-economic differentiation mentioned above does not seem to be directly related to the paddy fields well located in terms of access to water. From the ensuing description, it will become clear that the performance of some of the villages has been not that satisfactory even though they are well located in terms of access to water. There are some other areas which have performed well economically though they are not well located in terms of access to water at all.

Some villages such as Vijayapura, Jayagama and Tissapura situated in the middle part of the scheme, have made striking progress in terms of making improvements to the houses, ownership of farm equipment, educational achievements, access to government employment, etc., It does not however mean that the farmer here is more progressive than his counterpart elsewhere in the scheme or the island. Undoubtedly both the highland and lowland allottments in Gal Oya which have irrigation water facilities may have contributed to enhancing their income and general socio-economic standing. But one must refrain from making generalisations as there are instances pointing to different tendencies. Colony 26 for example,which is also located in the middle area having more or less the same level of irrigation water facilities, has not matched the production performance of the colonies mentioned above. However the settlers there have surpassed their performance in educational achievements, government employment and trading activities compared to the economically better off villages or units in the scheme. Some of the original settlers here have sold out their land while some others have leased out or mortgaged their lands.

The fact that access to water alone does not determine the upliftment of the peasantry is also illustrated by the economic performance of villages such as Wavinna and Paragahakele (Colony Units One and Two). Though these villages are situated at the head end and have assured supply of water, the settlers in them are relatively poor with a comparatively low paddy production. Their houses remain in the same condition as they were when the scheme was first opened. The explanation offered to the outside observer is that the settlers here have a farming background in chena cultivation which operates under completely different conditions than settled, irrigated agriculture, and even after so many years of living in a paddy based settlement, the paddy farming practised here is not done with a sufficient degree of seriousness.

The new settlers in the regularised encroachments have been given only land. They never received any subsidies as their fathers or grandfathers

got. They have been required to put up their own houses and complete other land development work on their own. However, they are not new settlers or evacuees since they have not been uprooted from their social and ecological system. In their activities they are often assisted by their kith and kin who are also reciprocated as the case may be.

Generally, in a colony there are 10 tractor owners on the average while a family may have a pair or two buffaloes. However, it is not uncommon to find even tractor owners using buffaloes and neat cattle in their farming operations. Exchange relations in the use of draught animals in agriculture are also prevalent here. Such relations are necessitated owing to the inadequacy of the draught power available to individual owners, while their existence is facilitated by the settlers identity of belonging to the same community. Within the extended family, exchange relations occur in a wide variety of activities, including labour.

At least four big-time businessmen have emerged in the town centre of Ampara having strong linkages with the middle level businessmen in the Gal Oya settlement scheme. These middle level businessmen are well connected with farmers and village level officials by means of the provision of agricultural inputs and the purchase of produce. Farmers generally share the opinion that it is convenient to get agricultural inputs from the private trader who offers quick service and credit facilities. The seasonality of farmer income and the insufficiency of the net returns coming from agriculture have prompted the farmers to resort to such credit arrangements. Limited availability of non-farm employment seems to reinforce social customs such as dividing property equally among the siblings and giving dowries at marriages etc., thus resulting in informal sub-division of land. If the original settler is living, though he is too old, sometimes he is still maintained as the farmer of the original unit of land allotted. Some such farmers get agricultural credit from the bank and distribute it among his children who cultivate the land. Thus, it is evident that even within one irrigated settlement scheme there is great diversity in the socio-economic conditions. There is a process of social differentiations in

progress and the socio-economic relationships that occur and get shaped in the process demonstrate a complex character. This heterogeneity has implications for the credit question as well as the performance of the economic activity of paddy production.

3.5 Costs and Returns in Paddy Farming

That no one has become rich through paddy farming is a commonly held opinion by the majority of the paddy farmers in Sri Lanka. It implies that paddy farming as it is practised in Sri Lanka, is not an attractive economic proposition. Notwithstanding the fact that there is probably some under-reporting of income, the continuation of the activity of farming seems to be related to a subsistence. Hence it is a socio-economic activity than a commercial or purely economic activity (Moore & Wickramasinghe, 1980: 98). Even the state policy of settling people on small landholdings demonstrates an amalgan of social and economic objectives. In the context of lack of other employment opportunities for available labour, paddy cultivation becomes a socio-economic activity in most cases other the minority of big farmers. This situation generally known to be evident in the country is not exceptional even to the Gal Oya Irrigated Settlement Scheme.

The distribution of sample farmers and their farms according to the types identified and described earlier has been shown in Table 11. As participants in the rural financial market, their behaviour will be analyzed in the next chapter. First we need to throw some light on the relation between people's continuation of paddy farming as an enterprise and its profitability, as this has clear implications for the credit-worthiness of the farming sector and raising its productivity. It will also examine the validity of the above mentioned popular perception about paddy farming. However, it must be said at the outset that the following analysis on costs of and returns on paddy farming is only a rough one and not a precise accounting exercise or a pure economic analysis.

The following table gives a breakdown of the average cost of production inclusive of the imputed value of own inputs*, such as family labour and exchange labour in our sample.

Table 13

Average Cost of Production of Paddy per Acre and its Distribution in Gal Oya Left Bank, 1984/85 Maha.

Input	Average cost per acre (Rs.)		Percent distribution	
Labour	1515		48.5	
Family		743		23.8
Hired		603		19.3
Exchange		169		5.4
Materials	1047		33.5	
Seed paddy		253		8.1
Fertilizer		513		16.4
Pesticides		108		3.5
Weedicides		173		5.5
Draught power	563		18.0	
Tractor		174		5.6
Animal		389		12.5
All	3125	3125	100.0	100.0

Note: Family and Exchange labour are valued at the prevailing market wage rates. Cost of seed paddy includes interest paid for the particular item where it is obtained on loan.

* Exchange labour is also considered as an 'own input' on account of the reciprocity involved.

An extent of 863 acres was cultivated by all respondents in the sample (316 farmers), making the average size of an operational holding per farmer household 3.7 acres. This however conceals some realities concerning the distribution of farms. Data given in Table show that only 35% of the farm households operate more than three acres. The average cost of production of paddy per acre in Gal Oya Left Bank in 1984/85 Maha was considerably lower than the official figure given for irrigated paddy in the district of Ampara which is Rs.3,994 (Central Bank, 1985: 52). The district as a whole includes the River Division which is quite capital-intensive in its methods of production. The per acre average yield for the sample is 1331 Kg. or 63.7 bushels of paddy, which is above the reported average of the district. The district's per acre average yield is 61.0 bushels while the national average is 58.8 bushels.

From Table 13, it is apparent that labour is the highest input in terms of value. Total labour input comes to 48.5% of total inputs used and the average cost of labour per acre works out to be Rs.1515/-. The type of paddy agriculture pursued in Gal Oya is clearly characterised by the intensive use of labour. This feature is quite typical of the family farms. The majority of farmers use mostly family labour while resorting to such mechanisms as exchange labour. Hired labour is also a significant factor, though it is used only somewhat less than family labour. The following table gives a breakdown of labour use in terms of different farm types.

Table 14

Value of Labour Use per acre by Farm Size in Gal Oya Left Bank, 1984/85 Maha.

Size class (acres)	Own labour (Rs.)	Hired labour (Rs.)	Total labour (Rs.)
0 - 1.0	1422	534	1948
1.1 - 3.0	1091	486	1577
3.1 - 5.0	930	670	1600
5.1 /	415	775	1193
All sizes	912	603	1515

Notes: "Own labour" includes exchange labour on account of the reciprocity involved.

Where family labour is abundantly available, its very availability may discourage productivity considerations in the use of such labour, especially when other employment opportunities are lacking. As a result it may be plausible to suggest that the number of units of own labour expended may exceed the technical requirements per unit of land but when hired labour is used, the tendency is to hire the minimum number, selected from among the prime labour so that higher output is assured. One might argue that in such a situation people might be compelled to sell their labour at sub-market rates and for this reason imputing the value of family and exchange labour at the prevailing market wages for hired labour, may not reflect the real cost of labour. Yet, it is also equally true that valuation of the opportunity cost for family labour is beset with the problem that the alternatives for such labour are not known. In the absence of better methods for the purpose therefore, own labour is valued at prevailing market wages. Data given in Table 14

indicate the intensive use of own labour by the majority of the farms. This shows the lack of alternatives for gainful employment on the one hand and the availability of labour on the other for most of the farm families. It appears that except the big farms, all other farms are family farms.

Table 15

Value of Draught Power use per acre by Farm Size in Gal Oya Left Bank, 1984/85 Maha

Size class (acres)	Tractor draught (Rs.)	Animal draught (Rs.)	Total draught (Rs.)
0 - 1.0	225	428	653
1.1 - 3.0	165	413	578
3.1 - 5.0	163	437	500
5.1 /	190	283	473
All sizes	174	389	563

Note: Both tractor draught and animal draught are valued at prevailing market rates for hiring such draught power.

It begs explanation as to why more people prefer the use of animal draught power to that of tractor power. One plausible explanation is that the payment is settled in kind at the end of season in the case of animal draught power. Secondly, many people would have a pair or two of buffaloes and some neat cattle which are used in some instances in an exchange relation framework. Thirdly, it is also connected to the small scale type of paddy farming which does not give way to mechanisation. Fourthly, the condition of the soils and tractor owners' reluctance to plough muddy fields also matter in this connection.

Paddy farming in Gal Oya does not take place in a completely monetized economy. Use of own draught power and exchange relations in the use of them are observable. Use of exchange labour and the family labour together constitutes 29% of the total cost of inputs used in paddy farming in the Gal Oya Left Bank, and this alone indicates the magnitude of the existence of non-monetary production relations. In case where all the farmers do not have their own seed paddy, the general practice is to obtain them from a fellow farmer on agreement to settle it in kind after the season's harvest at the rate of 150 percent.

During the time of the survey, the market price of paddy in the harvesting time ranged from Rs.3.40 to Rs.3.30 per kilo, averaging Rs.3.35 per kilo. However, in fact, most people sold paddy at Rs.3/- per kilo. On this basis the average rate of returns from an acre of paddy would come to a seasonal gross income of Rs.4032/- per farmer provided the average yield is 64 bushels per acre. Less the average total cost of production of Rs.3135, it would give a net return amounting to Rs.907/-. However, to de derive conclusions from this analysis would be misleading. Therefore, further analysis is made on the basis of the data presented in Table 16.

Table 16

Farm Income and Expenditure per acre of Paddy by Farm Types in Gal Oya Left Bank, 1984/35 Maha.

(1) Size Class (Acres)	(2) Value of gross production (Rs.)	(3) Value of cash inputs (Rs.)	(4) Value of own inputs (Rs.)	(5) Total value of all inputs (Rs.)	(6) Gross profit (2-5) (Rs.)	(7) Net farm income (cash) (2-3) (Rs.)
0 - 1.0	4738	1474	1955	3429	1359	3314
1.0 - 3.0	3700	1647	1597	3244	536	2133
3.1 - 5.0	3906	1637	1443	3080	326	2269
5.1	4473	3039	312	3351	1622	3434

Notes: Column 1: Gross production is valued on the assumption that price is equal, as the majority farmers sold paddy at Rs.3/- per kilogram which works out to Rs.63/- per bushel.

Column 3: Tractor draught power is valued at the standard market price, for it has alternative opportunities in the market.

Column 4: Exchange labour and own family labour, included in 'own inputs', are valued at market price.

Columb 7: Net farm income refers to value of gross production minus total cost, except for value of own inputs.

Several features are discernible from the data presented in the above Table which are of relevance to the question whether paddy farming is remunerative for all categories of farmers, and if credit should be given, who should be provided with credit and on what basis. Average production per acre is highest on the smallest holdings and the next

highest are the largest ones. It is not surprising that the micro holdings record the highest average production because they receive more attention and greater care by the micro farmer in whose family, labour is available but for which alternative opportunities are lacking. In fact, as Table 13 indicates, investment in the labour component is 43 percent of the total cost of all inputs, and as much as .29 percent of the total or over 60 percent of the total value of labour has come from a combination of family labour and exchange labour. That micro holdings employ more of family labour is confirmed by the data given in Table 14 which indicates that they have used own labour to the value of Rs.1142/- per acre in contrast to the corresponding figure of the big farmer which is Rs.415/- . Higher average production in the micro-holdings therefore is to be considered as returns to labour . However, this should not be taken to mean that this sector gives the highest productivity for one has to consider the returns relative to the cost of inputs used on the one hand and constraints of labour absorption within a given unit of micro holdings on the other. Production figures for the categories of small farmer and the middle farmer do not indicate significant differences but, as can be expected, the big farmer has recorded production figures which are well above those of the small farmer and the middle farmer. However, the volume of the different farmer types alone would not indicate whether paddy farming is actually remunerative unless their respective production levels are compared with the respective expenditures incurred by them in the process of production. Such an analysis would help identify the types of farmers for whom paddy production is worthwhile and who should be given credit facilities and on what basis.

As column 3 of Table 16 suggests, total cash inputs per acre have progressively increased as the size of operational holding increases, and the big farmer has incurred the highest cash expenditure. The difference coupled with data presented in Table 14 indicates that the big farmer is capital-intensive and is able to afford the high cash expenditure involved in the use of such technology in paddy production. The difference between the average farmer and the middle farmer is not significant.

According to data in column four of the same Table which sets out the value of the own inputs used per acre by different farm types shows that the amount of own inputs used declines as the operational holding increases in size. The big farmer contrasts sharply with the other types of farmers in the use of own inputs indicating a significantly low level of use of such inputs.

Data given in column five of Table 16 suggests that as the operational holding increases in size, the total value of all inputs per acre decreases, although somewhat marginally.

One thing which is clearly discernible from the data relating to production and input use according to different farmer types is that the differences between the category of the small farmer operating more than one acre but less than three acres and that of the middle farmer operating more than three acres but less than five acres are not very significant. Such differences contrast with the greater differences occuring between the middle farmer and the big farmer on the one hand and between the small farmer and the micro farmer on the other. A similar pattern can be seen also in relation to returns and profits.

Columns 6 and 7 of Table 16 give the breakdown of profit according to different categories of farmers. Gross profit is calculated by subtracting the total value of all inputs from the value of gross production while the net profit is the cash income which is the difference between the value of gross production and total cash inputs. Highest gross profit is recorded by the big farmer and he has a very high margin of profit which is almost twice as much of the middle farmer and thrice as much of the small farmer. It is also somewhat above that of the micro farmer which is however not quite significant by itself. If these figures are compared with reference to the value of all inputs used by different categories of farmers, it is seen that the total expenses of the big farmer is the lowest in per acre terms but he has got the highest gross profit. Considering the fact that he has also made the highest cash expenditure per acre, it may be shown as the gross returns to his capital and management. The micro farmer has recorded a significantly higher gross profit than the small

farmer and the middle farmer but he has also recorded the highest total value of all inputs to achieve this gross profit. Gross profit between the small farmer and the middle farmer does not show a significant variation just as the total value of all inputs used by them.

Data presented in column seven of Table 16 indicate that the net farm income (cash) per se is the highest for the category of micro farmer. It has decreased then and increased again as the size of the operational holding increased. The margin of the net farm cash income between the small farmer and the middle farmer is narrow.

To get a clearer picture, however, the net cash income gained by different categories of farmers must be compared with their respective expenditures. In terms of the net cash income gained relative to the total value of all inputs made by different farmer types, it appears that paddy farming is economically remunerative only for the big farmer, who is the least labour-intensive. As the Table 16 indicates, his expenses have totalled Rs.2851/- per acre and he has gained a net cash income of Rs.2434/- thus, coming very close to the value of his total inputs. All other farmer types have recorded negative returns comparatively while the micro farmer only has marginally approximated his level of expenses. Had a sub-market rate been applied in the calculation of family and exchange labour used by different farmers, the picture would have been slightly altered perhaps with the micro farmer just crossing the break-even point. However, it would not make his enterprise economically remunerative.

Thus, it is apparent that paddy farming in Gal Oya does not take place within a completely monetized economy. It is more a socio-economic activity than a pure economic activity carried out by individuals. It can be surmised that although paddy farming seems not so attractive an economic enterprise for most farmers, a deeper analysis shows that it is remunerative for certain types of farmers in the farming community. The big farmer has been able to afford the cash expenses involved in the process of paddy production. The share of cash inputs borne by the big farmer is the highest among all the different farmer types. He has been able to reduce the cost of production concomitantly gaining the highest returns

relative to the cost of inputs. This type of farmer is characteristically different from all other types of farmers in the sense that he employs the minimum amount of family and exchange labour. He is more capital intensive and can be described as the capitalist farmer, who is in a position to operate in the institutional credit market on a long term basis, and whose management capability contributes to the high returns he gets from his paddy enterprise. Higher production may be expected to come from this type of farmers. For all other types of farmers (the family farms), given the present level of input use, paddy farming is not quite remunerative, a fact which has negative implications upon the credit question in so far as the commercial banks are concerned, especially because the production relations here are not completely monetized. The micro farmer in particular, stands out as the most labour-intensive farm. Although such a farm explains the high yields achieved, the labour intensity cannot be expanded beyond a certain point in proportion to the size of operational holding. Still it is the big farm which brings the highest returns relative to the input use. Conversely, for all other types of farmers participation in the financial credit market for obtaining credit from commercial banks on a long term basis may not be feasible. For these farmers a stable yield which may be low but less costly matters more than a high yield. Therefore, a differential approach for technology seems more appropriate rather than driving all different types of farmers to adopt one technology, causing in the process what may be described as 'over-adoption' and contributing to the credit problem.

Chapter Four

FARMER BEHAVIOUR IN RURAL FINANCIAL MARKET

The preceding discussion revealed the process of social differentiation and the productivity differentials in the different farmer types that were identified. These differences should have implications for the credit question, and the foregoing analysis accordingly focusses on farmer behaviour in the rural financial market.

4.1 Borrowers and Non-Borrowers

Bank officials of Ampara estimate that about 90% of the allottee-farmers in Gal Oya are former defaulters while there are many other farmers who operate land without any legal title for land. The latter category is obviously excluded from the Agricultural Credit Schemes of the formal sector. The former category is also excluded if their accounts are not rescheduled. Further, if the farmer spends most of his earnings on consumption, he has very little financial resources for the procurement of inputs needed for production. In such a situation how does he finance his enterprise?

TABLE 17 PERCENTAGE DISTRIBUTION OF BORROWERS AND NON-BORROWERS ACCORDING TO FARM SIZE IN GAL OYA LEFT BANK, 1984/85 MAHA

Farm Size	Borrowers	Non-Borrowers	Total
Under 1	70.2	29.8	100
1.1-3.0	79.0	21.0	100
3.1-5.0	75.0	25.0	100
5	72.7	27.3	100
All Sizes	76.3	23.7	100

As seen in the above Table, 76.3 percent of the sample farmers operate

within the rural financial market and 23.7 percent of the sample farmers operate outside the financial market. The variation is not significant although the majority of the farmers depend on borrowing to finance the farm production activities. However, it is clear that both the big farmer and the micro farmer use less credit.

The author has no data to fully explain the incidence of non-borrowing. However, it could be due to such factors as the availability of other incomes, resources, and other forms of assistance including labour and material in addition to some fields needing only a limited amount of inputs by virtue of the smallness of extents.

4.2 Farmer Behaviour in the Commercial Credit Market

An attempt is now made to analyse the incidence of borrowing in Gal Oya. Table 18 gives details on the percentage distribution of sources and amounts of agricultural loans according to different sizes of farm which we describe as different farm types.

The financial market has been identified in terms of several dimensions taken into consideration: a) the nature of the source, and b) whether any interest is charged. Accordingly, three dimensions of rural financial market have been identified. They are a) the commercial institutional sources of credit, b) the commercial non-institutional sources of credit and c) the non-commercial sources of credit. The non-commercial sources of credit charge no interest on the credit disbursed and they could in fact be described as charging negative rates of interest under inflation. It must be borne in mind that most of the farmers who participate in the financial market obtain credit from more than one source.

TABLE 18 PERCENTAGE DISTRIBUTION OF SOURCES, AMOUNTS AND BORROWERS OF AGRICULTURAL LOANS ACCORDING TO FARM SIZE IN GAL OYA LEFT BANK, 1984/85 MAHA

Farm Size	Commercial				Non-Commercial		Total
	Institutional		Non-Institutional		Non-Commercial		
	Amount	No.	Amount	No.	Amount	No.	
1.0	5.6	7.4	65.4	55.6	28.9	37.1	100%
1.1 - 3.0	34.8	17.0	49.0	54.1	16.2	28.9	100%
3.1 - 5.0	48.6	27.1	29.0	40.2	22.4	32.2	100%
5.1	44.9	31.0	9.0	27.6	45.9	41.4	100%
All Sizes	38.3	18.5	37.4	49.7	24.3	31.8	100%

It is clear from the above Table that the non-institutional sources are still the dominant source of borrowings. The institutional sources have accounted for 38.3% of the total borrowings resorted to by a majority of farmers, amounting to 18.5% of the farmer operators in the financial market. The non-institutional sources have provided 62% of the total amount of agricultural loans to as many as 81.5% of the total number of borrowers.

However, in terms of our classification based on whether any interest is charged or not, the institutional sector records the highest share as far as the amounts disbursed are concerned, though the numbers thus served are limited. This shows that the relative size of the loans granted by the institutional sector is high. Since the size of the loan depends on the extent cultivated, it could mean that the minority big farmers stand to gain from the institutional sector which gives agricultural credit at low interest rates.

Although the institutional sector contributes most to the financial market, it has only a slight edge in terms of the numbers served, close upon 1 percent only, over the non-institutional commercial sources of credit. During the time of the field survey, it was found that these sources

charge an interest rate of 20 percent per month irrespective of the activities involved. Though the interest rates are high, this sector has served as many as 50% of the borrowers. This is perhaps indicative of the existence of a multitude of non-institutional lenders with a limited clientele as well as a limited capital, given that the farming populace in the sample is scattered over a wide area. It is relevant to note here that nearly 32 percent of the farmer borrowers have obtained interest-free credit and have satisfied about a quarter of their production credit requirements this way.

It is striking from the data presented in the above Table that the degree of farmer dependence on the commercial non-institutional lenders decreases progressively both in terms of numbers and amounts, as the size of the operational holding increases. As many as 65 percent of the micro farmers depend on the non-institutional commercial sources of credit for 65 percent of their credit requirements. The majority of the small farmers too (54 percent) appears to be dependent on the non-institutional commercial sources for meeting 49 percent of their credit needs. A considerable number of the middle level farmers (41 percent) also seek credit facilities from non-institutional commercial lenders, but as a percentage of their total credit requirements, they account for only 29 percent. The big farmer is the least dependent on the non-institutional commercial sources of credit. Though 22 percent of the big farmers have sought credit from non-institutional commercial sources of credit, it was only for fulfilling a meagre portion of their credit requirements, namely 9 percent.

Distribution of institutional credit also moves in the same direction. As the size of the farm increases progressively, an increasing number of farmers have resorted to institutional lending. Only a fraction of the micro farmers (7 percent) have sought institutional credit showing that they have been able to cover only 5.6 percent of their credit requirements. This shows that the micro farmers hardly meet the criteria to be eligible for receiving institutional credit. The reason for this, as discussed in the previous Chapter, is that there is no viability inherent in the type of agriculture pursued by them to attract capital and fit in with the bank's credit programmes. Thus, for the micro farmer with no other

substantial income, the availability of institutional credit at low interest rates, is only a theoretical possibility.

Some of those in the category of the small farmer (17 percent) have resorted to institutional credit. The fact that they have been able to finance 35 percent of their credit needs by way of institutional credit indicates the relatively large size of the individual loans on the one hand and their skewed distribution with a large number of those farmers grouping to the lower half of the category given the close association between the land size and the size of the loan.

In the case of the middle level farmer and the big farmer, it is clear that institutional sources of credit contributed substantially to fulfill their credit needs. It is seen that 27 percent of the middle level farmers have managed to cover 49 percent of their credit requirements through institutional means, suggesting the relatively large size of their individual loans, thus favouring the larger farmers within the category. It is also clear that 31 percent of the big farmers have got institutional loans to cover as much as 45 percent of their credit requirements, thus suggesting that a relatively small number of the big farmers are dependent heavily on the institutional sources of credit.

These figures depict a situation where the smaller farmers get pushed away from the institutional credit market, while the bigger farmers operate in it. The small farmer and the micro farmer are dependent on the non-institutional commercial sources of credit.

4.3 Farmer Behaviour in the Non-commercial Credit Market

In the case of farmer behaviour in the non-commercial credit market, again the pattern described is confirmed except in the case of the small farmer. It is clear that as the size of the farm increases, so increases the percentage of farmers getting loans as well as the percentage of the loan amounts given as a share of the total loan requirements. However, it is still important to note that although as many as 37 percent of those in the category of micro farmers have obtained non-commercial credit,

they were able to satisfy only 29 percent of their credit requirements this way, suggesting the relatively small size of the loans given and the existence of sources willing to help out these farmers, whose individual loan requirements could be fulfilled with a limited amount of capital at hand. The tendency that an increasing number of big farmers have been able to secure a substantial amount of interest-free credit from the non-institutional credit market could be interpreted as a reflection or a function of the economies of scale of the type of agriculture pursued by the big farmer.

All in all it is apparent that the credit requirements of different farmer groups are at variance and even the same farmer would go for different sources of credit. Consequently, this gives rise to different implications. While the micro and the small farmer are dependent on the non-institutional commercial sources of credit, the middle and the big farmer dominate the low-interest institutional sources of credit as well as the interest-free non-institutional or the non-commercial sources of credit. Not all the farmers need credit either, although the need for credit appears across the different farmer groups in the farming community. This is applicable even for the entire island given that farmers practising agriculture live in different agro-ecological zones which are many in number and wherein agriculture itself is diverse. One universal credit policy conceived at the national level may therefore be less attuned to the social realities. Accordingly, the agricultural credit question will have to be and is best dealt with as a very much localized situation.

4.4 Small Farmer Credit

The complexities described above should not preclude conscious attempts aimed at the formation of linkages between the small farmer and the banks. It really underscores the need for a specialized agricultural credit bank replacing the present policy of relying on the commercial banks to provide small farmer credit. Whether the type of agriculture pursued by the micro farmer lends itself to institutional credit supported production process on a long term basis must be thought out before deciding on credit policies and programmes. Necessary conditions will have to be made available in

sufficient measure to encourage small farmers to organize their production processes so that economies of scale may be achieved which would attract bank credit. They would include a number of activities involving land consolidation, group production, on-farm research and extension, appropriate technology, formation of cooperatives, linking the cooperatives with other agencies such as banks and the state machinery. Some of these factors involve the role of the State as well. Various activities in the production process may be directed so as to achieve higher productivity. Short of these, the micro farmer may not be able to participate in the institutional credit programmes. They can instead be supported by subsidy programmes. It is only suggested that a blanket policy of giving cheap credit to all farmers for all activities in all their farm enterprises is perhaps not the best policy to help small farmers, micro farmers or agriculture.

The whole Gal Oya Scheme demonstrates a wide range of sizes of operational holdings of paddy extending from 0.25 acres to even more than 50 acres. In the Left Bank per se the range is not so great. Yet, the fact is that there is a process of social differentiation and it is the better off farmer who is in a position to operate in the institutional credit market. Higher productivity can be expected to come from this type of farmers. However, even in this case, blanket credit policies do not seem to be appropriate. Instead, certain production and processing activities and suitable methods of adoption in carrying out such activities need to be identified for the promotion of provision of credit at differential rates of interest. It will contribute to transforming agriculture, making it viable in the process by which people and the banks will be motivated to invest in agriculture.

In order that differential rates of interest on loans be made possible for lending institutions, it is necessary that the latter encourage savings in the form of bank deposits among the farmers. Interest paid on savings will have to be sufficiently high to attract the farmer-saver to the bank. However, keeping interest rates on savings deposits high is not possible if the interest rate on loans is kept at artifidally low levels. Interest levied on loans should cover the cost of loan administration, profits for the lending institution and profits for the depositors. Therefore, interest

rates on loans for agriculture should be kept at realistic levels. This will reduce the dependence on the Central Bank's refinance facility on the part of the banks on the one hand and perhaps paper work on the other. If need arises, State funds could be made available at differential rates of interest for different activities in agricultural production to the lending institutions.

The present institutional framework does not seem to allow for proper credit supervision. An institution which organizes the farmers and manages their farms and acts as a go-getter processing and guaranteeing loan applications as well as receiving deposits at the grass root level is lacking at present. This seems to be one factor which negatively affects the performance of both the banker and the farmer. Provided that such an institution is there, the greater part of the hidden cost that the farmer has to bear in obtaining the so-called low interest agricultural credit may also go down considerably. In addition, such an institution could either provide necessary inputs or at least facilitate their provision.

At present, the supply of inputs is done by many institutions and agencies. Part of the institutional credit is supplied in terms of materials while the cheques are written in favour of suppliers of inputs. Although such measures have been introduced to ensure that the farmers use such inputs in their fields, they seem to have brought about inconviencies, thus complicating rather than facilitating the input supply. With all the so-called safety measures, farmers have little difficulty in selling such materials. The rural level State agencies charged with the responsibility of supplying inputs are not permitted to supply those materials on credit. This inefficient system will have to be replaced by a 'one window policy' through which only various institutions and agencies could approach the farmer and the vice versa.

Because of the important role played by the private money lenders in the paddy agriculture, comments must be made upon the option that the services of the private money lender could be further extended by giving him refinance facilities and making him the link between the farmer and the banks. The option was discussed with sample farmers as well as others in the general

conversations. No one accepted it was a practical proposition. The respondents feared that if financial support came from the government to the private money lender, he would invest it in other lucrative ventures such as transport service and so on. They also alleged that given the option, he would buy up the small farmers' land. While these fears may be justified, the mechanisms at work, the variety of sources and the parameters within which they operate being so different, it is doubtful whether linking the institutional sector with the private money lender is feasible and would yield the desired results in the specific context of rural Sri Lanka. Besides there are different sources of non-institutional commercial credit which also include public sector employees whose terms and conditions are different from those of the trader-cum-money lender whose hold is very great on the farmer. The latter category does not always give credit directly to the farmer. The farmers needing credit will have to come to the trader through a middleman who ensures repayment of credit. For the sake of inconvenience, and in the circumstances that the farmers find themselves, they seem to value it as an enduring social relationship. Accordingly, it will be practically difficult to incorporate all the different money lenders into such a programme on the one hand and break this relationship on the other. In any case, the existence of a multitude of non-institutional commercial lenders is a function of the type of agriculture that is pursued. Therefore, as long as these conditions prevail in agriculture, the informal sources of lending can be expected to persist. Lack of capital alone is not the major reason or the whole reason for the prevalence of a multitude of private money lenders in the farming community and why they remain in a semi-monopolistic position.

Chapter Five

CONCLUSIONS

1. Modernization of paddy agriculture identified primarily in terms of growth in output and yield, extent under high yielding varieties and the adoption of management practices that go with them, and the rate of mechanization has proceeded within the framework of small paddy holdings. However, this growth performance has shown no correspondence with the amounts of agricultural credit disbursed by the institutional sector. On the other hand, such growth has been accompanied by worsening inequalities of income distribution and poverty in the rural sector, a fact which has policy implications for the credit question: It is important to bear in mind that attempts to promote agricultural credit have to be made in the context of general poverty and smallholdings.

2. Credit policies seem to have been based on the assumption that the peasantry is homogeneous. Every farmer, provided he has an agro-identity card, is entitled to farm credit, and credit is given at a uniform rate of interest irrespective of the nature or scale of operations involved in the process of paddy production.

3. The study revealed that such assumptions are fundamentally erroneous and would not yield desired results in a satisfactory manner. The farming community cannot be identified as an undifferentiated mass. They also live in different agro-ecological zones where agriculture itself is diverse. There is a process of social differentiation at work resulting in unequal distribution of social wealth in these environs. Whether an increase of production and productivity can be expected from all these different farm types and whether they could be induced towards this end as desired by way of the present credit policies is debatable. It should be remembered that paddy farming is a socio-economic activity for the majority of the farmers and not a pure economic activity.

4. It became clear from the study that the higher strata of the society, in this case the big farmer, dominates the low-interest institutional credit as well as the interest-free non-commercial credit market, and

he is the least dependent on the private commercial sources of credit. This is because of the viability of the type of farm in which the big farmer is engaged. Even in such cases, credit policies with differential rates of interest can play a positive role in increasing productivity. These surplus households may be treated as a qualitatively different type of a producer who will gain from a special package: high prices for produce; high interests on credit; high interests on deposits, rather than from being included in the present policy which treats every farmer alike.

5. The small farmer inclusive of the micro farmer, on the other hand, emerged as the type of farmer who is in the grip of the non-institutional commercial sources of credit. This is again due to the lack of viability of the type of agriculture pursued by this particular group. If the credit policies and programmes are continued in their present form it is unlikely that the small farmer will be benefitted. Here too, therefore, credit policies and programmes with a differential rate of interest which would encourage land consolidation, land improvement etc. may be pursued. For this type of farmer, the low-interest institutional credit is not attractive on account of the hidden cost involved in obtaining such credit. Thus, giving credit at "low interest rates" in the way it has been implemented is not the best way to help the small farmer. Instead of benefiting the intended target group, it helps strengthen the position of the middle farmer and the big farmer. For the small farmer inclusive of the micro farmer, a stable yield is more important than a high yield which requires modern technology as a precondition. Given also the social heterogeneity and the prospects for self-sufficiency in rice in the near future, indigenous technology which is suitable for these farmers should receive greater attention.

6. Evolution of credit policies with differential rates of interest for different activities in the process of production and ways of organizing them is perhaps relatively easy at the national level. At the grass roots level, however, the specific local conditions and the variations are likely to impose difficulties in this connection. The small farmers' holdings may be scattered over a wide area and the

conditions may be different. Labour intensive methods may be in conflict with farm mechanization. It might be difficult to organize the farmers to get them to go ahead with a common schedule. However, it is not altogether impossible. While there is a need to organize the farmers into an institutional framework, there is also the need for resolving at the national level various policy issues involved. Thus, the small farmer credit problem is interconnected with many other problems involving even the role of the state. At the national level only broad policies may be formulated allowing for flexibilities at the local level. Further, especially given the context of general poverty it becomes necessary that agricultural credit be made part of rural credit.

7. Although the delivery mechanism has been intensified, there is still a gap between the farmer and the bank. The commercial banks are not geared to provide credit to the small farmer. Nor are the prevailing conditions favourable to these banks to have such an orientation. It seems to be a more practical proposition to handover the function of agricultural credit from the commercial banks to a specialized agricultural development bank charged with provision and recovery of credits. The gap that may exist between the farmer and this bank may be bridged by way of a strong organizational set up institutionalized between the farmer and the bank. Conditions and services must be made available for every farmer to become a member of this institution. This institution may act as a credit guarantor, a credit supervisor, a savings collector and a credit giver, as well as an organizer of market of produce in addition to acting as an intermediary between various other departments and agencies. The banks should not entertain direct individual applications for agricultural credit, but channel credit through the institution at the farmers level. These institutions must be modelled on the line of more societies and less members.

8. The credit problem is associated with the problems of the small holder agriculture. Transformation of small paddy holder agriculture into a more developed form would require removing other constraints on the free flow of capital into this sector. However, farmers as political actors rather than as economic, receive attention of the policy makers which

is understandable in the framework of the contemporary society. In the context where subsidies are being progressively cut, cost of production inputs is going up, price of rice is being kept at a low level creating an environment where the urban consumer appears virtually subsidised by the rural producer, in addition to which rural surplus labour and rural savings are being extracted by the metropolis, the provision of credit may to a certain extent serve to cushion these effects on the rural populace. The "problem" of lack of recovery of credit from farmers in such a context may therefore be considered as part of the "cost" that has to be borne by the economy.

9. A preliminary observation may be made regarding the farmer behaviour in the informal financial market. At its production base, the agrarian society of Gal Oya is characterised by the use of family labour and exchange labour, pooling of resources, payments in kind at the end of the season etc. The persistence of these practices corresponds to the type of agriculture that is pursued. The existence of a multitude of informal lenders (most of whom are also traders) with a limited clientele each and having various types of arrangements with the farmers is also a reflection of the type of agriculture that is pursued. So long as the agriculture is not more developed it is likely that the informal lender will continue to remain at a semi-monopolistic position.

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