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SMALL FARMER CREDIT IN SOUTH ASIA

AGENCY FOR INTERNATIONAL DEVELOPMENT
DEPARTMENT OF STATE
WASHINGTON, D.C. 20523

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COUNTRY PROGRAM

SMALL FARM CREDIT IN BANGLADESH

by:
M. Solaiman and Azizul Huq
Bangladesh Academy for
Rural Development

Comilla
September, 1972

PREFACE

This study on Small Farm Credit in Bangladesh has been done on the basis of written materials available in printed and mimeographed reports and typed manuscripts. It has followed the design set by US AID who sponsored the study. There have been some repetition of the same or similar information in different parts of the study.

In the earlier part of the study there is a general discussion on the state of small farm credit in the country. In the latter part information has been furnished on the system of supervised credit through cooperatives (TCCA/KSS).

The observations and recommendations made are those of the authors as individuals. These do not in any way represent the views of the Institution they serve or of the Government.

The authors acknowledge with thanks the support, advise and assistance they received from the US AID, the Academy's Faculty and the Secretarial Staff.

BARD, Comilla,
September 30, 1972.

M. Solaiman
Azizul Huq
Authors

Glossary

ACF	- Agricultural Co-operative Societies Federation, Comilla.
ADBB	- Agricultural Development Bank of Bangladesh.
BADC	- Bangladesh Agricultural Development Corporation.
Aman(Broadcast)	- Rice crop grown between April-December.
Aman(Transplant)	- Rice crop grown between July-December.
Aus	- Rice crop grown between April-July.
BARD	- Bangladesh Academy for Rural Development, Comilla.
BB	- Bangladesh Bank (State Bank of Bangladesh).
Boro	- Rice crop grown between January-May.
CCB	- Central Co-operative Bank.
BIDC	- Bangladesh Industrial Development Corporation.
IRDP	- Integrated Rural Development Programme.
IRRI	- International Rice Research Institute.
JSB	- Jatiya Samabaya Bank (National Co-operative Bank).
Kotwali	- District Headquarter Thana.
KSS	- Krishy Samabaya Samity (Village-level Agricultural Co-operative Society).
KTCCA	- Kotwali Thana Central Co-operative Association, Comilla.
RCS	- Registrar of Co-operative Societies.
RWP	- Rural Works Programme.
Rs.	- Rupees.
Tk.	- Taka (Rupee renamed)
Takavi	- Taccavi - Government relief loan.
TCCA	- Thana Central Co-operative Association.
Thana	- An Administrative Unit.
TIP	- Thana Irrigation Programme.
TTDC	- Thana Training and Development Centre.
Union Council	- Local Council covering about a dozen villages.
UCMP	- Union Co-operative Multipurpose Societies.
V-AID	- Village Agricultural and Industrial Development.

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II. PROGRAMME CHARACTERISTICS

A. Background

1. Historical Summary

The small farmer in Bangladesh suffers from many handicaps, such as, poverty, scarcity of capital, indebtedness, absence of farmers' institutions, lack of education and training facilities, vagaries of Nature, inadequacy of physical infrastructure, and so on. Poverty drives them on to the grips of money-lenders of one kind or another at times of distress or at critical times of the year when they have to invest in cultivating their fields.

There is a variety of sources of supply of credit to the small farmer, such as, farmers' friends and relatives, private money-lenders, Government Relief Operations, Agricultural Development Bank, Traditional Co-operatives, new Co-operatives, Special Project area funds. These sources are very briefly described below:

Farmers' Friends and Relatives - Loans from these sources are available only among very close and intimate circles. Usually such loans are interest-free.

Private money-lenders (Mahajans) - In the past a professional class of money-lenders thrived on the miseries of the small farmers until the trend was arrested by the Debt Settlement Act of 1937. Professional money-lending is illegal now. But in the absence of adequate alternative sources, private money-lending still continues as a big source of supply of credit to the small farmer. Comparatively rich people in the village find it profitable to lend money to needy farmers. Farmers turn to them in utter helplessness. In times of distress such lenders make cash or grains available to known and needy farmers. These are repayable following the next harvest with very heavy profits. For big amounts or for comparatively long periods the loanee executes a deed of transfer of an agreed plot of land in favour of the creditor. Depending on the loanee's standing with the creditor the creditor allows the loanee to cultivate the plot until such time as the loan is paid off. If the loanee fails to pay off the loan with interests the creditor uses the transfer document and takes over the land. This process is partly responsible for gradual transfer of land from small to comparatively more prosperous people in villages. Despite the legal bans and plans to supply institutional credit the village money-lenders, traders, contractors, rich farmer continue to be a very important source of credit to the small farmers. The rates of interest and other terms for such loans are usually very disadvantageous to the small farmers. Interest rates etc. vary from time to time and from situation to situation. The creditors' presence and influence in the community are more important securities then paper transactions in the case of small loans. For big loans necessary legal steps as described above are resorted to.

Government Relief Operations - Takavi and Test Relief loans are usually advanced in times of severe distress. A part of such loans are, at times, given for agricultural rehabilitation. These are administered by the general administrative machinery.

Agricultural Development Bank - The Bank established in 1952 offers credit to such farmers as can offer acceptable securities. Comparatively rich farmers and organised plantations, such as, Tea gardens, Sugar Mills make use of the Bank's facilities. In addition to loans in local currency the Bank can help in import of foreign machinery.

Special Project Loans - Such facilities are available only in areas where special projects have been adopted by some development agency, such as, the Thakurgaon Irrigation Project area and the Ganges Kobadak Project areas of the Water Development Authority. In these cases, all inputs, including credit, are available through the project authorities. The terms and conditions of such credit vary from project to project and are usually easier than those of other credit programmes.

Traditional Co-operatives - Search for solutions to the problems of rural indebtedness and farm credit led to the establishment of a cooperative credit system in 1904 at the instance of the then British Government. It consisted of loaning of money at the time of need and realisation of loans after the main harvest. By about the end of the thirties the then province of Bengal was studded with numerous village credit cooperative societies. Their funds came from the Government. Government employees conducted the loaning and loan-realisation operations. This was some relief to the farmers.

With the establishment of the Debt Settlement Boards in late thirties these credit societies ran into difficulties. The Boards did not distinguish between the usurious money-lenders and the Government supported cooperatives. As a result, similar kind of dispensation (repayment over long periods) was made in case of cooperative loans as in the case of loans from private money-lenders. This inflicted a serious blow to the cooperatives.

During the war years of 1939-1944 almost everything was disrupted and so were cooperatives. Both investments and repayments were very poor. Following the war, the country steeped into political turmoil resulting in the partition of 1947.

At the time of partition parts of Bengal that then became East Pakistan had about 26,664* village-based rural credit cooperatives. For sometime the new province did not have any apex cooperative bank of its own. This was a big gap in the

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* Credit Inquiry Commission Report, Pakistan, 1959, P-20.

matter of servicing the field units. In 1948 the East Pakistan Provincial Co-operative Bank was registered. It, however, suffered from scarcity of resources. Administrative and financial difficulties led the provincial government to decide in favour of liquidition of credit societies at the village level and establishment of multipurpose societies at the level of unions (each union comprises roughly a dozen villages). It was thought that (i) the Union could provide a reasonable operational area that could sustain a viable cooperative society, (ii) multipurpose programmes (inclusive of supplies, marketing, etc.) should give these institutions more scope for economic activities.* By 1957 almost all the village-based old societies were liquidated and in their place about 4000 union-based societies were established.

The Union Co-operative Multipurpose Societies mostly stuck to credit business alone. They did not develop any programme of production, marketing or other services. Their management by the traditional village leaders did not exhibit the dynamism needed for an effective programme.

Except that parts of ADB loans are available for import of agricultural equipments, all the systems described above offered loans without supporting services and supervision.

New Co-operatives - The new co-operative credit system, developed through experimentation in Comilla, in the early sixties, combine credit with training, production plans, extension, supplies, supervision and savings. A two-tier cooperative institutional system has been developed. Primary producers at the village level join together in receiving and using the above named services for jointly prepared production plans. The Village Agricultural Co-operative Society (KSS) is supported with guidance, training, supplies, and credit by a federation (TCCA - Thana Central Co-operative Association) at the thana (approximately 150 villages). The thana association serves as a channel for distribution of essential inputs and services available from various agencies of the Government. It operates as a financing institution for purposes of credit supply and accumulation of savings. TCCAs use the services of the other thana level institutions, such as, the Thana Training and Development Centre (TTDC a Govt. outfit - with officers from various agencies of the Govt.) for training and departmental services. TCCAs also receive support from the Thana Council (a Local Government organisation until recently) for programmes of physical infrastructure. TCCAs receive their funds from the National Co-operative Bank (JSB) or the Central Co-operative Bank (CCB) of which they are members. TCCAs loan out funds to the KSS. The KSS loans out to individual members on the basis of agreed production plans and criteria fixed by the TCCA and discussed at KSS meetings. Establishment of KSS/TCCA form part of the Integrated Rural Development Programme (IRDP) described below.

* Rahman, Mahmoodur. Union Co-operative Multipurpose Society under the Old System and Village Co-operative Society based on Comilla Approach - a comparative picture; BARD, Comilla, Aug. 1972, P-4.

Various studies indicate that institutional arrangements cover only about 15% of the credit needs of the farm sector. The rest are provided by others.

Sources of Credit

Sources	Percentages	
a) Well-to-do rural people	52.06	
b) Friends and relatives	25.59	
c) Cooperatives	7.73	Institu-
d) Agricultural Development Bank	5.36	tional
e) Taccavi	0.77	
f) Other source	8.49	
	100.00	

Report of the Committee of Agricultural Credit
Government of East Pakistan, Dacca, 1969. P-49.

Local Government Institutions - It is relevant to take note of the local government institutions that grew during these periods. Elected local bodies have played an important role in rural Bengal since the beginning of this century. Under the Local Government Acts Union Boards at the level of approximately a dozen villages, Local Boards at the level of sub-divisions and District Boards at the level of districts were established. These institutions sponsored very limited development activities. They did not concern themselves with any commercial or credit functions. In a few years' time the Local Boards were found redundant and were abolished. The Union Boards and the District Boards continued as feeble development agencies with limited resources at their disposal. They were mostly dependent upon government allocation of funds. By the middle of thirties selected Union Boards were vested with powers to sit as Union Bench Courts to dispose of small ***** litigations. During the war-years, like cooperative credit societies the local government organisations also suffered. After the partition of 1947 District Boards continued as before. Similarly the Union Boards mainly continued to take care of local law and order matters.

Basic Democracies - In 1959, the local government system in the country underwent a big change. Under the Basic Democracy system, in addition to the Union Councils (in place of Union Board) and the District Council (in place of the District Board) and the District Council at the Thana level and a Divisional Council at the Divisional level were set up. The Union Councils worked as electoral colleges for provincial and national legislatures. These, however, did not directly affect the cooperative institutions.

V-AID Programme - In 1953 Government of Pakistan sponsored the V-AID (Village Agricultural and Industrial Development) Programme. It tried to help the villagers to improve their lot by providing motivational guidance and technical assistance to the villagers to help themselves. The programme created a lot of enthusiasm among the people. But it failed to fulfil its objectives because of its inherent weaknesses in administration and in the basic approach to rural problems.* It was abandoned in early sixties.

Rural Works Programme - In 1962-63 the Rural Works Programme was adopted for implementation through the local councils. This programme provided resources for construction of rural physical infrastructure (roads, drains, culverts, etc.). It also provided additional employment opportunities to the farmers in the dry season. Gradually the Rural Works Programme created conditions for expansion of an irrigation programme for winter season.

The Thana Irrigation Programme (1967-68) opened up possibilities of better winter cultivation for new crops. Fertilizer, better seeds, pest-control, training and extension services with irrigation increased the possibility of production. These, together, increased the demand for credit. To begin with, the process was slow but with the availability of high yielding varieties (rice seeds supplied by International Rice Research Institute) there was an explosion. Since then the demand for inputs including credit has consistently risen. Physical improvements in crop yield has helped stabilization of farmers' institutions.

The Thana Training and Development Centre - The Thana (also called Police-Station), until recently, the permanent Govt. office nearest to the villages was a centre for the police and revenue collection. The Rural Works Programme was used to construct physical facilities for establishment of a elaborate development outfit at the Thana. The new centre was named a Training and Development Centre. It is staffed by a team of technical officers from various development agencies of the Government headed by a generalist leader.

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* Mohsen, A.K.M. The Comilla Rural Administration Experiment - History and Annual Report 1962-63, PARD, Comilla, October 1963, P-3.

Since liberation in December 1971 the new Government has adopted a number of measures to give relief of the small farmer. Land revenue on farm holdings of upto 8.30 acres[1/] has been abolished. Arrears of revenue dues have been remitted. There is a general expectation and a demand from some quarters that arrears of loans should also be remitted. The Government have said that more time would be given for repayment of loans but there would be no exemption from repayment. They have also assured the availability of required credit for accelerating agricultural rehabilitation with stress on food self-sufficiency programmes.*

Recently, the Government has nationalised the country's commercial banking system. A question has arisen as to whether the general banking system should not be equipped to handle the credit needs of small farmers. The nationalised commercial banks have a total of 1,092 branches in the country. They have an obvious advantage of better coverage. On the other hand there are 62 Central Co-operative Banks (CCB) and 52 Thana Central Co-operative Associations (TCCA) affiliated to the Jatiya Samabaya Bank (JSB). They receive funds from the JSB but keep their receipts with the commercial banks. They thus use JSB only as a source of funds, not for purposes of deposits or normal banking. JSB, CCB and TCCA on the other hand have acquired experience of handling risk-bearing small agricultural credit operations.

Integrated Rural Development Programme (IRDP) - Since 1970 the Government have a programme of Integrated Rural Development under implementation. Under this programme rural institutions of local government and of development are being assisted to implement their programmes in an integrated fashion. This is done under the policy guidance and supervision of a high-powered Rural Development Board. The IRDP is now in operation in 33 thanas of the country. 50 other thanas are scheduled to be covered by January 1973. Government wishes to cover the entire country (413 thanas) by this programme in about 5 years' time from 1972. If this programme goes well, the Thana Central Co-operative Association would assume a very important role.

To sum up, there are several institutional credit channels to meet the small farmer's needs. But their coverage is very limited. Supervised credit through cooperatives (JSB/TCCA/KSS) are gaining increasing importance. They use farmers' institutions (KSS-TCCA), offer services (Training, Extension), supplies and include savings.

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* Prime Minister's message to the National Co-operative Seminar on 30-6-1972.

1/ 1 Hectare = 2.471 acres

2. Relations to National Credit System

As stated earlier, public institutional credit to the small farmers is funnelled through different channels - The Agricultural Development Bank, Cooperatives and Relief Loans, etc.

The ADB receives its funds from the Government and the Bangladesh Bank. It has arrangements for receiving of deposits and paying interests on such deposits at a slightly higher rate than other commercial banks (present rate of ADB interest on savings deposits is 4½% and the same for other commercial banks is 4%). The volume of deposits with the ADB, however, is small. The ADB does not have facilities of advances for commercial purposes. The ADB has 77 branches in the country. Its coverage is thus very limited.

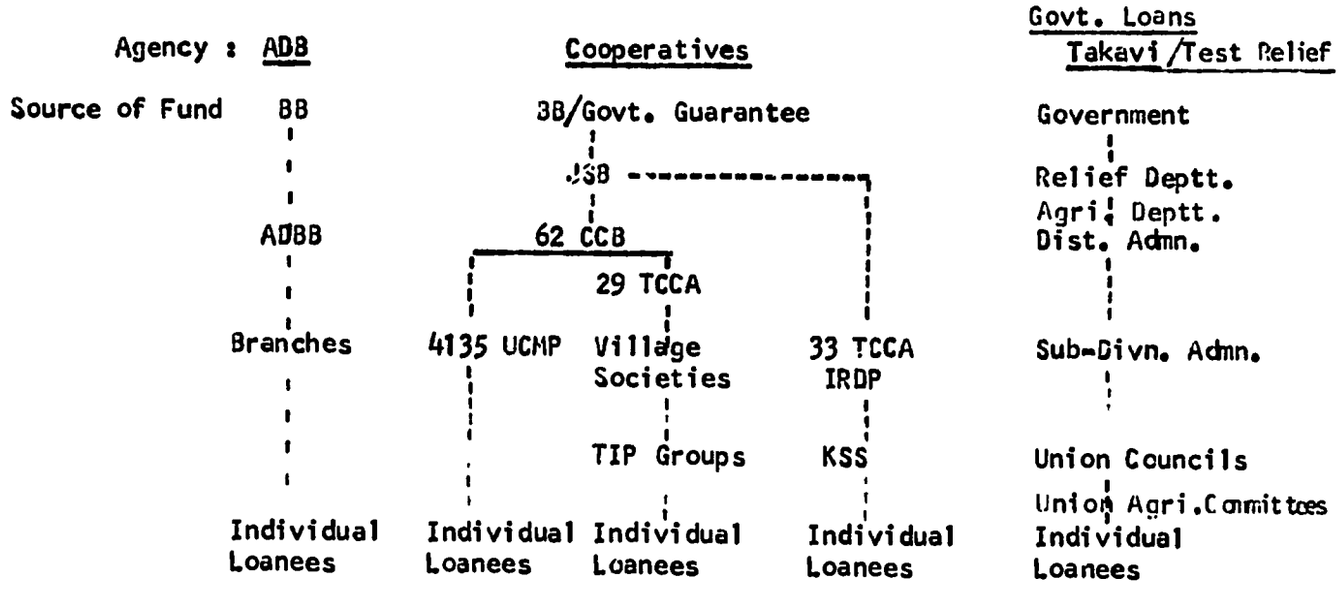
The Jatiya Samabaya Bank (JSB) receives its resources from the Bangladesh Bank (BB) at a preferential rate of interests 2½%, against guarantees by the national government. JSB lends to the CCBs according to the latters' demand (subject, of course, JSB getting funds from BB) at 4½%. CCB loans out funds to UCMPs at 6% and UCMPs to farmers at 9%.

TCCAs affiliated directly to JSB (33 as in June, 1972) receive funds from the latter at 4½% interest. Such TCCAs are under the IRDP. They distribute supervised credit at 10% interest plus a service fee of 5%. The service fee is spent on supervision, training and extension services rendered by TCCAs.

TCCAs not directly affiliated to JSB are linked with CCBs. They receive funds at 4½% interest and realise 7% from the primary societies who distribute loans to individual loanees at 9%.

Takavi loans are usually interest-free and distributed through the general administrative machinery, union councils, local relief committees.

The institutional steps of the three credit agencies, as described above, can be diagrammed as follows:



Credit needs have been estimated by different groups, at different times, in different fashions. It has also been stated by some of these groups that in general roughly 15% of the total credit need is met by established institutional sources. Of these the ADB meets about 5.36% and co-operatives 7.73%.

3. Other Programme Activities

Of the three credit agencies mentioned earlier the ADB and the Takavi loan agencies do not concern themselves with other rural development programmes. Cooperative credit through CCB and UCMP is linked with the irrigation programme in TIP areas. Cooperative credit through the TCCAs/KSS is linked with irrigation, inputs supply, training, extension services, joint planning, assessment of individual needs, weekly meetings, savings. Special project area loans are accompanied by necessary supplies and extension services.

4. Relation to pre-existing local institutes

The credit programme through the TCCAs competes with programmes of the ADB, CCB/UCMP. It does not compete with the Takavi which is a distress loan. The new programme aligns itself to irrigation. It approaches other agencies to facilitate supply of seeds, fertilizer, pesticides and so on. It demands grouping of farmers as an essential precondition to consideration of loan demands. It prescribes a procedure of organisation, a period of probation before registration. It insists on weekly meetings at the village levels (for report by office-bearers, review of financial position,

joint plans, etc.) and weekly training of elected KSS leaders at the Thana. Supervision, weekly review, savings, etc. are not popular exercises, to begin with. The demands or disciplines of the new approach make it more hard than the previous approaches. There is competition between the soft programmes (credit without insistence on plans, training, savings) and the hard programme (with disciplines). The hard programme also realises a fee for services rendered. But with a visible impact on production, the payment of fees for services received is not resented. There are voices of opposition here and there. This is inevitable when soft and hard programme prevail simultaneously and neither meets the entire need. It is reasonable to expect that with its ability to bring new benefits (through storage, processing, marketing, transportation, etc.) to the farmers it will acquire greater acceptance.

The new institutional pattern (KSS at the village level and TCCA at the thana level) has filled up visible gaps in the old pattern.

The new programme was evolved through a process of experimentation in one thana in the country at the instance of the Academy for Rural Development at Comilla. The Academy is manned by local people. It has access to foreign advisory services.

5. Agricultural Pattern and Potential

Bangladesh is a small country (55,126 sq. miles) with a big population (75 million). It is a land of small farms with fragmented holdings. 78% of its people are engaged in agriculture. It has 22.6 million acres of cultivable land with an overall cropping intensity of 148*. The country has a high birth rate and no prospect of expansion of its land resources. It has, therefore, hardly any alternative but to increase its productivity per unit of land.

Land in Bangladesh is fertile. But it has been subjected to continuous use without adequate nourishment. Annual flooding replenishes it partly but not adequately and not in all areas.

Rice, the main food crop, is grown on roughly 24 million acres. The bulk of the rice fields are used for two rice crops annually while some are used for three and some for one. The country suffers from a chronic rice shortage.

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* Pakistan Census of Agriculture, 1960. A Summery of East Pakistan Data, Agricultural Census Organization. Ministry of Food and Agriculture, Govt. of Pakistan, P-4.

The average production of clean paddy per acre is 16.4 maunds (1342 lbs.). This is very poor compared to other rice growing countries*.

Yield Trend of Paddy in some countries of the World

	Unit: Lbs./acre.(1967)
1. Japan	5120.4
2. Italy	4612.8
3. U.A.R.	4443.6
4. Yugoslavia	4051.8
5. China Taiwan	3579.8
6. Indonesia	2101.6
7. Malaysia	1950.2
8. Ceylon	1905.7
9. Nepal	1763.2
10. Burma	1430.7
11. India	1380.3
12. Bangladesh	1342.0

Recent innovations of high yielding seeds accompanied with proper inputs and cultural practices has raised production and can raise it further. Effective adoption of some of these innovations and inputs, in the context of fragmented farm holdings can only be secured through extensive land reform or effective group action. Possibilities of new land settlements are limited. Similarly prospects of wide-spread land reforms resulting in consolidation of holdings are remote. This highlights the importance of careful nourishment of appropriate farmers' institution at different levels for supplies and services. Their linkage with institutions of research, training and evaluation is equally important.

* Extract from FAO Rice Report, 1969, Food and Agriculture Organisation of the United Nations, Rome, 1969.

Different parts of Bangladesh grows three rice crops at different times of the year. These are: Aus (April to July), Aman (Broadcast - April to December, Transplanted - August to December), Boro (January to May)*. Aus and Aman are rain-fed crops. Their sowing, transplantation, growth are heavily influenced by rainfall, draughts and floods. There is no dependable key to water-control during the monsoons in Bangladesh. As a result Aus and Aman crops suffer frequent damages. Boro, ~~a winter spring crop~~ depends on irrigation. Until recently it was grown only in low-lying areas with natural water storages. Unlike Aus and Aman, the Boro crop is immune from flood damage. With increasing controlled irrigation facilities and availability of fertilizer, the Boro acreage has increased in recent years. But man-made irrigation has its costs. The pace of use of irrigation and fertilizer was modest in the past. With the introduction of high-yielding varieties there was spectacular rise in production. Against the previous average of about 20 maunds of conventional varieties of paddy per acre, IR-8 production rose to anything between 40 to 60 maunds per acre. Despite added costs and labour the farmer is understandably eager to go for Irri Boro in a big way. But he is unable to install irrigation facilities on his own. He also needs support to buy seeds, fertilizer in time. Given these he is keen on adopting the new variety and the new cultural practices. Rising demands for irrigation facilities, rise in consumption of fertilizer, expansion of Irri acreage bear ample evidence of the farmers' response to new technologies and practices.

The success with IRRI varieties of rice resulted in the establishment of a Rice Research Institute engaged in the task of experimenting with and developing high-yielding varieties. Several good varieties for Boro and Aus have been identified. Their popularity is on the increase. Search for high-yielding Aman varieties still continues. IR-20 has already established its claim to attention for transplanted Aman.

With a planned programme of expansion of irrigation facilities and adoption of high-yielding varieties it is legitimate to expect that the present low per acre yield should increase and meet the country's food deficit.

The country is ready for such a programme. The farm population is eager to adopt innovations that yield profit. The pace of development would depend upon the Government's ability to promote irrigation facilities, supply essential inputs (seeds, fertilizer, pesticide, credit, etc.) and provide incentives to the farmers to produce more. Increased facilities for transport, storage, drying, processing are in demand. A price policy to induce production is urgently called for.

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* Ahmed, Kalimuddin. Agriculture in East Pakistan Ahmed Brothers Publication, Dacca, 1965. P-110.

The impact of increased availability of irrigation facilities and fertilizer on other winter crops is also visible. Supply of seeds and fertilizer and establishment of cold storages have resulted in remarkable increase in production of potatoes. Improvements in grain output should have its effects on animal-husbandry. Agricultural surpluses should promote conversion into milk, meat, eggs, etc.

Bangladesh produces about 1.02 million tons of raw jute on about 8% of its cultivated area (approximately 2.17 million acres). Some of this is of the best quality in the world. The world demand for jute is somewhat inflexible. The per acre yield of jute has remained more or less static over years. Recent researches indicate the possibility of using better cultural practices and fertilizer for increase in per acre yield thereby releasing fertile land for other crops.

Jute and jute goods are the country's largest export commodities. A small percentage of the jute crops is used for domestic purposes by the farmers themselves. Raw jute export to foreign countries earned Rs. 730.70 million in 1968-69 and the value of manufactured jute goods export amounted to Rs. 765.60 million in the same year. While the prospects of increased international demand for these products are limited the possibility of the present level of consumption are not questioned by competent analysts. The need for Bangladesh is now to increase per acre yield, find new uses of jute. Studies and experiments in these fields are in progress.

Bangladesh produces about 60 million pounds of tea per year. Tea worth about Rs. 291.20* million used to go annually to territories now in Pakistan. Tea now needs new markets.

Cotton, Tobacco, Sugarcane, Oil seeds, are in short supply. These crops are raised on flood-free land. Sugarcane is now facing a serious competition with irrigated rice crop. The solution to the problems of these crops lies in increasing per acre yield.

Rainfed agriculture in Bangladesh is very vulnerable to floods and cyclones. She has to develop skills to make effective use of such natural endowments as can counter nature's own vagaries. Salvation seems to lie in maximum use of its water resources. The hope of the future lies in being able to expand irrigation and provide matching supplies and services to increase production and raise productivity per unit of land.

Experience has shown that, given the basic facilities, the farmer can and does use them for increasing production. The small farmer who constitute 60-70% of the farm population can

* $1 = Rs.4.80 during 1968-69

use the modern inputs only if they are organized into groups. Organized groups adopt innovation and accept change with commendable speed. This is evidenced by the rate of use of irrigation facilities, tractor cultivation, use of fertilizer and pesticide.

Use of Modern Inputs by the Farmers of Comilla
Kotwali Thana

Inputs	1965-66	1966-67	1967-68	1968-69	1969-70
Area cultivated by Tractor (Acre)	1583	2628	4841	6154	5712
Area Irrigated (Acre)	1305	3077	5184	8527	11261
Qty. of Fertilizer used (lbs.)	2295861	3513815	3665102	4291224	8518808
Qty. of Insecticides used (Lbs.)	20126	25941	57611	50688	159000

A New Rural Co-operative System for Comilla Thana, Tenth Annual Report, 1969-70. BARD, Comilla, Jan. 1972.

The country's land capabilities are not yet fully exploited. Its potential for agricultural growth are good. Its need for increased agricultural production is urgent.

B. Objectives

1. General objectives

a. Announced - The proclaimed socio-political objectives of the new nation are Democracy, Socialism, Nationalism and Secularism. Major utilities, such as, electricity, water resources development, railways and substantial part of water and road transport are in the public sector. Recently banks, insurance companies and big industrial concerns have been nationalised.

Government attaches great importance to development of agriculture. Government's investments in promoting of rural infrastructures, irrigation, mechanisation, inputs supply for agricultural growth are rapidly increasing. They are also committed to adopt measures to promote training facilities and rural institutions conducive to overall socio-economic uplift. Steps have already been taken to relieve the small farming population (owners of upto 8.3 acres) from the burden of land revenue. A ceiling (33 acres) has been fixed for family holdings of agricultural land. Studies on land reforms, cooperative farming have been initiated. Programmes of food self-sufficiency, mass literacy, rural development cadres are under discussion.

While the long term objectives of the nation is evolution of an exploitation-free society, its immediate objectives are increased production in different fields, particularly agriculture.

b. Apparent - The political party in power was elected in 1970 on a six-point programme of autonomy and greater allocation of resources to the then province of East Pakistan. They promised extensive measures to remove disparity of income between the then two wings of the then Pakistan. Subsequent events led to a bloody war of liberation and Bangladesh emerged as an independent nation. Independence was achieved at great sacrifice in men and material by the people. The leaders' previous commitments have since been reaffirmed. Following independence there has been further rise in people's expectations. The party in power has to redeem its pledges to reduce concentration of wealth in the hands of a small number of people. They are trying to fulfil their commitments. There is hardly any alternative to such a path.

Cooperative institutions, credit, training, etc. are expected to play a vital role in this process. According to a survey of Agricultural Credit in 1966 - rural families have a preference for co-operatives as an agency for agricultural credit.*

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* A Survey Report on Agricultural Credit - Registrar of Co-operative Societies, 1967. P-83.

Co-operatives have been called a first step towards establishment of socialistic system. The Prime Minister of Bandladesh recently said "My dream is that each and every people of my country would get his food, shelter, education and a better standard of life. For this, cooperative should play a vital role. Because cooperative is a means to socialism and democracy"*

2. Terms of Loan

a-b. Purpose - The bulk of the cooperative credit now available is for short-term (6-12 months) production purposes, These cover amounts needed for purchase of irrigation water, fertilizer, seeds, labour and some consumption needs. Some of this, such as, for fertilizer, seeds, is disbursed in kind. Cash is given out for labour costs and consumption needs. The Survey Report on Agricultural Credit** assessed that 43% of credit went to direct agricultural purposes, 9% to non-farm expenditure and 48% to family expenditure helpful to agricultural purposes.

Roughly 20% of the cooperative credit is of medium term (3 years) for purchase of agricultural equipments, bullocks, release of mortgaged land, etc. No long term loan is given by the cooperatives.

The ADB has arrangements to offer long term loans (of over 5 years) for land development, purchase of agricultural equipments.

Terms of Loan

Terms	Co-operatives	ADB
Short Term	6 to 12 months	Upto 18 months
Medium Term	Upto 3 years	Upto 5 years
Long Term	-	Upto 15 years

* A message to the National Co-operative Seminar organised by National Co-operative Union on 30-6-1972.

** A Survey Report on Agricultural Credit - Registrar of Co-operative Societies, 1967, P-82.

c. Organisation - The ADB has its headquarters at Dacca the capital city. It has 77 branches. The branch offices are headed by experienced managers. Individual loan applications are examined by professional investigation staff. After investigation by the field offices the cases are further examined by the head office to ensure correctness of details, adequacy and validity of supporting documents. Cases are then put up to the Bank's managing committee for sanction. After such sanction funds are released in cash or kind through the regional offices. The process is long. It is frustrating to such farmers as need assistance quickly or as do not have time and energy to pursue such an application through different stages.

The cooperatives operate through 62 CCB/4135 UCMP and 52 TCCAs. All of these do some advance planning. TCCA/KSS do so for each crop. KSS prepares loan application in the light of assessments made in consultation among its members and with thana level experts. TCCAs secure funds from relevant CCB or JSB. Usually they receive allocations in time and disburse loans according to previous plans. Local groups and local officials play an effective role both in planning and distributing of loans. TCCAs make loans to KSS who then distribute those to individual members. Assessments, decisions and disbursements are quicker through KSS/TCCA.

Conceptually each CCB is an autonomous legal entity and is free to invest its own resources within the limits of cooperative laws. CCB's operations are supervised by officers of the Co-operative Directorate. CCB's freedom of operation is, in practice, marginal.

2. Local Structure

The structure of the:

Local office of the Agricultural Development Bank at Comilla,

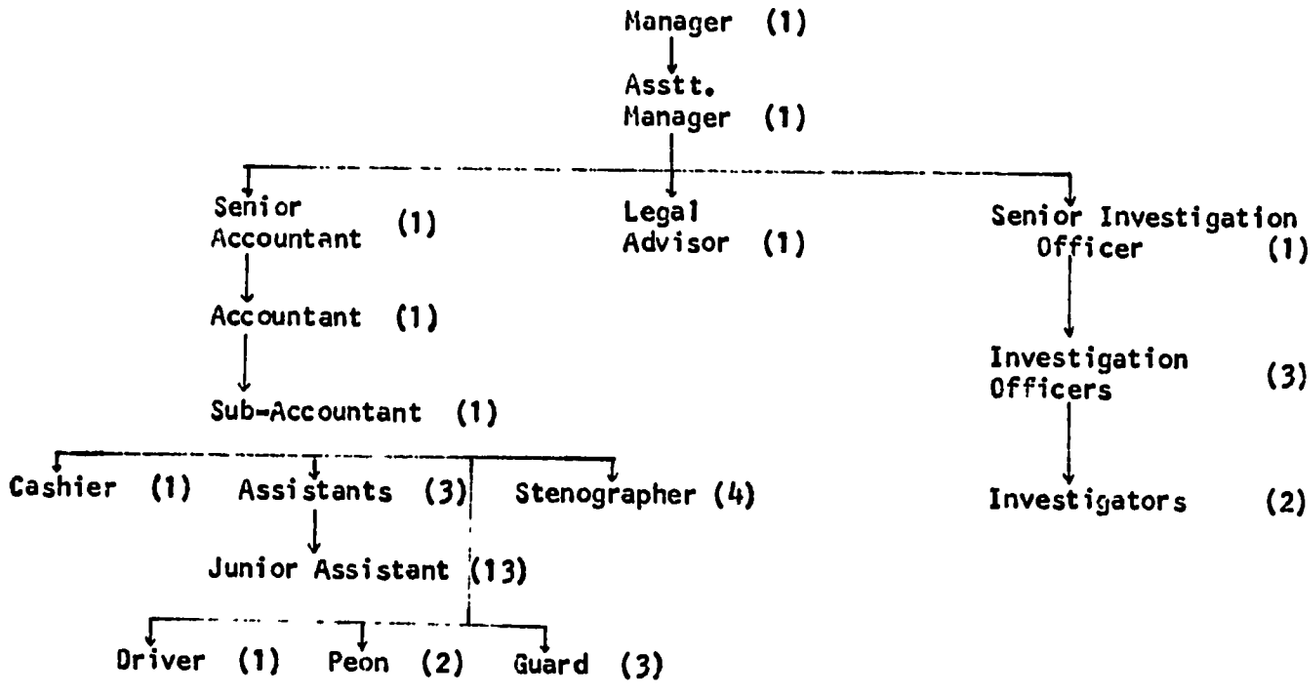
The Central Co-operative Bank at Comilla,

The Agricultural Co-operative Federation at Comilla Kotwali Thana,

The Thana Central Co-operative Association at Barura Thana,

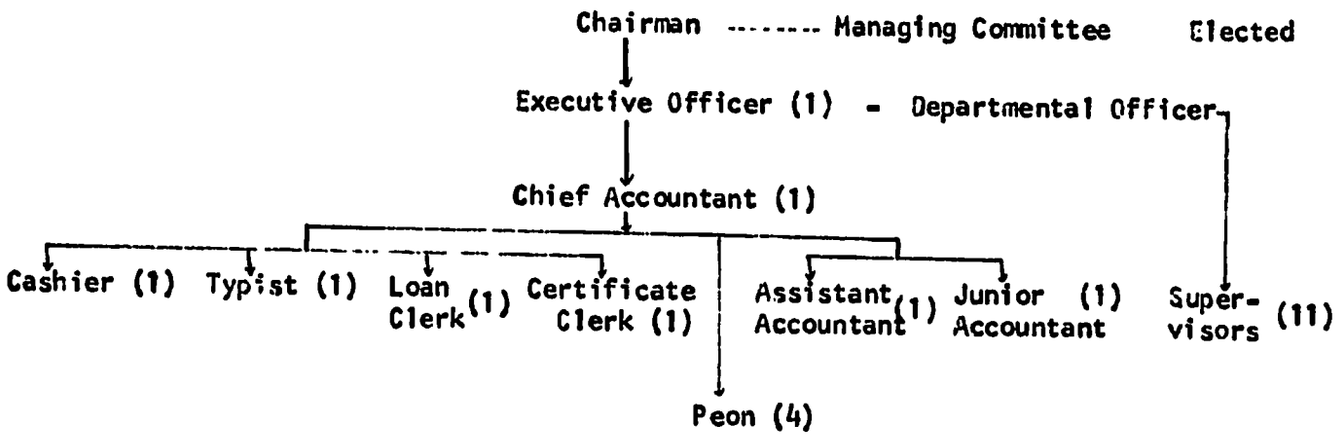
are furnished below.

STAFFING PATTERN OF THE AGRICULTURAL DEVELOPMENT BANK BRANCH AT COMILLA.



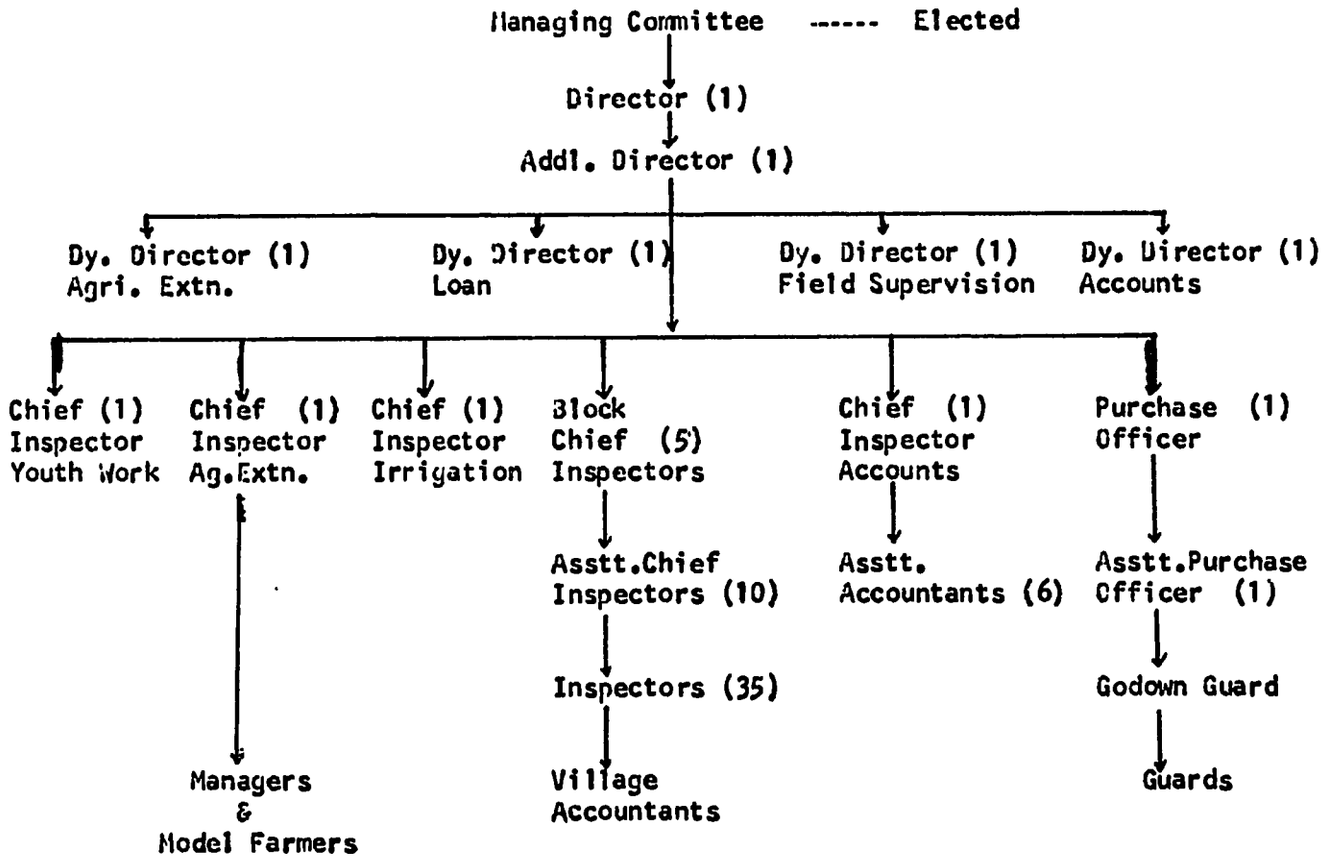
Source: ADBB, Comilla.

STAFFING PATTERN OF THE COMILLA CENTRAL COOPERATIVE BANK

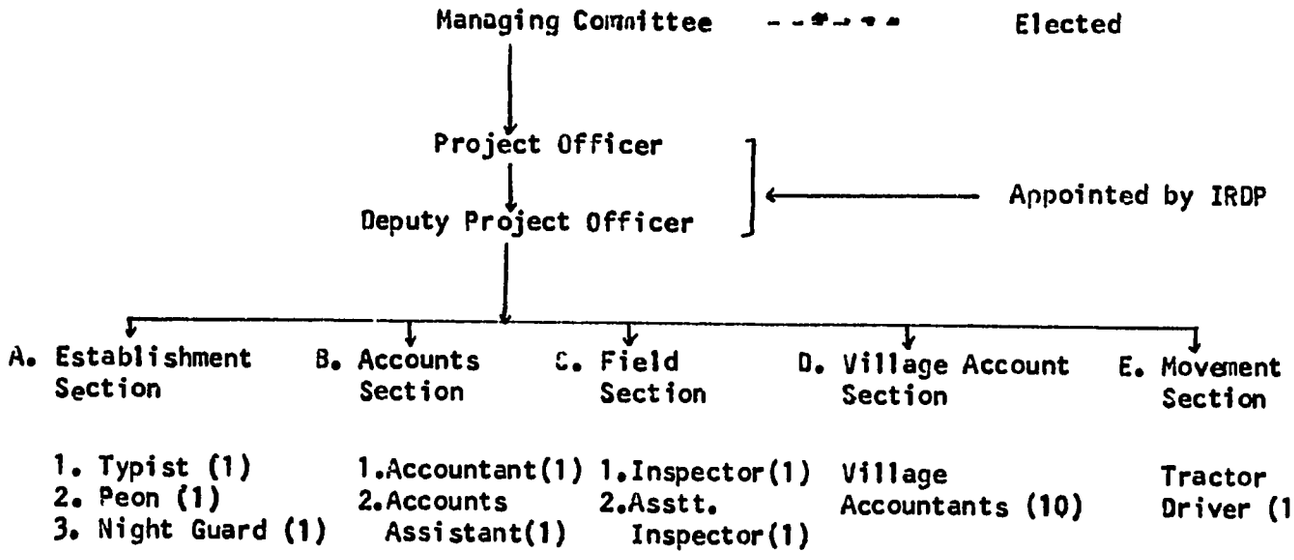


Source: CCB, Comilla.

STAFFING PATTERN OF AGRICULTURAL COOPERATIVE SOCIETIES FEDERATION
COMILLA KOTWALI THANA



STAFFING PATTERN OF BARURA TCCA



Source: Barura TCCA.

D. Beneficiaries

1. Selection Criteria

The ADB deals with credit-worthy farmers who can offer acceptable collateral securities for required loans.

Cooperative credit is available to small owner farmers who are members of primary cooperative societies. They offer their land under cultivation as security. Small farmers who do not have much land of their own but who cultivate other peoples' land on lease terms are discriminated against if their own land is not considered adequate for purposes of security.

Loanees who are in default in repayment of previous loans are not entitled to get subsequent loans until their payment records improve. In practice such defaulters as have influence on local managing committees manage to get repeated loans.* Alternatively village societies or individual members borrow from private sources, at very high rates of interest for short periods, to effect repayment and to secure a subsequent loan. This is done in collusion with the field staff and even managing committee members.

The cooperative laws provide for a certificate procedure** for realisation of loans by disposal of mortgaged properties. Assistant Registrars of Cooperative Societies at the district level are authorised to issue certificates. But the implementation of such certificate procedure is time-taking, cumbersome and expensive.

2. Graduation Policy

There is hardly any graduation policy. Borrowers can go on borrowing year in year out. Those who do not default repayment get fresh loans easily. Under the TCCA/KSS programme those who repay regularly and save regularly have full assurance of fresh loans when they need it. In fact most borrowers are in the habit of borrowing more and more as time goes. With added resources at hand they acquire new assets. They buy land, build houses and so on. They spend some money in acquiring such goods as have utility and prestige value such as, Bicycles, watches, transistors, etc. Borrowers who repay regularly also save regularly. They continue as members of cooperatives.

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* Ahmed, Badaruddin. Causes of Loan Default By Agricultural Co-operative Societies, PARD, Comilla, 1969 (Unpublished) P-7.

** A process of realising the defaulting loan from the mortgaged land through legal action.

Such cooperators as use short term loans effectively and profitably for sometime demand and qualify for medium term and long term for acquisition of tangible assets.* Inadequacy of resources for such loans limit such accommodation. Graduation is thus substituted by repetition of short term loans.

3. Number of Types

Different institutions offer credit on different terms and conditions for different crops. The ADB's facilities are best used by organised tea planters, sugar mills and big farmers. Short term co-operative credits are available for production purposes particularly for rice crops.

4. Other Sources of Credit

Farmers in this part of the world have been chronically indebted for generations. Institutional credit have been very meagre compared to farmers' needs. Before the passing of the Debt Settlement Act of 1937 a class of usurious money-lenders thrived on the ever increasing needs of the farmers. Such money-lenders have been notorious for their unending greed to get as much as was possible out of each investment. Institutional credit even in the sixties met only about 15% of the total estimated need. Money-lending is legally banned. Money-lenders as a class do not exist. In the absence of alternative institutional credit facilities the rich farmers, traders, contractors, have partly turned into money-lenders. Their rates of interests are high and vary according to the needs of the client and availability or otherwise of alternative sources of credit. For small amounts they use their influence to secure repayments either in cash or kind. For comparatively big amounts the loans are secured by clean deeds of transfer of properties by the client in favour of the lender.

In areas where the integrated rural development programme (IRDP) has progressed the needs of the small farmers are being met through the TCCAs. The money-lenders, who operate in disguise, still have business. They come up with ready cash, at high rate of interest, when the farmer has to pay off accumulated dues to the co-operative at a time.

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* Khan, Akhter Hameed. Tour of Twenty Thanas, PARD, Comilla, Feb. 1971, P-89.

5. Profile of Farm Community

A farm community in an average village has about 20% landless or near-landless people who sell their skill. There are about 60% small farmers who with great efforts produce enough, in a good year, to meet their bare consumption needs. About 10% are surplus farmers who sell some products after meeting their family consumption. The remaining 10% are engaged in various professions, trade, industries.

The landless or near-landless peasants depend on farm occupation on other farmers' land. During sowing, weeding, harvesting seasons there is heavy demand for their services. At other times they have to seek work. In the dry season they engage themselves in various programmes that involve earthwork. In recent years Rural Works Programme has offered considerable employment opportunities for such people. Irrigation in the dry season has also created farm jobs for them. The landless peasant does not receive anything from the cooperatives.

The rich farmer does not very much need the support of cooperatives. He is creditworthy and can attract Commercial Banks' or Agricultural Development Banks' support.

The small farmers (between 1 to 5 acres) benefit most from the cooperatives. Individually they are unable to get access to many of the modern agricultural inputs. They have to get together to use them. They need credit at times of ploughing, sowing, weeding, harvesting, etc. They form the largest number in cooperatives. There is thus considerable homogenity in the cooperative groups. Roughly 40% of the farmers in Comilla Kotwali Thana have joined the cooperatives. Others are likely to join with expansion of facilities. The main component of such expansion would be in the form of irrigation facilities. Village factions, local groupings hinder expansion of cooperative membership. People already in the cooperatives, at times, resist the entry of people who do not belong to their own groups.*

Very few farms in this country are all in one or contiguous plots. Many farmers have their farms split in a number of plots and spread over wide areas.**

There are one or two comparatively big farmers (above 5 acres) in each society. Their comparative affluence enable them to influence others to their own advantage.***

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* Haque, Anwarul. "Cooperation under Extreme Traditionalism and Unfavourable Physical Conditions". A Study of a Cooperative in an East Pakistan Village in Cooperatives and Planned Change in Asian Rural Communities, UNRISD, Geneva, 1970. Pp-67-68.

** The 1960 Pakistan Census of Agriculture shows that 90% of the farms of the then East Pakistan are fragmented.

*** Khan, Ali Akhtar. Rural Credit Programme of Agricultural Co-operative Federation, BARD, Comilla, NOV. 1971. P-28.

E. Lending Policies and Proceedings

1. Portfolio

Supervised credit through cooperatives coupled with supplies, services and group action is emerging as the most effective system of institutional credit for small farmers in Bangladesh. The procedure adopted in Comilla emphasises group planning at village levels, technical scrutiny and sanction at the thana level, disbursement from the thana cooperative association to the village cooperative society and by the village society to individual farmers. This procedure generates peoples' participation in planning, group-pressure in securing necessary supports and group responsibility in ensuring programme disciplines. The purposes for which loans have been issued and used in Comilla Kotwali Thana (the laboratory area of the Bangladesh Academy for Rural Development) are many as will be evident from the statement below:

Purposewise Distributions of Loan by A.C.F.

Sl No	Purpose	Total amount (Taka)* in years				
		1966-67	1967-68	1968-69	1969-70	1970-71
1.	Aus	5,52,620	7,89,101	8,86,150	87,750	69,399
2.	Aman	82,920	2,75,321	3,67,978	73,975	7,45,120
3.	Boro	90,093	8,28,944	7,56,390	8,19,890	6,42,065
4.	Food	2,215	1,320	33,034	-	-
5.	Special business	65,610	1,14,850	-	-	-
6.	Special (Rickshaw)	8,335	2,150	-	-	-
7.	Bullock purchase	29,435	73,150	17,050	-	4,000
8.	Pisciculture	2,600	1,100	6,800	-	-
9.	Dying & printing	20,450	29,750	50,000	10,000	-
10.	Milch cow	50,900	13,100	5,500	-	-
11.	Potato	69,095	1,56,397	1,23,330	22,950	34,150
12.	Sugarcane	1,56,225	1,41,575	-	-	-
13.	Irrigation	58,800	1,25,050	32,350	25,540	300
14.	Fuel & Lubricant	24,300	52,450	37,980	19,000	5,900
15.	Vegetables	2,450	4,390	400	-	43,650
16.	Machinery	8,000	95,065	370	20,189	-
17.	Land Release	1,57,515	7,16,705	2,40,950	1,20,540	6,800
18.	Construction of Irrigation Dam	900	1,200	2,400	-	1,500
19.	Lease of land	93,155	7,25,550	5,42,710	2,97,400	-
20.	House Repairing	5,815	4,200	33,400	6,300	-

Contd. - 25

* $1 = Taka 4.7

Sl. No.	Purpose	Total amount (Taka) in years				
		1966-67	1967-68	1968-69	1969-70	1970-71
21.	Electricity	-	44,409	5,445	-	-
22.	Poultry Raising	-	-	500	-	-
23.	Brick Manufacturing	-	10,000	72,000	-	-
24.	Land purchase	-	36,200	48,450	-	-
25.	Land Improvement	-	500	-	-	-
26.	Special	-	-	64,205	18,700	-
27.	House Building	-	-	31,000	-	-
28.	Accelerated Rice Production Programme	-	-	-	1,84,344	-
	Others	1,88,318	-	-	-	-
	Total:	16,70,651	42,44,477	33,56,392	17,12,578	15,53,684

A New Rural Cooperative System for Comilla Thana.
Annual Reports, PARD, Comilla, June 1968, April 1969,
June 1970, January 1972.

It will be observed that to begin with, the majority of loans was for the irrigated rice crops. With the availability of seeds and cold storage facilities there was rise in loans for potato crop. Gradually loans for other agricultural purposes, such as, purchase of bullocks, release of mortgaged land, etc. came in. Later on loans for non-agricultural purposes, such as, small business, brick burning crept in. It is seen that 1967-68 witnessed a big expansion of loaning activities. Loans were given for a wide variety of agricultural and non-agricultural purposes.

In the wake of this expansion many farmers secured more than one loan at the same time. They did not use all the loans for purposes for which they were given. Not all the loanees were able to use the money profitably enough. Some of them may have used loans for unproductive investments. As a result there was no immediate return from such investment and there was default in repayment.

According to the rules, agricultural loans should have been made on the basis of carefully worked-out production plans. But with the expansion of loan resources, production plans were possibly not insisted upon. There are rules to restrict the number and quantum of loans to each loanee. But these rules were neglected and disciplines were sacrificed.

Many of the loanees are repeaters from year to year. In many cases the loan amounts have gone up from year to year. In some cases repeat loans have just been change of documents every year showing bigger amounts without real repayment of old debts.* Loanees in some cases have borrowed, on short term basis, at very high rates of interest, from private money-lenders, to effect payment of old loans to cooperatives, just to enable themselves to go through the motions of repayments and thus qualifying for a bigger loan. Loan-taking in such cases, became a regular periodical affair without specific impact on agricultural growth.

Insistence on purchase of cooperative shares and weekly savings provided some protection to the cooperatives. Against a total investment of Rs. 15.6 million in loans in Comilla Kotwali Thana as on June 30, 1972 the cooperatives (KSS) have Rs. 1.03 million in shares and Rs. 1.34 million in savings. Roughly 40% of the total loaned amount is thus held in cash in addition to mortgage of the loanees' properties to the primary cooperative societies.

Loans, services and new technology, together, have helped the farmers to produce more, consume more, sell more and build some capital of their own. But has it made them more self-relient ? If the loan is now withdrawn will they continue to prosper ?

Farmers who have profitably used short-term loans often plead for longer term loans for acquisitions of such assets as threshers, sprayers, bullocks, etc. whose benefits cannot be secured in very short periods. Some farmers ask for loans to build houses, buy land and so on. Availability of such loans is very limited just now.

There is a good case for progressive availability of medium term (upto 3-5 years) and long term (over five years) loans for specific purposes. Progressive portfolios are needed to lead the farmers step by step along paths of planned change.

It is worth noticing that most of the small farmers, to begin with, are good performers in respect of utilization and repayment of loans made in their favour. They are amenable to disciplines. The comparatively rich farmers who initially do not relish the disciplines of production plans, weekly savings, later on enter into the cooperatives and use it more.

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* Ahmed, Badaruddin: Causes of Loan Default in Agricultural Cooperative Societies, PARD, Comilla, 1969 (unpublished) P-7.

Credit and services are not enough to enforce disciplines or to ensure progressive changes. There is a case for increased institutional control on the disposal of the surplus produce as a result of use of the credit. Arrangements of drying, storage, processing, marketing of agricultural produce and availability of goods for farmers' consumption through the same organisation as provides supplies and services, is an appropriate next step.

2. Interest Rates

Jatiya Samabaya Bank (JSB) receives its credit resources from Bangladesh Bank (BB) at an interest of 2½%.

JSB lends to the CCB at 4½%, CCB to UCMP at 6% and UCMP loans out to farmers at 9% interest.

JSB loans out to TCCAs 4½% interest. TCCAs loans out to village societies at 10% plus 5% service charge and uses the cushion between what it receives from primary societies and what pays to JSB in the manner described below:

TCCA realises :	Interest	10%
	Service charge	5%
		15%

TCCA distributes its receipts as follows:*

TCCA returns to JSB	4½%
Village society	2%
Commission to village society manager for supervision and realisation	1%
TCCA supervision and services	5%
TCCA	2.5%

The rates of interest charged by private money-lenders is much higher than charged by cooperatives. Such rates vary from day to day from situation to situation. It is anything more than 50%**

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* A New Rural Cooperative System for Comilla Thana. Ninth Annual Report, 1968-69, PARD, Comilla, 1970. P-21.

** Fairchild, H.W. & Haq, Shamsul. A New Rural Cooperative System for Comilla Thana. First Annual Report, PARD, Comilla, July 1961. P-6.

Cooperative credit is often tied with supply of inputs such as, fertilizer, seeds, irrigation water, etc. The prices and supply of these inputs are controlled and subsidized by established Government agencies. A part of the loan advanced for labour costs and consumption may have inflationary influences. The real cost to the borrowers in cases of loans from private sources is very high.

3. Collateral

The cooperatives ask for a mortgage deed in favour of the primary society with full evidence of ownership of the property mortgaged. Besides, the shares and savings at the farmers credit also serve as additional securities. The forms used by the cooperatives are simple.

4. Other Subsidy

Farmers in Bangladesh now receive fertilizer at a subsidy of about 30%. The capital cost of irrigation equipments, main irrigation canals are borne by the Government (under TIP/RWP). Farmers only pay a rental for equipments and bear the oil-fuel costs. Pump drivers and mechanics are paid for by the Government. Pest control services, though inadequate, are free. Costs of training, extension and supervision are borne by the Government.

5. Appraisal Technique

A village primary society (KSS) has access to full details of the properties of each of its members. The managing committee, elected by the members, is knowledgeable about the assets and liabilities of its members. It is easy for them to assess the needs of individual farmers in the light of prices of inputs, such as, fertilizer, water, etc. and a formula evolved for each crop.

TCCAs do not extend loans directly to individual members. Primary society members make a joint production plan on the basis of which they prepare a joint loan plan. This loan plan is verified by the area Inspector. Savings, regular attendance at the weekly meetings, repayment records, production performance, land security, etc. are important factors in such assessment. After such verification at the field level the loan plan goes to the Loan Officer who submits the same to the Loan Committee. The Loan Committee, after due consideration, sanctions the loan. The sanctioned amount goes to the KSS account. The members of the primary society thus get the loan from the village society according to their assessed requirement. The village society remains responsible to realise the loan and repay to the thana association. Reporting about disbursement of loans to individual members, utilization and repayment of loans are discussed in weekly village meetings, weekly thana meetings. There are periodical appraisals by the thana association and the JSB.

The process is simple and fairly fool-proof. It is susceptible to misuse by collusion among members of the managing committee, the farmers and the field staff of TCCAs. Slackness in supervision of thana associations and delay in audit of their accounts may accumulate defaults.

F. Collection

1. Repayment Record

Repayment record of cooperative loans has, in general, been better than that of other loans. Repayment in Comilla Kotwali Thana was very good in the initial years of the programme (1960-66). It started deteriorating with sudden pumping in of increased quantity of loans for purposes other than farming and relaxation of disciplines of production plans.

It has been observed that the smaller farmers are better repayers of loans. Comparatively bigger farmers have propensity to take more loans, default more and also grumble for concessions in respect of interest rates, repayment schedules and finally for exemption on one plea or another.*

2. Methods

Collection is carried out in weekly meetings of village societies (KSS) by the manager of the society. He issues a receipt to the debtor and enters the amount in his book at the meeting in presence of others. Realisation drives are undertaken at harvest times. The manager deposits weekly realisations to the TCCA on the next meeting day. The time lag between these days gives him and the TCCA's field staff an opportunity to make other use of the funds if they so choose to do.

Payment in general is made in cash. At times, payment in kind is encouraged. This is possible only when there is storage facilities or an immediately available market for the goods. KTCCA has some godowns of its own. It has a small rice mill. It is now setting up a big rice mill. The mill with its processing capacity and storage facilities should be able to serve its members better. But this will depend upon a system being evolved for grading, storing, pricing of the products offered by the loanees. A careful survey of markets and establishment of links with big purchasers will be necessary. This process needs the support of a governmental price and procurement programme. Facilities of storage, processing, marketing are not available at all TCCAs.

3. Special Enforcement Procedure

There are collection drives at suitable times of the year. Group meetings, rallies, conferences, campaigns help collection.

* Ahmed, Badaruddin. Causes of Loan Default by Agricultural Cooperative Societies. BARD, Comilla, 1969 (unpublished) P-10.

In case of extreme delinquents legal steps are taken. The law provides for a certificate procedure for realisation of cooperative loans. The process, however, is not easy to enforce. Finally, group loyalty and group pressure prove more effective than any other measure. These are facilitated by regular weekly meetings, discussions throughout the year, watch over production and disposal.

4. Rescheduling

Rescheduling is not normally encouraged. But during the last three years the country has passed through one crisis or another ending up with the year-long struggle for liberation in 1971. During this period rescheduling has became a common feature. The commonest form of rescheduling for short term loan is change of documents at the end of each period. In consideration of recent difficulties the Government are considering about conversion of short term loans issued in the last few years into longer term loans.

G. Costs and Financing

1. Portfolio - Profits and Losses

The resources of the TCCAs comprise Government grants through the IRDP, loans from the JSB, interests and service charges, profits from fertilizer dealership and occasional marketing operations. At Comilla, experiments with rice milling, potato cold storage, milk processing, poultry raising, have been undertaken with mixed results.

Costs on account of 3 key officers (a Project Officer, his deputy and accountant) and training of KSS leaders is borne by the IRDP grant. Fertilizer dealership, at present, leaves a good margin on costs. Costs on account of field personnel is borne out of service charges realised from the borrowers. Some bank interest and a part of the interests from borrowers provide some cushion to TCCAs.

TCCAs, as of now, will not be able to bear their costs without Government support. With increased credit operations, income from marketing, processing, storage and machinery hire, TCCAs should acquire more viability. This will call for careful control of administrative costs and increased efficiency in operations.

2. Administrative Costs

The Agricultural Cooperative Federation (ACF) affiliated to the KTCCA is the agency that handles the farm credit programme. KTCCA makes funds available to ACF. The main components of ACF's costs are accounted for by management personnel at the head office, training staff, field accounts staff, supervisors and loan realisation staff. As of June 30, 1972 ACF had 137 persons on its pay rolls at a monthly cost of about Tk. 35,000.

The managing committees of KSS and the ACF render some services in respect of assessment of loan needs and realisation of loans. Managers of KSS receive a commission out of the service fees realised from the loanees. This reduces the establishment cost of the ACF and ensures participation of local leaders in lending and realising.

Extension works for introduction of technological innovations is done jointly by a number of agencies, such as, the Government staff for agricultural extension, irrigation, cooperatives, TCCA/ACF employees. KSS leaders act as effective fielders in this respect.

3. Beneficiary Savings

Share purchase and weekly savings have important components of the TCCA credit programmes. Savings and shares are deposited in banks. These resources are not directly used for loaning to farmers. They serve as additional security and as a cushion for the central association. If, however, credit resources are not available in time from JSB these deposits are deployed for financing credit programmes of limited size. Accumulated savings and shares under the 3 TCCAs are shown below:

Capital formation by ACF (in Lakh Rs.)*

Years	Savings	Shares	Total
1961-62	0.28	0.11	0.39
1962-63	0.82	0.41	1.23
1963-64	1.51	0.69	2.20
1964-65	1.70	1.35	3.05
1965-66	2.02	2.14	4.16
1966-67	2.87	2.64	5.51
1967-68	5.54	5.41	10.95
1968-69	8.31	6.88	15.19
1969-70	9.75	8.70	18.45
1970-71	11.49	10.17	21.66

A New Rural Cooperative System for Comilla Thana.
Ninth and Tenth Annual Reports, 1968-69 and 1969-70.
BARD, Comilla, 1970 and 1972.

* 1 lakh = 100,000 units
$1.00 = Rs. 4.80

Capital formation by Hajigonj TCCA (in lakh Rs.)

Years	Savings	Shares	Total
1965-66	0.16	0.16	0.32
1966-67	0.19	0.04	0.23
1967-68	0.26	0.24	0.50
1968-69	2.85	1.63	4.48
1969-70	5.06	2.76	7.82
1970-71	6.09	1.68	7.77
1971-72	8.09	5.70	13.79

Source: 1. First Annual Report, Rural Development Project, Hajigonj, (from July 1965 - Jan. 1968) RDP, Hajigonj, January 1968.

2. Monthly Reports on Integrated Rural Development Programme, Comilla.

Capital formation by Barura TCCA (in lakh Rs.)

Years	Savings	Shares	Total
1968-69	0.16	0.14	0.30
1969-70	0.63	0.49	1.12
1970-71	0.93	0.75	1.68
1971-72	1.54	1.32	2.86

Source: Monthly Reports of Integrated Rural Development Programme, Comilla.

4. External Finance

The cooperative credit programme is financed with loans from the Bangladesh Bank to the Jatiya Sanchaya Bank against government guarantees. This practice cannot and should not go on indefinitely. JSB has suggested that the Government, the Bangladesh Bank and the JSB should get together to establish a fund to serve as the capital for JSB. With such a fund JSB should be able to operate as a regular bank in the field of agricultural credit.

Similarly ADB's funds are obtained from the Bangladesh Bank. The commercial banks have not taken much of a part in agricultural credit operations.

Since liberation of Bangladesh all commercial banks have been nationalised. Such banks have a good network of branches throughout the country. It is appropriate in this context that their services are used both for credit operations and for accumulation of savings.

5. Institutional Solvency

Over the years the TCCAs have handled sizeable volumes of credit. They have set a pattern and have acquired enough experience. But they have not acquired adequate strength to stand on their own without support. Figures below show the amounts issued as loans, amounts realised and cumulative balances.

Issue and Realisation of Loan by KTCCA/ACF
(in Lakh Rs.)

Years	Issue	Realisation	Balance
1961-62	2.36	0.60	1.76
1962-63	3.86	2.17	3.45
1963-64	5.20	2.87	5.78
1964-65	7.25	5.52	7.51
1965-66	7.96	6.59	8.88
1966-67	16.71	9.72	15.87
1967-68	42.44	18.01	40.30
1968-69	29.30	23.55	46.05
1969-70	17.13	17.74	45.44
1970-71	15.54	11.14	49.84

A New Rural Cooperative System for Comilla Thana.
Ninth and Tenth Annual Reports, 1968-69 and 1969-70.
BARD, Comilla, 1970 and 1972.

Issue and Realisation of Loan by Hajigonj TCCA
(in Lakh Rs.)

Years	Issue	Realisation	Balance
1965-66	0.88	0.12	0.76
1966-67	1.10	0.49	0.61
1967-68	2.29	0.68	1.61
1968-69	18.72	4.34	14.38
1969-70	40.94	14.88	26.06
1970-71	59.62	27.30	32.32
1971-72	89.59	31.91	57.68

Source: 1. First Annual Report, Rural Development Project, Hajigonj (from July 1965 - Jan. 1968), Rural Development Project, Hajigonj, Comilla, January 1968.

2. Monthly Reports on Integrated Rural Development Programme, Comilla.

Issue and Realisation of Loan by Barura TCCA
(in Lakh Rs.)

Years	Issue	Realisation	Balance
1968-69	0.65	-	0.65
1969-70	6.10	2.11	3.99
1970-71	11.46	6.22	5.24
1971-72	19.86	7.66	12.20

Source: Monthly Reports of Integrated Rural Development Programme, Comilla.

The administrative and training costs of the TCCA are largely borne out of Govt. grants through the ICLP. A part of their field services cost are borne by service charges realised from the loanees. Deposits with TCCAs in the shape of shares and savings are not always invested. As yet no future plan to use such resources to earn more profits than accrues through bank interests or to replace JCB loans by own resources has been made. Such projections are essential steps towards increased self-reliance.

6. Foreign Exchange

The programme has no impact on the foreign exchange reserves of the country. The loans are all in local currency.

H. Complementary Factors

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1. Technology

a. Distributing, Tying and Packing - A part of the credit is used for purchase and distributing of inputs, such as, fertilizer. TCCAs are wholesalers who receive fertilizer from the ADC and distribute these through KSS.

b. Programme Extension and Supervision - Credit is accompanied by a series of supply, training, extension and supervision services. Managers and model farmers, elected annually by KSS, are to attend weekly training and review meetings arranged jointly by the TCCA and the TTUC. These KSS leaders are required to hold weekly meetings in the villages. Such meetings serve both as review sessions and training classes. Thus, there is a continuous chain of relay of farmers' problems to experts at the thana and replies from experts to farmers. Besides, practical training class as are arranged for model farmers at the village Training Centres twice a month. TCCA inspectors are to visit farmers in the villages. Visits to weekly meetings at regular intervals provide an excellent opportunity to meet farmers in groups.

c. Other arrangements for technical transfer - Good experts at the thana can furnish authentic answers to the farmers' problems. This, coupled with availability of inputs at the thana, make such advice more effective. At the village level the model farmers are expected to use the new technology on his own farm thus providing a practical demonstration within view of the other farmers. Extension agents find it helpful to use the model farmers' plots to demonstrate the efficiency of their advice to the farmers. Technical transfer, is more assisted by actual use of advise by a fellow farmer than by lessons from an uninvolved extension agent.

Extension activities described above are in addition to extension services rendered by the Government extension personnel. These additional services are offered by the TCCA out of service charges realised from the loanees. As the same personnel cover both credit and technical services, there is a tendency to put more emphasis on loan realisation than on absorption of technology.

d. Nature of Technology - The new technology centre mainly around high-yielding rice and vegetable seeds which cannot be made use of without irrigation, fertilizer, pest-control. The results of use of these inputs are very impressive in simple terms of production and profit. The new technology is thus irresistible. Its expansion is conditioned by the availability of water sources, availability of pumps and tube-wells. With introduction of irrigation facilities the demand for simple machines, such as,

weeders, threshers, sprayers, tillers and tractors increase. Fragmented farm holdings of small sizes are unsuitable for extensive use of tractors. But even then, tractors have an appeal because of their capacity to break the hard ground in the dry season, their speed and deep ploughing which effect crop-growth before the monsoon sets in. Machine-use is seasonal but is of importance. The demand for modern technology is based on cold calculation of advantages.

The credit programme aligns itself to particular crops which need more inputs and more intensive labour. Despite many handicaps the farmers adopt such technologies as it increases production. Informed extension agents can facilitate the process. All the extension agents are not trained enough to answer the farmers' questions or to attend to the machines at times of difficulty.

2. Supplies and Sales

a. Programme supplies - Nitrogenous fertilizer (Urea from natural gas) is manufactured by Government-owned factories (Industrial Development Corporation - IDC) in the country. Import of other fertilizer is made by the Agricultural Development Corporation (ADC). Locally manufactured and imported fertilizer are handled by the ADC from the production or import point to the thana headquarters. Thereafter TCCA's (where they exist) or private dealers (where cooperatives are not strong enough) distribute them through rural cooperatives or private dealers. The extension agents do not handle these supplies except pesticide which is distributed free. Fertilizer prices are subsidized to the extent of about 30%.

b. Programme Infrastructure - Feeder roads, bridges, culverts, canals, major irrigation channels are built under the Rural Works Programme. The need for construction of storage and drying facilities in suitable areas is being increasingly felt.

c. General Access and Availability - Supply of fertilizer, pesticide and water are limited. Their distribution is managed through different organizations from the national to the village levels. Pumps, Tractors, Tillers, Sprayers are made available through the ADC. Some of these machines and other agricultural equipments, oil-fuel etc. are also available through private trade channels. There is an overall shortage of maintenance facilities for agricultural machinery. The ADC is setting up workshops at each thana to meet this need. The level of technical skill to operate and maintain these equipments is ~~xxx~~ low. ~~xxxxx~~ The ADC is running training courses to boost up facilities in these fields.

d. Guaranteed Sales and Price Supports - There is hardly any post-production support to the farmers. He is assisted to buy inputs with credit, to use new techniques with more labour and thus to produce more. But at the end of this process he is left to look after himself. With the present price level for agricultural products, in the open market, the farmer does not suffer. But this is not sure to continue. There is a good case for incentive prices declared in advance and procurement facilities to encourage the farmer to continue to produce more.

e. Insurance - Unlike other fields of business there is no insurance cover of any kind available to the farmers. He has to gamble in the midst of many uncertainties.

f. Other Progressive Marketing Arrangement - There is no service to help the farmer to store, transport, process, market his product. He is really on his own and, as such, an object of the traders' attention for good or bad.

g. General Marketing Conditions - The prevailing price for agricultural products does not cause any difficulty to the farmer in disposing of his produce except when he is unlucky to harvest at times of torrential rains or serious floods etc. But the present practices cannot lead to a system of target productions, timely disposal and expected profits. The process is thus fraught with serious uncertainties disadvantageous to the farmer. With rapid increase in production without corresponding price and procurement policies, the farmers may run into serious difficulties.

h. Profits and Risks - Irrigation which conditions the production of high yielding varieties of rice has gained unqualified acceptance among farmers. There is a demand for machines such as tillers, tractors, sprayers etc. These services are costly and are heavily subsidized. It is difficult, therefore, to deduce the economic impact of these service except in terms of increase in total production. Credit programmes supporting these services are successful in this sense. Despite the cost on these inputs the present price level leaves attractive profit margins for the farmers. These, however, do not testify how far the farming community has acquired self-reliance or growth potential without continuous support. Indications are that the absence of credit programme would adversely affect the pace of production and as such the prosperity of the farmers. An integrated programme of production facilities, selective technologies and products disposal is awaited.

III. EVALUATION

A. Performance

1. Apparent use of Credit

Agricultural credit has predominently been used for agricultural purposes, such as, purchase of seeds, water, fertilizer, etc. Use of such loans for agriculture is just now pretty profitable because of high price of agricultural products. This does not mean that diversion to other uses does not take place. Studies indicate that some amount of loan is diverted to unproductive purposes.* If loans are sanctioned liberally, supply of inputs are not made simultaneously with loans, supervision is relaxed, there is a visible tendency to divert loans to other uses than agricultural production. In communities which have used loans reasonably carefully it is important to provide for medium-term and long-term loans to lead farmers on to a path of place changes in successive stages.

Some part of cooperative loans is intended to meet labour costs and consumption needs. It is worth studying how much of this is unavoidable.

2. Effects

Crop loans have enabled farmers to take to irrigated cultivation in the winter season. There is visible increase in IRRI rice cultivation in the Boro season (January - May). IRRI Boro yield is higher and safer. This has meant a shift from traditional Aus Crop (April - July) which is vulnerable to floods. Credit has helped the cultivation of winter vegetables and winter fruits. Success with IRRI Boro, winter vegetables, etc. has prompted experiments and search for high yielding and quick-growing Aus and Aman varieties.

The following figures will show the contribution of improved rice varieties to the total production of rice in Comilla Kotwali Thana.

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* Khan, Ali Akhter; Rural Credit Programme of Agricultural Cooperative Federation, BARD, Comilla, Nov. 1971, P-42.

Production of different varieties of paddy in Comilla Kotwali Thana (in thousand mds.)

Seasons	Varieties	1968-69	1969-70	1970-71
Boro	IR - 8	196.1	332.8	419.4
	Pajam - 2	21.7	75.9	64.1
	Taipei - 177	89.0	84.0	119.6
	All varieties	337.7	508.3	618.5
Aus	IR - 8	40.6	63.5	114.0
	All varieties	207.2	560.1	337.1
Aman	IR - 5	-	31.0	120.2
	IR - 20	-	-	29.5
	Pajam - 2	7.8	13.8	85.6
	All varieties	621.2	712.5	814.4

Crop Survey Reports in Comilla Kotwali Thana, BARD, Comilla.

Cost benefit analysis of these new varieties of winter crop show substantial benefit to the farmers. Studies show that a farmer can get a net profit of Tk. 982.00 from one acre of land by cultivating IR-8 whereas the income from local variety is about Tk. 300.00*. Crop surveys show that in 1965-66 this thana produced about 7.61 lakh maunds of cleaned rice in Aus, Aman and Boro. The requirement for 1.71 lakhs of rural population of this thana was 7.70 lakh maunds at the rate of 16 oz. per day per capita rice consumption.1/ In 1969-70 the total production increased to 11.22 lakh maunds of clean rice in Aus, Aman and Boro, whereas the total requirement for the increased population of 1.85 lakh was 8.33 maunds of clean rice. Thus the thana is now a food surplus area.**

* Haque, Anwarul; Costs and Returns - A study of Irrigated Winter Crop, BARD, Comilla, July 1968, Pp-36, 56.

** Obaidullah, A.K.M.; Economic Impact of the Green Revolution in Comilla Kotwali Thana (unpublished manuscript).

1/ $1.00 = Taka 7.8
1 lakh = 100,000
1 maund = 82.3 lbs

b. Farm Income - Prices of agricultural products are very favourable now. Farm income is on the rise. Many farmers who used to suffer previously are now prosperous. The average farm income per family in this thana increased from Tk. 884 in 1963-64 to Tk. 2,736 in 1969-70 which means an increase of 210% over a period of six years. Their prosperity is evidenced by acquisition of new assets, admission of their children into schools, purchase of such things as, watches, bicycles, transistor radios and so on.

c. Technology - The demand for irrigation, inputs supply, extension services, and machines is mounting. Without the credit programme farmers would not have afforded to buy the new inputs or have access to the new technology. They could not have gone for high-yielding varieties which call for use of costly new inputs. The programme of supplies, services and institutions together, have facilitated the use of technology and increase in production.

d. Savings and other sources of Finance - Small farmers hardly saved anything previously. There was an unending process of transfer of assets from small farmers to big ones. Farmers now under the integrated rural development programme, are obliged to save through weekly deposits. But savings cannot yet be called a matter of decision. It has to be enforced. Farmers' own savings, on a countrywide basis a very small proportion of their credit needs.

Access to new technology, availability of essential inputs without a supporting credit will surely oblige farmers to borrow from other sources. Short-term production loans similarly increase the demand for medium and long-term loans for purchase of tangible assets. There has been a general expansion of credit facilities by commercial banks for other purpose than agriculture. Commercial banks have reached almost all thanas and big bazars. But they still do not do much in the way of agricultural credit. Rich farmers, traders, contractors lend money to needy farmers.

The rate of interests charged by private lenders is very high and varies from day to day, from situation to situation. The rate of interest charged by the conventional cooperatives is 9% without service. The TCCA/KSS charges 15% (inclusive of 5% service charge) and provide essentially needed services. The rate of interest has not been a subject of serious resentment by the farmers. Timely availability of credit and supplies are more important than interest rates.

e. Employment - The new high yielding varieties demand more care and efforts. Studies indicate that in the short run, there is an increase in demand for labour. Cultivation of high yielding variety of rice demand 50-100 percent more human labour than that

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* Rahim, S.A.; Rural Cooperatives and Economic Development of Subsistence Agriculture. Final Draft. BARD, Comilla, 1972. p-47 (Mimeo)

required for country varieties.* Use of pumps, tubewells, tractors, etc. have created big demand for drivers and mechanics. New avenues of employment and new skills have thus been created. These have increased labour wages. Very small farmers have resorted to taking lease of more land from big farmers and thus remain employed for longer periods.

f. Political and Social Structure - With more production from their small farms energetic small farmers are assuming new leadership roles. Managers and model farmers of village societies are claiming and receiving more and more attention in their own communities. These positions are emerging as new status symbols. Some of the small farmers are buying land from the near-landless farmers or are taking lease of land from big farmers who do not farm themselves. The new leaders are assuming roles of increasing importance in local socio-political matters.

3. Progress towards other objectives

The leaders of the new programme have an opportunity to attract more support through their positions of importance. But such propensities are held in check by the other members of the group beyond certain limits. With more production through increased application of labour supported by institutional supplies and services a comparatively more balanced village society is likely to emerge. The man with the muscle for agriculture is likely to gain more importance than the absentees dependent on hired labour for cultivation of village land. Prosperous farmers are sending their children to schools or towns.

Some observers notice the emergence of a new class of village elites through such programmes. This, however, seems unavoidable in a growth process. For as long as the new leaders are a product of the process and are dependent on the process they should not be able to inflict a damage to the group they serve and represent.

4. Image

a. Farmer Attitude - Farmers are well disposed towards the programme. They want more irrigation facilities, timely supply of fertilizer, pesticide, etc. They demand more innovations to be introduced for them and welfare programmes for their families.

b. General Image of the Programme - The collective impression about the programme is one of commendable service and success. The farmers testify to this liberally. They discuss their deficiency publicly and exhibit their desire to further improve their performance. They demand assurance that the programme would expand and acquire new dimensions to meet other felt needs. From production they want to go to processing, marketing and so on. Government have decided to introduce the programme throughout the country. Observers from home and abroad praise the programme.

* Haque, Anwarul; Costs and Returns - A study of Irrigated Winter Crops, BARD, Comilla, July 1968, P-73.

3. Evaluation Procedure and Feed Back

1. Programme Evaluation Procedures

A running evaluation of the Programme is done in the weekly meetings at village and at the thana levels. The TCCA makes a monthly review. Sample surveys and specific studies are done, at intervals, by interested agencies.

The programme did not have a base-line survey when it was started. But it has been subjected to detailed studies at different times by different persons and institutions.

The following studies have been done on the credit aspects:

a. A New Rural Co-operative Systems for Comilla Thana Annual Reports, 1961 to 1969-70, BARD, Comilla.(Printed)

b. Khan, Ali Akhter; Rural Credit in Gazipur Village PARD, Comilla, April 1968 (Printed)

c. Khan, Ali Akhter; Rural Credit Programme of Agricultural Cooperative Federation, BARD, Comilla, Nov. 1971 (Mimeo).

d. Smith, Blake; The Comilla System of Supervised Credit, PARD, Comilla (Mimeo) n.d.

e. Ahsan, Nazmul; Loan Utilizations by the Cooperative Members of Comilla, PARD, Comilla, 1964 (Mimeo).

f. Ahmed, Badaruddin; Causes of Loan Default in Agricultural Co-operative Societies, PARD, Comilla, 1969 (unpublished).

2. Feed Back and Changes in Programme

The programme has been subjected to periodical evaluation by experts. As a result, credit policies have osciliated between strict caution to liberal issue of loans. It is pretty cautious now because of difficulties created by recent events all over the country. But even now the farmer is assured of his minimum credit support provided he fulfils the requirements of repayment of previous loans and saves regularly. There is need now to think of and provide for a process of increasing self-reliance.

C. Problems

1. Government Level

Agricultural development, which is a prerequisite to any planned development in Bangladesh, is conditioned by simultaneous and intensive efforts in a number of fields.

The farm credit programme is linked with a number of other development programmes, such as, Rural Works Programme (for rural infrastructures), Thana Irrigation Programme (for arranging irrigation facilities), inputs supply, extension services, training, machinery supply, marketing, price-support, and so on. Assured and cohesive continuance of all such programmes is essential for success of the credit programme. Such cohesion is possible only on the basis of understanding and active participation among Govt. agencies responsible for piloting different programmes. Cohesion at the field level is conditioned by cohesion in thoughts and action at the highest levels. Until recently there was no mechanism for such cohesion at the top level. Government have decided to establish a high level National Rural Development Board. This should ensure coordination at the top which should have its salutary effects on coordinated action by agencies below.

Constructive development programmes are not easy. Absence of a cohesive approach to development leaves room for half-hearted sectoral efforts. A tendency to promote sectoral programmes with built-in concessions is often noticed. Such programmes cannot produce lasting effects; but they can prejudice the acceptance of hard programmes designed to ensure growth. Conflicts between cooperatives as institutions for growth and individual efforts, between soft credit programmes without services and supervised credits with built-in systems of training, extension, savings, etc. can only be resolved by the Government.

Allocation of resources for various development programmes is conditioned by priorities settled by the Government. Accepted programmes also may fail for want of necessary measures to supply inputs. Government's acceptance of and commitment in favour of particular programmes is important in setting priorities.

2. Agency Level

Lack of coordination among officials of different agencies, reluctance in using and enabling peoples' representatives to do their respective parts in planning and implementation of programmes create barriers. Inadequacy of technical experts, physical facilities, equipments, inputs impede progress.

3. Farm Level

At the field level difficulties are created by the absence of organisation, motivation of people and training of their leaders. Inability of field workers to find effective remedies to farmers' problems, to arrange supply of inputs creates inhospitable climate towards otherwise good programmes. Failure to produce demonstrably visible results out of new ventures often create doubts in the minds of new receipients.

Discipline in the matter of use of inputs, repayment of debts and savings are not easy to ensure without frequent supervision. All these difficulties demand careful motivational work by competent workers and by gradual steps.

Authoratarian steps to remedy these difficulties are seldom of any lasting benefits. Democratic methods, left to themselves, tend to create stereotypes and vested interests of its own. It is important, therefore, to make studied efforts to evolve tested methods of checks and balances. While some problems may admit of general solutions, each situation may demand steps unique to itself.

D. Conclusions about Small Farmer Credit

1. Major problems of Small Farmers

The small farmer in Bangladesh is plagued by a variety of problems, such as, discussed below:

a. He is extremely poor and as such unable to take any risk with his land or cultivation practices. His poverty and the presence of greedy persons around keep him constantly depressed, defensive and suspicious of anybody who suggests change without assurance of trustworthy safeguards.

b. He is uninformed about things beyond his immediate neighbourhood.

c. He is illiterate and as such unable to acquire or test information by reference to written materials. He is dependent largely on information orally transmitted for good or bad.

d. He is unorganised and disillusioned by promises and assurance given in the past but not implemented.

e. His horizon, his vision and his expectations are limited. He is resigned to the flow of things on which he has little control. He is fatalistic and even superstitious.

f. His small and uneconomic holdings, dispersed in different areas, are serious impediments to good management.

g. His small earnings do not leave him any surplus for which he cannot invest more in his farm.

h. He has no surplus income. He remains indebted either to the cooperative or to the money-lenders.

i. His method of cultivation is traditional. His capacity to adopt innovations is limited by his access to required facilities.

j. He is used to rainfed agriculture. Inadequacy of irrigation facilities subjects him to the vagaries of nature.

k. Absence of organised marketing facilities leaves him to the mercy of traders who deprive him of the benefits of favourable prices.

l. His daily food intake is poor in nutritive value which limits his capacity for sustained hard work.

m. Facilities of services, supplies available to him are extremely limited.

n. In the absence of sympathetic guidance he is prove not to make productive use of outside assistance.

o. He suffers for want of institutions of his own.

2. <u>Role of credit in meeting their problems</u>

Planned credit programmes in support of well designed production programmes, supervised with care can tackle many of the farmers' problems. Credit alone cannot do much as is evidenced by emergency relief loans. Credit services have to be fortified through programmes of training, supervision and supplies. These can only be attempted through carefully developed institutions that provide assistance, promote confidence and develop ability to manage.

Supporting programmes of literacy, health, education, adoption of new techniques of production, processing, marketing should have to be linked with credit services. An integrated approach is needed.

3. Credit and new Technology.

a. Triggering small farmer development - It is extremely important to provide adequate institutional credit in Bangladesh to get the small farmer going. Many of the essential inputs for agricultural modernisation, such as, irrigation water, fertilizer etc. are unavailable to the small farmer except with credit support.

b. Sustaining small farmer development - Lack of continuous credit for fairly long periods is sure to limit the farmers' ability and propensity to purchase new inputs. Lack of institutions to take care of training, extension, supervision, saving affect the prospects of continuous efforts by the farmers.

4. Conditions for success or failure

Cooperative credit programme through TCCA/KSS has achieved more success than other credit programmes because of the availability of training, extension and supply services rendered through an institutional set-up at the receivers' end. Its impact on production it readily noticeable. Its failure to maintain required level of supervision, its sudden expansion, involvement of its supervisory personnel in the benefits of the programme caused some failures and disappointments. By and large its success and failures have shown the path that promises prosperity in future.

5. How could the programme be improved

The small farmer in Bangladesh moves from one crisis to another. Indebtedness is his life-long companion. He has to incur debts to survive in his struggle, against forces beyond his control, and to replace lost assets rather than to acquire new strength.

He needs support for consumption at times of distress and at recurring critical periods of the year. It is necessary to realistically assess his consumption needs and establish mechanism to assure support at his hours of need. The present system of Test Relief and Taccavi loans deserve to be replaced by planned social securities to provide relief in distress.

To enable him to farm better it is necessary to train and equip the small farmer to help himself. This is possible only through tested production-oriented credit systems. A tested short-term production-oriented system of supervised credit through cooperatives is now available. The Government has accepted the system. It is necessary to support it with suitable public policies and resources. This is possible only through Government's firm committment to the system and access to resources.

This system is dependent upon intensive and cohesive action on the part of a variety of organisations, both public and private, to simultaneous implementation of a number of programmes. Coordination among these programmes has to be ensured by active roles of the National Rural Development Board, relevant Ministries and Agencies, Thana Development Organisations and Farmers' Cooperatives. These institutions and their field units need to be continuously strengthened and supervised.

The system cannot be sustained without a sure supply of required inputs. Advance planning, procurement, storage, distribution be have to be ensured.

The system has to be nourished by constant feeding with new programme-constituents. Initial or partial success develop complacency and vested interests. Success in increased agricultural production creates a better climate for programmes designed to promote employment, education, health, family welfare. A process of continuous growth is possible only if researches and experiments with new ideas and possibilities are carried out by competent institutions.

The effectiveness of the system and the supporting institutions depend on the commitment and quality of its personnel. Effective training, reward and evaluation have to be simultaneously developed.

Conflicting programmes with built-in concessions and relaxation of disciplines have to be eliminated.

Successful use of credit results in increased production. Such increase has to be made worthwhile by assurance of profitable price, storage and marketing. Another step forward is to ensure easy availability of articles needed for further growth and better living.

Short-term credit has created the need for medium-term and long-term credit for sustained efforts towards progress. It is necessary to make provision for such facilities along with development of graduated scales of credit supply.

There is need for rationalisation in the multiplicity of agencies dealing with credit for the same or similar purposes. Steps towards greater utilization of widely spread net-work of commercial banks and thana cooperative associations promises better services.

All the credit institutions need more resources. It is time to establish a Rural Credit Fund under the auspices of the Government, the Bangladesh Bank, the commercial banks and the cooperatives. The Jatiya Samabaya Bank, properly staffed, may function as the secretariat for the fund.

The accounts and audit systems of the credit institutions deserve careful evaluation and modification.

It is important that the real costs of the existing credit programmes be carefully assessed and steps be taken to promote self-reliance through increasing savings and better use of the benefits of development.

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COUNTRY STUDY

COMILLA COOPERATIVE PRODUCTION LOANS

A NOTE ON THE COST OF CAPITAL

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Dacca
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Comilla Cooperative Production Loans - A Note on the Cost of Capital

Introduction

Numberous articles have been written on the Comilla Academy and its thana-village cooperative associations. This two-tier county-village cooperative organization has been a means of organizing small farmers to facilitate their pursuit of increased agricultural output. The thirty-three original pre-Independence Thana Central Cooperative Associations (TCCAs), organized by the Comilla Academy under the leadership of Dr. Akhtar Hameed Khan, are now to be replicated in the remaining thanas.[1/] According to the Bangladesh Government's first Annual Development Plan (for fiscal year 1973) the TCCAs and their member Village Societies are to expand by fifty thanas by January 1973 and by two hundred, or to over half of all thanas, by fiscal year 1974.[2/]

As the TCCA is to be a means of mobilizing the small farmer throughout Bangladesh, a closer look is warranted at the previous decade's accumulated experience. The central purpose of the TCCA, aside from being a vehicle for the supply of agricultural inputs, remains rural savings mobilization and the provision of agricultural loans. An analysis of this central purpose can be achieved by examining the attached hypothetical consolidated balance sheet for a Thana Association and its member Village Societies. Questions that have been overlooked in the past now need to be raised; an

admittedly over simplified balance sheet will serve our purpose here.

The accompanying tables highlight the main financial features of a balance sheet for one TCCA and its member Village Societies. This model thana has a population of 180,000 persons of whom 3,600 are members in 145 Village Societies. The absolute rupee amounts*, proportions and charges used in the table are realistic as they are based upon the experience of twenty Comilla district cooperative thanas during the latter half of the 1960s.[3/] It should be said at the outset that because the available literature does not describe the financial operations of the TCCAs in detail and admittedly, because this note is written without benefit of personal first-hand experience, assumptions have had to have been made about these operations. This necessity highlights what would appear to be the lack of financial specifics and economic rationals in the available Comilla literature. This note addresses itself to these shortcomings. A close review of new Comilla reports may resolve the questions raised here.

The Financial Operation of the TCCA

How this two-tier cooperative organization mobilizes farmer savings and channels them in conjunction with outside capital into crop production loans can best be illustrated by

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*The pre-Independence "rupee" unit is used throughout this paper, instead of the new "taka" unit, in keeping with available sources.

a step-by-step description of Table A, a hypothetical balance sheet for a TCCA. Upon joining Village members must deposit their savings in and buy shares from their TCCA.[4/] The Village Societies act as brokers for these transactions. In this example the members have contributed Rs. 100,000 of their own capital, Rs. 50,000 by saving deposits and an equal amount by share purchases.* These combined savings and shares from individual members, summed for the TCCA as a whole, represent the basic own capital against which additional funds can be borrowed by the TCCA from a district banking institution. In this example the Rs. 100,000 has generated an additional Rs. 300,000 from outside sources for a total crop loan capacity of Rs. 400,000. New TCCAs can borrow an amount equal to their own collateral; older TCCAs with higher credit ratings can borrow up to five times their own contribution. Individual Village members are now entitled to borrow up to ten times the amount of their share purchases for crop loans provided that both their crop production plans and attendance records at mandatory weekly Village meetings fulfill Village Society requirements. Old members applying for new loans have to meet these same Village requirements.**

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*The referenced material does not explain why a typical TCCA accumulates savings and shares in generally equal proportions.

**At present the very high cost of capital from traditional sources probably provides sufficient incentive to farmers to join the Village Societies, even if no interest was earned on savings and shares, as doing so ensures access at reduced cost to loans ten times the size of each member's collateral.

The Distribution of Production Loan Earnings

The TCCA charges members 15% interest per year for crop production loans. The workings of the cooperative can be further described by the manner in which these earnings, Rs. 60,000 in this case, are distributed within its structure (the reader is referred to Tables A and B). The cooperative bank earns 4.5% on its Rs. 300,000 loan to the TCCA and individual members receive four and five percent respectively on their savings and share deposits of Rs. 50,000 each. The weighted capital cost of the Rs. 400,000 available for crop loans is therefore, 4.5% or Rs. 18,000.* The TCCA and Village Societies retain 2.5% and 5.0% respectively for various salary and operating expenses; the Village collection agents receive an additional 1.0%. The Village Societies receive another 2.0% for crop prices and for relending to bring the total of these accumulated charges to 15% as illustrated in Table B.[5/] In this manner the entire earnings of the two-tier cooperative are distributed for expenses, salaries, interest payments, prizes and for relending.

Topics for Research

The distribution and purpose of these interest and service charges will determine the economic viability of the TCCA model as a vehicle for rural resource mobilization. The previous description of the two-tier financial arrangements

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*Because of the earnings on members' collateral the effective crop loan charge is reduced to approximately 14%.

readily serves as the basis for mentioning several broad areas of concern that require further thought. These basic areas are:

(a) What should capital cost for production loans?

(b) How is capital to be accumulated so that the two-tier cooperative model can become self-sustaining?

(c) Who should bear the risk for loan defaults?

Operationally relevant answers to these questions should wait for rural credit, savings and farm management studies; a discussion of these concerns is useful nevertheless. The following three sections are devoted to an elaboration of these questions.

What Should Capital Cost?

The TCCA model is faced with a dilemma in its efforts to promote agricultural production loans. On the one hand more capital needs to be made available to finance the modernization of agriculture, and on the other the present low rates of 4 and 5 percent on own capital are not sufficient motivation in and of themselves to induce farmers to save, and so contribute to the supply of rural capital. A second dilemma, not unrelated to the first one above, is that while the demand for capital of all types (credit, fertilizers, pesticides, etc.) is inversely related to its price, capital needs to be rationed by a rural economy. The demand for capital therefore cannot be stimulated by lowering its price. The first dilemma speaks to the supply of rural capital, the second to its cost.

It is realistic to expect the basic Comilla cooperative model to resolve both difficult dilemmas. Success to date, however, has been limited. With respect to the first dilemma mentioned above the TCCA model does make capital available for the modernization of agriculture but does so by depending heavily upon outside funds. If the present TCCA structure precludes the possibility of increasing returns on member savings and share deposits to augment the supply of rural saving then possibly the TCCA should expand its functions to include commercial savings accounts. These new accounts should be paying, say twice, the present return on savings. If the TCCA structure is to be a means for mobilizing rural savings, and in turn is to be a source of capital for millions of farmers, then clearly the return on rural savings has to be higher. It is not a foregone conclusion however that the mobilization of rural savings should not be tied to the supply of agricultural inputs and approved production plans.

The second dilemma is also being partially resolved by the present TCCA structure. By requiring crop production plans and by being the source of supply for several types of agricultural inputs other than credit, such as fertilizers, pesticides, pumps and tractors, the TCCA is in a position to determine the types and prices of all these inputs. For example, the TCCA can determine whether the form of mechanical implements available to the farmer is relatively labor or capital intensive and so should levy sales and rental charges to reflect resource availabilities in Bangladesh. At present

many Comilla farmers are making the unacceptable decision, in a social cost-resource availabilities sense in favor of the subsidized four-wheeled tractor and against traditional bullock power. Modern implements for bullocks would require less foreign exchange and would not run the risk of being labor displacing. Subsidized tractor sales and rentals will not accomplish these two objectives. (Admittedly this issue is far more complex than has been presented here).

These are signs however that the Bangladesh Government is moving towards the scarcity pricing of other agricultural inputs; the long-standing subsidies on fertilizers were recently reduced.[6/] The TCCA model can support these changes by seeing to it that all its sales and rental charges reflect their full cost to the economy.*

In sum then the TCCA is a partial success if judged by these criteria. As the author believes the TCCAs' basic structure is sound, it can be used to resolve the difficulties that lay ahead.

How can the TCCA Become Self-Sustaining?

At present the TCCA model is heavily dependent upon outside capital and is becoming increasingly so with time. This trend has to be reversed so that the TCCA can repay its cooperative bank loans, end its dependence on outside capital

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*Efficiency considerations, it is suggested, can be given greater weight over distributive ones, in a development strategy where so much in the way of resource, institutional, and general economic incentive is being directed at the small farmer.

entirely and build a substantial relending capacity from retained earnings. Furthermore the replication of the Comilla cooperative model to other thanas will be an expensive program unless the seed capital can be recovered.

A shortcoming of the present cooperative structure is that no mechanism is operating to either build substantial amounts of retained earnings for relending at the TCCA or Society level or for eventually terminating the TCCA's dependence upon outside loans. There is no provision for the repayment of cooperative bank principal in the balance sheet (Table A) for the reason that only the annual interest payment of 4.5% has a specific claim on the TCCA's earnings as evidenced by the available literature. Only the Village Societies, as residual claimants, can accumulate earnings for relending but this capacity is limited. Even under the ideal circumstances of no loan defaults depicted in the balance sheet, the earnings made available for relending (Rs. 8,000) allow a growth rate on total loan capital (Rs. 400,000) of only two percent and on own capital (Rs. 100,000) of only eight percent. Loan defaults of ten percent, as has been typical in Comilla District, reduce the amount for relending by 75%, or from Rs. 8,000 to Rs. 2,000 as illustrated by the figures in parentheses in Table A. It is therefore clear from this point alone that if this two-tier structure is to expand upon its retained earnings and is to be eventually independent of outside capital, its present financial structure does not promote this objective.

How can the TCCA become self-sustaining? There are at least three mechanisms that can be considered. (1) The proportion of the interest "spread" that goes for exprenses could be reduced, so enlarging the proportion available for amortization payments, by increasing the service areas of the cooperative's staff. Similarly, increasing the "spread" by effecting a larger interest rate increase for loans than for collateral would also provide additional funds for amortization payments. (2) A financial mechanism could be implemented to force a progressively less generous own to loan ratio each year so that by the tenth year for example, no outside capital can or need be borrowed. This achievement would be severely restrictive of the TCCA's loan capacity unless of course other mechanisms were implemented at the same time to augment the TCCA's internal relending capacity. (3) The third mechanism is discussed more fully in the next section. In brief the earnings made available for relending have to be protected from erosion by loan defaults and expenses.

Who Bears the Risks?

It is unlikely that the most important cost the TCCA has to bear, loan defaults, is going to be reduced much below five percent of total loans. How can this cost be borne? At present the cooperative bank, savings and shares, TCCA and Village expenses and the collection agents all have first claim on available earnings (see Table A). In addition to its expenses, the Village Societies do receive residual

earnings for crop prizes and relending. If however defaults equal ten percent, earnings drop from Rs. 60,000 to Rs. 54,000 and the Villages' relending capacity is immediately reduced from Rs. 8,000 to Rs. 2,000 (see figures in parentheses in Table A). To compound matters the Village Societies are liable to their TCCA for members' payments in arrears.[7] These arrears are presumably paid out of residual earnings, and not out of salaries and expenses.

While it has been argued that the TCCA should be self-sustaining, a government function which could stay this effort is that of crop insurance. In a country where widespread crop failures are so frequent, it would be an error to insist that the Village Society, its members, or even the TCCA carry the full burden of loan defaults. Defaults stemming from bad harvests should be constructively borne by all participants, but most heavily by the central and possibly district governments. At the same time methods must be devised to prevent wilful defaults from jeopardizing the cooperative's financial discipline, an admittedly difficult administrative task.

As is suggested by "other operations" on the balance sheet the TCCA does obtain earnings from the sale and rental of other agricultural inputs. This is mentioned only to point out that earnings from these generally profitable activities should not be used to subsidize the TCCAs' loan operation. The basic structure of the TCCA must stand on its own.

Conclusion

The success of the Comilla cooperative movement to date has depended heavily upon the leadership and organizational discipline of the TCCAs and their Societies.[8/] The thrust of the argument here is to couple this record of achievement with greater reliance upon economic and financial discipline. In this sense a financial, or rather economic, view of the pre-Independence Comilla cooperative belies its original nature; it should not in the future. Because the successful Comilla cooperative model is to be replicated to the remaining thanas of Bangladesh, the author believes that the concerns expressed here warrant careful review. As the force of economic intensive can shape and strengthen existing institutions, particularly in circumstances of new high-yielding seeds, modern inputs and high output prices, then these forces should be used to further advantage by the Comilla cooperative model to provide, ultimately, the small farmer and wage laborer, access to viable livelihoods.

TABLE A

HYPOTHETICAL BALANCE SHEET FOR A THANA CENTRAL COOPERATIVE ASSOCIATION (TCCA)[1]

(In Thousand of Rupees)

ASSETS

I. Credit Operations		
1. Production Loans	400	
(less defaults 10%)[2]	(40)	
2. Accumulated Charges 15% on production loans	60	(54)
II. Other Operations		
1. Return on Sales/Rentals - (net)		
Total Assets:		460

LIABILITIES

I. Village Capital			100
Savings	50		
Shares	50		
II. Loan from Bank			300
III. Ist Claimants on Charges[3]			
Cooperative Bank	4.5%	13.5	
TCCA expenses	2.5%	10.0	
Village expenses	5.0%	20.0	
Collections	1.0%	4.0	
Savings	4.0%	2.0	
Shares	5.0%	2.5	
		52.0	52.0
Total Liabilities:			452.0

NET WORTH

Residual Claimants

1. Village Societies 2.0%	8.0
(prizes and relending)	(2.0)
2. TCCA + Village Societies Profits on Sales/Rentals	

Notes for Table A

1. This is an unliquidated and undisbursed position at the end of the first year of hypothetical operation. This balance sheet has been constructed from figures available in P.A.R.D., A New Rural Cooperative System for Comilla Thana, June 1970, pp. 22-23 and Akhtar Hameed Khan, Tour of Twenty Thanas, February 1971, pp. 10-22.

2. Parentheses indicate changes in amounts if loan defaults equal a realistic ten percent.

3. There are slight variations in the distribution of the 15% loan charge depending on source. The following source was used here: P.A.R.D., A New Rural Cooperative System for Comilla Thana, June, 1970, pp. 21-22.

TABLE B

Distribution of Interest Charges

For crop loans totalling Rs. 400,000 the 15% total interest charge (Rs. 60,000) is distributed to the following claimants:

		Percentage charges on Rs. 400,000		Rupee payments in thousands
A.	Loans-interest charges and payments			
	1. Cooperative bank loan of Rs. 300,000 at 4.5%		13.5	
	2. Savings Rs. 50,000 at 4.0%		2.0	
	3. Shares Rs. 50,000 at 5.0%		2.5	
	Weighted capital cost for all loans Rs. 400,000 at	4.5%	18.0	18.0
B.	Expenses TCCA	2.5%		10.0
	Village Societies	5.0%		20.0
C.	Collection Agent Charges	1.0%		4.0
D.	Retained by Village Societies for relending and prizes	2.0%		8.0
	Totals	15.0%		60.0

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1. Mujibur Rahman, "Farm Credit Situation in Bangladesh - A Survey", Memeo, August, 1972, p. 31.

2. Bangladesh Government, Ministry of Local Government, Rural Development and Cooperatives, Annual Plan of the Rural Development and Cooperative Division, 1972-73, July 1972, pp. 81-82.

3. Akter Hameed Khan, Tour of Twenty Thanas, P.A.R.D., February, 1971, pp. 10-22, 38-41.

4. Badar Uddin Ahmed, A New Rural Cooperative System for Comilla Thana, P.A.R.D., June 1970, pp. 21-22.

5. Ahmed, op.cit., pp. 21-22.

6. Bangladesh Government, Planning Comission, The Annual Plan 1972-73, 1972, p. 24.

7. Rahman, op.cit., p. 32.

8. Khan, op.cit.

COMILLA: REASSESSMENT AND REPLICATION

THE COOPERATIVE UNDER STRESS

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Comilla, Reassessment and Replication
The Cooperative Under Stress

Introduction

The period of Pakistan Army occupation (March-December 1971) and the ensuing civil war did not destroy the cooperative system in Comilla; it imposed a period of inactivity, inhibiting the sophisticated Kotwali Thana Central Association operation and reducing rural cooperative activities to a subsistence minimum. The period of inactivity extended beyond liberation, covering perhaps as much as 18 months in all from the beginning of political activity in December 1970 through May of 1972 and allowing a watershed for reassessment and planning for future cooperative development.

By removing the most visible cooperative leader, Akhter Hameed Khan, and by interrupting the operation of the highly developed Kotwali Thana Central Cooperative Association, the 18 months allowed the more basic problems of cooperative organization--management, loan distribution and repayment, discipline--to come to the fore. In June 1972, problems mentioned in numerous earlier reports but never quite addressed in implementation programs not only surfaced but were being raised by the farmers themselves. Much had been learned in the 18 months. Farmers and laborers had been confronted with power and had learned, to some degree, their own power. They would have new aspirations and new will to express them.

The Bangladesh Academy for Rural Development staff had been forced, like many others, to take refuge in the village. There they had the responsibility of being looked to as the community's leaders, established by a decade's work in rural development. Post liberation, they were to inherit the responsibility of being the chief planners and trainers for the new nation's program in cooperative organization. It would become necessary to set their own house in order.

The trauma of occupation, war and liberation was deep, shocking, shortlived: it is difficult, at this time, from this distance, to measure the full extent of its effect. By February 1972, three months after liberation, most of

the refugee population had returned, farmers were harvesting the boro crop or preparing for aus season. Some banks had reopened, villagers moved freely, trade had begun to resume normal routes. By June, officials of the Bangladesh Academy for Rural Development were involved in trying to recapture the ground lost in 18 months. While on the surface much looked as it had two years earlier, beneath the lists of cooperatives, members, savings and loans, much had changed. There was great searching and debate at the Academy. With the exception of some material losses, generators and vehicles, the Academy survived the occupation and was physically in tact: buildings, dairy, rice mill, most of the staff. Two major changes at the institutional level had taken place, however; the Academy had lost the Vice Chairman of the Board of Governors and Director of Kotwali Thana Central Cooperative Association, Akhter Hameed Khan, while being thrust to the fore as the most important training institute for a national program of rural development. The Academy tested program, the Integrated Rural Development Program, had lost one of its major proponents, but, for the first time, had strong support from the national cabinet as a national program.

The Integrated Rural Development Program, the Credit program for replication of Comilla credit co-operatives, has been described elsewhere in a number of papers. (2) The Comilla system calls for a tierred structuring of supervised credit organizations, self-disciplined village societies under a Thana Central Cooperative Association umbrella. The TCCA borrows from either the Jatiya Shamabaya Bank or from government sources, the village society borrows from the association, the individual from the society. Requests for loans are based on production plans and size of loans are made according to the size of the individual's shares and savings deposits. An individual can borrow up to five times his combined share and savings deposits. Administration lines are clearly drawn in theory as are institutional responsibilities, and in June 1972, cooperative officials at Kotwali Thana Comilla were working hard to reestablish the strength of the theory.

Bangladesh was six months into its first year of post-war independence. The first months had been spent largely in meeting the immediate needs of relief and rehabilitation. For those interested in the Integrated

Rural Development Program, it was a period of reassessment and planning, with simultaneous effort to encourage continuous farmer activity, a picking up the threads of old programs and weaving them into the plans of the new nation. The Integrated Rural Development Program was to be expanded into 50 new Thanas. But times had changed, and many of the problems which had been festering before the Army crackdown in March 1971, had been broken open by the 18-month interlude.

Comilla - June 1972

At Comilla, although training had begun for 13 new project officers to be posted under the first step of the Integrated Rural Development Replication, the staff at the Academy was beset with a number of large and immediate problems involving the program's first Thana-Kotwali--where the experimental cooperative system had begun a decade earlier and on whose experience the replication was to proceed.

To the outside observer, problems were readily apparent: the tractor station had been seized, tractor drivers were no longer taking orders from the Kotwali Thana Central Cooperative Association, but were operating independently, taking orders from private individuals and using cooperative maintenance facilities without regard to ownership or replacement of parts; pump drivers were also acting independently, had unionized, and no longer viewed themselves as beholden to their pump groups. The greatest tangible evidence of change, signaling both success and new problems, was the outspoken attitude of the farmers themselves. Independence had taught many farmers the importance of individual action, and now they were speaking out, offering advice freely to the Academy's theoreticians and forcing the surfacing of problems which had long lain dormant. Problems which had been touched on in Academy reports--land ownership, domination of the cooperatives by the larger landowners, failure to repay loans--were now being raised by the farmers themselves.

The willingness of the Academy staff to listen had been sharpened in part from their own experience over the preceding ten months. During the days of the occupation, they were forced to move frequently, to take refuge in the village, leaving material wealth and what had seemed the secure confines of the Academy behind. Independence was to make them the leaders of the Academy. The Father

of the Academy and the Comilla system, Dr. Akher Hameed Khan, left the Academy soon after the Army reached Comilla. His personality had dominated the development of the rural programs; people spoke of the staff as his disciples. With his departure, the disciples demonstrated that they were leaders in their own right. They chose to stay on in the Comilla area, trying as they could to reassure the people. Now, they had full responsibility for the future of the program. Where the Academy had researched many of these problems in the past, now they were the last resort for their solution.

Kotwali Thana Central Association (KTCCA) (3)

The Kotwali Thana Central Cooperative Association (KTCCA) began as an association of farmers' cooperatives, emphasizing teaching through model farmers and cooperative managers rather than through government extension officers, discipline through savings, participation through shares, and most importantly credit through peer organization supervision. As the KTCCA developed, Akhter Hameed discovered the needs of the rickshaw pullers and recognized the potential of non-farmer cooperative organization. He encouraged the development of the SCSF (Special Cooperative Societies Federation). As population growth took place and farmers were pushed from their land, the first disenfranchised moved to the cities to become rickshaw pullers. Akhter Hameed saw a rickshaw pullers cooperative as just an extension of the farmers' cooperatives, and later the KTCCA expanded to absorb other cooperatives and cooperative associations. The SCSF included a bus drivers' cooperative, and six new cooperatives joined the KTCCA: the CICS (Creamery and Cold Storage), the KTCCA employees, the Academy employees, a housing cooperative, the Karkana Garage and Machine Shop, and the Academy's employees cooperative.

Problems

The growth of Kotwali had not been without its accompanying problems, some of which centered on the sophisticated level of operation, in the machine shop and tractor station, in the financial relations between the KTCCA and its participating organizations, and others more basic, set deep within the rural credit operations. While both relate to the rapid growth and success at Comilla, they are somewhat different and can be approached separately.

Decentralization

For the KTCCA management, immediate difficulties arose over the question of centralization or decentralization of administration and the related question of labor and its relationship to the KTCCA. The intent of the KTCCA umbrella was to provide philosophical, policy, as well as financial guidance to its daughter organizations. Akhter Hameed Khan envisioned direction from a KTCCA constellation allowing each federation to develop its individual leadership. He encouraged the SCSF to separate and move out on its own; the ACF followed two years later. The separation was carried further as the CICS began to sell shares outside the KTCCA.

Separation did not allow the interaction Khan envisioned, however, and the KTCCA management committee suffered. Decentralization had resulted in conflict rather than independent cooperations. In June 1972, the problem of relative status within the KTCCA had become apparent, and the new chairman was working hard to reconstitute an active management committee.

Labor

At a slightly lower level centralization of services resulted in a labor issue. Tractor and pump drivers came to view themselves no longer as beholden to the individual cooperatives within the ACF, but as employees of a higher union, either the federation itself, or the Karkana, or the KTCCA, or, as shown by their seizure of the tractor station, themselves. The increased use of high yielding varieties had increased both the importance of new technologies (tractors for deeper furrowing and timely plowing, pumps for irrigation in the boro season) and the labor which handled them. Pump drivers originally selected from cooperatives to serve those cooperatives became men of influence in their area. From a peer status, with their fellow cooperative members, they rose to the higher position of "the controller of water." In Thakurgaon, for example, where careful irrigation through organized cooperatives had raised the value of land nearly ten times, the pump drivers' influence rose to the point of drivers being considered prime marriage material. (4)

They had moved, in their own minds, beyond the control of their fellow farmer. The farmer needed to react also to the changed structure. As the chairman of the KTCCA reported

at the time of the tractor station seizure, the farmers were beginning to feel their own strength, and it would soon be time for them to reassert themselves over those who were paid to do them service.

Comilla - Rangunia, Philosophy of Administration

The questions of separate authority, centralization or decentralization, and degree of government involvement, are important and controversial questions among cooperative planners. The two major approaches to cooperative organization in Bangladesh, that of Rangunia and that of Akhter Hameed Khan, often differed on the questions of location of power, source of leadership and labor for adaptation of the new technologies, and the role which should be played by commercialization. (5)

On government involvement, Comilla seemed to wage a battle of approach/avoidance. Akhter Hameed Khan feared both the government bureaucracy and the local administration system. From government he wanted a neutral donation to support the Thana Center and to enable its growth without dependence on business. He was worried that business from the Thana Center left the manager open to attacks on scruples and preoccupation with business would encourage the overlooking of training and organizational functions. He wanted government also to supply the project officers, rather than choosing the Central Association managers from the ranks of the primary society managers. Local leaders, Khan felt, were corruptible or already tied to vested interests, and he chose to hire project officers for the Thana Cooperative Central Association from the outside. The Central Cooperative was to be established after primary societies had been organized. The movement was to begin from the ground up. At the lowest level, the primary society, Khan felt that power was closest to the people and the people could control their leaders, managers, chairmen, and pump and tractor operators; at this level, the cooperative leaders could be local people. The local people (model farmers and managers) would receive training in weekly meetings at the Thana Center, transfer their new knowledge to the other members of the Cooperative, organize share and savings collection, build the basis for the primary society. With the establishment of enough primary societies, a Central Association could be formed. Formation of quick and easy cooperative associations was to be eschewed; the process was lengthy, and the government policy of "every pump group a cooperative" was to be avoided.

The registration of pump groups as cooperatives was seen as a threat by both the Rangunia and the Comilla organizers. Pump groups were unstable, dominated by large farmers who formed the cooperative to receive a pump, then rented water to others. The seasonal aspect of pump groups, their limited objectives, as well as their lack of internal discipline, weakened the cooperative movement. As seen in Comilla's TIP (Thana Irrigation Program) report, the managers of the pump groups were those with the largest acreage; as Mantosh Das has described in Chittagong, 50% of the pump groups were dominated by traditionally wealthy farmers. This type of organization did not offer the base for the strong Central Association which Akhter Hameed hoped would pose a counter force to the traditional interests already represented in local administration through the Union and Thana councils. Akhter Hameed opposed registration of pump groups.

The Rangunia system opted to move quickly in an effort to stay out in front of pump group formation, by rapidly organizing Central Associations to incorporate the pump groups and to encourage discipline. Mahbub Alam and Mantosh Das did not want to wait until strong cooperatives were established, but instead counted on organization of Central Cooperative Associations to teach the benefits of discipline and to oppose large farmer domination. Rangunia recruited locally, not waiting for government support or neutral government project officers, in order to move more quickly. To support the Central Association activity, the Rangunia cooperative turned to business, procurement and sale of rice and tumeric, and the distribution of fertilizer. The RTCCA was a commercial cooperative.

The basic split between Rangunia and Comilla came from Rangunia's willingness to recruit locally, enter business, work with the pump groups and the registrar of cooperatives. Comilla continued to move more slowly, documenting their development, depending on government grant support, but trying to stay clear of the traditional government co-operative organization. It is difficult to make a judgment of the comparative efficiency of the two approaches. The Comilla experience, because of the research and training function of the Academy, is much better documented. In fact, both succeeded. In Rangunia the success is seen in the rapid spread of active cooperatives in Chittagong District, and the important role cooperative formation was to play in cyclone rehabilitation. (Because of the

occupation and war, it is impossible as yet to judge whether the flurry of relief and rehabilitation cooperative organization can be made permanent.) In Comilla, the success is measured both in the acreage irrigated and planted to HYV's, but also in the sophistication of the problems, labor, mechanization, water and land distribution, that have ensued, problems recognizable as the second generation effects of first generation success.

Control, Default, Production

There are three problems basic to the success or failure of the cooperative replication: control of cooperatives and credit by a small number (the wealthy, traditional, and often non-farming members of the community); the recovery of loans; the tying of loans to production. In approaching the problems, the Comilla system used three tools--discipline, investment, and the "neutral umbrella" concept.

The principal aim of the Comilla system is to bind farmers together into a functional unit, providing not only credit but also services to make that credit functional; the services were provided through training model farmers to act as cooperative extension officers; discipline was encouraged by the regular meetings and enforced participation through savings. To assure success of the cooperative required discipline (regular meetings and loans based on strict investment criteria), investment (regular payments of savings and shares from the farmers), and a neutral umbrella (the Thana central association which could supply services, pumps, fertilizers, seeds, training, credit, and the neutral political interest which would prevent the cooperatives from being co-opted by traditional local interests. The three stood together like the legs of a stool, supporting a functioning credit system. (5)

The occupation of the Pak Army and the period of political disruption effectively undercut each of these three legs. By June 1972, cooperatives had lost discipline, as witnessed by the labor disruptions and by the lack of meetings; regular payments of savings had ceased, as had repayment of loans (where in June of 1970, 3-5 lakhs rupees of repayment had been made, only 88,000 rupees were received in June 1972. Of 70 lakhs made in loans over a decade by the Agriculture Cooperative Federation, 19 lakhs were overdue in June 1972, an increase of 9% over the September 1969 estimate). (6)

The impact of the political disturbances on normal loan activity is readily apparent in the statistics for the ACF. Loan issue dropped 10% in 1970-71 and loan realization rate dropped 44% below the average of the three previous years. (7) The default rate in some cooperatives rose to as high as 83% as compared with the 5% default rate of the early years of the movement. Some village cooperatives of only 50 members had liabilities of rs. 60,000-70,000. Many had come to view the cooperative as no more than a post office, a place to receive their loans, not a place requiring mutual support and assumption of responsibility. (8)

Besides a disintegration of discipline and a failure to meet payments, the neutral umbrella had failed to provide effective service during the disruption. With the interruption of normal traffic flows and the sometimes conscious Army disruption of village activities, the supply of services was severely restricted. The lack of fuel for pumps at the end of the 1971 boro season reduced the yields in what had become a very important production season for Comilla farmers. The attacks on some towns and the continued disruption along the borders, hampered boro harvest and delayed the planting of the aus crop. (9)

Thus, the occupation and ensuing battle for liberation did take its toll in cooperative organization and agriculture production. Rehabilitation of transport services and the establishment of an independent government were enough to restore the neutral umbrella, normalizing the third leg, services, but it is questionable whether or not the problems of discipline and investment have been resolved.

Although the period of disruption greatly aggravated existing problems within the system, the increased loosening of cooperative discipline was not totally of its making. Numerous reports done in the late sixties pointed to growing difficulties in cooperative organization. Ali Akhtar Khan's study of the defaulting societies of the ACF is particularly revealing as is Akhter Hameed's Tour of Twenty Thanas. In 1969, overdue loans as a percentage of outstanding loans had risen to almost 30%, and the concern at the Academy was great enough that the staff asked that Ali Akhtar perform a study of 30 defaulting societies. Where Akhter Hameed Khan could write of the period up to 1966-67, that over "a period of seven years the overdue loans accounted for only 1.2% of the outstanding loans in the agriculture societies (ACF) and 2.1% in the non-agriculture (SCSF) (10), Ali Akhtar Khan would write in 1970 of "serious problems observed," an increase in overdue outstanding loans of from Rs. 51,000 in 1966-67 to 1,287,385 in December 1967 or 28.4% of the outstanding loan. (11)

Ali Akhtar Khan's findings are particularly interesting in the relationships he is able to draw.

1. Loan distribution was concentrated into the hands of the few. 24% of the cooperative members received 62% of the loans. (12)

2. Loan default was also concentrated; the larger the landholder, the greater the indebtedness; the larger the loan, the greater the percentage of the default.

3. The proportion of loans taken by the management committee members was disproportionate; managers formed 36% of the loanees, received 65% of the loans. (13)

4. The lower the amount in loans granted a society, the lower the percent of default; higher loan recipients had higher default percentages. (14)

5. The rate of recovery was better for short-term loans. (15)

6. Of the cooperatives surveyed, 40% of the members were inactive either in regular meeting attendance, participation in shares, or as recipients of loans. The larger loanee societies were the least active. (16)

Ali Akhtar's survey confirms case studies collected by earlier Akhter Hameed on his Tour of Twenty Thanas and by Rahim. (17) Akhter Hameed also warned about the capturing of the cooperatives by unscrupulous managers:

> "Although, in my opinion, 80% of the village societies are now controlled and managed by the members, the remaining 20% are pocket societies dominated by a few; many managers do not deposit their members' savings regularly; they are inclined to keep some money for private business; in Chandina 25 of 45 societies had been captured by defaulters who then campaign against loan repayment; there are several, rich and influential managers who not only have defaulted, but are agilating for the issue of pumps without loan repayment. They are also asking for the postponement of the cooperatives associations annual elections from which they are excluded as defaulters." (17)

These problems are serious, but they are not unusual. They can be controlled in part by active management supervision and government leadership, "the neutral umbrella;" they can also be aggravated by poor policy; by neglect, by a failure to lay down or follow strict procedures. The desire to move too quickly without proper controls is a frequent trap, and in 1967 it seems to have caught Comilla policy makers briefly. The system suffered for the next three years, and the great blow dealt by 1971 allowed free analysis of the errors of 1967.

A decision was made in 1967 to push for increased loan disbursement. In a way it resembled the political error of family planners about the same time, thinking that figures, mass recorded IUD insertions would, in fact, reduce population growth. The issuance of loans for the ACF's 311 societies grew to 42.44 lakhs of rupees in 1967-68, up from 16.71 in 1966-67. Correspondingly, however, loan realization as a percentage of loan issue fell to 42%, down from 58% the previous year, and 83% in 1965-66. The tremendous increase in loan issuance was aided by government seed capital and facilitated by an easing of traditional loan criteria. Instead of judging loan applications on a careful review of production plans as well as applying the upper ceiling limits (allowing a loan recipient up to 10 times his accumulated capital, savings and shares deposit), the loan committees pushed aside production plans to judge only according to upper ceiling limit. (18) Wealthier farmers were able to pump funds for shares, borrow, buy more shares, and borrow again; and so a manager would confess that the so-called production plan was often a mere pretext. (19) Without the requirement of a production plan, loans were no longer tied, but farmers or non-farmers used them for land (33% of all credit in 1968) (18), or for marriage ceremonies, or for other non-productive functions, thus making repayment more difficult.

Conclusions and Replication

Comilla Academy has long been refreshing as an institution for its willingness to examine itself, to experiment, and to make adjustments. When the period of trauma had passed, the Academy resumed its role as chief architect for rural programs, with a renewed desire to recapture its original principles. Aware of the problems resulting from over-commercialization and overly rapid expansion, the KTCCA staff was working in June 1972 to recover control. In three months of operation,

only two lakhs of loans had been given, one for B Amon paddy, one for cattle. Moving cautiously with production and repayment in mind, the cooperative was withholding funds from defaulting societies, making a new effort to reassert an original principle--group pressure within the cooperative. Cooperatives would have to return to being as strict as they were in 1965 when the KTCCA shut down 9 of 34 working tubewells because of failure of the beneficiaries to pay agreed-upon water charges. (20)

The return to the production plan is just as necessary for cooperative discipline as a return to the Five Year Thana Book is necessary for the success of the Rural Works Program. The upper ceiling limit favors the rich, or at least the more wealthy. There are some who would argue that this is not only unjust, but uneconomic. Ali Akhtar Khan pointed out that the smallest cooperatives in terms of landholding, capital accumulation, and number of members were also those with the lowest rate of default. Roger Lawrence, in a paper on farm mechanization, pointed out the efficiency of the small farmers: "The striking feature of the data (from Gumai Bil) is the fact that the input of man hours increases noticeably as farm size decreases." (21) The small farmer is the more dilligent worker because he must be.

In considering replication, planners must pay close attention to vigorous structuring not only of cooperative guidelines; i.e., production vs upper ceiling limitations, the relationship between cooperative and its labor, pump drivers, tractor drivers, managers, but also to the national government and its representatives at the Thana level, its extension personnel. An unpublished study at Comilla in 1970 pointed up the growing lack of confidence in the Thana Development Committee and the increasing conflict between the cooperative project officer, the Thana Circle Officer, and the Thana Cooperative Officer. (22) Agreement at the Thana level is crucial not only to the functioning of the Central Association through provision of services and training, but to the other rural programs, the Rural Works Project and the Thana Irrigation Program.

Rural programs can overlap, complement, or conflict; given the scarce availability of resources, they cannot afford to conflict. Earlier studies have reviewed potential conflict in the Accelerated Rice Production and the Integrated Rural Development Programs. (23) Akhter Hameed Khan and the organizers of Rangunia Mahbub Alam and Mantosh Das

have been much concerned with the problems created by forced registration of pump groups. Akhter Hameed found that of 78 pump groups enrolled as cooperatives in Daudkandi, 42 had defaulted. The pump groups conflicted with the basic principles of the disciplined cooperative; Akhter Hameed warned that "the distribution of pumps is in danger of becoming a distribution of favors, a boon from a benign government, requiring little reciprocal effort on the part of beneficiaries." (24) The potential to attract members to a functional group around a pump is great (the use of pumps in Bangladesh climbed from 3,000 to 24,000 in six years) and should not be wasted. Farmers are not always enticed by free goods alone, but are willing to move to modern methods despite costs if profits can be proven; free goods can induce skepticism: One farmer in Thakagaon explained that the free water from the new tubewells was like the tea that had been distributed free by the British. Once you get hooked, then they place a charge on the goods. (25) Particularly with water, however, the benefits are readily apparent. Sa Rakim has reported that land valued in Comilla had resulted in an increase of 98% in land values between 1963 and 1969. (26) Reports from Thakagaon have cited land value up as much as 10 times that before irrigation. (27) With replication, it will be important to try to assess the relative true costs of required inputs, to recognize subsidies where necessary but to understand their costs. Dr. Joseph Stepanek has taken an interesting first step with his paper on the value of capital in the Comilla credit program. (28)

The Comilla program has repeatedly shown its creativity and flexibility in the development of the Rural Works Program, the Thana Irrigation Program, the Integrated Rural Development Program. The break and new beginning brought by the occupation, war, and liberation, has offered the occasion for a major reassessment of the principal aspects of a successful rural credit program, organizational discipline, linkages with other programs and with government itself, the proper economic valuation of inputs. The success of replication will be dependent on the new government's ability to accept and implement the results of this reassessment, and to encourage directly the development of the discipline, investment, and neutrality required to overcome the entropy induced by inequitable control of cooperative resources.

FOOTNOTES

(1) Field Trip Report, Comilla-Chandpur, May 21-23, 1971

(2) a. Ali Akhtar Khan, Rural Credit Program of Agriculture Cooperative Federation, Pakistan Academy for Rural Development, Comilla, November 1971

b. Akhter Hameed Khan, Comilla Cooperatives, Pard, Comilla, February 1969

c. A New Rural Cooperative System for Comilla Thana (Pard Annual Report)

d. Azizul Huq, Small Farm Credit in Bangladesh, Bangladesh Academy for Rural Development. Comilla, September 1972

e. Mujibur Rahman, Farm Credit Situation, Bangladesh Planning Commission, October 1972

(3) Discussions at Comilla, June 1972

(4) Field Trip Report, Thakurgaon, February 1970

(5) Discussions at Comilla, June 1970

(6) Azizul Huq, Op. Cit., P. 43, 44

(7) Ibid.

(8) Discussions at Comilla, June 1972

(9) L. F. Hesser, Rice Production in East Pakistan, Prospects for 1971-1972, USAID, July 1971

(10) Ali Akhtar Khan, Op. Cit., P. 1

(11) Ibid. P. 27

(12) Ibid. P. 27, P. 37

(13) Ibid. P. 28, 33, 38

(14) Ibid. P. 29, 38

(15) Ibid. P. 37

(16) Ibid. P. 45

(17) Akhter Hameed Khan, Op. Cit., P. 20

(18) Muyeed, Strategy for Rural Development, Unpublished Ph.D. Paper, University of Michigan, P. 34

(19) Akhter Hameed Khan, Op. Cit., P. 50

(20) Bartlett Harvey, Organizing Rural Development in Bengal, Center for International Affairs, Harvard, Cambridge, July 1967, P. 45

(21) Roger Lawrence, Some Economic Aspects of Farm Mechanization in Pakistan, USAID, August 1970, P. 33

(22) Unpublished Paper, Comilla, October 1970

(23) Princeton Lyman, Issues in Rural Development in East Pakistan, USAID, August 1970

(24) Akhter Hameed, Op. Cit., P. 8

(25) Field Tour Report Thakurgaon, February 1970

(26) Rahim, Op. Cit.

(27) See (25)

(28) Dr. Josepn Stepanek, Comilla Cooperative Production Loans, USAID, November 1972

COUNTRY STUDY

THE ROLE OF COOPERATIVE CREDIT IN SMALL FARMER ADOPTION OF THE NEW CEREAL VARIETIES IN INDIA

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The Role of Co-operative Credit in Small Farmer Adoption of New Cereal Varieties in India

Michael G.G. Schluter

I. Introduction

A large number of micro studies have shown that small farmers have lagged in adoption of the new seed varieties, and that there is a close relationship between adoption by small farmers and use of co-operative credit in many areas[1]. Co-operatives are also becoming the most important source of agricultural credit[2]. However, the importance of co-operative credit in adoption is not universal and many aspects of this relationship are ill-defined. This paper will examine four main questions to bring the issues more sharply into focus.

1. How important is co-operative credit relative to other factors in the adoption process?

2. Under what conditions, or at what stage of the adoption process, does credit become a critical factor in adoption?

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[1] For a summary of findings of studies by the Agro-Economic Research Centres and the Programme Evaluation Organization, see M. Schluter and J.J. Mellor, "New Seed Varieties and the Small Farm", Economic and Political Weekly, Vol. VII, No.13, Review of Agriculture, p. A-35.

[2] Between 1961-6 and 1970-71, the share of institutional credit in total agricultural credit increased from 18.7% to 40%. See H.C. Jain, "Growth and Recent Trends in Institutional Credit in India", papers, Indian Journal of Agricultural Economics, Vol. 26, No.4, Oct.-Dec., 1971, p.555.

3. Why are small farmers dependent on co-operative credit for adoption rather than on credit from moneylenders or other traditional sources?

4. Are demand or supply constraints critical to an expansion of co-operative credit to small farmers for adoption of new varieties?

First, we examine the role of co-operative credit in the overall demand and supply of capital, to understand conceptually why and when co-operative credit is likely to be important in the adoption process. Then, to answer question 1, we examine at a micro level factors governing the adoption of hybrid bajra and high-yielding wheat varieties in North Gujarat, and those influencing adoption of high-yielding paddy and wheat varieties in South Gujarat. Survey data for cropping pattern, use of inputs and use of co-operative credit, collected from 225 farmers in Mehsana District, North Gujarat in 1969-70[1], and from 120 farmers in Surat District, South Gujarat in 1971-72[2], form the basis of this part of the analysis. For questions 2 and 3, the results of a large number of micro studies will be examined in an attempt to establish some tentative macro propositions. Some comments on question 4 are made in the conclusions.

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[1]Data used in this analysis are taken from an unpublished paper Michael G.G. Schluter and Gokul G. Parikh. Expansion of Co-operative Credit to Small Farmers for New Cereal Varieties in Gujarat : A Demand or Supply Constraint?

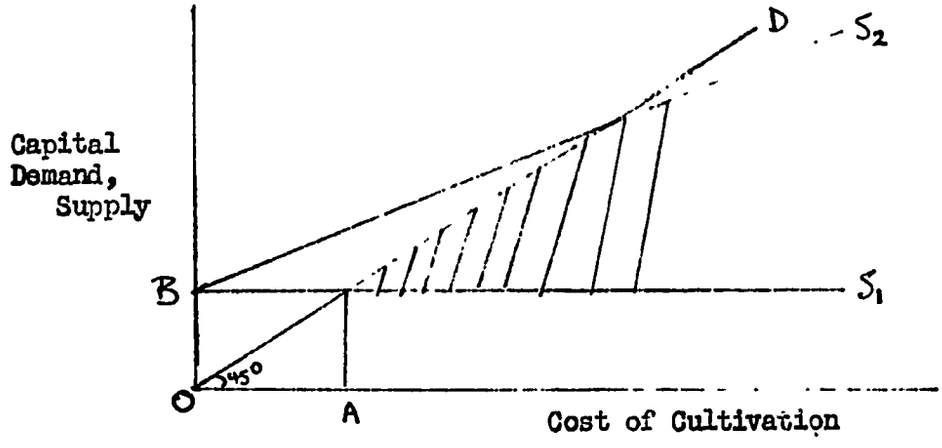
[2]Data collected as part of doctoral research from Cornell University on the subject "Raising Incomes of Small Farmers in India".

Attention is confined to the role of short-term co-operative credit for farmers with the necessary infrastructure to adopt new varieties. The provision of medium or long-term credit to small farmers, so that they may obtain the necessary infrastructure and thus adopt, is a separate issue not handled in this paper.

II. The Conceptual Framework

The situation faced by the individual farmer is illustrated in figure 1.

Figure 1: The Place of Co-operative Credit in the Individual Farmer's Demand and Supply of Capital



where, D is demand for capital

BS_1 is the supply of funds available from savings, and borrowable for production from friends, relatives, moneylenders and traders

OBS_2 is the total supply of capital, including what is available from the co-operatives.

The shaded area represents the demand for co-operative credit

We assume here that farmers use what is available from other sources before using co-operative credit. Also we assume that the supply from sources other than co-operatives is perfectly inelastic with increasing costs of cultivation. The realism of these assumptions is discussed in Sections IV and V.

BS_2 which represents the supply of co-operative credit slopes upwards because under the crop loan system, the amount a farmer can borrow is related to cost of cultivation. However, the slope of BS_2 is not as steep as OD, as co-operative crop loans are inadequate to meet full cash costs of cultivation.

Prior to adoption, we suggest small farmers lie to the left of A, so that there is no demand for co-operative credit. A farmer can meet costs of cultivation from own funds and traditional sources of credit, as he has in the past. There is evidence from both Surat and Mehsana to support this. In Mehsana, only 50% of small farmers[1] had joined the co-operative, and only 29% had taken loans[2]. The main reasons given by small farmers both for non-membership and non-borrowing was adequate income and past-saving, and non-farm source of income (See Appendix Table 10). In Surat, two adjacent areas were surveyed, both well covered by efficient co-operatives, but with the difference that in one and not the other, there were irrigation facilities and the new technology had been introduced. In the irrigated area, 77% of small farmers had joined the co-operatives whereas only 28% had joined in the other area. This suggests that with adoption of the new technology, which results in a high percentage increase in costs of cultivation (See Tables 7 and 8 following), the demand for capital moves to the right of A, so that small farmers as well as large farmers then demand co-operative credit.

---

[1]Defined here arbitarily as those with less than five acres.

[2]See Appendix Table 9.

We suggest that the decision to adopt the new varieties is based mainly on a farmer's assessment of the degree of profitability and risk, but ability to adopt may be influenced by the supply of co-operative credit. In areas of inefficient co-operative societies, and where societies descriminate against small farmers in distribution of loans, a farmer's supply of capital in relatively inelastic. In these situations and where there is still a high degree of risk so that the profitability is not firmly established, we suggest small farmers with access to adequate institutional credit will adopt more rapidly than those without.

III Factors Governing Adoption

South and North Gujarat form a contrast in terms of agro-climatic conditions, cropping pattern and development of infrastructure. In Mehsana District in North Gujarat, farmers depend for water on well-irrigation and uncertain rainfall, and principal crops are bajra, wheat and spices; in Surat District in South Gujarat, with canal irrigation and heavy and relatively assured rainfall, paddy and sugarcane predominate. In both regions, some of the villages were well served by co-operatives, and others not.

The high-yielding rice variety, masuri, was first grown by farmers in Surat District in 1968-69 and by the year of survey,

1971-72, it had spread over a major part of the irrigated rice area. High-yielding wheat varieties had been introduced as early as 1966-67 but by 1971-72, only 30% of farmers were growing these varieties, although most farmers had changed from local to local improved varieties. Differences in costs of cultivation and rates of returns between desi and improved varieties of wheat were negligible, so we examine here adoption of S-227 and Sonakalyan for which costs of cultivation and returns were substantially greater than those for the other varieties[1]. In the case of both hybrid bajra and high-yielding wheat varieties in Mehsana district, the new varieties had been introduced in 1966-67. By 1969-70, 50% of bajra growers were growing hybrid bajra whereas only 21% of wheat growers had adopted the new wheat varieties.

The Regression Model

The model used for the analysis was as follows:

$$Y = A + b_1X_1 + b_2X_2 + b_3X_3 \ldots\ldots + b_{10}X_{10}$$

where,

Y = Area under the new variety (in acres)
X_1 = Area under the crop (in acres)
X_2 = Gross Cropped Area (in acres)
X_3 = Credit Available from the Co-operative (in '000 Rs.)
X_4 = Non-Agricultural Income (in '000 Rs.)
X_5 = Dairying Income (in '000 Rs.)
X_6 = Non-Farm Assets (in '000 Rs.)
X_7 = Availability of Family Labour for Farm Work (No. of Adult equivalents)
X_8 = Education of Family Decision-Maker (in years)
X_9 = Home Consumption Requirements (in units of 20 kg.)
X_{10} = Value of Kharif Crop Sales (Only for HYV wheat, Surat).

and A and the b_is are unknown parameters to be estimated.

---

98 [1] A Study of Saharanpur District in U.P. with respect to local improved varieties had similar findings. See D.P. Gupta, A Study of Maxican Wheat in Saharanpur District, (U.P.), Rabi 1967-68, Agro-Economic Research Centre, University of Delhi, 1968.

The obvious dependent variable for an analysis of differences in adoption behaviour between farmers is the percentage of a crop's acreage put under the new varieties. But since most farmers have either 0% under the new varieties or 100%, this variable does not follow a normal distribution and hence cannot be used as the dependent variable in a regression framework. To overcome this problem, acreage under the new variety has been made the dependent variable, with X_1 as acreage under the crop which has the necessary infrastructure for the new variety.

Implicit is the assumption that acreage under a new variety is independent of acreage put under other crops. To test this, we examined the relationship of acreage under new varieties in Surat with acreage under sugarcane, the chief alternative to a paddy and wheat combination. Since no relationship was found, we excluded this from the final model.

Gross cropped acreage and net cultivated acreage gave similar results in the regression analysis. The former is used as it is more closely correlated with the farm's income-generating capacity.

Since data for the value of farmers' savings available for production purposes could not be estimated, we used credit availability from co-operatives rather than capital availability in the model. The close relationship observed in many areas between borrowings from co-operatives and adoption does not reveal whether those with access to this credit

adopted, or whether those willing to adopt obtain this credit[1]. In this analysis, we examine specifically the farmer; with acreage under the new variety as the dependent variable, and availability of co-operative credit as an independent variable, we examine the influence of co-operative credit on the degree of adoption.

Non-Agricultural Income[2] and dairying are both thought to influence adoption. The supplementary income they provide is a source of both capital and risk-bearing capacity. Non-Farm Assets[3], however, adds only to risk-bearing capacity while the value of kharif crop sales adds only to capital availability[4]. New varieties also result in an increased demand for labour[5], so that the availability of family labour may influence adoption. There is a prima facie case for including all these variables in the model.

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[1]See Michael Schluter and John W. Mellor, op.cit.

[2]See Michael G.J. Schluter and Richard W. Longhurst, Some Aspects of the Suitability of High-Yielding Rice and Bajra Varieties for the Small Farm, Thanjavur and Mehsana Districts, India, Occasional Paper No.57, Department of Agricultural Economics, Cornell University USAID-Employment and Income Distribution Project, 1972.

[3]The Correlation of non farm assets with total assets is 0.95.

[4]95% of crop sales of sample farmers in Surat in 1971-2 took place at the end of the kharif season.

[5]See for example, R.N. Tripathy and B. Samuel, "Economics of high-yielding varieties in IADP; a study in Orissa, "Economic and Political Weekly, Oct. 25, 1969 p.1719-1724.

Farmers with a relatively large home consumption requirement who are willing to consume inferior varieties of cereals benefit substantially from the new technology, especially when the prices of the new varieties are considerably lower than for traditional varieties. This may be illustrated for Kollam (local improved) and masuri (high-yielding) varieties for Surat district as follows:

	Yield/acre in kgs.	Price per 100 kgs.
Masuri	1000	70
Kollam	1500	90

Gross Income from Crop Sales	Kollam	Masuri
If no home consumption	9,000	10,500
If 500 kg. for home consumption	4,500	7,000
If 1000 kg. for home consumption	0	3,500

The greater the market orientation of the local economy, the less this holds as farmers may sell the higher quality cereal and buy the inferior variety.

Educational level is included as it determines a farmers ability to understand the complex changes in agronomic practices required for adoption to be profitable. Farmers' age was found to bear no relation to adoption in any of areas studied and was excluded from the final model.

A. Adoption of High-yielding Rice Varieties in Surat District, 1971-72

The results of the estimated equation for adoption of high-yielding rice varieties (masuri and two cases of IR-8) are shown in Table 1.

Table 1 Estimated Linear Regression for Factors Influencing Adoption of High Yielding Rice Varieties in Surat District 1971-72

Factors	Regression Coefficient	Std. Error of coefficient	t-value
Acreage under irrigated rice[1]	0.7401	0.0958	7.73**
Gross Cropped Acreage	-.0500	-0.0261	-1.91*
Credit Available from Co-operative[2]	0.1602	0.0854	1.87*
Non-Agricultural Income	-0.0409	0.0227	-1.80*
Dairying Income	0.0541	0.0634	0.85
Non Farm Assets	0.0170	0.0079	2.15**
No. of Family Members Available for Farm work	0.0218	0.0418	0.52
Education of Family Decision-Maker	0.0093	0.0429	0.22
Home consumption requirement	0.0038	0.0096	0.39

R^2 = 0.76 No. of observations (farmers) = 59

* Significant at 5% level ** Significant at 1% level.

[1]Only farmers using canal irrigation were included. Masuri as a long duration variety has a very high water requirement so that no farmer using well irrigation or pumping water directly from the main canal found it profitable to adopt masuri.

[2]Defined here and in Table 3 as the maximum amount the co-operative society said it would be willing to lend the farmer for variable inputs, based on acreage, cropping pattern, assets, character of the farmer etc.

There is an inverse relationship between adoption of Jaguri and gross cropped acreage (or net cultivated acreage). This relationship did not exist in the early stages of adoption, as is clear from Table 2.

Table 2 % of Farmers Adopting High-Yielding Rice Varieties on Any Part of their Irrigated Rice Acreage by Farm Size 1968-69 to 1972-73

Net cultivated acreage	1968-69	1969-70	1970-71	1971-72	1972-73
0-2	0%	0%	50%	65%	55%
2-5	4%	46%	74%	65%	74%
5-10	21%	43%	61%	61%	71%
Over 10	20%	56%	82%	82%	82%

At a relatively late stage in the adoption process, small farmers may be more willing to adopt than large farmers as they have a greater propensity to consume inferior cereal varieties. Adoption will also represent a greater proportional increase in their income, since a greater part of their acreage is devoted to foodgrains[1].

Availability of co-operative credit was a significant factor in the decision to adopt, even when all other relevant factors are considered simultaneously. From table 11 in Appendix A, which gives data for the percentage of farmers adopting over time in villages where

1 J.H. Adhvarya and Gokul O. Parikh, Studies into the Economics of Farm Management in the I.A.D.P. Region of Surat and Bulsar. Report for the Year 1967-68, Farm Management Centre, Sardar Patel University, Vallabh Vidyanagar, 1969.

almost every farmer had access to co-operative credit, it is clear that there was a marked positive relationship between adoption and farm size in the first year the new varieties were introduced. It is only after small farmers have assessed the risks involved in adoption, that they become willing to adopt and availability of co-operative credit becomes a significant factor in adoption behaviour.

The farmer's risk-bearing capacity reflected by the value of his non-farm assets, was also important in adoption. Masuri involves uncertainty because, being a late variety, farmers are uncertain whether they will be able to sow in time the rabi crops (especially wheat and val[1]). However, non-agricultural income had a significant negative relationship with adoption. Those with a high non-farm income adopted less. We suggest that the importance of non-agricultural income in influencing adoption lies not in increasing a farmer's risk-bearing capacity for investment on the farm, but in widening a farmer's horizons to investment opportunities, in the non-agricultural sector. For example, the chief source of non-agricultural income in the Surat area studied is diamond cutting, and for Rs.3000-4000 a farmer may purchase a machine for use in his own home. Thus, a non-farm job may also result in a net outflow of funds from the agricultural sector even in the context of the new technology. Secondly, those with this additional income can afford to consume high quality foodgrains, and so may choose to grow the higher quality traditional varieties.

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1. A pulse crop grown mainly in South Gujarat and Maharashtra.

B. Adoption of High-Yielding Wheat Varieties in Surat District 1971-72

The estimated linear regression for adoption of high-yielding wheat varieties (S-227 and Sonalika) are shown in Table 3.

Table 3 Estimated Linear Regression for Factors Influencing Adoption of High Yielding Wheat Varieties in Surat District 1971-72

Factor	Regression Coefficient	St. Error of Coefficient	t-value
Acreage under wheat	0.5408	0.1410	3.84**
Gross Cropped Acreage	0.0056	0.0191	0.29
Credit Available from Co-operative	-0.1142	0.0727	-1.57
Non-Agricultural Income	-0.0161	0.0126	-1.28
Dairying Income	0.0731	0.0748	1.53
Non-Farm Assets	-0.0049	0.0055	-0.89
No. of Family Members Available for Farm Work	-0.0094	0.0127	-0.74
Education of Family Decision-Maker	0.0763	0.0236	3.23**
Home Consumption Requirement	0.0090	0.0162	0.55
Value of Kharif Crop Sales	-0.0301	0.0403	-0.75

r^2 = 0.54 No. of observations (farmers) = 50

** Significant at 1% level.

Acreage under high-yielding wheat varieties is not significantly related with non-farm assets as in the case if paddy, nor with non-agricultural income. New wheat varieties grown under rabi conditions involve a much lower element of uncertainty than new paddy or bajra varieties under kharif conditions. The vagaries of the monsoon add an element of uncertainty to kharif paddy which is not present in the cultivation of rabi wheat. The relative absence of risk is probably the main reason for the lack of relationship between acreage under new wheat varieties and farm size, here again measured as gross cropped acreage[1].

Availability of co-operative credit, significant in adoption of masuri, is not significant in adoption of the new wheat varieties. The amount of additional credit needed to change from traditional to new varieties in the case of wheat is greater than in the case of paddy. (See data for costs of cultivation in Table 8 following). But credit availability is of much less importance for a rabi crop, as farmers can generally rely on their own funds after recent sales of the kharif crop. Also, since new wheat varieties involve relatively little risk, farmers may be more willing to commit their own funds to the innovation The lack of a significant relationship between the value of kharif sales and acreage under $277 probably indicates that for all farmers the value of sales from crops was adequate to finance the new variety.

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[1]Over a large number of cases a lack of relationship between adoption and farm size has been observed in the case of new wheat varieties. See Michael Schluter and John W. Mellor, op.cit.

C. Adoption of Hybrid Bajra in Mehsana istrict in 1969-70

The results of the estimated linear regression for adoption of hybrid bajra are shown in Table 4.

Table 4 Estimated Linear Regression for Factors Influencing Adoption of Hybrid Bajra in Mehsana District 1971-72

Factor	Regression Coefficient	St.Error of estimate	t-value
Acreage under bajra	0.2810	0.0546	5.14**
Gross Cropped Irrigated Acreage	0.0860	0.0361	2.24*
Credit Available from co-operative[1]	0.2542	0.0813	3.13**
Non-Agricultural Income	0.2233	0.1594	1.40
Dairying Income	0.0547	0.0174	3.15**
Number of Family Members Available for Farm work	0.1616	0.1689	0.96
Literacy of Family Decision Maker[2]	0.5589	0.3759	1.49
Home consumption Requirement for Bajra	0.0059	0.0016	3.77**

r^2 = 0.43 No.of observations (farmers) = 212

* Significant at 5% level ** Significant at 1% level

[1]Defined here and in Table 5 as the maximum amount a farmer can borrow from the co-operative under the crop loan system with his existing cropping pattern, assuming he puts his whole bajra (wheat) acreage under bajra (high-yielding wheat).

[2]For computations, literate = 1, illiterate = 0.

These data indicate that dairying income was a significant factor in adoption of hybrid bajra whereas the influence of non-agricultural income is not as clearly defined. The difference between these two sources of income lies in their relationship with the farming enterprise. Farmers with a dairy herd have greater availability of Farm Yard Manure, facilitating the use of higher doses of chemical fertilizers, and benefit more from the increased bye-product of a higher yield. Perhaps more important, they are more committeed to making a success of their farming enterprise. As pointed out above, those with non-agricultural income may also have greater opportunities to invest off the farm.

Availability of co-operative credit was closely related to adoption of hybrid bajra. As with paddy, there was a high degree of risk involved in adoption of this variety, partly owing to weather uncertainity and partly owing to the relatively recent introduction of the variety. We may note that co-operative credit plays a particularly important role in situations of a high degree of uncertainity, when small farmers have begun to adopt[1].

Gross cropped irrigated acreage was significantly related to adoption of hybrid bajra, although gross cropped acreage was found to be non-significant in an earlier model. The variables differ in that while both indicate the size of farm income, the former indicates what may be expected with some degree of certainty. The certainty of income from whatever source is crucial in adoption of new varieties.

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1 To be discussed in greater detail in Sections IV and V.

D. Adoption of High-Yielding Wheat Varieties in Mehsana District 1969-70

The results of the estimated linear regression for adoption of high-yielding wheat varieties in Mehsana are shown in Table 5.

Table 5 Estimated Linear Regression for Factors Influencing Adoption of High-Yielding Wheat Varieties in Mehsana District, 1971-72

Factor	Regression Coefficient	St. Error of Coefficient	t-value
Acreage under wheat	1.4113	0.3660	3.86**
Gross Cropped Acreage	-0.0757	0.0580	-1.29
Credit Available from Co-operative	0.2280	0.2682	0.85
Non-Agricultural Income	0.0645	0.0512	0.13
Dairying Income	0.1359	0.0553	2.44**
No. of Family Members Available for Farm Work	-0.1726	0.5159	-0.33
Literacy	0.0300	1.2070	0.02
Home Consumption Requirement	0.0157	0.0074	2.12*

r^2 = 0.12 No. of observations (farmers) = 165

* Significant at 5% level ** Significant at 1% level.

Availability of co-operative credit was not a significant variable in explaining adoption of the new varieties either in Mehsana or Surat. Nor is there a significant relationship between adoption and gross cropped acreage in either area; if anything, there is an inverse relationship. The greater availability of funds in the rabi season after recent kharif sales, so that farmers can rely on their own funds to a great extent, probably accounts for these findings. The risk element, however, cannot be ruled out even by 1969-70. Farmers were still wary of adoption, as indicated by the fact that only 21% of wheat growers had adopted the new varieties. It is in this context that we may understand the significance of the coefficient for dairying income; inter alia, the supplementary income from dairying helps farmers bear risk in their crop enterprises.

Overall assessment

Family Labour Availability

In none of the above functions was availability of family labour found to be a significant factor in adoption behaviour. We may note that the new varieties require additional labour mainly for harvesting and threshing operations, and for transplanting in the case of paddy[1]. These are generally time-bound so that farmers have to hire the additional labour required rather than being able to take advantage of

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[1]See G.U. Parikh and R.D. Sevak, "Relative Profitability of Improved and Deshi wheat: A Case Study," Industrial March, January-March 1971, pp.46-50, and R.N. Tripathy and B. Samuel, op.cit.

their underemployed family labour. The additional labour requirement thus becomes largely a capital cost and increases the demand for credit on all farms. Partial exceptions to this are cases such as Thanjavur where adoption of new varieties facilities a change to double cropping, substantially increasing the opportunity for small farmers to use available family labour. With the new variety, ADT-27, also being a very hardy variety, it is not surprising that small farmers adopted very quickly and on a large part of their rice acreage in Thanjavur[1].

Risk-bearing Capacity

The importance of both non-farm assets in adoption of masuri in Surat District, and supplementary income from dairying for both hybrid bajra and new wheat varieties in Mehsana, underlines the importance of risk-bearing capacity as a factor in adoption. Uncertainty may arise from the weather, lack of knowledge about methods of cultivation, ignorance of yield response of a new variety under differing conditions, or even difficulty in growing a second crop as in the case of the masuri rice variety in Surat District.

Non-Agricultural Income

Non-Agricultural income did not lead to higher levels of adoption in any of the four cases studied; in the case of masuri, it was even correlated with lower adoption. We suggest that this may be because those with this

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[1]See Michael G.G. Schluter and R. Longhurst, op.cit.

additional income consume, and therefore grow, the higher quality traditional varieties, and because other investment opportunities off the farm become available. In contrast, those with dairying income are more inclined to adopt because they are more dependent on their farm as a means of livelihood and owing to the complex inter-relationships between dairying and crop enterprises.

Home Consumption Requirement

Home consumption requirement was a significant variable for both cases in Mehsana, and for neither in Surat. There may two reasons for this. The Mehsana data relate to an earlier point in the adoption process when a large home consumption requirement gives greater incentive to take the risk of adoption. Also, the villages in Mehsana are much more subsistence orientated than in Surat, so that the advantage of a yield increasing technology for these willing to consume inferior quality cereals is most clearly apparent.

Co-operative Credit

It is in the context of the factors listed above that we must assess the importance of co-operative credit as a factor in a farmer's decision to adopt the new varieties. Availability of co-operative credit was found to be a significant variable for paddy and bajra, where the risk element is most obvious. It was not significant for wheat in either district. This suggests that co-operative credit

plays its most important role under conditions of uncertainty, and in situations where a farmer is forced to borrow in order to adopt, and cannot rely on his own funds. The reasons underlying this phenomenon are discussed in Section IV.

Profitability

A much larger number of studies is required to determine how profitability affects adoption on small farms. Table 6 shows the relationship between borrowing, profitability and the adoption behaviour of small farmers over a number of districts.

Table 6 Borrowing, Profitability and Small Farmer Adoption of New Rice Varieties 1966-1968

District	Year	Main variety	% Increase in capital required	Increased borrowing as % of increased capital requirement	Rate of return on additional capital employed	% of small farmers adopting
Cuttack (12)	1966	TN-1	261%	NA	126%	10%
A District of Maharashtra (21)	1966	TN-1	54%	51%	-72%	36%
Varanasi (3)	1967	TN-1	27%	50%	-171%	23%
Thanjavur (2)	1967	ADT-27	31%	248%	302%	High
Birbhum[1] (13)	1968	IR-8	658%	34%	71%	75%
Godavari (17)	1968	IR-8	54%	25%	33%	10%
E. Godavari (7)	1968	IR-8	45%	42%	-3%	16%
W.Godavari (18) (rabi)	1968	IR-8	41%	[illegible]	172%	59%.
E.Godavari (18) (rabi)	1968	IR-8	50%	53%	243%	39%

Figures in parentheses indicate sources (see Appendix A and Appendix B)

[1]Refers to cash costs of cultivation only.

In all cases except Cuttack District, in Orissa, a high rate of return (over 50%) is associated with a medium (25% - 50%) or high (over 50%) level of participation by small farmers. Cuttack is a special case since it was the first year of the new variety so that uncertainty would have been the ~~dominant~~ factor. There is no such obvious relationship between borrowing and small-farmer participation, although the higher level of adoption amongst small farmers in East Godavari than West Godavari in the kharif season of 1968-69 may be due to the greater coverage of credit needs by the co-operatives. The lesser dependence on co-operative credit in the rabi season is well illustrated by the lack of relationship between co-operative credit and adoption by small farmers in these two districts in the rabi season. The high costs of cultivation and low proportion of additional costs in Birbhum did not deter small farmers fromadopting, nor did the low additional capital requirement and greater availability of co-operative credit lead to a high level of adoption by small farmers in Varanasi. Profitability is a precondition for a high level of adoption by small farmers, who want to examine returns before committing themselves to an innovation.

IV. The Importance of Credit in Adoption

Evidence for the importance of credit in adoption is conflicting at first sight. In a study which examines data for a large number of micro studies, mainly for the period 1966 and 1967, the authors conclude:

"the owned funds of the sample cultivators needed to supplemented only marginally by borrowings in order to meet the input expenses of high-yielding varieties"[1].

On the other hand, a survey of an equally large number of micro-studies covering a slightly later period "indicate a close relation between use of co-operative credit and adoption"[2] and a survey of micro studies of new rice varieties in South India concludes:

"the increased cash expenditure on HYV paddy was met by a higher level of borrowings by participant farmers. Much of the enhanced credit requirements of the participants were supplied by the co-operatives."[3]

We suggest the hypothesis that co-operative credit plays an important role in adoption at the point when small farmers begin to adopt new varieties, and large farmers expand their acreage under new varieties beyond the initial trial stage. In Surat district, in in the early stages if adoption, only larges farmers experimented with

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[1]Mahendra D. Desai and Bharat D. Naik, "Prospects of Demand for Short-term Institutional Credit for High-Yielding Varieties", I.J.A.E. Conference, Number, Vol. XVI, No.4, p.458.

[2]M.Schluter and J.W.Mellor, op.cit.

[3]C. Muttiah, The Green Revolution - Participation by Small Versus Large Farmers, paper presented at Seminar on Rural Development for Weaker Sections, held at Indian Institute of Management, Ahmedabad October 1972.

the new varieties (Table 2), and they only put a small proportion of the crop's acreage under the new seeds. Over a two or three year period, small farmers began to adopt and large farmer expanded acreage under the new varieties considerably. Thus, initially farmers' additional credit requirements, as a % of the total credit used on the farm, is very small. It is only in the secondary stages of the adoption process that large and small farmers alike require a quantity of capital that represents a significantly large proportional increase.

Obviously, the role of co-operative credit is also dependent on coverage by co-operatives. In areas well covered by societies, the role of co-operative credit is likely to be considerable[1], whereas in areas of poor coverage the role of co-operatives is bound to be more limited at whatever stage in the adoption process[2].

Co-operative credit has an especially important role for the small farmer. This is also brought out by two of the comprehensive surveys mentioned above. Rather than reproducing the data from all the individual studies, we again quote the main conclusions. After noting that increased cash expenditure on high-yielding varieties were met mainly from co-operative credit, Mr. Muttiah concludes:

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[1] V.S. Vyas, D.S. Tyagi, V.N. Misra, Significance of the New Strategy of Agricultural Development for Small Farmers, Agro-Economic Research Centre, Sardar Patel University, Vallabh Vidyanagar, 1969

[2] D.S. Tyagi and V.N. Misra, A Study of the H.Y.V.P. in Kota District, Rajasthan (Rabi 1968-69), Agro-Economic Research Centre, Sardar Patel University, 1969.

"among the participants, the borrowings per acre of HYV paddy have been found to be consistently higher among small farmers excepting in Thanjavur which has a large proportion of tenants who are not favoured by the village co-operatives"[1]

and from the second study:

"the results of this analysis suggest that few of those with small farms obtain co-operative credit but those who do meet a relatively high proportion of their cash expenditure from this source. It is these farms which adopt the new varieties."

In are s well served by co-operatives, their credit is especially important for small farmers, at a secondary stage in the adoption process when farmers have assessed the risks and returns from adoption.

V. Reasons for Importance of Credit in Adoption

Three possible reasons for the importance of co-operative credit in adoption will be examined in this section - first, the relatively low rate of interest on co-operative loans, second the lack of capital available from other sources and thirdly the possibility that farmers use the co-operatives as risk-bearing institutions.

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[1] C. Muttiah, op.cit.

[2] M. Schluter and J.W. Mellor, op.cit.

A. Rate of Interest

In order to argue that the rate of interest is a significant factor, it is necessary to demonstrate that rate of return on additional capital used to grow the new varieties are consistently close to the 10% - 50% range, which represents the difference in interest rates between money lenders and co-operatives. Therefore we estimated the rates of return from a large number of micro studies as shown in Tables 7 and 8 on the following pages.

It is clear that in almost all cases the new varieties are either extremely profitable or extremely unprofitable. In only 2 of the 43 cases for which data were available was the rate of return between 0% and 50%. On the basis of this evidence, it seems most unlikely that the low rate of interest is what causes farmers to rely so heavily on co-operative credit in adoption.

B. Capital Availability

The lack of importance of co-operative credit for wheat cultivation in both Surat and Mehsana districts suggests that when adequate funds are available to farmers, in this case as a result of recent Kharif crop sales, co-operative credit does not play an important role in adoption. From this we may infer that it is perhaps some rigidity in the sources from which farmers normally obtain credit which compels them to rely on co-operative credit for adoption.

Table 7: Rates of Return on New Rice Varieties in India 1966-1971

District and Year	Main variety	Total expenditure per acre HYV	Total expenditure per acre Local	Net returns per acre HYV	Net returns per acre Local	Additional capital expenditure	Additional net returns	Rate of return
		1	2	3	4	5	6	7=(6/5)
1966-1967								
Kolaba (1)	TN-1	128	68	132	269	61	-137	-224%
Thanjavur(1)	ADT-27	139	118	395	227	21	168	800%
Cuttack (12)	TN-1	296	82	646	377	214	269	126%
Karnal (1)	TN-1	113	54	491	348	60	143	238%
Krishna (1)	TN-1	202	101	482	565	101	-83	-82%
Ernakulam (1)	TN-3	565	226	692	792	159	-100	-72%
Mahar Dist. (21)	TN-1	194	126	261	310	68	-49	-72%
Manya (22)	TN-65	426	293	789	1124	233	-335	-101%
1967-1968								
Birbhum[1](2)	TN-1	401	221	NA	NA	180	-60	-33%
Amritsar[2](2)	TN-1	214	169	NA	NA	45	-175	-39%
Saharanpur (2)	TN-1	159	87	NA	NA	72	54	75%
Thanjavur (2)	ADT-27	183	139	NA	NA	44	133	302%
W. Godavari (2)	IR-8	294	138	NA	NA	156	163	104%
Raipur (2)	TN-1	104	110	NA	NA	-6	-340	-566%
Varanasi (2)	TN-1	159	125	NA	NA	34	-58	-171%
Sibsagar (2)	TN-1	NA	NA	NA	NA	82	206	252%
1968-1969								
Saharanpur (9)	IR-8	295	233	658	605	62	53	85%
Sambalpur (2)	TN-1	289	154	542	274	135	268	199%
Amritsar (8)	IR-8	284	157	618	382	127	236	126%
Birbhum (13)	IR-8	391	52	732	490	339	242	71%
Sibsagar (Rabi)(4)	TN-1	150	81	718	471	69	247	358%
Sibsagar (4) (Aun)	TN-1	129	80	1195	316	49	879	1794%
W.Godavari (17)	IR-8	514	321	440	376	193	64	33%
E.Godavari (17)	IR-8	529	259	285	292	270	-7	-3%
W.Godavari (18) Rabi	IR-8	746	579	487	195	167	288	172%
E.Godavari (18) Rabi	IR-8	583	408	677	251	175	426	243%
1971-1972								
Surat (24)	Masuri	505	432	321	472	73	49	81%

1. Refers to all HYV. IR-8 alone was considerably more profitable.

2. Compared with basmati

Numbers in parentheses indicate sources of data. See Appendix A for details.

Studies differ in components included in Total Expenditure per Acre. See Appendix B for details.

Table 8: Rates of Return on New Wheat, Bajra and Maize Varieties in India 1967 to 1968

District and Year	Main variety	Total expenditure per acre		Net returns per acre		Additional capital expenditure	Additional net returns	Rate of return
		HYV	Local	HYV	Local			
		1	2	3	4	5	6	7=(6/5)
WHEAT								
Tikamgad (1)1967	HYV	318	150	520	93	168	427	254%
Amritsar (5)1967	S-227	390	124	247	204	266	43	16%
Amritsar (5)1967	Lerma Rojo	137	124	355	204	15	149	1146%
Udaipur (20)1967	HYV	434	318	707	480	116	227	196%
Saharanpur (7)1967	Mexican	197	207	535	539	-10	194	1940%
Karnal (6) 1967	Mexican[41]	225	110	307	400	115	207	180%
Aligarh (19)1967	HYV	334	219	781	434	115	347	301%
Kota Dist.(16)1968	S-227	338	221	264	140	117	124	105%
Surat (24) 1971	S-227	253	160	330	220	73	130	178%
BAJRA								
Mehsana (2) 1966	Hybrid	174	93	187	121	82	66	80%
Kaira (2) 1967	Hybrid	249	115	NA	NA	134	138	103%
Nasik (2) 1967	Hybrid	190	47	NA	NA	143	134	94%
Karnal (2)1967	Hybrid	182	17	NA	NA	135	252	140%
Ahmedabad(15)'68	Hybrid	254	152	180	93	122	87	71%
MAIZE								
Aligarh (1) 1966	Hybrid	257	119	78	226	133	-148	-107%
Saran (4) 1966	Hybrid	197	92	231	131	105	100	95%

Numbers in parenthesis indicate Sources of Data. See Appendix A for details.
Studies differ in Components included in Total Expenditure per Acre.
See Appendix B for details.

There are several reasons for thinking the supply of funds from sources other than the co-operative are relatively inelastic with respect to costs of cultivation. Traditional sources of credit are friends and relatives, or moneylenders and traders. A large part of this lending is for consumption purposes, and often use of the credit is not specified. It is not surprising, therefore, that in the part of Surat studied where moneylenders are still the main source of credit, over 50% of farmers indicated they could obtain ~~better and~~ little or no additional credit from their moneylender. In this area new varieties had scarcely been introduced but as pressure from the government is causing most moneylenders in the area to try and contract their lending operations, supply from this source is unlikely to expand rapidly to meet a growing demand from adoption of new varieties.

The supply of funds available from savings is also likely to be relatively inelastic on small farms owing to the high debt to income ratio. Also, the opportunity cost in terms of foregone consumption is higher on small farms. This is especially true in the kharif season, when loans have just been repaid and the greatest time period has elapsed from the year's main harvest period so that funds are generally needed for basic consumption requirements.

The difficulty with arguing that supply of funds constitutes the main problem is the high rates of return on capital noted above. It seems probable that if farmers were certain of such high rates of return as indicated for certain areas in Table 6, they would find some way to obtain capital for the three or four month period involved. But the rates of return are not fixed; they are highly subject to risk as is equally clear in the table. It will be argued below that it is this risk factor which makes small farmers unwilling to use traditional sources of credit even which they are able to.

C. The Co-operatives as Risk-bearing Institutions

Some evidence is available from micro studies which indicate how risky new varieties are relative to local varieties, apart from what emerges from Table 6. Cobb-Douglas production functions were estimated for hybrid and local varieties of bajra in 1966-67 for a sample from Mehsana District[1]. Variation in input levels accounted for 57% of variation in yields of traditional varieties, but only 26% for hybrid varieties. This suggests that for hybrid varieties yields fluctuated widely between farmers using similar input levels, which in turn suggests knowledge about methods of cultivation was lacking. Similar functions were fitted to data for hybrid and local bajra from a sample in Ahmedabad district Gujarat for 1968-69[2]. In this

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[1]Michael G.G. Schluter and R. Longhurst, op.cit.

[2]V.S. Dharap, A Study of the Hybrid Bajra Programme in the Ahmedabad District, Gujarat (Kharif 1968-69), Agro-Economic Research Centre, Sardar Patel University, 1969.

case the r^2 for the hybrid variety was 56% and for the local variety 75%, pointing to the same conclusion. There is little doubt that especially in the initial stages of the diffusion of the new varieties, there is actual as well as perceived risk in adoption.

We suggest that the risk factor is a second reason why small farmers depende on co-operative credit for adoption of new varieties. If a farmer has to borrow, he is reluctant to borrow from traditional sources of credit. If a small farmer does borrow from traditional sources and the crop fails, he has nothing to fall back on to repay the debt, to obtain money for consumption till the following harvest, and for production inputs for the next crop year. In contrast, if he has taken a loan from the co-operative society or some other government institution, in the case of crop failure, the traditional sources of credit are still open for all essential expenditure through to the harvest the following year. In addition, there is considerable flexibility in repayment of co-operative loans and much less pressure to repay promptly. For these reasons small farmers with access to co-operative credit have an important advantage over these without this access in bearing the risks of adoption of new varieties.

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[1]For example, the policy of co-operatives under such circumstances to convert short-term loans into medium-term loans.

VI Conclusions

Main Findings

a. Credit as a Factor Influencing Adoption:

Profitability was the dominant factor in the degree of adoption by small farmers by comparing a large number of rice growing areas. In Surat and Mehsana Districts specifically, the main factors influencing adoption differed between crops. For new rice varieties in Surat District in 1971-72, and hybrid bajra in Mehsana in 1969-70, both of which involved a considerable element of risk, two factors were important - the farmers risk bearing capacity reflected in the size of supplementary income and non-farm assets, and availability of co-operative credit. In the former, adoption was inversely related with farm size, measured as gross-cropped acreage, and in the latter, positively related. For both cases of wheat, the availability of co-operative credit was not a significant factor, which probably reflects the greater availability of owned funds owing to recent kharif crop sales. It may also reflect the lesser degree of risk of adoption in the rabi season when one important source of uncertainty, the weather, is considerably reduced. We conclude it is in situations where adoption is profitable but farmers face a high degree of risk, and where they find their own funds inadequate to meet the additional expenditure, so that they are compelled to borrow, that the role of co-operative credit is of the greatest importance.

2. The Importance of Co-operative Credit at Different Stages of Adoption:

The data from North and South Gujarat suggest the hypothesis that co-operative credit becomes important in diffusion of new varieties at the point when small farmers begin to adopt and large farmers put more than a small part of their acreage under the new varieties. At this point, the credit requirement for the new varieties represents a significant increase in proportional terms over what was being used previously. A host of micro studies of the period 1966-67 to 1969-70 lend support to t is hypothesis.

3. Why Co-operative Credit is Important:

We suggest two reasons for the importance of co-operative credit in adoption. First unwillingness or inability of traditional sources of credit and savings of small farmers to expand to meet the increased costs of cultivation, and secondly the unwillingness of small farmers to use these sources, even if they are able to, owing to the high degree of risk involved in adoption. In the event of adoption leading to crop failure, if a farmer has borrowed from the co-operative, he can still rely on traditional credit sources both for consumption expenses till the next harvest and for production credit for the following year. Also, there is considerable flexibility in repayment conditions for co-operative credit. In contrast, if a farmer defaults on a loan from traditional credit

sourc s which he has used to grow the new varieties, he has no other source to turn to for help to me t production and consumption expenditure prior to the following harvest. We conclude that a small farmer is likely to be willing to take the risk if he can obtain the credit from co-operative or other government agencies, or in situations when own funds are available than when he is compelled for lack of alternative to rely upon traditional sourcesof finance.

Implications for Policy

In areas without technological change, the role of co-operative credit for small farmers is limited by an absence of demand. Small farmers can meet costs of cultivation from traditional sources and in many cases find the disadvantages of changing to the co-operative sector greater than the advantages. If co-operatives want a greater share of the credit cake in these areas, they must search for profitable innovations which will increase costs of cultivation, so that the demand for capital is greater than the supply available from traditional sources.

In areas of technological change, small farmers will demand co-operative credit once the risk and profitability of the innovation have been established. It is in these areas that no effort should be spared to improve management practices to prevent institutional constraints on the supply of credit to small farmers, as these constraints may inhibit adoption.

Our analysis suggests that co-operatives could accelerate the adoption process on small farms in areas with technological change if their facilities were restructured to take account more explicitly of the risk factor. One way this could be done is through a policy of regions crop insurance[1].

Stimulus to demand for co-operative credit from small farmers, and more efficient management in areas where the demand exists, would make credit co-operatives a more effective mechanism both to increase production of foodgrains, and to reduce income disparities in rural areas.

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[1]Co-operative institutions are much better placed than individuals to bear risk, as they can balance out their levels of profit both between regions and over time. If it were not the vast administrative costs, some sort of individual crop insurance would seen an ideal solution to small farmer's problem of risk. But it might be possible for co-operatives to undertake some regional crop insurance. By raising the normal interest rate to 25%, which we have argued above would make little difference to profitability of the innovation, the co-operatives could afford to write off all crop loans for a certain crop in a given area in the event of a crop failure due to unsuitability of a variety, weather problems or other factors, and demand no payment from the farmer.

Appendix Table 9. Co-operative Membership and Borrowing among Sample Cultivators in Mehsana District in 1969-70

Size of operational holding (Acres)	Total number of farm rs	Members			Non-members
		Borrowers	Non-borrowers	Total	
Below 5	73	21 (28.77)	16	37 (50.69)	36
Between 5 and 10	82	38 (46.34)	18	56 (68.29)	26
Above 10	65	40 (61.54)	10	50 (76.92)	15
Total	220	99 (45.00)	44	143 (65.00)	77

(Figures in parenthesis indicate percentages to the respective total number of farmers)

Appendix Table 10. Reasons Given by Sample Farmers for Non-Membership and Not Borrowing from Co-operatives in Mehsana District, 1969-70

Reasons	Percent of farmers reporting this reason for							
	Non-membership				Non-borrowing			
	Small	Medium	Big	Total	Small	Medium	Big	Total
I. No Need								
i) Adequate income and past savings	67	69	87	72	75	78	80	77
ii) Non-farm source of income	42	23	13	30	31	-	-	11
iii) Other source of finance	8	23	27	17	13	20	20	20
iv) Land leased out	17	8	20	14	19	22	-	16
II. Dislike for co-operative credit								
i) No faith in co-operation	-	4	7	3	-	-	-	-
ii) Inadequate finance	8	8	13	9	6	-	-	2
iii) Inefficient management	8	12	-	8	-	33	20	18
iv) Dislike for recovery procedure	36	27	33	33	25	33	20	25
v) Credit limit related to security	14	12	33	17	-	11	-	5
III. Defaulter of the society	-	-	-	-	13	17	20	16

Appendix Table 11

% of Farmers Adopting High-Yielding Rice Varieties on Any Part of their Irrigated Rice Acreage 1968-69 - 1972-73, in Villages Completely Covered by Co-operatives.

Net cultivated acreage	1968-69	1969-70	1970-71	1971-72	1972-73
0-2	0%	0%	66%	100%	100
2-5	0%	50%	100%	100%	100%
5-10	20%	60%	60%	80%	100%
10 and above	0%	25%	100%	100%	75%

APPENDIX A

Sources of Data for Tables 6, 7 and 8

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AERC = Agro-Economic Research Centre
HYVP = High-Yielding Varieties Programme

Appendix B

Items Included in Expenditure per Acre for Tables 6, 7 and 8

Numbers refer to Sources of Data listed in Appendix-A

1. Studies Including only Cash Costs of Cultivation
   Nos. 12, 13, 14, 22

2. Studies Including Variable Inputs- Seed, fertilizers, organic manure, pesticides, casual labour charges, irrigation (whether payment in cash or kind)

   Nos 1, 2, 5, 20, (20, 24 includes also imputed value of family labour)

3. Studies using definition in 2, but including land revenue and rent paid to landlord Nos. 7, 8, 9

4. Studies using cost A_1, as defined in the Farm Management Studies (i.e. all costs except interest payments and imputed value of family labour).

   Nos. 11, 17, 18, 21, 23.

5. Studies using cost A_2, as defined in the Farm Management Studies (include all costs except imputed value of family labour)

   Nos. 4, 15, 16.

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COUNTRY STUDY

COOPERATIVE CREDIT FOR SMALL FARMERS IN INDIA

by:
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for USAID/India

Delhi
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INTRODUCTION:

The money lender in a village is an extremely powerful and influential person. He is at most times also the trader who buys produce from the farmer and then sells it at a price beneficial to himself. It was to break the shackles which bound the small farmer to the money lender that cooperatives in India were formed at the beginning of the twentieth century. While Indian rural cooperatives (in the sense we know it today) were formed seventy years ago specifically to help provide credit to small farmewrs, the growth and development of these in the intervening years suggest that the money lender, the middlemen and the trader are still very much part of the rural drama.

Credit cooperatives are the main institutional source for short and medium term credit in the rural sector. Since 1969 when many commercial banks were nationalised, Government policy has been to ensure that small and marginal farmers should be serviced by these banks by opening branches in rural areas.[1/] An understanding of the structure and operations of cooperatives in India is a prerequisite for any discussion on their role in serving small farmers. The Planning Commission estimates that small and marginal farmers make up more than half of India's rural poor.[2/] While the population of India's poor has only slightly come down (population increase having vitiated any real advance) between two-fifths and one half of all Indians live in abject poverty.

I. STRUCTURE AND FUNDING ARRANGEMENTS OF CREDIT COOPERATIVES:

The development of cooperatives in India is a far cry from Robert Owen's Utopia. The classical model of a cooperative was a group of people with common interests and goals coming together in a spontaneous manner, being led by local lenders, and all its members committed to goals laid by the association.

Cooperatives in India, far from flowering at the grass roots, were initiated, nurtured and led by the Government.

1/ Government of India, Report of the Banking Commission, 1972.

2/ See Government of India, Planning Commission, Towards Self Reliance, Approach to the Fifth Five Year Plan. June 1972.

In 1904, the British Government brought in the Cooperative Credit Societies Act to form both urban and rural societies. However, the primary purpose was to assist farmers. It was hoped that the establishment of cooperative societies would lessen the dependence of farmers on village money lenders. The chief role of cooperative societies was considered to be the creation of a fund among members to supply loans, thus encouraging thrift and self help among farmers.

From then on the cooperative movement was, in essence, a thrift and credit movement. It also increasingly became an instrument of Government policy. It was to be the third sector of a mixed economy. Often it played (and still plays) the role of Government agent, as with food procurement.

Perhaps this evolution as an instrument of the Government's developmental policies was necessary and fitting in the Indian context. The Indian experience is not unique for Franklin D. Roosevelt also used cooperation, after the depression, as an instrument of national reconstruction. India's credit cooperatives, however, in reality have functioned primarily as money lending institutions and their interest in the developmental activities of their members have been slight.

While marketing, supply, dairy and other types of societies were established on an ad hoc basis before Independence, it was only the Fifties and the Sixties which saw a leap forward in planned expansion of cooperatives. The quantitative achievements in the last twenty years have been greater than the performance of the movement in the previous fifty years.

The planned expansion of cooperatives was a result of the recommendations of Professor D.R. Gadgil in 1945 (The Agricultural Finance Sub-Committee) and the report of the Cooperative Finance Committe of 1946. These Committees indicated that the State should play a leading role in the supply of agricultural credit. Thus the climate was created for the growing acceptance at national and state levels of cooperative activity for economic development.

The First Five Year Plan clearly stated that "if planning is to avoid excessive centralisation and bureaucratic control and, at the same time, to hold in check self-centred acquisitive instinct of the individual producer or trader working for himself, the encouragement of cooperative enterprise must be given the highest priority".

Cooperative societies proliferated - there were two lakh societies in existence at the end of 1954. Of these, agricultural credit societies accounted for 69% of the total. There was a

significant growth in the First Plan period in the number of other societies as well: Handloom weavers cooperatives were a notable success; cooperative farming societies, land mortgage banks, fishermen's societies, marketing societies and housing societies developed, some were reasonably successful.

The idea that cooperatives were an essential vehicle for social and economic development had taken root.

Yet in operation the agricultural credit societies were a disappointment. The All India Rural Credit Survey undertaken by the Reserve Bank of India carried out during 1951-54 a far-reaching analysis of the causes of failure and the recommendations of this Survey are a land mark in the cooperative movement.

The agricultural credit structure in the States was briefly as follows: short and medium term credit was disbursed through the state bank at the apex level; in the middle came the central banks and at the base the primary societies. Long term credit was disbursed through the land mortgage banks.

The Rural Credit Survey revealed that the central banks were badly organised, their financial resources poor. Land mortgage banks neglected the primary purpose of cooperatives and gave loans mostly for redemption of old debts and not for the improvement of agriculture. The primary credit society at the base lent more readily to the large landowners and farmers with sizeable landholdings, accepted immovabke property as security and their mechanism for recovery of loans was poor. In a large number of cases the loans were not used for agricultural purposes.

To solve these problems the Survey recommended what is known as the "Integrated Scheme of Rural Credit". Briefly,, this meant State partnership at different levels; full ooordination between credit and other economic activities especially marketing and processing; and administration through adequately trained personnel responsive to the needs of rural population.

The Second Plan again emphasized that "economic development along democratic lines offers a vast field for the application of cooperation in its varying forms". The Plan, however, suggested that small societies can obtain the advantages of scale and organisation mainly by coming together. As a result of Third Plan provision small cultivators were to benefit from expansion of cooperative activity in rural areas. The emphasis in the Fourt Plan was on more specific activities which cooperatives should be involved in: marketing, processing, supply of agricultural inputs, rural electrification programmes, in all these cooperatives were to 'grow with stability'. Small farmer development agencies were

to be set up to help those with one and two acre holdings. More emphasis was to be given to training managerial personnel for the cooperative sector and for member education programmes.

Many of the findings of the All India Credit Survey carried out by the Reserve Bank at periodic intervals still holds true. As the Planning Commission's mid-term appraisal of the Fourth Plan shows, farmers with small and medium holdings are not benefitting as much as the Plan initially envisaged. Non-recovery of loans is one of thefactors which has contributed to the crippling of a number of primary societies.

Cooperation is a State matter and therefore legislation relating to it varies from State to State. Government of India can only advise and fund State projects, and this possibly is a reason for the lethargy encountered in implementation of many recommendations at district and state levels: the State Governments decide on actual disbursement of funds.

In the past two decades cooperatives have increased rapidly. As the following table shows there are over three hundred thousand cooperative societies in India - the majority of these are credit societies:

NUMBER, MEMBERSHIP AND WORKING CAPITAL
OF COOPERATIVE SOCIETIES

Particulars	1951-52	1961-62	1966-67	1967-68	1968-69
No. of societies (in thousands)	186	342	333	319	326
Membership of primary societies (in thousands)	1379.2	3783.6	5590.6	5616.0	5698.0
Share Capital (Rs. millions)	490.8	2596.9	5140.6	5861.1	6633.3
Working capital (Rs. millions)	3063.4	15347.8	31867.3	36446.8	44937.5

PLAN TARGETS AND ACHIEVEMENTS OF CREDIT COOPERATIVES

Particulars.	Achievements under Second Plan (1960-61)	Achievements under Third Plan (1965-66)	Achievements as on June 30th,1969	Revised targets for Fourth Plan.
Number of primary credit societies (thousands)	210	197	182	120
Membership (millions)	17	27.0	37.1	42.0
Coverage of villages (per cent)	75	90	93	-
Coverage of agricultural population (per cent)	30	45	33	60
Loans through cooperatives: Short-term and medium-term (Rs. millions)	2030	3460	8930	7500
Long-term(Rs.millions)	380	1650	2860	7000

Rural credit cooperatives have a three-tier credit structure:

State level - Cooperative banks
District level - Central Cooperative Banks
Village level - Primary agricultural credit Societies.

These societies provide short and medium term loans. The volume of loaning operations at all levels have expanded considerably in recent years:

STATE COOPERATIVE BANKS

(Amounts in millions of rupees)

Particulars	1951-52	1961-62	1966-67	1967-68	1968-69
Number of banks	16	21	25	25	25
Membership	23,272	30,468	21,457	21,386	21,269
Share capital	19.0	212.6	311.6	351.0	376.9
Statutory and other reserves.	23.6	75.9	244.9	298.6	377.8
Deposits	211.8	814.4	1473.8	1796.0	2156.3
Other borrowings	112.7	1457.9	1999.3	1990.8	2754.4
Working capital	367.2	2560.9	4029.5	4435.4	5665.4
Loans advanced during the year(gross)	552.7	2562.9	5131.6	6510.4	6666.4
Loans outstanding	200.1	1965.1	3251.6	3581.4	4589.5
Loans overdue	32.2	81.0	169.2	181.2	231.1

CENTRAL COOPERATIVE BANKS

(Amounts in millions of rupees)

Particulars	1951-52	1961-62	1966-67	1967-68	1968-69
Number of Banks	509	377	346	344	341
Membership	2,31,318	3,87,740	3,52,365	3,54,552	3,40,265
Share capital	46.2	466.0	859.9	1011.4	1152.4
Reserves	51.9	138.9	296.5	343.1	396.2
Deposits	382.3	1226.2	2593.2	3006.2	3508.4
Working capital	601.1	3478.9	6383.0	7060.4	8304.5
Loans advanced during the year (gross)	1056.4	3798.6	9435.3	9855.8	8604.2
Loans outstanding	359.1	2564.8	4993.5	5498.7	6410.4
Loans overdue	47.8	400.6	1241.7	1358.2	1729.7

COMPOSITION OF WORKING CAPITAL OF CENTRAL COOPERATIVE BANKS

Particulars	Amounts(Rs.millions) 1966-67	1967-68	1968-69	Percentage to working capital 1966-67	1967-68	1968-69
Owned Funds	1160	1350	1550	18	19	19
Deposits	2590	3010	3510	41	43	42
Other borrowings	2630	2700	3250	41	38	39
Working capital	6380	7060	8310	100	100	100

PRIMARY AGRICULTURAL CREDIT SOCIETIES

Particulars	1951-52	1961-62	1966-67	1967-68	1968-69
Number of societies	1,07,925	2,15,081	1,78,735	1,71,804	1,67,760
Membership (in thousands)	47,77	1,95,72	2,67,09	2,80,74	2,91,73
Share capital (Rs.millions)	89.2	686.1	1286.1	1476.2	1673.1
Deposits (Rs.millions)	43.9	176.4	390.9	471.7	568.4
Working Capital (Rs.millions)	452.2	3253.3	6252.0	7092.2	8122.2
Loans advanced during the year (gross)(Rs. millions)	242.1	2283.1	3664.7	4292.0	5038.6
Loans outstanding (Rs.millions)	336.6	2566.8	4774.7	5342.9	6187.5
Loans overdue (Rs.millions)	85.2	629.3	1601.5	1709.7	2140.4
Average per. Society	44	91	149	163	174
Share capital (Rupees)	827 408	3,190 820	7,195 2,187	8,592 2,745	9,972 3,388
Loans advanced (Rupees)	2,243	10,615	20,504	24,982	30,034

At the end of 1968-69 there were 168,000 primary agricultural credit societies with over 29 million members. Active societies, however, were only 147,000 covering 86% of villages. Thus active societies covered about 33% of the rural population. Government of India is now in the process of rationalising credit cooperatives so that primary societies are amalgamated into viable units and dormant societies are to be closed. Other banks and societies which have'nt been active are being rehabilitated. Loaning policies and procedures are also being realigned, particularly to help small farmers. The new approach envisages that:

- the main criterion for providing loan to farmers will be the production potential through the adoption of the crop loan system and not the value of security that a farmer offers for a loan;

- priority will be given to small farmers;

- a higher proportion of their borrowings will be contributed by the larger cultivators towards share capital.

Loans to farmers and the demand for agricultural credit has continued to grow and increase in the past twenty five years since Independence. While firm figures for 1970-71 are not available, in 1969-70 cooperative funding of short and medium term loans amounted to 5.4 billion. This was Rs. 380 million more than in the preceding year. By the end of the Fourth Plan period, the Planning Commission's target is Rs. 7.5 billion for cooperative credit disbursements. In addition to cooperative credit, the contribution of commercial banks has sharply increased since they were nationalised in 1970. Their contribution in rural credit rose from Rs. 1.84 billion in 1970 to Rs. 2.4 billion in June 1971. Also, Land Development Banks have made progress in long term credit. Between 1960-61 and 1968-69, loans advanced to agriculture increased from Rs. 120 million to Rs. 1.48 billion. In 1969-70 new loans amounted to Rs. 1.55 billion. Another institution serving agricultural credit requirements is the Agricultural Refinance Corporation. In 1968-69 its commitment was Rs. 1.56 billion while in August 1971 its commitment rose to Rs.2.7 billion.

To summarise the above, the number of agricultural credit societies has increased although there has been considerable amalagamation and consolidation of societies. The number of villages covered by these societies has also considerably increased. The proportion of villages covered rose from 75% in 1960-61 to 90% in 1966-67. Membership,too, showed a remarkable increase. Approximately 32% of the rural population is covered by cooperative credit societies. The volume of loans advanced showed a remarkable spurt between 1960 and 1968; the average lending per member and per society rose from

Rs. 51 in 1951-52 to Rs. 143 in 1967-68. However, all this has not been accompanied by a quantitative improvement in the role of cooperative credit in agriculture. This is evident from the data on over dues which have increased in the past twenty five years. The proportion of over-dues to outstanding loans which had been 25.3% in 1951-52 rose to 33.5% in 1966-67. At the end of 1968 it was still high at 30.2%. Even at the level of the central cooperative banks, over-dues posed a problem, reaching a level of 24.9% in 1966-67. Loans outstanding from members as at mid-1970 was Rs. 7110 million.

REGIONAL VARIATIONS:

The above shows a substantial expansion of cooperative credit in quantitative terms. The progress of the movement, however, has not been evenly distributed throughout the country. While all villages were covered by cooperatives in Tamil Nadu and Uttar Pradesh, and almost all in Kerala, Maharashtra, Gujarat, Mysore and Madhya Pradesh, the States whose achievements were least satisfactory in this respect were Assam, Orissa, West Bengal, Punjab, Jammu & Kashmir and Rajasthan. Coverage of villages by cooperative credit societies has little significance if the societies are not active and making new loans. The leading States in regard to coverage of villages by active scoeities were Maharashtra, Madhya Pradesh and Gujarat. Tamil Nadu which supposedly had 100% coverage of villages, covered only 55% with active societies.

Repayment performance was poor throughout the country and deteriorated in almost all the states except Punjab. The States with the worst record were Bihar, West Bengal and Orissa with around 40% overdue on outstandings. The Reserve Bank of India lists the following causes for the large and universal pattern of overdues:

(i) Unsound lending policies on behalf of societies;
(ii) Inadequate supervision;
(iii) Unsatisfactory management and
(iv) Local political factors.

Also, overdues arising from crop failure has played its part. These causes are being rectified by having new cadres of personnel.

An important indicator of the efficiency of a credit agency is the extent to which it can mobilise savings of a community in the form of deposits. In all States and at both the central bank and primary society levels there has been an improvement. The most impressive performance among States is that of Gujarat, then comes Maharashtra, followed by Mysore, Punjab, Tamil Nadu. Orissa, Rajasthan, Uttar Pradesh, West Bengal, Assam and Bihar record low levels of deposits and these are the States in which cooperatives have not been particularly successful.

Although cooperatives are the responsibility of State Governments, credit cooperatives obtain most of their finance (besides deposits) from the Reserve Bank of India through the Central and State Cooperative Banks.

What were the uses of institutional credit in agriculture? The latest information available on this is for 1968-69:[1/]

Short Term		Medium Term		Long Term	
Seasonal agricultural operations	89%	Purchase of cattle	30%	Sinking/ repairs of wells	48%
Purchase of agriculture implements	2.0%	Machinery	15%	Land improvement	25%
Marketing of crops	3.0%	Minor improvement of land	11%	Purchase of machinery	20%
Other purposes	6.0%	Sinking/repairs of wells	10%	Other purposes	7%
		Other purposes	33%		

There are many agricultural economists who feel that although the above are the specified uses of institutional credit, loans are often taken for non-agricultural purposes such as for consumption or the repayment of bad debts with money lenders.

II. SMALL FARMERS

Many institutional agencies have been initiated in the past few years to give both credit and other assistance to small farmers. As a result of the All-India Rural Credit Review Committee's recommendations, and attempt was made to remove the anti-small farmer bias in the institutional credit field by setting up the small Farmer Development Agency.

1/ Source: Government of India, Ministry of Food and Agriculture, Cooperative Movement in India, Important Statistics 1968-69, August 1970.

There have been some problems of definition in identifying small farmers. It is estimated that there are over 20 million operational holdings in the country with less than 2.5 acres. In a country such as India where terrain and irrigation components vary so vastly in different regions, size of holding alone is not a satisfactory criterion. No example can illustrate this point better than a comparison of yields between a 50 acre holding in the sandy unirrigated re gions of Rajasthan and a 2 acre holding in the wheat bowl of the Punjab. Thus the number of small farmers will, no doubt, exceed 20 million. The ability of a small farmer to produce a surplus depends, of course, on such input factors as irrigation, intensive methods of farming, use of fertiliser, pesticides and high yielding variety of seeds. Government of India are aware of these problems of definition. It is suggested by some that income is a good criteria: farmers who earn less than Rs.2,500 net annually from the land should be identified as small farmers.

The problem of identifying and assisting small farmers is that most of these are subsistence farmers and hence do not produce a surplus market. Institutional credit assistance to them has to accept the reality that unless the credit can raise subsist ence farmers to a level where they can sell some produce they will be unable to repay their loans. Commercial banks, since nationalisation in 1969 have identified this group of farmers for their services. Prior to this most institutional credit agencies paid much stress on the need for securities. Thus, medium and large land holdings benefitted most from these agencies' services. The initiation of the Small Farmers Development Agency goes beyond the sphere of credit. In order for credit to small farmers to be fruitful, it will have to be part of a package to raise their economy to a surplus level. The following table shows the number of operational holdings in the different States:

NUMBER OF OPERATIONAL HOLDINGS

Thousands

State	Category I (Medium to Large) (7.50 Acre and Above.		Category II (Small to Medium) (2.50 to 7.49 Acres)		Category III (Very Small to Small) (Up to 2.49 Acres)		T O T A L	
	Number	Percent	Number	Percent	Number	Percent.	Number	Percent
Andhra Pradesh	872	24.2	1,134	31.4	1,600	44.4	3,606	100.0
Assam	188	14.4	593	45.3	527	40.3	1,308	100.0
Bihar	845	13.8	1,900	30.9	3,400	55.3	6,145	100.0
Gujarat	854	52.2	496	30.3	286	17.5	1,636	100.0
Jammu and Kashmir	48	10.9	203	46.3	188	42.8	439	100.0
Kerala	95	4.8	246	12.3	1,655	82.9	1,996	100.0
Madhya Pradesh	1,909	43.0	1,390	31.4	1,139	25.6	4,438	100.0
Maharashtra	1,545	49.2	941	30.0	652	20.8	3,138	100.0
Mysore	911	38.2	937	39.3	533	22.5	2,377	100.0
Orissa	416	17.5	873	36.7	1,088	45.8	2,377	100.0
Punjab	871	51.3	471	27.7	356	21.0	1,698	100.0
Rajasthan	1,156	49.3	833	35.4	361	15.3	2,350	100.0
Tamil Nadu	408	12,6	1,111	34.4	1,715	53.0	3,234	100.0
Uttar Pradesh	1,785	16.8	4,010	37.7	4,842	45.5	10,637	100.0
West Bengal	405	12.7	1,377	43.0	1,416	44.3	3,198	100.0
All-India (Including Union Territories)	12,312	25.2	16,673	34.1	19,897	40.7	48,882	100.0

Source: Reserve Bank of India, Report of the All India Rural Credit Review Committee, p.541.

Of about 49 m. operational holdings in India, a little over 40% were less than 2.5 acres. Kerala, Bihar, Tamil Nadu, Orissa, Uttar Pradesh, Andhra Pradesh and West Bengal, in that order, had the largest proportion of holdings less than 2.5 acres. However, such holdings account for only a small proportion of the cultivated area. Thus, farmer households with holdings of less than 2.5 acres formed 34.5% of the total number of households and accounted for 40.7% of the holdings but their share in the cultivated area was only 6.8%. Holdings of 7.5 acres and above, in comparison accounted for 70% of the area. The various surveys done by the Reserve Bank of India on this topic indicate the following:

(i) The number of small farmers is large for the country as a whole and particularly large in those States where the pressure of population on land is heavy;

(ii) despite their large number, the small farmers account for only a small portion of the total area;

(iii) small farmers are handicapped in the matter of access to cooperative credit.

The All-India Rural Credit Review Committee also specify that "the responsiveness of small cultivators to improved practices as measured by the proportion of those who use chemical fertilisers etc., is as much as that of the large cultivators". Another differentiating factor between small and large holders of land is the former's handicap in incurring capital expenditure on the farm.

Cooperative credit, however in the past went mainly to those with larger sized assets. Again to quote the All-India Rural Credit Review Committee: "... it was not so much that the larger cultivators (except perhaps in Maharasht ra and Gujarat) obtained more cooperative credit than they should, as that a substantial proportion of small cultivators did not obtain cooperative credit at all and that those who did, received too little of it in relation to their needs". Inhibiting factors were insistence by this agency on landed security for short-term loans, unduly low ceilings on surety loans and basing credit eligibility on the assets owned rather than on the outlay to be incurred. However, these features are gradually being relaxed both by credit cooperatives and commercial banks following the acceptance of the crop loan system.

During the past few years a number of programmes have been initiated by the Government of India for small and marginal farmers. An outlay of Rs. 4000 million for these programmes have been allocated. An analysis of some lessons learned from setting up these agencies was outlined by Mr. B.S.Minhas of the Government of India's

Planning Commission[1/]. Mr. Minhas feels that one uniform model for the whole country cannot exist. "In States where the infrastructure facilities are reasonably satisfactory, administrative and organisational arrangements are adequate and financing institutions reasonably strong, the Small Farmers' Development Agencies are showing results". These then are the criteria of successful action. He goes on to say "nonetheless, the inescapable conclusion that emerges is that a Farmers' organisation in some form or the sther at the operational level is essential". State Governments, in many cases, have not made the necessary provisions to support these programmes. Another possible line of action is to make these agencies[2/] and schemes oriented towards total development of the area but without, in any way giving up their responsibility for the development of small farmers. Integration of these schemes is also essential. Cooperative Farming has failed in India, but many Government officials are thinking on the lines of cooperative management technology for the improvement of land and water resources for small farmers. The need for such an approach is particularly relevant because agricultural extension services as they have been practised since Independence have not provided the expected guidance to this group of farmers. Looking at a different aspect of the problem, attention is being focussed on how best non-viable holdings can be consolidated. The following table shows the progress of Small Farmer Development Agencies since its inception in 1969:

1/ B.S.Minhas, paper on "Rural Development for weaker sections" at the Seminar on Rural Development for weaker sections. October 1972 (Cyclostyled).

2/ These include:

Small Farmers Development Agencies
Marginal Farmers and Agricultural Labourers Programme
Integrated Area Development Scheme
Cooperative Loan Extension Scheme

As on 31..5.1972	S.F.D.A.
Number of Projects	46
Number of participants identified in millions	1580
Number enrolled as members of cooperatives (millions)	693
Number of identified participants assisted in millions	150
Number to Dugwells/Tubewells	26,600
Number of pumpsets	8,588
Other minor irrigation works	3,838
Units of Milch Cattle	8,978
Units of Poultry	1,996
Loans Advanced (Rs. in millions)	
a) Short-term	185.4
b) Medium term	29.1
c) Long term	94.1

III. EVALUATION:

Studies carried out by the Government of India's Planning Commission show that the benefits of agricultural growth and the new farm technology as witnessed in India in the past ten years have not percolated down to small farmers. Credit needs and availability of inputs and services required to sustain the high yielding variety are some of the reasons for this situation. Land saving practices necessary to make small farms viable impose demands on credit and extension needs of this group of cultivators which existing agencies have not fulfilled. There has been some improvement in cooperative credit to small farmers: 96,306 small farmers have been covered and these advances account for 33% of total advances through primary credit societies[1/]. However, this coverage is not large keeping in mind that there are over twenty million operational holdings in the country with less than 2.5 acres.

1/ Reserve Bank of India. Agricultural Credit Department Cooperative News Digest, Vol.XXII No. 9 Sept. 1971.

The step forward to bring small and marginal farmers into the mainstream of agricultural development and the new technology is the recognition and assessment of their problems by various Government departments.

Although cooperatives were the only source of institutional credit in agriculture, (nationalised commercial banks have now stepped in), the benefits of cooperativessflowed mainly to big farmers because land ownership was used as the sole criterion for extending credit; cooperative leadership and management were in the hands of the bigger farmers; technical expertise and operational efficiency for dispensing production-oriented credit was lacking; and coordination between agencies inadequate. These are but a few major reasons. The application of conventional norms os security ensured exclusion of small and marginal farmers. Credit needed to be provided on the basis of the total proposed activity rather than the land held, so that labour intensive activities would help marginal farmers. The biggest factor contributing to small farmers being left out of the mainstream was that farm credit from whatever institutional source was not integrated with easy availability of inputs, extension and services for production and marketing. The linking of credit to marketing has been successful in some States like Punjab, Maharashtra, Gujarat and Tamil Nadu. Cooperative marketing societies in Maharashtra, Madhya Pradesh, Mysore, Gujarat and Uttar Pradesh together accounted for about 93% of the total loans recovered through marketing societies in 1969-70.

The Government of India now recognises the need for integrated and coordinated services and in the words of Wolf Ladejinsky of the World Bank, New Delhi, "this is in itself an advance but how high a priority and how well executed remains to be seen". The All-India Rural Credit Committee set up by the Reserve Bank of India recommended that "it is not enough to concentrate merely on providing adequate credit; emphasis has also to be given to the supervision and the application of the credit and guidance to borrowers in his operations". The Approach Paper to the Fifth Five Year Plan (Planning Commission) recognises the need to reorient and integrate the various schemes of rural development.

The Study Team on Agricultural Credit[1/] of the National Commission on Agriculture suggested in theikr Report that each block

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1/ National Commission on Agriculture;
Study Team on Agricultural Credit,
Special Report No. 1, November 1971.

should have a Farmers" Service Society and these would integrate all the schemes and agencies for the benefit of small and marginal farmers. Farmers will, thus, deal with a single agency for their short, medium and long term credit requirements as well as for inputs and services. This recommendation has not yet been accepted by the Government of India.

At the same time, cooperative structure and function is being adapted and changed so that mal-practices of the past can be cut down. New management personnel is being trained to use criteria other than security as the deciding factor for advances. The administrative machinery is being streamlined. But there are doubts as to whether these will deliver the goods. The Banking Commission in their Report of 1972 has suggested that in view of the poor performance of State Governments to run cooperatives well, cooperatives should be taken over by the Central Government through an amendment of the Constitution. It goes on to say that since, in any event, the financial assistance provided by the States to cooperative banks is mostly from the resources of the Reserve Bank of India or the Central Government, it would be quite easy to make this transfer of responsibility.

(The dependence of the cooperative system on the Reserve Bank of India has grown considerably over the years with outstanding borrowings of State cooperative banks rising to Rs. 2430 million at the end of 1969-70 from Rs. 1140 million in 1960-61).

The Government of India has not taken a decision on this and may not because the general trend since 1947 is to give more autonomy to the States.

Cooperatives are undergoing a rationalisation of their structure, adoption of the crop loan system which hadn't succeeded to-date, the reduction of overdues, the building up of cadres and improvement in personnel. However, this in itself may not deal with inherent defects in the system such as the political character of cooperatives and the role of the large farmers in shaping this character. The cooperatives will have to ensure that small farmers are eligible for membership, that credit is based on crop production rather than on security of land and that credit should be more universally linked to marketing. Inputs must be provided and technical assistance given. All this spells a move towards an integrated coordinated service society for area development keeping in mind the particular needs of small and marginal farmers. At the same time education of these farmers is necessary to change centuries old attitudes and agrarian practices. It is almost a truism to say that

it is not the States that have progressed the fastest in these past 25 years that cooperatives have been viable and positively contributing to agricultural development. Punjab, Haryana, Maharashtra, Gujarat, Mysore and Tamil Nadu are such examples. The States which have been backward are the ones in which coopratives have been dominated and used for politicalvested interests. States which continue to be feudal economies are the States in which the validity of cooperatives in rural development is at question. Maharashtra, for instance, is an example of a long history of peasant proprietorship and this has perhaps made it easier for man building operations in such agricultural activities as sugar growing and processing.

Finally, the situation of small farmers will have to be solved in such schemes as consolidated and non-viable land holdings into bigger holdings and with other types of land reforms.

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SMALL FARMER CREDIT IN INDIA

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"Small Farmer Credit Programs in India"

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SOME DIMENSIONS OF SMALL FARM CREDIT PROBLEMS IN INDIA[1/]

by

William E. Hendrix, Agricultural Economist
USAID/India (ERS-USDA PASA)

Classification of Technological Innovations

Technological innovations are essential for increasing agricultural productivity in India as is the case in other countrries. Such innovations result from shifts in known production possibilities brought about either by shifts in demand functions or in supply functions as affected by the development of more productive farm inputs or by ways of producing and delivering them to farmers at lower costs.

Technological innovations can be classified on each of two principal bases: (1) on the basis of their economic productivity as savers of labor, land and/or capital resources in the production of a given volume of output; and (2) on the basis of their capital and other resource requirements including management abilities. To be economically profitable, innovations must save labor, land and/or capital in the production of a given volume of output. However, the economic worth of such savings depends upon unit prices of the services of the resources they save. Hence

1/ Paper prepared for use in the Spring Review on Small Farm Credit.

innovations that save labor at larger costs for the services of capital goods are of less value in societies having an abundance of cheap labor but very little capital than in societies where labor is scarce and capital more plentiful.

The extent to which innovations pose capital and finance problems turns upon their capital requirements. Conceptually some innovations could be of kinds requiring less capital than do the techniques for which they are substituted. Others may require little or no greater capital than is already invested while others are of kinds that require large additional amounts of capital before they can be profitably adopted for even a very small part of the farming operations for which they could be profitably used.

Some capital goods such as tractors and tubewells are of a highly lumpy nature in terms of their capital requirement - that is they are simply not available in very small size units except as parts that have no economic value for farm production uses without all of the other requisite parts. Others, however, are highly divisible so as to permit their economical use in very small amounts. Seeds of new high yielding varieties of cereals and fertilizers are well known examples of yield increasing inputs which are highly divisible and can be applied with economic benefit to only a small fraction of the land used by the operators of even very small-sized farms.

Complexity of Simple Innovations

However, often the adoption of what at first appears to be very simple innovations involving the use of highly divisible inputs like seeds and fertilizers is economically profitable only when used under a set of other conditions the fulfillment of which requires forms of capital which have high initial costs and require several years for recovery of these costs even when utilized at capacity levels.

A well known example applicable to India is that relating to seeds of high yielding varieties of wheat, rice and other cereals. These new varieties are capable of yields that are three or more times as large as those of conventional varieties. Yet to realize their yield potentials requires not only much larger amounts of fertilizers but also dependable water supply sources in much larger amounts than are required for economically optimal yields of conventional varieties. For large parts of India, sources of supply of water in the amounts required by HYV's can be developed cheaply only if done on a fairly large scale requiring a relatively large investment at one time. In areas such as the Gangetic Plains, water in the amounts needed can be most quickly and economically supplied by tubewell irrigation. This requires investments per tubewell unit variously estimated at from Rs.4,000 to Rs.10,000

or more depending upon size of the unit, depth of underground water, and the kind of earthen material through which the well has to be drilled.

For small farms (ones of under 5 acres in size) such investment costs are prohibitive for two principal reasons: (1) The farms are too small to utilize fully the capacity of a tubewell; and (2) Operators of most small farm units have neither enough savings nor a large enough credit base under usual credit practices to finance the installation of such units.

Institutional Alternatives to Small Farm Credit Programs

The second of these difficulties could conceivably be alleviated by the provision of credit to small farmers in more liberal amounts and under more liberal terms in respect to interest rates and repayment schedule. The first could, from the viewpoint of small farmers, be alleviated by heavily subsidizing their credit operations.

A more feasible alternative, however, would appear to be that of developing appropriate institutional arrangements to provide small farmers with tubewell water. Tubewells are not perfectly divisible but water therefrom is. Institutional alternatives include (a) governmental ownership and management; (b) cooperative ownership and management; and (c) private ownership for operation on a custom rate basis.

The same applies to investments in other capital goods of a highly lumpy nature such as for a tractor and tractor drawn machinery for construction of irrigation and drainage ditches, levelling of land, and other infrequently performed operations requiring large power and machinery units. Once the emphasis in respect to such lumpy capital items is placed on making their services, rather than their ownership, available to small farmers, the problem of financing farmers' uses of their services is not unlike in principle that of helping them to finance the purchase of seeds, fertilizers, pesticides and other inputs of a highly divisible nature. However, the problem of financing still exists as does that of developing acceptable and effective means for provision of services.

Financing for small farmers of the services, as opposed to ownership, of tubewells would appear to have additional merit for servicing the needs of tenant farmers. However, for tenants to realize the full economic potentials consistent with equity considerations will probably require adjustments in lease arrangements whereby landowners share in the costs of constructing irrigation and drainage ditches and land levelling costs either directly or by adjustment in land rentals where land is rented on a share basis and by the use of long term lease contracts. U.S. experiences under its Farm Security Administration program

operative up to the time it was reorganized in 1945 under the Act of Congress establishing the Farmers Home Administration program would seemingly provide a source of valuable insights into this aspect of meeting the resource needs for increasing production on tenant operated farms in India.

Small Farm Credit Risk and Uncertainty Elements

Financing of production increasing inputs on very small farms may involve large risks and uncertainty for both the credit agency and the farmer. It is a high risk operation from the viewpoint of credit agencies for two major reasons: (1) because many small farmers do not possess collateral requirements; and (2) because in a large percentage of cases, the gap between income and basic living expenditures is too large to provide for contingency needs, such as for loss of a bullock, extended illness or death of a family worker, or the marrying off of a son or daughter. So great are pressures on small farmers for cash income that without close supervision and control, some can be expected to convert credit extended even in kind into cash by sale of purchased inputs to other farmers, a problem not totally absent in low income areas of the southern United States among farmers assisted under special U.S. low income farmer credit programs. Even where credit is used for the purposes for which it is extended, credit agencies may be exposed to risk losses simply because of poor management of

farm income operations. A study by Hendrix of FSA and FHA lending operations in the Piedmont of Georgia indicated that more repayment failures resulted from poor income management in household operations than from low productivity of farm resources. In India inadequate credit discipline on the part of farmers has long been a major obstacle to developing from the viewpoint of institutional lenders of sound agricultural credit programs.

Solutions to Risk and Uncertainty Problems

What is a practicable solution to this kind of problem is not now known. The provision of technical supervision of both farm operations and income expenditures is one possibility, but it may be a more costly one than India can now afford given its shortages of trained manpower and budgetary constraints. Exercise of greater discipline by credit agencies in withholding credit to delinquent borrowers is another possibility. It is possible here that ascription of responsibility for collection on a village rather than on merely an individual farmer basis would also be worthy of consideration as a means of mobilizing social pressures of the community at large against avoidable credit delinquencies.

To be most effective, this system would probably have to be applicable to all farmers, large and small. It would also require either the channelling of all credit to farmers through a single

source or else the development of a uniform set of rules and close working relationships among all credit agencies operating within each village or other geographic unit chosen for such credit control purposes.

Relations Between Credit Needs and Small Farm Development

Financing development investments by or for the benefit of small farmers presupposes the existence of now unrealized development investment opportunities. During recent years in India, large emphasis has been placed on the emergence of such opportunities as a result of introduction of the HYV's. Clearly in the areas to which they are adaptable, the HYV's have generated a large increase in demand for fertilizers, water, pesticides, and other yield increasing inputs as well as for harvesting machinery. Extent to which realizing potential of the HYV's has been limited by imperfections in credit delivery systems among India's farmers generally, and among its small farmers in particular, is not now known. For wheat in the northern wheat growing region, it appears that credit supply limitations have not been important obstacles to the adoption of HYV's on land earlier brought under irrigation, which as a percentage of total cultivated land was generally larger on small than on large farms. In some cases full yield potentials of the HYV's on such land may not have been realized because of

inability of farmers to finance purchase of enough fertilizer for economically optimal rates of application. Studies being conducted for USAID on farmers uses of fertilizers on HYV's of wheat, however, do not indicate a statistically significant difference as between farms varying in sizes from under 2.5 hectares to 8.5 hectares and over. For non-HYV's, available evidences from a variety of sources indicate as high rates of use of fertilizers on small as on larger sized farms for wheat, rice, other cereals and other crops.

Larger farmers, however, have probably had advantages over small ones in the financing of new tubewell irrigation development activities as well as advantages of economies of scale in respect to use of such lumpy investment items. Overcoming this difficulty would appear feasible by one or the other of the organizational means suggested above; namely, by public, cooperative or private investments for custom hire uses.

In parts of India where agriculture is carried on under dry-land farming conditions, there has as yet been no large increase in the demand for purchased agricultural inputs for which large increases in credit funds are needed. In these regions the agricultural development problem, even for small farmers, is still first of all one of developing a technological base for increasing crop yields rather than a credit problem. Some such localities,

notably in parts of Gujarat, have been highly successful in developing commercial dairy enterprises. This has been achieved by concentrating first on development of market outlets and collection facilities for milk and then on means of increasing production. Production of these enterprises has been increased with the use of only small amounts of credit to farmers, most of whom have only 1 to 4 milk animals. Production efforts have concentrated on improving feed supplies, veterinary care and artificial insemination to upgrade animals.

This suggests the need in exploring the credit needs of small farmers to view these needs with close reference to technical and other bases needed for increasing their production and income.

SMALL FARMERS CREDIT PROGRAMS IN INDIA[1/]

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The principal sources of credit in rural areas are the private moneylenders and the cooperative credit societies. In recent years there has been a significant increase in institutionalization of rural credit, and the relative importance of private moneylenders has somewhat declined. At present, about 30 percent of the borrowings by farmers are from institutional sources. The total amount of short and medium-term credit advanced by cooperative credit societies increased from Rs.23 crores (or Rs.230 million) in 1950-51 to Rs.542 crorres in 1969-70. The target for the Fourth Plan is Rs.750 crores to be reached by 1973-74. The membership of agricultural cooperative credit societies has also increased from 17 million in 1960-61 to about 30 million in 1969-70. The target for 1973-74 is 42 million. As regards long-term credit, the Land Development Banks have made significant progress in recent years; between 1960-61 and 1968-69 the loans advanced by these banks increased from about Rs.12 crores to Rs.148 crores. The target for long-term credit is Rs.700 crores by the end of the Fourth Plan. Another significant development in recent years

1/ Prepared for use in Spring Review on Small Farm Credit.

has been the entry of the commercial banks in the field of agricultural credit. The volume of direct agricultural finance by these banks has increased from Rs.5 crores in 1966-67 to Rs.236 crores by the middle of 1971.

Although the progress of institutional credit appears to have been substantial in the last two decades, the small farmers continue to be handicapped in obtaining credit from cooperatives. The All-India Rural Credit Survey Committee which studied the position of credit in 1951-52 found that cooperative credit tended to flow in favor of the large farmers. The All-India Rural Debt and Investment Survey (1961-62) analyzed the data on borrowings from cooperatives per acre of cultivated area for the different asset groups; it concluded that per acre credit received by large farmers having assets of over Rs.20,000 or holdings of over 25 acres was twice that received by farmers with assets between Rs.2,500 and Rs.5,000, or with holdings of 5 acres or so. Those in the lowest asset bracket got only a quarter of the amount that the large farmers obtained.

Following factors are said to be responsible for channelizing greater proportion of cooperative credit to the larger farmers. (i) cooperative leadership and management are in the hands of the larger farmers; (ii) land ownership is used as almost the sole criterion for extending credit to the members; (iii) technical

expertise and operational efficiency for dispensing production-oriented credit are lacking in the present cooperative set-up; (iv) lack of coordination between the agencies in charge of cooperative credit and those in charge of agricultural input supplies.

Credit and the High Yielding Varieties Program

The All-India Rural Credit Review Committee (1969) observed that the tenants and small cultivators in many parts of the country were unable to obtain credit needed by them for modern inputs. So far as the High Yielding Varieties Program (HYVP) is concerned, the credit requirement of the participants in the area concerned is estimated in advance of the cropping season and arrangements are made to provide the required credit through the cooperative societies. To avail oneself of this credit, the farmer-participant must be a member of the society, contributing to the share capital of the society concerned; in the case of old or continuing members, one requirement is that the intending borrowers must not be defaulters. These regulations are applicable to all farmers, large and small. However, in practice, several problems have arisen which seem to reduce the amount of credit that a small farmer can obtain. Where a farmer is not a member of a cooperative society, he has to raise money to purchase a share and to become a member. Generally, the share to credit ratio is 1:8 or 1:10. If the per acre credit requirement of a farmer is

Rs.400 and if he operates, say, 3 acres, his total credit need would be Rs.1200. To obtain a credit of Rs.1200, he must raise Rs.120 with which to purchase the share of the society and to become a member.

Although the official documents pass over this question lightly, an important factor which has prevented a greate flow of credit to small farmer is the latter's inability to purchase enough amount of shares. The reason why the larger farmers secure a greater proportion of cooperative credit and also a greater amount of credit per acre is that they are in a position to contribute substantially toward the share capital and obtain loans against their contribution.

Credit and the Small Farmers Development Agency

The All-India Rural Credit Review Committee recommended in 1969 that specific projects should be set up for the benefit of small farmers. Accordingly, in the Fourth Plan provision was made for 46 pilot projects in selected districts throughout the country and a Small Farmers Development Agency (SFDA) was set up in each of these districts. Briefly, the aims of the SFDA are to identify the problems of small farmers in its area, prepare appropriate programs, help to ensure availability of inputs, services and credit through the existing institutions like the

cooperatives. The aim is to involve approximately 50,000 small farm households in the program in each district. Each project is estimated to cost about Rs.1.5 crores and a total sum of Rs.67.5 crores has been allotted in the Fourth Plan for these projects.

The SFDA has to identify the small but potentially viable farmers first in the area of its operation. It has been assumed that these farmers can be identified by the size of their holdings, which is taken to range from 2.5 to 5 acres in the case of irrigated or irrigable land and upto 7.5 acres in dry areas. In the case of Kerala and Mysore, the lower limit of the small but potentially viable farms has been taken to be 1 acre. For the benefit of the participants, the agency is to assist the institutions concerned with the distribution of inputs, marketing, processing and storage so that they develop adequate infra-structure in the project area. It would assist the agro-industries corporations and cooperatives to set up custom service units. In order that the services of these units are available at rates which the small farmers can afford, the agency would provide subsidies to these organizations at rates not exceeding 25 percent of the commercial rates fixed by them. Similar subsidies would be provided by the agency for investment in agriculture involving heavy capital outlay such as for dairy and poultry units. The agency would not extend credit

directly to farmers, but would assist them in obtaining credit from the cooperatives and other institutional agencies. To help the institutional agencies in providing credit to the participants, the SFDA would contribute to a risk fund at 6 percent on additional loans by primary cooperative societies and at 3 percent on additional loans by Central Cooperative Banks. To stimulate flow of long-term credit to the participant, SFDA would provide a risk fund at 3 percent on total loans issued by the Land Development Banks. Assistance would be rendered to enable non-member farmers to become members of cooperatives and to draw their credit requirements.

Credit and the Marginal Farmers and Agricultural Laborers Program

A large proportion of small farmers who are not potentially viable would be left out of the programs initiated by the SFDA. To assist such farmers and agricultural laborers another program called the Marginal Farmers and Agricultural Laborers (MFAL) has been recently initiated by the Ministry of Food and Agriculture of the Government of India. In all 41 districts have been selected for the MFAL program, which is to assist about 20,000 families in each district. The program is to assist marginal farmers and laborers in developing subsidiary occupations such as dairy and poultry farming.

In the absence of cattle insurance schemes, the cooperatives and the commercial banks have been chary about providing loans to intending borrowers. Hence, both MFAL and SFDA have decided to provide subsidies to the credit agencies to serve as margins for their loans. Recently, the National Commission on Agriculture recommended that the small and marginal farmers who have produced cross-bred heifers should be extended financial assistance in the form of half subsidy and half loan for rearing heifer claves upto calving stage. This would mean that each farmer would get Rs.480 as subsidy and Rs.480 as loan. In the case of agricultural laborers, the Commission has recommended subsidy at the rate of two-thirds and loan at the rate of one-third, that is Rs.640 as subsidy and Rs.320 as loan.

As yet these programs have had very little impact since the problems of organizing a cross-breeding program on a large-scale and of marketing the milk produced have not been solved.

Evaluation

The major problem faced by small and marginal farmers in obtaining credit from the cooperatives is that they are not considered to be "credit-worthy": that is, they cannot offer collateral security in the shape of tangible assets as desired by the system. The "crop loan system" introduced in the Second Plan period was designed to change the criterion of credit-

worthiness from tangible assets to production potential. To ensure that credit was not used for consumption purposes, a part of the crop loan had to be taken in inputs. By and large, this system has been followed in the HYVP and also in the SFDA/MFAL programs. However, as various studies have shown, there is a considerable gap between accepted principles and actual practice. From the point of view of the cooperatives, there is a risk element involved in lending to small and marginal farmers if the crop fails and the loans are not backed by tangible assets as collateral. Of course this might be handled at relatively low cost by some form of crop insurance. To induce the cooperatives, the government provides an outright grant for building up special Bad Debt Reserve in Central Cooperative Banks and Primary Cooperative Societies. However, the scheme has not provided adequate for the purpose for which it was intended. So far as the commercial banks are concerned, they tend to finance according to usual criteria, and besides they do not feel they are in a position to provide constant supervision of the manner of loan utilization.

Recently, the National Commission on Agriculture has drawn pointed attention to the multiplicity of agencies in the fields of rural credit and input supply. In its view, the small and marginal farmers are unable to contact different agencies for

different requirements. For crop loan, they have to approach the cooperative or the commercial bank; for long-term credit, they have to go to the Land Development Bank. Separate agencies have to be approached for inputs and services. The Commission, therefore, has recommended an integrated agricultural credit service. The recommendation is under consideration, although a working group set up at the National Seminar on Small/Marginal Farmers and Agricultural Laborers Programmes has expressed serious doubts about the prospects of the proposed organization where others have failed.

The SFDA has begun to provide medium-term loans in its area of operation, so that each one of the small farmers can purchase at least one share in the primary cooperative credit society and become eligible for credit. Generally, the by-laws of all societies provide for a link between borrowings and shareholdings of a member - the upper limit of loans being eight to ten times the amount of share capital held. The Reserve Bank of India has recently agreed to permit the ratio between shareholding and borrowing to be raised to 1:20 in the SFDA areas. Although this development would help small farmers to some extent, the problem still would remain largely as it is today. The small farmers coming under the dairy and poultry schemes would each need medium-term loans of Rs.1500 to Rs.2500. Additionally, they would need short-term credit at least of Rs.1000. To obtain credit

ranging between Rs.2500 and Rs.3500, the farmer would need to hold shares of the value of Rs.250 to Rs.350 if the ratio is 1:10, and Rs.125 to Rs.175 if it is 1:20. Since the medium-term loan offered by the SFDA for the purchase of shares in cooperative comes to only Rs.10 per farmer, there is a large gap between the requirement of the farmer and the assistance provided. The problem cannot be resolved by raising the quantum of medium-term loan, because the SFDA has only limited resources. In fact, each SFDA would have to provide at least Rs.6.3 million to enable small farmers in its area of operation to purchase enough shares for their credit requirement even if the ratio is 1:20. The total amount in 46 districts would be at least Rs.288 million.'

That there is a risk involved in lending to small farmers cannot be denied; the cooperative overdues have been mounting at an alarming rate. Many cooperative societies are unable to function or to advance fresh loans to the extent required, because of the overdues. To what extent the problem can be solved by the special bad debt fund cannot be judged at this stage.

The problems reviewed so far relate mainly to the short-term credit. Problems of long-term credit are somewhat similar. Credit for the purposes of land improvement, installation of wells, or for the purpose of purchasing machineries and equipment are available if collateral securities in the shape of tangible assets can be provided by farmers. The small farmers are not a

homogeneous group; they include owner-operators, tenants, mixed tenants and sharecroppers. The owner-operators alone can offer land as collateral security. Others are, therefore, excluded from the purview of long-term credit. Tenants and sharecroppers can obtain credit only if records are available to identify them as tenants and to identify the land they have leased-in. Unfortunately, such records are unavailable and in view of the prevailing uncertainties regarding land reforms tenancy contracts are seldom made in black and white.

In fact the problem exists even for the owner-operators. Land records are simply nonexistent in many states and where some records do exist, they are seldom up-to-date. In those few areas where revenue records do exist, they are village-wise records. Since farmers' holdings spread over more than one village in many cases, it become difficult to ascertain an individual's total holding. Where holdings are held jointly by several owners, a co-sharer is not entitled to get loans unless all other co-sharers agree is not entitled to get loans unless all other co-sharers agree for the mortgage. No executive authority is competent to determine a joint holder's share. Consequently, even though credit is available from the Land Development Banks, a substantial proportion of the small owner-operators are unable to avail themselves

of the credit. Preparation of up-to-date records of rights in land would of course require sustained efforts over a fairly long time; it cannot be done as part of a spectacular crash program. Nonetheless, this slow and painstaking effort seems to be essential so that the credit problems of small farmers can be resolved.

AGRICULTURAL CREDIT IN INDIA AND PAKISTAN: HOW IMPORTANT WAS CREDIT FOR THE GREEN REVOLUTION?

In a few years a dramatic change in production technology greatly increased cereal production in much of India and Pakistan. The traditional and supposedly very conservative farmer adopted the new high yielding varieties extremely rapidly. A number of researchers have looked at the green revolution in India and Pakistan. This paper summarizes a selection of those research papers to see how important credit was. The basic question is who adopted high yielding varieties, at what rate, and did the availability of credit influence adoption of the new varieties?

The following factors and conclusions seem to emerge from these studies:

a. The Green Revolution took place over a limited area of India and Pakistan and applied mainly to wheat.

b. The new technology allowed the farmer to experiment. He could use all or part of the new technology, e.g. use HYV seeds but no fertilizer.

c. The HYV were very profitable. A farmer could easily double or triple his income.

d. Adoption was usually first tried by the larger farmers. The larger farmers also extended it to a greater portion of their acreage.

e. Credit was a restraint, mainly for the small farmers, but the new technology was so profitable that credit availability was only of minor importance.

1. "Technology, Prices and Incomes in West Pakistan Agriculture: Some Observations on the Green Revolution" by Carl H. Gotsch, October 1971.

Gotsch uses a farm management model based on data from the Pakistan/Punjab to analyze income effects of the Green Revolution. Gotsch found that in the pure sense modern technology was divisible and could be adopted on small farms as well as on large farms. A farmer could try out the HYV on one-tenth of an acre or less as an experiment. Since the technology could be adopted by all farms he concludes that the technology itself did not result in inequitable income distribution. The key factor of course is access to the inputs required by the new technology (fertilizer, HYV, seeds, water, pesticides, etc.).

2. "Differential Rates of Adoption of the New Seed Varieties in India", the Problem of the Small Farm", by Michael Schluter, August 1971.

Schluter reviews why the small cultivator lags in the rate of adoption of the new technology. He found that as farm size increases, the proportion of farms adopting HYV also increases. There were of course considerable differences by crops, regions, seasons and over time. The relationship between farm size and the rate of adoption was highest for wheat, less for rice and not apparent for coarse grains. He also found that farm ownership, whether cultivator-owned or tenancy, did not influence the rate of adoption.

He found that the larger farmers were usually coop members and that the small farmers were not. The smaller farmers were relatively more dependent on credit, while the larger farmers self-financed most of their needs. He found that large acreage was generally a measure of income and wealth and helped the farmer to bear the risk and uncertainty of the new technology. Land was also a major source of collateral for production loans. The causality was not clear but the larger farmers who adopted the HYV faster seemed to have the greater investable funds and the greater ability to take risks. He concludes that the adoption of new technology may require other techniques besides credit. Crop insurance to cover the risk factor may be more important.

3. "Dwarf Wheat in the Pakistan/Punjab", by I.J. Lowdermilk, May 1972.

Lowdermilk reviews 30 randomly selected villages in one tehsil (county) of Pakistan's Punjab. Using multiple regression models he found that in a very few years a tidal wave of acceptance of high yielding varieties took place. The new technology was very profitable and adoption rates were rapid. He identified positive factors linked to the rate of adoption: farm size, distance to market and tenure status. Credit was not important for the use of HYV seeds or for water but was important for the use of fertilizer.

Adequate canal water was available and HYV seeds were relatively cheap. The new technology worked well on existing irrigated land without chemical fertilizer. Credit availability was not positively related to the acreage of dwarf wheat at the first farmer trial, though the speed with which HYV acreage was expanded on the individual farm over time was influenced by credit availability. Most farms tested an acre or less during the first year, but coverage of the whole farm required more capital. Small farmers (12.5 acres or less) obtained 85% of their financial needs from their own funds or from friends and relatives. Larger farmers obtained 92% of their credit needs from their own funds or from relatives and friends. The large farms obtained a disproportionate

share of institutional credit though their credit requirements were actually less. He concludes that credit availability is a positive factor, though of minor significance in the rate of HYV adoption.

4. "Institutional Credit for Agriculture", the Conference Report of the Indian Society of Agricultural Economists, December 1971.

The Conference reviewed agricultural credit in the Indian Green Revolution and the general consensus was that HYV adoption was done mainly by the more well-to-do larger farmers. Their need for credit was low, though wider-scale adoption by smaller farms required more credit.

The researchers generally agreed that small farms have been slow in adopting HYV and that they were generally not able to get access to credit or to credit coops. Based on a study in Rajasthan, India, it was found that credit from cooperatives was going to a very small percentage of the coop members. These were generally the more well-to-do farmers. The major defaults on coop credit were the larger farmers who were also coop officers.

5. "A Micro-Economic Chronicle of the Green Revolution", Inderjit Singh and Richard Day, February 1971.

This study is based on the Indian/Punjab for the period 1952 - 1965. It covers the start of the Green Revolution. An interesting part of the study was on the cash outlay of farmers. Cash outlays were fairly stable from 1952 to 1961; then during the next 4 years they increased 40%. Cash outlays per unit of output steadily declined 2.5% per year as productivity increased. Cash outlays (in constant prices) on non-farm variable inputs (fertilizers, pesticides, fuel, water, etc.) per cropped acre increased by 180% during 1952 - 1960, and 600% during 1960 - 1965. Cash outlay on non-farm capital goods such as irrigation, equipment, tractors, pumps, etc. increased 300% per cropped acre during the period 1952 - 1960. After 1960 there was no discernible trend.

Short-term borrowing during the period 1953 - 1959 increased four-fold. After 1960 it levelled off. In 1959 farmers obtained 53% of their cash requirements from borrowing, while in 1965 they obtained only 3% of their cash requirements from borrowing.

This study shows the clear trend of investment and adoption up until 1960 and substantial growth thereafter. Increases in output up until 1960 were enough to generate sufficient capital so that farmers almost were self-reliant thereafter. Their requirements for variable inputs of course remained high after 1960.

6. "A Micro-Economic Analysis of Smallholder Response to HYV's of Wheat in West Pakistan", by Refugio I. Rochin, 1971.

Rochin surveyed the non-irrigated Barani areas of Hazara District of West Pakistan to determine HYV adoption rates. The Barani farmers responded to economic incentives and community stimuli. The relatively larger and more well-to-do farmers had the highest adoption rates. The pay-off from HYV was so high and so profitable that even the smallest farmer was able to experiment. Rochin identified community awareness and technical knowledge as the greatest constraint. He did not find credit to be a limiting factor on even the smallest farms. An unusual factor for this region was the large number of farmers who had cash income from local employment and migrant remittances.

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INTERIM REPORT ON CREDIT SERVICES

FOR SMALL AND MARGINAL FARMERS AND AGRICULTURAL LABOURERS

by the
National Commission on Agriculture
Government of India

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SUMMARY OF RECOMMENDATIONS

Integrated Agricultural Credit Service:

1. The entire problem of agricultural credit needs should be viewed in the light of providing an Integrated Agricultural Credit Service, i.e., provision of credit along with organisation of facilities for its conversion into inputs and services required by the farmers to use the credit effectively. This service should be made accessible to small and marginal farmers and agricultural labourers who want to upgrade their technology and productivity. The service must cover not only the complete range of farm produce upto the marketing stage but also ancillary farm occupations, such as those of rural artisans and craftsmen, which provide service to the farmers. In fact, it should also serve to develop the artisans to take up small village industries producing the farm and consumption needs of the farmers. The proposed agricultural credit service should also look after the requirements of credit, inputs and other services needed by animal husbandry (including poultry farming, piggery, sheep rearing, etc.), dairying, fisheries, farm forestry and other enterprises allied to agriculture. (Paragraph 4.5)

Responsibility of Credit Agencies:

2. If a clear break is to be made with the past methods of financing agriculture and if the agricultural credit service is to reach the small and marginal farmers and agricultural labourers, the credit agencies should take direct interest in development of agencies for the supply of inputs and to arrange for services to enable the borrowers to absorb credit. These credit agencies should also encourage and finance viable units of suppliers of inputs, custom services, storage

transportation and marketing in their respective areas.(Paragraph 4.6)

Structure of Agricultural Credit Service:

3. The proposed agricultural credit service should have the following constituents:

i) Farmers' Service Societies - one for each tehsil/block or any other viable unit of convenient size, with as many branches as are required in the area;

ii) a Union of these Societies at the district level, and functional district organisations for specific commodities; and

iii) Lead Bank of the district assuming leadership in the matter of organising agricultural credit service.

(Paragraph 4.9)

Farmers' Service Society:

4. A Farmers' Service Society should be formed as a registered cooperative body, with bye-laws to ensure autonomy, efficient management and freedom from official intervention to provide the integrated agricultural credit service to the small and marginal farmers and agricultural labourers. (Paragraph 4.11)

5. Each Farmers' Service Society should take care of all the development needs of the small and marginal farmers, agricultural labourers and village artisans either directly or by special arrangements with other agencies. Each Society should be treated as a primary cooperative society. All facilities by way of funds, concessional rates of interest, managerial subsidy, etc. available to the cooperatives should also be placed at its disposal.(Paragraph 4.1

6. Only those farmers, agricultural labourers and village artisans who qualify for receiving assistance under the SFDA and MFAL projects should be eligible for the membership of the Farmers' Service Societies. Other sections of the farming community might be made eligible for associate membership for services without enjoying the rights of voting. (Paragraph 4.15)

7. The jurisdiction of each society should be equivalent to a block and in regions where the availability of services is inadequate, it may be an area as big as a tehsil. In regions where the scale of operations is very large, the coverage may have to be reduced to much less than a block. The area of operation should be determined on the basis of viability of the proposed society taking into consideration the overall development in the area and the need for provision of extension services. The society should have its branches or depots to cater to the needs of its members at revenue circle or equivalent levels to serve population groups of ten to twelve thousands. In deciding upon the jurisdiction of a branch, the relevant consideration will be business viability and easy accessibility. (Paragraph 4.18)

<u>District Union of Farmers' Service Societies:</u>

8. There should be a Union of Farmers' Service Societies at the district level for mutual consultation and coordination of policies of the Farmers' Service Societies in the district. In addition, functional district organisations for specific commodities may be formed at the district level. (Paragraph 4.22)

The Role of the Lead Bank:

9. The Lead Bank of each district should have to overall responsibility of integrating the provision of farm credit with supply of inputs and services and should perform the functions enumerated in Paragraph 4.25. (Paragraph 4.25)

Linkage with Other Agencies:

10. Institutions like Land Development Banks, State Agro-Industries Corporations, the Food Corporation of India, etc. should play a vital supporting role in offering services to farmers to absorb credit for productive purposes. In this connection, we tentatively suggest that proper linkage should be developed between the credit structure envisaged by us and these agencies. (Paragraph 4.27)

Agricultural Development Bank

11. It might be ultimately necessary to set up an Agricultural Development Bank of India on the lines of the Industrial Development Bank of India (IDBI) to consolidate the expertise and experience of various agencies, such as the Agricultural Credit Department of the Reserve Bank of India, the Agricultural Refinance Corporation and Agricultural Finance Corporation into a single national organisation directing the flow of agricultural credit according to needs, for full utilisation of land and manpower. Besides refinance facilities, the proposed Agricultural Development Bank of India could provide the initiative and expertise for project-oriented lending after special studies and surveys on regional and commodity-wise basis. (Paragraph 4.30)

Training and Supervision:

12. A suitable programme should be evolved to provide trained personnel to the institutions responsible for the service. Specialists should be employed by banks, and the agricultural universities and extension organisations should help them not only in training such personnel, but also in locating the experts who could help the banks in the training programme. (Paragraph 4.31)

13. Adequate supervision should also be arranged to ensure supply of inputs and adoption of improved practices by the farmers in the area so that credit goes to small and marginal farmers and agricultural labourers and thereby helps them in increasing their levels of income. (Paragraph 4.32)

Phased Action Programme:

14. The formation of Farmers' Service Societies at the tehsil/block level and District Union of these Societies as also their linkage with the Lead Bank and other institutions may first be tried out in the 46 SFDA districts and 41 MFAL districts. Operation of these arrangements in these 81 districts (6 districts being common to both the projects) should be carefully studied and with suitable adaptations found necessary from experience gained in these districts, the arrangements could be extended every year to cover more districts at a rapid pace. (Paragraph 4.33)

INTERIM REPORT ON CREDIT SERVICES FOR SMALL AND MARGINAL FARMERS AND AGRICULTURAL LABOURERS

Section I

Introduction

Scope of the Report

1.1 A study of the requirements of agricultural credit from Government, cooperatives and other institutional agencies for the new strategy of scientific agriculture is included as one of the terms of reference given to the National Commission on Agriculture. It has been recognised that while timely and adequate agricultural credit is necessary to finance the increased inputs involved in scientific agriculture, its importance is all the more significant in the case of the credit needs of small and marginal farmers. Timely supply of adequate credit is also the key to the success of special programmes of Small Farmers Development Agency (SFDA) and Marginal Farmers and Agricultural Labourers (MFAL) which have been introduced in 81 districts of the country (of which six districts are common to both the projects). This section of the rural economy today requires special arrangements for credit availability if they are to be drawn effectively into the vortex of the agricultural development process. In view of its importance, the Commission has decided to make interim recommendations on credit services for small and marginal farmers and agricultural labourers.

1.2 At the second meeting held on the 4th November 1970, the Commission constituted a Study Team on Agricultural Credit

with Shri T.A. Pai as Chairman. The composition of the Study Team is given in Appendix I. The proposals submitted by the Study Team were considered by the Commission from time to time and it was agreed that the Commission would in its Interim Report on Agricultural Credit deal with the problems of agricultural credit with reference to the needs of small and marginal farmers and agricultural labourers only. Some of the aspects of agricultural credit are also dealt with in other Interim Reports of the Commission. For example, the problems of distribution credit for fertilisers were discussed in the Interim Report on Fertiliser Distribution presented to the Government in November 1971. Similarly, the provision of credit for milk programmes is discussed in the Interim Report on Milk Production through Small and Marginal Farmers and Agricultural Labourers. The other aspects of agricultural credit would be dealt with in subsequent Reports.

Section II

Agricultural Credit : Present Position

Cooperative Credit Movement

2.1 The cooperative credit movement was started to get the farmers out of the clutches of the money-lenders. The cooperative system was encouraged to take over the credit requirements of the farmer and enable him to get credit, in time, at fair rates of interest. In the thirties, the agrarian situation was so bad that debt relief measures were also undertaken to save the agriculturists from utter ruin. Various steps were taken to give new life to a languishing cooperative system like consolidation of existing societies by developing their resources, close supervision and scrutiny of their loan operations, assistance to apex cooperative banks for financing rehabilitated societies, etc.

Short & Medium-term Credit

2.2 In recent years, there has been a significant increase in institutionalisation of rural credit. At present, over 30 per cent of the borrowings by cultivators are from institutional sources. The cooperatives have been the principal agency for agricultural credit and will continue to play that role for quite some time. The total amount of credit advanced by cooperatives increased from Rs.23 crores in 1950-51 to Rs.203 crores in 1960-61. The short-term and medium-term loans advanced by primary cooperative credit societies was Rs.342 crores in 1965-66 and Rs.542 crores in 1969-70. The target for the Fourth Plan has been laid down at Rs.750 crores to be reached by 1973-74. The membership of agricultural cooperative credit societies has increased from 17 million

in 1960-61 to 26 million in 1965-66 and to 30 million in 1969-70. The target for 1973-74 is 42 million.

Long-term Credit.

2.3 As regards long-term credit, the Land Development Banks which have made significant progress in recent years, are well organised to handle loan operations of over Rs.1,000 crores over the Fourth Plan period. However, a lower target of Rs.700 crores has been fixed, for the time being, on the basis of financial resources, than in sight. Between 1960-61 and 1968-69, the loans advanced by these banks to agriculturists increased from about Rs.12 crores to Rs.148 crores and the loans outstanding to them from individual members from Rs.38 crores to Rs.402 crores. The quantum of fresh long-term loans issued in 1969-70 was Rs.155 crores.

Agricultural Refinance Corporation

2.4 The Agricultural Refinance Corporation set up in 1963 to refinance long-term agricultural credit expanded its activities considerably during the last three years. Upto 1968-69, the Corporation had sanctioned 233 schemes involving a total outlay of Rs.182 crores, of which the Corporation's commitment is Rs.156 crores, mainly on schemes of minor irrigation. As on 31st October 1971, the ARC had 489 schemes involving a total outlay of Rs.318 crores, including ARC's commitment of Rs.272 crores.

Commercial Banks

2.5 For meeting the gap in agricultural credit, the potentialities of commercial banks are also being increasingly utilised. Following social control, commercial banks have shown an increasing interest in the agricultural sector and the volume of direct agricultural finance by these banks has

increased from Rs.5 crores during 1966-67 to Rs.44 crores on 30th June 1969 and further sharply to Rs.184 crores on 30th June 1970 and Rs.236 crores on 30th June 1971. In 1968, a consortium of commercial banks set up an Agricultural Finance Corporation with the objective of coordinating activities of the constituent banks and rendering them consultancy services.

Inadequacy of Credit

2.6 Although the progress has been steady, the amount of loans advanced is still inadequate. The Fourth Plan target for short-term cooperative credit is only Rs.675 crores to be reached by 1973-74. Considering that the volume of short-term credit given by primary agricultural credit societies was Rs.390 crores in 1967-68, Rs.454 crores in 1968-69 and Rs.490 crores in 1969-70, an average increase of only Rs.45 crores per annum during the Fourth Plan period does not appear to have given sufficient importance to short-term cooperative credit. Unfortunately, even the credit limits based on these targets which are sanctioned by the Reserve Bank of India for short and medium-term credit, are not fully utilised as is evident from Appendix II. If the cooperatives, as they are at present functioning, are to make any dent in the problems of agricultural credit to the small and marginal farmers and agricultural labourers, the Fourth Plan targets for cooperative credit will have to be substantially higher. Such an expansion not being possible with the present over all availability of funds it is obvious that without an earmarking of specific funds for the small/marginal farmers sector, their problem of credit will not be solved.

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Distribution of Credit by Asset Groups

2.7 The All-India Rural Credit Survey Committee (1952) which studied the position of credit in the year 1951-52 brought out prominently the fact that cooperative credit tended to flow predominantly in favour of the large cultivators as compared with the medium and small cultivators. The All-India Rural Debt and Investment Survey (1961-62) pursued this matter further and analysed the data on the borrowings from cooperatives per acre of cultivated area for the different asset groups. Their findings are given in Table 1 below:

Table 1

Average amount borrowed from cooperatives per-acre of cultivated area during 1961-62

Asset Group(Rs.)	Average borrowings from cooperatives per cultivator household (Rs.)	Average area personally cultivated per cultivator household(acres)	Average borrowings per acre (Rs.)
Less than 500	2.3	1.27	1.81
500-1000	5.1	2.14	2.38
1000-2500	9.4	3.35	2.81
2500-5000	19.6	5.35	3.66
5000-10,000	35.6	8.06	4.42
10,000-20,000	63.6	11.86	5.36
20,000-and above	170.4	23.26	7.33
All-asset groups	31.9	6.63	4.81

It is quite evident that a rich farmer having assets of over Rs.20,000 which is roughly equivalent to a holding of 25 acres, received per acre credit which was twice that given

to a farmer having assets between Rs.2,500/- and Rs.5,000/- which is equivalent to about five acres. Those in the lowest rung of assets got only a quarter of the amount that the rich farmers got.

Difficulties of Small Farmers in Getting Credit

2.8 In 1969, the All-India Rural Credit Review Committee also dealt with this matter and recorded as under:

> "We shall tentatively note here that, even if there is some justification for the larger amount which has gone to the bigger asset groups in absolute terms, the fact that (a) the proportion of households obtaining cooperative credit to the total cultivator households; and (b) the proportion of those who obtain cooperative credit to those borrowing from any agency, increase from group to group along with the size of assets does suggest that the smaller cultivators are indeed handicapped in having access to cooperative credit".

They went on further to say:

> "Our conclusion is, therefore, that though in the last few years, especially since 1964-65, some progress has been made in relaxing various restrictive practices, the small cultivator continue to be handicapped over large parts of the country in obtaining adequate credit from the cooperatives because of one or more factors, viz., exclusion from membership, insistence of landed security and restrictions on the size of loan which may be made to tenants. An unfortunate feature from the point of view of production was that the tenants and small cultivators were not in many parts of the country able to obtain credit required by them for modern inputs".

2.9 The Committee also emphasised the need for medium and long-term credit to enable the farmers to invest in land development and irrigation facilities so that they could modernise their agricultural operations. The Committee made special recommendations to enable the small farmer to get long-term credit for viable investment. Nearly 62% of the

cultivating households had less than five acres. It had been estimated by the Reserve Bank that of the 265,259 farmers who had availed of long-term credit from cooperatives in 1969-70, only 96,306 (or about 36%) held land of five acres and less. This indicates the extent of the difficulty which a small farmer faces in obtaining long-term credit to make his holding viable based on modern technology.

Rise in Overdues

2.10 Another disquieting feature of the cooperative credit system has been the rise in the overdues from year to year, as will be seen from Table-2 below:

Table-2

Percentage of overdues at the level of primary societies and district/central cooperative banks

Year	Overdues at the level of primary societies	Overdues at the level of district/central cooperative banks
1960-61	20%	12.4%
1967-68	32%	24.7%
1968-69	35%	27.0%
1969-70	38%	29.0%

The increasing overdues have not only affected the ability of the cooperatives to extend further credit but have also put in doubt the credit-worthiness of the cooperatives themselves.

Benefits flow to Big Farmers

2.11 Further, benefits of the cooperative system have so far flowed mostly to bigger farmers because of the

following factors:

i) Land-ownership was used as almost the sole criterion for extending credit to the members.

ii) Little attention was paid to the needs of farmers or the acreage covered, as the focus was on amounts lent and recovered as criteria of success.

iii) The quantum of farm credit recorded significant increases, out of line with either the acreage or number of farmers served; more or less the same groups of farmers got additional funds due to gradual liberalisation of the scales of finance for cash crops as well as other crops.*

iv) Even the limits sanctioned to the State cooperative banks by the Reserve Bank of India for farm credit through cooperatives were not utilised fully wherever primaries of District Central Cooperative Banks were weak and inefficient as regards recoveries and could not offer sufficient non-overdues cover to the high level of finance.

v) Cooperative leadership and management were in the hands of the bigger farmers who could not represent the point of view or needs of the small and marginal farmers.

vi) Technical expertise and operational efficiency for dispensing production-oriented credit are conspicuously lacking in the present cooperative set-up

vii) Coordination between the agencies in charge of cooperative credit and those in charge of supplies, extension, etc. under agricultural programmes is grossly inadequate resulting in lack of absorption of credit for production purposes.

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* The Study Team on "Agricultural Administration" of the Administrative Reforms Commission has drawn attention to the fact that the loan advances by Primary Credit Societies increased from Rs.228.3 crores to Rs.319.4 crores (or 36%) during the period 1961-62 to 1964-65 while the number of borrowers rose from 99,62,000 to 1,09,59,000 (or 10%) during the same period indicating that while the loans advanced had increased significantly, the increase in the number of borrowers was only marginal.

Benefits of Cooperative System

2.12 It will be agreed at the same time that there have been some benefits, economic and social, of cooperatives in the past. Cooperatives have helped to rationalise distribution patterns, increase purchasing power and promote consumer protection. They have contributed to the modernisation of small scale production in agriculture and allied sectors. They have stimulated in several areas productive capital formation among large number of individuals. In a wider sense, cooperative growth has thus become an effective stimulant to economic growth. From the economic stand point, cooperatives are engaged in securing for their members, services of various kinds, at low cost. Cooperation offers not only economic benefits to members but also confers a number of benefits to the society. This is so because the object of cooperation is to transform the member's condition in such a way that he makes his social life richer and happier. Whereas the cooperative system may be the best form of organisation for those particularly in the lower rungs of the economy and also for the most exploited sections, the present structure of the organisation has to be modified to give a better bias towards the small and marginal farmers and agricultural labourers.

Section III

Problems Faced by Small and Marginal Farmers and Agricultural Labourers in Obtaining Agricultural Credit.

Problems of Small and Marginal Farmers

3.1 The small land holders in India form 62% of the total rural households, but only 19% of the cropped area is comprised in small holdings.* In this skewed distribution of land holdings, the new agricultural technology whose benefits have largely been availed of by the bigger farmers has tended to add to the disparity between the more privileged and the lesser privileged in the rural sector. "While the handicaps of such (small) farmers differ from area to area, the major disadvantages they suffer from are fragmentation of holdings, inadequate and untimely supply of inputs and water, insecurity of tenure, lack of sufficient credit facilities and unsatisfactory arrangements for marketing and storage".**

3.2 Both the Central Sector Schemes for Small Farmers Development Agencies and Marginal Farmers and Agricultural Labourers lay stress on building up proper infrastructure so that adequate credit facilities are available to the weaker sections of the rural population. These schemes have been devised by the Ministry of Agriculture in consultation with the Planning Commission in view of the very high priority attached in the Fourth Plan to measures specifically designed

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* Data relate to operational holdings less than 2.02 hectares and are based on 16th and 17th Rounds of NSS, June 1960 to July 1962.

** "Towards Growth with Social Justice", Government of India, Budget Papers 1970-71.

to enable the weaker sections of the rural population to benefit from the economic growth and development in the rural sector.

Difficulty in Offering Security

3.3 The major problem faced by the small farmers in getting credit from the cooperatives was that they could not offer security in the shape of tangible assets and, as such, they were not considered to be creditworthy. Efforts were, therefore, made to change the criterion of credit worthiness from tangible assets to production potential under the 'crop loan system' introduced in the Second Five Year Plan. To ensure that credit was not misused for consumption purposes, a part of the crop loan was given in the shape of inputs like fertilisers and quality seeds.

Crop Loan System

3.4 The basic features of the crop loan system were incorporated in the Action Programme drawn up by the Government in 1963. The Reserve Bank (Agricultural Credit Department) in its manual issued in 1966 included a modified version of this Action Programme. Though vigorous efforts were made between 1966 and 1969 to step up the availability of cooperative credit, the progress was not uniform in all the areas. In fact, various field investigations in selected districts conducted for the All-India Rural Credit Review Committee revealed considerable divergence between the accepted principles and the actual progress.

3.5 Cooperatives generally consider that loans advanced to the small farmers involve a certain risk element if the crop fails since they are not backed by any tangible assets as

security. The Committee on Cooperative Credit (1963) had recommended a system of outright grants by Government for building up special Bad Debt Reserve in Central Banks and Primary Societies so that the cooperatives might be inclined to take the risk of giving more loans to the small and marginal farmers based on the crop loan system. On a review in 1964 by a Working Group led by Prof. M.V. Mathur* it was found that the scheme had some beneficial effect, but it had not proved adequate for the purpose for which it was intended. The Working Group recommended that the Cooperative Credit Societies should make efforts to attract more funds by imparting a definite bias towards small and marginal cultivators in their lending operations.

Cooperative and Commercial Banks Finances Not Available For Small and Marginal Farmers

3.6 Although the cooperatives were till recently, the only source of institutional credit that could and should have helped people in the agricultural sector to reach the stage of viable production, a large number of the small and marginal farmers and agricultural labourers have had no chance even to enter them. In a way, so far, the cooperative system has not succeeded in serving the needs of the small and marginal farmers - not to speak of the agricultural labourers - to any significant extent.

3.7 Although within the last two years, commercial banks have become an important source of institutional credit for agriculture, even their operations excluded the bulk of

* Report of the Working Group set up by N.C.D.C. (1964) on Effects of outright grants in liberalisation of agricultural credit.

the small and marginal farmers, as they also tended to finance agriculture according to the prevailing criteria and methods. The most crucial part of production credit is supervision. Without close and constant supervision it is difficult to arrive at a realistic scale of credit or effect its smooth recovery. The commercial banks are, in reality, not in a position to undertake large scale creditworthy schemes because of lack of necessary experienced personnel for supervision.

3.8 Both the cooperatives and the commercial banks suffered from a common handicap; they lacked the understanding and ability to tackle the special needs of the small farmers. Nor were they able to appreciate what was needed to be done to intensify the total gamut of agricultural and related activities in rural areas so as to provide additional work and income to marginal farmers and agricultural labourers. The application of conventional norms of security ensured almost automatic exclusion of this sector of agriculture from institutional credit because of its low land-holding and earning capacity in conventional farming. A radical departure was needed both in the scale of finance and the terms of payment. The per hectare requirement of credit was far in excess of normal limits, both for intensive cultivation and 'high-investment-high yield' crops (e.g., hybrid seed production, high yielding varieties, horticultural crops, etc.)* Linking advances to land

* The scale of finance for production credit by primary agricultural cooperatives has now been made flexible and left more to the District Central Cooperative Bank with the result that it has become directly proportional to the ability of the Distt. Central Cooperative Bank and the Primary Society itself to provide the non-overdue cover rather than the cost of cultivation and production potential of the borrower.

holding (either directly or as collatoral) became incongruous with incremental income concept of production and investment credit, and financing of ancillary farm activities such as dairying and poultry farming. Credit should have been provided on the basis of the total proposed activity rather than the land held, for such labour-intensive activities would help marginal farmers and agricultural labourers to develop viable family enterprises.

Lack of Integration of Credit with Other Services

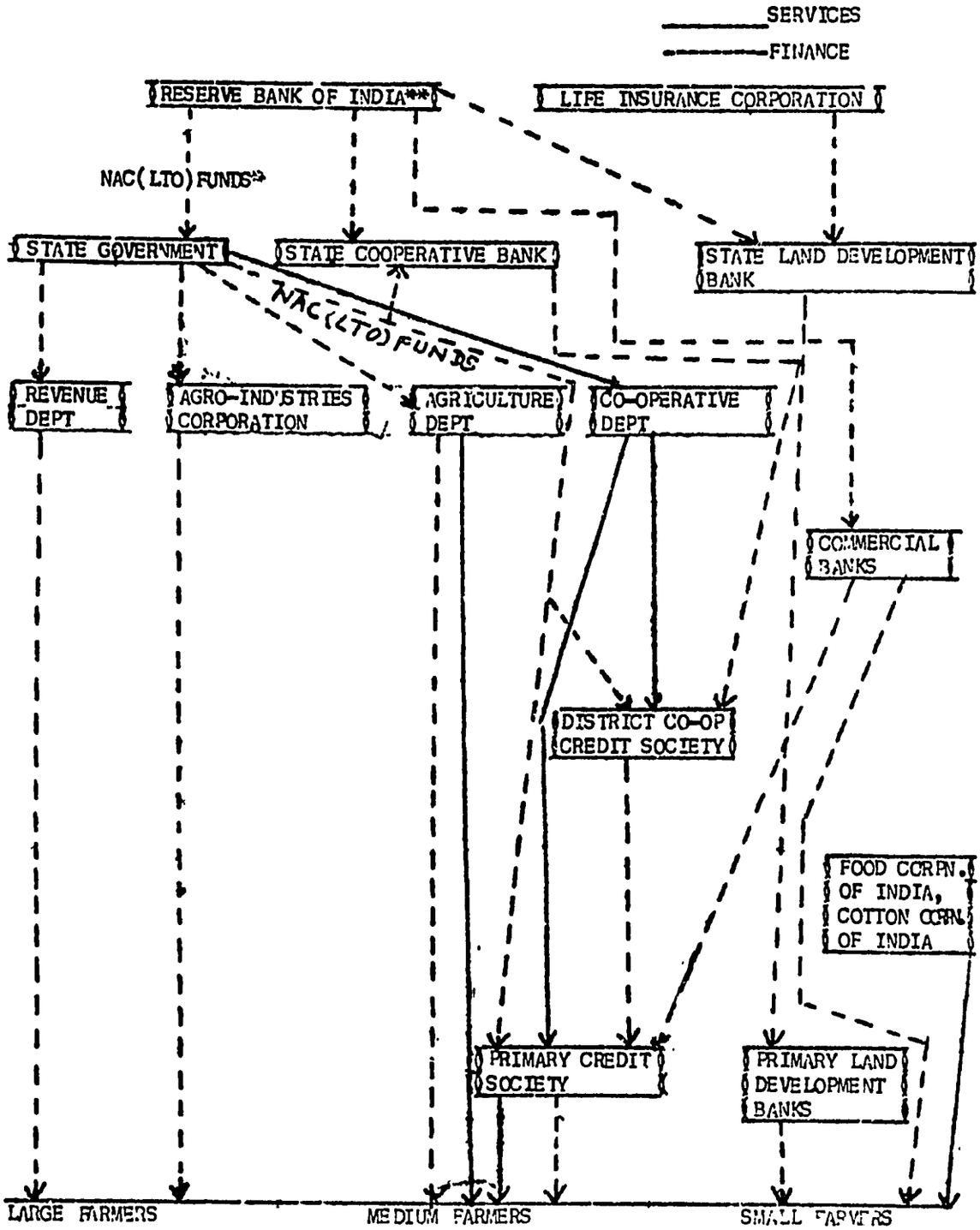
3.9 Another important factor adversely affecting the small and marginal farmers was that farm credit from cooperatives and commercial banks was not integrated with easy availability of inputs, extension and other services supporting production and marketing. The small farmers could not productively use whatever loans they got from these sources for lack of easy accessibility to such facilities as a viable commercial package.

Multiplicity of Agencies

3.10 A major handicap of the small and marginal farmers and agricultural labourers has been their inability to contact separately a number of different agencies for different requirements. Figure 1 (page 16) shows the multiplicity of agencies that the farmer has to contend with for all his needs. For crop finance, they have to go to the cooperative or the commercial bank. For long-term credit, they need to go to the Land Development Bank. Separate agencies need to be approached for inputs, services, hiring of farm equipment and marketing. It would be impracticable to expect them to contact so many different sources to get credit and services for different needs.

FIG. 1

FLOW OF SERVICES AND INSTITUTIONAL FINANCE
UNDER THE PRESENT ORGANISATIONAL SET-UP



* Loans from National Agricultural Credit (Long-term Operations) Funds to State Governments for contribution to share capital of Co-operative Credit Institutions (See RBI Annual Report, 1971 p.100).

** RBI finance for rural credit through Agricultural Refinance Corporation and Agricultural Credit Department.

Multipurpose Cooperative Organisation

3.11 The idea of multipurpose cooperative society has been suggested by a number of Committees from time to time. The All-India Rural Credit Survey Committee (1952) elicited the views of the State Cooperative Departments on the effectiveness and success of the multipurpose cooperative societies. This survey had come across several instances of efficient and well managed multipurpose societies meeting the varied needs of the rural farming community particularly in Tamil Nadu, Maharashtra, Andhra Pradesh and the Punjab. In November 1958 the National Development Council in its Resolution on Cooperative Policy, also recommended that the cooperatives should be organised on the basis of the village community as the primary unit and that the responsibility and initiative for social and economic development at the village level should be placed fully on the village cooperative and the village panchayat which were to be considered as the primary agencies for improving all aspects of rural life through the efforts of the people. The Committee on Cooperative Credit (1963) and the All-India Rural Credit Review Committee (1969) also considered the question of primary credit societies with particular reference to the paramount need for viable requirements. The latter Committee made a number of recommendations, on which the present policy of Government is based. This policy envisions the primary societies at the village level to promote the economic interests of its members in accordance with the cooperative principles and seeks to achieve this aim by activities in different directions.

In other words, it is expected to be a multipurpose organisation which will provide loans to its members, promote savings among them, supply them with agricultural requisites and domestic requirements, and arrange for the marketing of their agricultural produce. This concept of a multipurpose cooperative organisation has so far not been a success. Among the reasons for the failure of multipurpose cooperatives in the past has been that although they were multipurpose in their objective, too much emphasis was laid on credit aspect only, often almost to the total neglect of other service functions. Further, in organising multipurpose societies, their viability was not always taken into account. Sometimes, it was thought that the multipurpose societies would be viable even at the village level. Moreover, the multipurpose societies were not backed by adequate technical, extension and other supporting services.

Scope for Employment Opportunities in Ancillary Occupations

3.12 So far, we have been paying attention to agriculture. It is becoming more and more apparent that for small and marginal farmers and agricultural labourers, opportunities for improvement lie in enterprises like horticulture, animal husbandry (including poultry farming, piggery, sheep rearing, etc.), dairying, fisheries, farm forestry, etc. In fact, mixed farming offers good scope for small and marginal farmers to improve their farm income. There have been difficulties in the past in the cooperative system being able to provide the credit, the inputs, and the marketing facilities in a suitable

package for such enterprises. The multipurpose approach, which we are considering, must be able to tackle these new lines of employment opportunities in the rural sector. Similarly, in the rural economy, ancillary farm occupations form the most useful source of employment, mainly for agricultural labourers in the villages. The artisan classes in the villages depend for their livelihood on the services required by the farmers and also their consumer goods requirements in the context of improvement in the agrarian economy. There is also need for modernising the tools and implements used by these village artisans and improving their technical skills. The classes of rural artisans envisaged include carpenters, blacksmiths, cobblers, weavers, potters, oil-men, etc. A further opportunity exists, for adding to the employment potential of the agricultural labourers in the villages, in the organisation of small consumer industries in the rural areas through local enterprises. The multipurpose organisation which we are contemplating must be able to deal with the requirements of both credit and marketing of these rural artisans and ancillary farm occupations. With increasing reliance being placed on the cooperatives as an instrument of development at the village level, it is all the more necessary that the multipurpose cooperative principle should receive greater emphasis.

Section IV

Integrated Agricultural Credit Service

The neglected partners in Agricultural Growth

4.1 An unprecedented agricultural growth has been witnessed in recent years in several parts of the country. Benefits of this growth have, however, been visible mostly in areas with assured rainfall and irrigation and a few pockets in dry farming areas. Studies on the problems of small farmers show that they have not been able to take full advantage of the new farm technology. The reasons advanced for this situation revolve round the credit needs and the availability of inputs and services required to sustain the high yielding varieties*. The need for intensive cropping practices necessary to make the small farms viable units, imposes high demands on the credit and extension needs for this segment compared to the large and medium farmers. Considering that there are over 20 million operational holdings in the country with less than 2.5 acres, the gap in the coverage and the magnitude of the problem assume staggering proportions and point out the inadequacy of the present institutional system in ushering in the structural changes necessary to bring the small farmers as sharers of benefits that accrue from agricultural growth.

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* A recent study in Sangli district indicates that if credit is made available, the credit absorption increases nearly five fold in 3-4 acres farms and 2½ times in farms more than 4 acres. (Appendix III) For studies on Small Farmers conducted on behalf of the Planning Commission see Planning Commission "Workshop on Small Farmers and Agricultural Labourers, 17-18 July 1970" Government of India, New Delhi, pp.81-130.

The opportunity and the urgency

4.2 Our farmers, big, medium and small, have shown the production levels that they can achieve, given the know-how, inputs, services and facilities on time. The Green Revolution has been a dream realised for the bigger farmers in some parts of the country. The large number of small and marginal farmers and agricultural labourers left out of this development process have to be rapidly brought within the compass of the upsurge of agricultural modernisation. It is both possible and essential to do so. For the first time, break throughs in agricultural technology have made small farming an economic proposition*. We have to ensure that they are no longer denied the necessary credit and the facilities to adopt this new technology. Then alone can we make optimum use of the man power and the land possessed by the small and marginal farmers and also take effective steps, to curb in time, the social tensions and economic imbalance arising from disparities of opportunities and incomes. In fact, it has been the experience that with every development in agriculture in any part of the country - whether through better irrigation or adoption of improved techniques and practices - imbalances in incomes and capacity to produce perpetuate 'dual economies' (one monetized market economy, and the other non-monetized subsistence economy) unless deliberate efforts are made to

* The technical constraint indicated in the study, vide Planning Commission Workshop, pp.83-84 is provision of assured water supply in dry areas to minimise the risk for the small farmer and when water resources are available, institutional support is the constraint in making the small farmers viable.

reduce inequality of opportunity to get credit and use it effectively.

4.3 For all the agricultural development schemes where participation of the small farmers, marginal farmers and agricultural labourers is contemplated, the first essential is credit in the right quantity at the right time for the creditworthy scheme. The second essential is supply of inputs and services at reasonable rates at the right time. The third essential is a fair market where the small man will get a reasonable price for the surplus, and will also be able to buy his requirements at a fair price. The real need of the small and marginal farmers is thus not funds alone but timely availability of a package of inputs and custom services, along with technical advice and supporting services for storage, transportation, processing and marketing, preferably through a single contact point.

Need for Multipurpose Organisation

4.4 The need can be met through the setting up of a multipurpose cooperative organisation with jurisdiction extending over a tehsil or block as may be convenient. The area of operation will have to be determined on the basis of viability of the proposed organisation taking into consideration the overall development in the area and the need for provision of inputs and supporting services. Normally the area may be equivalent to a block, but a larger or smaller area may have to be adopted in some regions depending on the availability of supporting services. It has, however, to be borne in mind

that small and marginal farmers and agricultural labourers are scattered over large interior areas far removed from the block or tehsil headquarters. The multipurpose organisation will therefore have to have branch agencies or depots at lower levels to cater for clusters of such small farmers. In this connection, the Commission would like to refer to the recommendation made in its Interim Report on "Some Aspects of Agricultural Research, Extension and Training" that it would be desirable to work towards coverage by the Agricultural Extension Officers of population groups of roughly ten to twelve thousand. The multipurpose cooperative organisation can also have branches and depots as counterparts of such circle extension organisations. Such branches or depots can cater to the needs of clusters of small and marginal farmers and agricultural labourers more effectively. It has been noticed that one of the major obstacles in the farmers' accessibility to inputs and other services has been the distance between his field and the headquarters of the cooperative organisation which is to cater to his needs. In deciding upon the jurisdiction of branches or depots of the main service organisation the relevant considerations will be business viability and easy accessibility. While the credit will be sanctioned at the tehsil/block level, the actual receipt of the applications, their processing and the disbursement of credit may be done at the Circle level. This is necessary to ensure that the farmers and the agricultural labourers will deal with the institution at the Circle level only for all their

requirements.

Integrated Agricultural Credit Service

4.5 We recommend that the entire problem of agricultural credit needs should be viewed in the light of providing an integrated agricultural credit service, i.e. provision of credit along with organisation of facilities for its conversion into inputs and services required by the farmers to use the credit effectively. This service should be made accessible to small and marginal farmers and agricultural labourers who want to upgrade their technology and productivity. The service must cover not only the complete range of farm produce upto the marketing stage but also ancillary farm occupations, such as those of rural artisans and craftsmen which provide services to the farmers. In fact, it should also serve to develop the artisans to take up small village industries producing the farm and consumption needs of the farmers. The services will have to be developed in each area, in phases, according to their importance for the economic uplift of the weaker section in the area. The proposed agricultural credit services should, in addition, look after the requirements of credit, inputs and other services needed by animal husbandry (including poultry farming, piggery, sheep rearing etc.), dairying, fisheries, farm forestry and other enterprises allied to agriculture.

4.6 We also recommend that if a clear break is to be made with the past methods of financing agriculture and if the agricultural credit service is to reach the small and marginal farmers and agricultural labourers, the credit agencies should

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take direct interest in development of agencies for the supply of inputs and to arrange for services to enable the borrowers to absorb credit. Further, these credit agencies should encourage and finance viable units of suppliers of inputs, custom services, storage, transportation and marketing in their respective areas.

Structure of Agricultural Credit Service

4.7 The creation of the Small Farmers Development Agency (SFDA) and the Marginal Farmers and Agricultural Labourers (MFAL) Projects is a positive move to focus national attention and efforts to this problem. It is felt that 46 SFDA districts and 41 MFAL districts (of which six are also in the SFDA list) offer immediate scope for trying out new arrangements to ensure that an integrated agricultural credit service reaches the bulk of small and marginal farmers and agricultural labourers.

4.8 There are two ways of organising this service at the tehsil/block level. One way is to organise a subsidiary of the bank registered under the Companies Act and the alternative is to have a Society registered under the Cooperative Societies Act. However, it is felt that organising a subsidiary under the Companies Act would eliminate farmers' participation and identification of the organisation as their own. The recent experiments of the Reserve Bank of India in reviving cooperatives through the efforts of Commercial Banks have indicated the possibility, with some modifications in the scheme as in force, of taking advantage of the best in both cooperatives and the commercial banks and combining their features in the new set-up

at the block level (Appendix IV). The design of the proposed integrated credit service must stand out in sharp contrast with the present situation having a number of 'independent' agencies looking after agricultural development and creating a situation of overlapping and duplication of effort in some areas to the neglect of large areas elsewhere. The entry of commercial banks into farm financing has added yet one more agency, and integration and reorganisation of the farm financing activities have become imperative for ensuring their effective functioning. The basic responsibility for organising an agricultural credit service in each district should lie on the Lead Bank of the district.

4.9 We recommend that the proposed agricultural credit service should have the following constituents:

i) Farmers' Service Societies - one for each tehsil/block, or any other viable unit of convenient size, with as many branches as are required in the area;

ii) a Union of these Societies at the district level, and functional district organisations for specific commodities; and

iii) Lead Bank of the district assuming leadership in the matter of organising integrated agricultural credit service.

The flow of institutional finance and services in the re-organised set-up is shown in Figure 2. (Page 27).

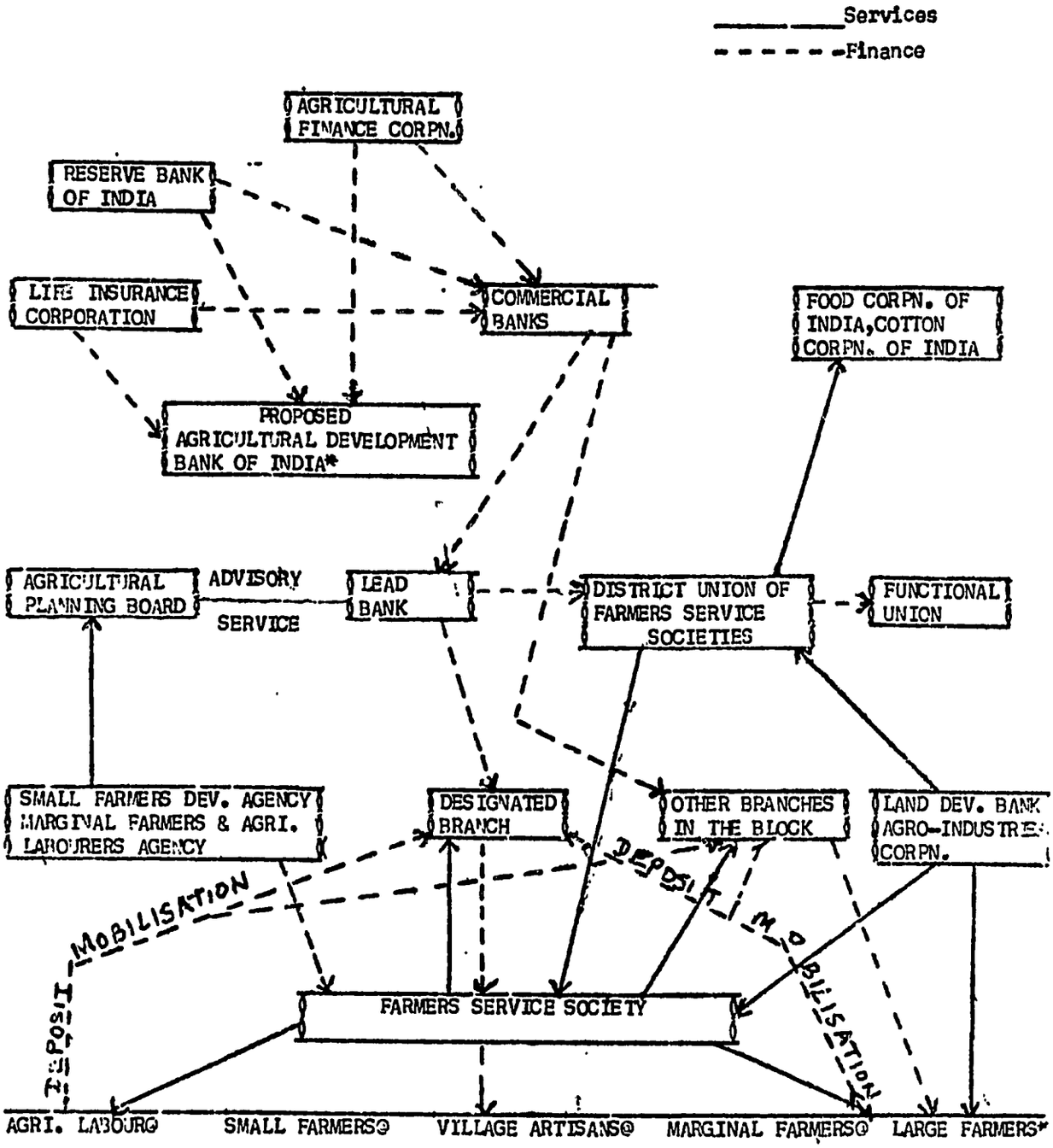
Main Considerations

4.10 We have spelt out the proposed framework in the subsequent paragraphs, keeping the following considerations in view:

i) Farmers will deal with a single agency for their short, medium and long-term credit requirements as well as their demands for inputs and services. That agency should be their own organisation, viz., Farmers' Service Society.

FIG. 2

FLOW OF SERVICES AND INSTITUTIONAL FINANCE IN THE NEW SET-UP



* This organisation would take over the functions of Agricultural Refinance Corporation and Agricultural Credit Department of the Reserve Bank of India and Agricultural Finance Corporation and serve as a channel for rural development lending of Life Insurance Corporation.

@ - Members ** Associate Members

ii) The Lead Bank will assume the responsibility for integrating credit with supply of inputs and services.

iii) The Farmers' Service Societies will be responsible for organising, on commercial lines, the supply of inputs and services, either directly or under contract arrangements with other public agencies or private firms.

iv) The SFDA and MFAL Project Boards will use the funds placed at their disposal to create a risk fund for the societies, to contribute to their share capital, and to bear a part of the salaries of the extension staff of each society.

v) The SFDA and MFAL Project Boards should develop into virtual agricultural planning boards to give leadership and framework of goals and priorities to the societies and the Lead Bank.

vi) Subsidies, if any, in programmes handled by the Farmers' Service Societies should be disbursed through them.

Farmers' Service Society

4.11 The concept of multi-purpose cooperative organisation has been considered by a number of committees from time to time, which visualises development of the primary cooperative societies into viable units for providing all the essential needs of the farmers. In this context, we recommend that a Farmers' Service Society should be formed as a registered cooperative body, with bye-laws to ensure autonomy, efficient management and freedom from official intervention to provide the integrated agricultural credit service to the small and marginal farmers and agricultural labourers.

4.12 The Farmers' Service Society will be the sole agency taking care of all the developmental needs of the small and marginal farmers and agricultural labourers either directly

or by special arrangements with other agencies. Each Society will perform the following functions.

i) It will process and sanction applications of its members for short, medium and long-term advances and obtain a cash-credit line, for the required amount, from the nearest designated commercial bank branch to finance its other activities such as purchase and storing of inputs, consumer articles, etc.

ii) It will either itself undertake supply of inputs, custom and repair services, marketing of produce, sale of consumer goods, etc. with bank finance; or it may enter into contracts with other agencies, firms or individuals (including agricultural/animal husbandry/ engineering graduates and diplima holders) for ensuring availability of such supplies and services.

iii) It will have its own nucleus technical staff and get supplementary advice and help through other agencies.

iv) It will assist banks, Life Insurance Corporation, Unit Trust and Small Savings Organisation for the mobilisation of deposits and popularisation of life insurance and small savings.

v) It will encourage the members to have deposit accounts with the nearest bank branch.

vi) It will encourage provision of facilities for developing subsidiary occupations like animal husbandry, dairying, farm forestry, etc. particularly to marginal farmers and agricultural labourers.

vii) It will organise credit, supply of raw materials and services for the artisans and craftsmen with a view to modernising their trades.

viii) It will encourage production by artisans through small village industries of consumer goods for sale within the rural community.

the lower rungs of village artisans. Further, with the expansion of commercial banking into rural areas, this class of entrepreneurs can have easy access to bank credit, and the bigger farmers can obtain their loans from the Bank directly. We therefore recommend that only those farmers, agricultural labourers and village artisans who qualify for receiving assistance under the SFDA and MFAL projects should be eligible for the membership of the Farmers' Service Societies. Other sections of the farming community might be made eligible for associate membership for services without enjoying the rights of voting. As agriculture includes animal husbandry, fisheries and farm forestry, involvement of the bigger farmers in the service societies might be beneficial in some directions, as for example in processing and marketing of milk if a Rural Milk Service Organisation is set up in a particular area.

Amendments in Rules of Cooperative Law

4.16 The cooperative law may be amended where necessary, to ensure that :

i) Each Society admits all small and marginal farmers and agricultural labourers as well as small village artisans in connected agricultural operations and ancillary farm occupations referred to in paragraph 4.5.

ii) The Lead Bank/commercial bank and the SFDA/MFAL projects can contribute towards its share capital.

iii) The statutory, supervisory and regulatory functions including audit and financial participation in the Society are transferred, in respect of these societies, from Government to the Lead Bank which is now a full-fledged government-owned official agency.

iv) The Society will employ full time paid managerial and technical staff necessary to support the operations. The personnel will be drawn from the existing state and local government cadres to the extent they satisfy the qualifications and experience prescribed by the Lead Bank for the purpose. In the initial stages of the organisation, the expenses will be shared by the State Government and the Lead Bank/commercial banks operating in the area, but the employees will be under the administrative control of the Farmers' Service Society.

v) Recovery of loan will be made from the sale of produce of the farmer.

vi) The Society will deal with the branch of the commercial bank designated for the purpose by the Lead Bank in the district. The other commercial banks, if any, in the area will cater to the needs of the large farmers and also meet the demands of the area for normal banking operations, deposits mobilisation efforts as well as financing trade etc.

4.17 Experience of cooperatives and commercial banks has clearly shown that despite efforts, cumbersome procedures and legal requirements make it generally difficult for small and marginal farmers and agricultural labourers to get credit on time and in adequate quantity. Simplification of procedures has therefore to be considered as an essential part of the scheme of Integrated Agricultural Credit Service.

4.18 We recommended that the jurisdiction of each society should be equivalent to a block and in regions where the availability of services is inadequate, it may be an area as big as a tehsil. In regions where the scale of operations is very large, the coverage may have to be reduced to much less than a block. The area of operation should be determined

on the basis of viability of the proposed society taking into consideration the over-all development in the area and the need for provision of extension services. The society should have its branches or depots to cater to the needs of its members at revenue circle or equivalent levels to serve population groups of ten to twelve thousands. In deciding upon the jurisdiction of a branch, the relevant consideration will be business viability and easy accessibility.

Capitalization of the Farmers' Service Society

4.19 The share capital of the Farmers' Service Society will be contributed by (i) members; (ii) SFDA and MFAL project loans; and (iii) assigned branch of the Lead Bank. The long-term Operations Fund which was created in February, 1956 for making long-term loans to State Governments for subscription to the share capital of cooperative credit societies, might also be used for this purpose.

4.20 The risk fund of the Society will be contributed partly by the SFDA/MFAL projects and will partly be covered by the Credit Guarantee Corporation/Credit Insurance Corporation of the Reserve Bank of India.

4.21 The Working Capital of the Society will be obtained:

(i) from commission on loans and advances;

(ii) from contribution from State Government and Lead Bank for the technical services;

(iii) from agents' commission from Life Insurance Corporation and Food Corporation of India for business obtained; and

(iv) from the designated branch by credit lines.

District Union of Farmers' Service Societies

4.22 We recommend that there should be a Union of Farmers' Service Societies at the district level for mutual consultation and coordination of policies of the Farmers' Service Societies in the district. It may be found that various types of expertise, especially storage, purchasing, processing and marketing required by the members are best organised at the district level. Where such services can be organised on a viable basis and the Farmers' Service Societies consider that they must directly be involved in organising these services, the district union can take over this function on behalf of the Farmers' Service Societies. Where the purchase, marketing and processing of any agricultural produce assume large proportion in the district, in any particular commodity like milk, cotton, oilseeds, etc., it may be desirable to establish a separate functional district organisation for each of such commodities instead of the general district union taking up this work. Such functional district organisations for a particular commodity may be formed separately at the district level.

4.23 The working funds for the Union's commercial activities will be drawn from the Lead Bank. Depending upon the area and its needs, each Union's activity may grow on different lines. Where separate functional Unions do not exist, the Unions may start with one or two specialised activities of marketing and processing and gradually cover other needs.

The Role of the Lead Bank

4.24 The Study Group set up in October 1968 under the chairmanship of the late Dr. D.R. Gadgil with the approval of the National Credit Council recommended that an area approach would need to be adopted by the commercial banks to identify and study local problems and evolve an integrated credit plan for the area. The Group was of the view that the lowest unit under the area approach had to be necessarily identified with the district which is the main administrative unit of the country. On the lines of this recommendation, the Reserve Bank of India accepted the principle of Lead Bank Scheme and in December 1969 allotted districts to the State Bank Group (the State Bank and its seven subsidiaries), the 14 nationalised banks and two other Indian Banks. The Lead Bank is responsible for surveying the resources potential for expansion of branches and diversification of credit facilities in the districts allotted to it. While other banks are not precluded from opening branches, the Lead Bank is expected to act as the consortium leader and invoke the cooperation of the other banks operating in the district in mobilisation of deposits, locating actual and potential credit needs and catering for these banks. In allotting districts for the Lead Bank role, the Reserve Bank has kept in view the factors of contiguity for ensuring viability of operation, provision of control points for developmental work and branch expansion as also a broad correspondence between the responsibilities allocated in terms of number of districts and the resources base of each bank.

4.25 Having regard to the above mentioned facts, we recommend that the Lead Bank* of each district should have the overall responsibility of integrating the provision of farm credit with supply of inputs and services. Specifically, the Lead Bank will perform the following functions:

i) It will designate the bank branch (either its own or that of another bank) with which each Society will have banking transactions and will lend for developmental financing in the area.

ii) It will initiate and assist the functioning of the Farmers' Service Societies.

iii) It will formulate guidelines for:

a) grant of loans to members by each Society;

b) giving finance to the society by each bank branch, both for loans to members and Society's commercial transactions; and

c) giving finance to viable units for supply of inputs and services;

iv) It will ensure that bank finance is available for suppliers of inputs and services organised on commercial lines.

v) It will contribute share capital, and a part of the pay bill for extension staff, to each Society. It will also advise each Society on the selection of the managerial and extension staff and participate in the Board of Directors.

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* It is possible that the Lead Bank responsibilities may be reallocated between the major banks to have a more equitable distribution and also to include selected District Central Cooperative Banks for districts in which they are the premier banking institution. Some metropolitan-based large banks may also want to have special subsidiaries for promotion of banking in their lead districts in under-developed States.

Linkage with other Agencies

4.26 An integrated agricultural credit system based on the concept of credit service, economic viability and development of borrowers to self-sufficiency for working funds would envigorate the process of capital formation in the rural economy. It would facilitate both resource mobilisation and investment. The primary aim of the integrated credit system is to provide to the farmer one contact point for obtaining his credit and input requirements. Besides cooperatives, there are certain other agencies which could render credit assistance to the small and marginal farmers. The Land Development Bank, for instance, will act as a service agency for handling land development work and works connected with prevention of soil erosion, drainage, digging of wells, etc. for members of each Farmers' Service Society, and it will thus assist conversion of medium/long term loans granted by banks into productive assets. Further, Agro-Industries Corporations have been set up in several States with the objective of providing means for modernising agricultural operations and undertaking distribution of agricultural machinery. These Corporations should act as promoters and initiators of processing industries, keeping in close touch both with each Service Society and the district union. The Food Corporation of India and other commodity corporations could also render assistance and use the district union of the Farmers' Service Societies as their agency for procurement, storage and despatch of their purchases.

4.27 We, therefore, recommend that institutions, like Land

Development Banks, State Agro-Industries Corporations, the Food Corporation of India, etc. should play a vital supporting role in offering services to farmers to absorb credit for productive purposes. In this connection, we tentatively suggest that proper linkage should be developed between the credit structure envisaged by us and these agencies. We shall examine the role of these agencies in agricultural development in general, and in agricultural credit in particular, in subsequent Reports.

Refinance for Commercial Banks

4.28 The Commercial Banks should have access to refinance from the Agricultural Refinance Corporation and the Life Insurance Corporation in respect of long-term loans to the Service Societies (for their own operations as well as for their members) and their Union. Where the object of the financing would have qualified a cooperative credit organisation for allotment of funds at concessional rates of interest, from the Reserve Bank of India allocation for agricultural credit, the Commercial Banks must have access to these funds for their short and medium-term lending to the Service Societies. We are of the view that what is relevant is the end object of the loan and not the channel through which it is distributed. The fact that a commercial bank comes in the chain of operations instead of a Cooperative Bank should not deprive the loanee and particularly the small and the marginal farmer and the agricultural labourer from the special benefits of the concessional credit given by the Reserve Bank of India.

4.29 As already stated, the small and marginal farmers hold 19% of the cultivated area. Assuming that the per acre credit needs of the small and marginal farmers will be double that of others, and taking note of the fact that the requirements of agricultural labourers are also to be met, it is but appropriate that at least 40% of the total agricultural credit should go to the small and marginal farmers and agricultural labourers. In this context, it may even be necessary to lay down a broad guideline at the national level that at least forty per cent of the funds allocated for agricultural credit by Reserve Bank of India as also of commercial bank loans to agriculture, should go to the small and marginal farmers and agricultural labourers, along with organisation of facilities to enable them to use the funds productively. Based on the experience gained in the implementation of this programme, the reservation of finance for these categories of rural population may have to be raised further in subsequent years. The Farmers' Service Society at the tehsil/block level should be able to get all the facilities available under the different schemes for benefiting the small farmers, marginal farmers, and agricultural labourers, and the special programmes for animal husbandry, village artisans, etc. In any case, it is necessary that the full requirements of funds needed by the tehsil/block Farmers' Service Societies should be made available by the banking system and that they should not be subjected to

any restrictions in the availability of credit due to credit squeeze or other contingencies.

Agricultural Development Bank

4.30 We are tentatively of the view that it might be ultimately necessary to set up an Agricultural Development Bank of India on the lines of the Industrial Development Bank of India (IDBI) to consolidate the expertise and experience of various agencies, such as the Agricultural Credit Department of the Reserve Bank of India, the Agricultural Refinance Corporation and Agricultural Finance Corporation into a single national organisation directing the flow of agricultural credit according to needs, for full utilisation of land and manpower. Besides refinance facilities, the proposed Agricultural Development Bank of India could provide the initiative and expertise for project-oriented lending after special studies and surveys on regional and commodity-wise basis. This is being further examined in the Commission.

Training and Supervision

4.31 Training and supervision are the two essentials for the proposed integrated agricultural credit service. We, therefore, recommend that a suitable programme should be evolved to provide trained personnel to the institutions responsible for the service. Specialists should be employed by banks, and the agricultural universities and extension organisations should help them not only in training such personnel, but also in locating the experts who could help the banks in the training programme.

4.32 We also recommend that besides training, adequate supervision should be arranged to ensure supply of inputs and adoption of improved practices by the farmers in the area so that credit goes to the small and marginal farmers and agricultural labourers, and thereby help them in increasing their levels of income. It may be noted that the system of supervised credit might make it compulsory for the farmer to buy his inputs from a particular source. There might be an argument that making it compulsory for the farmer to deal with a particular source of supply might result in his exploitation. The successful working of the Society and the integrated credit system would require this type of discipline. Care would, however, have to be taken by the banking system to see that neither the membership is denied to small and marginal farmers and agricultural labourers nor any element of exploitation is allowed to affect their interests adversely.

Phased Action Programme

4.33 We recommend that the formation of Farmers' Service Societies at the tehsil/block level and the District Union of these societies as also their linkage with the Lead Bank and other institutions may first be tried out in the 46 SFDA districts and 41 MFAL districts. The operation of these arrangements in these 81 districts (6 districts being common to both the projects) should be carefully studied and with suitable adaptations found necessary from experience gained in these districts, the arrangements could be extended every year to cover more districts at a rapid pace.

Section V

Acknowledgements

5.1 The Commission wishes to place on record its deep appreciation of the work done by the Members of the Study Team on Agricultural Credit and in particular of the commendable work done by Dr. N.C. Mehta, Director, National Institute of Bank Management, who is the Convenor of the Study Team. He and his colleagues, particularly Prof. B.M. Ghiara, have put in considerable efforts not only in getting the various notes etc. ready for the meetings of the Study Team but also in preparing draft proposals for consideration by the Commission.

5.2 We also wish to record our appreciation of the work done by Shri Sada Nand, Joint Director, who has helped in the preparation of the Report. Our thanks are also due to Shri M.L. Manrai, Assistant Director and Shri K.P. Sharma, Technical Assistant of the Research Division who assisted in this work as well.

Sd/- B. Sivaraman
Vice-Chairman

Member	Member	Member
Sd/- S.K. Mukherjee	Sd/- Z.A. Ahmed	Sd/- B.S. Nag
Sd/- H.R. Arakeri	Sd/- M.S. Swaminathan	Sd/- A.M. Khusro
Sd/- P. Bhattacharya	Sd/- D.P. Singh	Sd/- Hari Singh
Sd/- Randhir Singh	Sd/- T.A. Pai	Sd/- N.K. Panikkar
Sd/- M.V. Krishnappa		Sd/- Rattan Singh

Sd/- J.S. Sarma
Member Secretary

New Delhi
30th December 1971

APPENDIX I

Composition of the Study Team on Agricultural Credit

1. Shri T.A. Pai Chairman Life Insurance Corporation of India Bombay and Member N.C.A.	Chairman
2. Dr. A.M. Khusro Director Institute of Economic Growth Delhi and Member N.C.A.	Member
3. Dr. N.C. Mehta Director National Institute of Bank Management Bombay	Convenor
4. Shri Ghulam Ghouse Joint Chief Officer Credit Planning and Banking Development Cell Reserve Bank of India Bombay	Member
5. Shri J.S. Varshneya Chief Officer (Agricultural Credit) State Bank of India Bombay	Member
6. Shri B. Rudramoorthy Managing Director Agricultural Finance Corporation Bombay	Member
7. Dr. D.K. Desai Indian Institute of Management Ahmedabad	Member
8. Shri C.V. Ramachandran Financial Adviser Food Corporation of India New Delhi	Member

APPENDIX II

Short and Medium-term advances by the Reserve Bank of India - Limits sanctioned, drawals and outstandings - 1960-61 to 1970-71

(Rs. in crores)

Year	Short-term loans		Medium-term loans*		
	Limits sanctioned	Outstandings	Limits sanctioned	Drawals	Outstandings ±
1960-61	111.79	100.68	4.68	5.69	8.81
1961-62	138.18	115.20	9.56	7.39	11.67
1962-63	163.94	124.28	9.31	4.18	10.56
1963-64	186.21	146.54	14.01	7.45	13.00
1964-65	199.86	150.51	14.39	7.91	14.32
1965-66	212.66	143.67	14.11	7.45	14.96
1966-67	257.50	135.38	15.49	8.37	15.41
1967-68	314.15	137.17	16.57	9.12	16.47
1968-69	337.52	183.09	19.00	8.98	17.60
1969-70	370.16	214.11	16.30	11.48	20.45
1970-71	390.11	188.84	18.76	14.20	24.31

* Medium-term loans granted by Reserve Bank of India to State Cooperative Banks out of National Agricultural Credit (Long-term Operations) Fund

± Cumulative outstandings including previous years' loans

Source: Reserve Bank of India annual report and trend and progress of banking in India for the year ending June 30, 1971 - Pages 97-98

APPENDIX III

Amount of Credit taken by Different* Categories of Farmers according to size of Farm (Rs.) - 1969-70

Size of Farm	Participants		Non-participants				Total	
			IADP		Non-IADP			
	Total	Per farm family	Total	Per farm family	Total	Per farm family	Total	Per farm family
1	2	3	4	5	6	7	8	9
Below one acre	1,000	1,000	175	175	-	-	1,175	588
1 to 2 acres	14,478	1,609	1,900	475	-	-	16,378	1,260
2 to 3 acres	11,172	1,862	4,810	481	-	-	15,982	999
3 to 4 acres	13,240	1,655	4,249	607	684	342	18,173	1,069
4 acres and above	58,347	2,161	10,752	672	2,550	850	71,649	1,558
Total:...	98,237	1,926	21,886	576	3,234	647	1,23,357	1,312

* This includes credit taken plus assistance given under IAD Scheme. Assistance came to Rs.65,071 (66.2%)

Source: Indian Institute of Management, Ahmedabad. (Unpublished Study)

APPENDIX IV

Position of Disbursements by Commercial Banks under the Scheme of Financing of Primary Agricultural Societies by Commercial Banks as on 30 September 1971

(Rs. in lakhs)

State	No. of Socs. allotted	Kharif 1970		Average per socy.	Rabi 1970-71		Liabilities taken over
		No. of socs.	Amt.		No. of socs.	Amt.	
1	2	3	4	5	6	7	8
Andhra Pradesh	800*	374	156.51	0.42	130	39.20	-
Uttar Pradesh	158@	87	20.84	0.24	82	14.65	34.64
Haryana	260	103	38.73	0.38	68	26.02	115.63
Madhya Pradesh	305	223	30.15	0.14	136	13.73	62.56
Mysore	646**	366	99.10	0.27	60	10.23	-
Grand Total	2169	1153	345.33	0.30	476	103.83	213.03

cont..below

	Kharif 1971		Average per socy.	Rabi 1971-72+		Medium-term loans disbursed		
	No. of socs.	Amt.		No. of socs.	Amt.	No. of societies 1970-71	1971-72	Amt.
	9	10	11	12	13	14	15	16
Andhra Pradesh	274	158.26	0.58	5	1.31	14	10	5.35
Uttar Pradesh	82	27.52	0.33	8	0.78	15	2	1.83
Haryana	116	62.29	0.54	29	5.63	19	[illegible]	25.76
Madhya Pradesh	202	58.87	0.29	-	3.66	36	[illegible]	[illegible]
Mysore	436	146.85	0.34	9	2.45	7	10	2.18
Grand Total:	1110	453.79	0.41	51	13.83	91	167	62.16

* Including 127 additional societies selected for 1971-72

** Including 236 additional societies selected for 1971-72

@ Excluding 16 societies allotted during 1971-72

\+ Incomplete

COUNTRY PROGRAM

THE COOPERATIVE SYSTEM OF SMALL FARMER CREDIT IN SRI LANKA

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by:
Godfrey Gunatilleke, et al
Marga Institute
Sri Lanka Centre for
Development Studies

Colombo
December, 1972

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INTRODUCTION

The Credit Schemes that are described in this Study have been designed to serve the credit needs of peasant farmers for agriculture which is organised principally around the cultivation of paddy. However, although the focus of the Credit Scheme has been on paddy it has covered other subsidiary food crops which were part of peasant agriculture such as chillies, onions and potatoes. Paddy has been the major crop in small holding agriculture. It already covered an extent of approximately 913,000 acres in 1946 steadily expanding to an acreage of 1,765,000 in 1970. The total number of operational holdings in 1970 has been estimated at 836,000. The small holding agriculture based on paddy was distributed throughout the Island although paddy had greater importance in some regions than in others. The Agricultural Credit Schemes that are discussed, therefore, had a nationwide coverage.

The credit available to the small farmer came from several sources. The schemes organised by the Government for the provision of credit for the farmer's agricultural activities was one such source. In the total credit system in the rural sector, non-institutional credit from professional and semi-profession lenders, private traders, the more prosperous farmers in the community, friends and relations loomed large as sources of credit and accounted for a major portion of the credit obtained, as would be described in the body of the report. The scheme of credit organised by the Government attempted to reduce the dependence of the farmer on non-institutional sources of credit which are usually available on terms much less favourable than those of Government sponsored schemes and most often extortionate in character.

The Agricultural Credit Schemes reached a significant scale of operations in the period following the achievement of independence in 1947. Under these schemes the main item has been the short-term credit provided to farmers to meet their requirements of working capital for

agricultural operations during the cultivation season. They were usually expected to repay the loans with the proceeds from their harvest. The volume of credit at the commencement of the Scheme was small but eventually increased to a considerable magnitude. As will be described later in the Study, the schemes underwent significant modifications during the period 1947 to 1971. Of these major re-organisations and modifications the most important were those that were undertaken in 1963 and in 1967. It would be seen from the later sections of this Study that the re-appraisal and re-structuring of these credit schemes were necessitated mainly by the poor rate of recovery of the credit granted and the consequent reduction in the participation in the schemes as defaulting farmers became ineligible for further credit and dropped out of the scheme. During the operation of these Government sponsored schemes, there is evidence to indicate that the large bulk of the farming community still continue to depend heavily on non-institutional sources of credit for both agricultural as well as non-agricultural purposes.

[illegible] the commencement the loans under the schemes of agricultural [illegible] by the Government had been channelled to the farmers through [illegible] Co-operative Societies of which the farmers were members. Initially there was a marked degree of specialisation in the Co-operative Movement [illegible] separate societies were organised for agricultural credit, thrift [illegible] and sales, retail distribution and so on. These were subsequently replaced by Multi-purpose Co-operative Societies which undertook several functions in the farming communities. The Co-operative Movement itself has been undergoing several reorganisations during the period under review; the most significant of these are the establishment of Multi-purpose Co-operative Societies in 1957 and the amalgamation of Primary Co-operative Societies to provide for greater efficiencies and better economies of scale implemented in 1971. Among the several functions undertaken by the Multi-purpose Co-operatives are retail distribution of

consumer goods, distribution of farm inputs such as fertilisers, seed material and agro-chemicals, purchase of farming products, rural banking and the supervision of credit under the Agricultural Credit Schemes.

Until 1963 the Agricultural Credit Schemes were administered by Government Departments which used the Co-operative Societies as the lending agencies to provide the credit to the farmer. The Co-operative Societies obtained their loans from the Government and re-lent to the farmers in accordance with approved Credit Schemes. Subsequently the lending operation was taken over from the Government Departments by the People's Bank which was a State bank established by the Government in 1961 with the primary object of promoting banking in the Co-operative and rural sectors. In 1967 the Government made it possible for the entire commercial banking system to participate in the Agricultural Credit Schemes under which loans are granted through Co-operative Societies to individual farmers for their agricultural activities. This was done by means of a guarantee given by the Central Bank of Sri Lanka under which the Central Bank undertook to re-finance losses incurred by the banks in the operation of the loan schemes up to a limit of 75%. However, this guarantee has not resulted in any increased participation by the banking system, and the People's Bank continues to be the sole commercial bank providing credit under the Agricultural Credit Schemes.

The first Government sponsored scheme for providing institutionalised agricultural credit began in 1947. The rate of participation of farmers in Agricultural Credit Schemes sponsored by Government fluctuated sharply during the period of their operation. It is difficult to make an accurate estimate of the rates of participation but it is possible that during the peak periods credit would have reached about 35 to 45 percent of the farmers who were in need of credit. According to available data the majority of paddy cultivators operated on holdings less than two acres,

although most of the paddy cultivators with holdings less than one acre would not be exclusively dependent on their paddy holdings but would have other sources of livelihoods as well. However the structure of holdings draws attention to some of the major problems confronting paddy farmers. The size of the holdings was small and unless cultivated at a very high level of technology, would not bring yields that would produce a reasonable income. At the same time technological inputs to increase productivity required resources which the farmer was often unable to mobilise. Therefore for this purpose he had to depend heavily on credit. Government Schemes of credit were available for specific agricultural purposes and did not cover all his needs. Consequently, farmers most often resorted to private non-institutional sources of credit which were very costly in regard to rates of interest.

The risks of cultivation in most areas was high as an assured supply of water were not often available. The risks were minimised in the case of paddy land which was served by large irrigation schemes but in rainfed areas as well as areas served with minor irrigation works weather was a critical variable. In facing these problems, Government's approach to the problems in the peasant sector was to develop a package programme which provided extension services to transmit new scientific methods, establish marketing schemes with guaranteed price for its produce, organise the supply of fertiliser, seed material, agro-chemicals and tractor services and provide agricultural credit to enable farmers to make full use of the package programme. Agricultural credit was therefore one element in the package programme. However as will be seen in the Study the scheme of agricultural credit was limited in its coverage and ran into numerous problems during its operations. Even so the Agricultural Credit Schemes during the period of peak operations augmented the resources of the farmer and enabled him to raise his technological level which he attempted to maintain in subsequent years even when he dropped out of the government credit schemes.

OFFICIAL EXCHANGE RATE BETWEEN U.S.DOLLAR AND CEYLON RUPEE, 1945-1972.*

(Rupees per Dollar, End of Year)

(Selling Rate)

Year	Rate	Year	Rate
1945 ...	3.322	1959 ...	4.762
1946 ...	3.315	1960 ...	4.745
1947 ...	3.315	1961 ...	4.752
1948 ...	3.315	1962 ...	4.750
1949 ...	4.775	1963 ...	4.757
1950 ...	4.775	1964 ...	4.770
1951 ...	4.785	1965 ...	4.772
1952 ...	4.762	1966 ...	4.775
1953 ...	4.762	1967 ...	5.850
1954 ...	4.795	1968 ...	5.850
1955 ...	4.772	1969 ...	5.952
1956 ...	4.800	1970 ...	5.952
1957 ...	4.765	1971 ...	5.952
1958 ...	4.760	1972 ...	5.947

* The rupee has been officially fixed at Rs 13.33 rupees per pound sterling since 1941; dollar-rupee rates thus fluctuate only as the dollar-sterling rate in London varies.

THE CO-OPERATIVE SYSTEM OF SMALL FARMER CREDIT IN SRI LANKA (CEYLON)

Programme Characteristics

A. Background

1. Agricultural Patterns and Potential

The dualistic structure of Sri Lanka's economy is clearly reflected in the country's agricultural sector. Of the 4.6 million acres of agricultural land, approximately 2.3 million acres are cultivated with perennial tree crops — tea, rubber and coconut which are the country's principal exports. The major portion of these crops is managed as large scale or medium scale plantations. These agricultural activities in the plantation sector form the modern sector in agriculture. Their scale of ownership and operations, the corporate form of organisation adopted by them, methods of management that had been developed, the levels of productivity achieved, all share the characteristics of a modern commercial enterprise. There is, however, a sizable acreage cultivated in these crops which are in small holdings of which the major portion is in coconut. The ownership of these holdings is distributed among persons who are dependent mainly on agriculture for a livelihood as well as others in the middle class who have non-agricultural sources of income or employment.

But when account is taken of these small holdings, the agriculture of the small farmers in the country which could be regarded as being in the traditional or non-modern sector is primarily dependent on the cultivation of paddy. The economy of the peasantry or the small farmer community is organised around this crop. In this sector the size of holdings is small, and at the lower end becomes even uneconomic. The levels of productivity are low. The technology is in the process of change from subsistence agriculture to commercial scientific farming and the production is for the domestic market. The agricultural credit

schemes described in this study have principally served the peasant sector organised around the cultivation of paddy. The total acreage under paddy was estimated at 1,765,000 acres in 1970. The pattern of land use in Ceylon is indicated in Table I.

TABLE I

LAND USE IN CEYLON

		Thousand acres
Total Land Area		15,998
Plantation Crops:		
Tea	592	
Rubber	669	
Coconut	1,152	
Sugar	15	2,428
Peasant Crops:		
Paddy	1,249	
Other	508	1,757
Forest		8,208
Grassland		1,053
Other		2,552

Source: Department of Census and Statistics - Statistical Abstract of Ceylon, 1965;

Census of Agriculture 1962; also FAO/IBRD Report on the Irrigation Programme Review, Ceylon - Appendix 2a;

O.E.C.D. Studies - Agriculture in Ceylon until 1975 by P. Richards and E. Stoutjesdijk (p. 46).

The regional distribution of paddy land, which as stated earlier forms the mainstay of the peasant community, is shown in Table II which should be read with the subjoined Map.

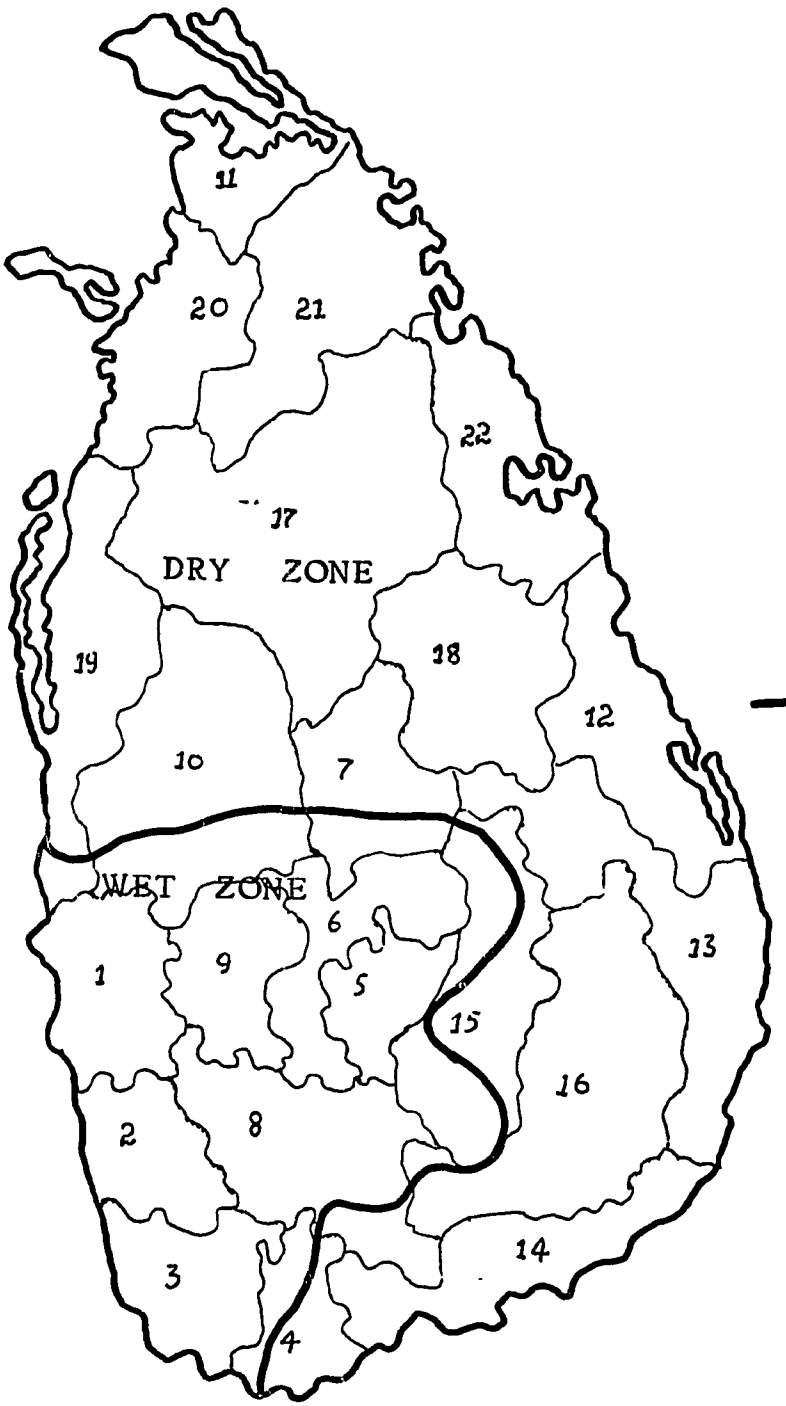
TABLE II

THE REGIONAL DISTRIBUTION OF PADDY LANDS — 1970/71

District				Extent under cultivation for Maha and Yala (Acres)
CEYLON	...	...	...	1,793,610
Colombo	...	...	...	87,886
Kalutara	...	...	...	83,790
Kandy	...	...	...	86,440
Matale	...	...	...	41,316
Nuwara Eliya	...	...	...	29,447
Galle	...	...	...	89,744
Matara	...	...	...	90,702
Hambantota	...	...	...	70,864
Jaffna	...	...	...	90,060
Mannar	...	...	...	43,457
Vavuniya	...	...	...	53,701
Batticaloa	...	...	...	103,892
Amparai	...	...	...	142,269
Trincomalee	...	...	...	55,861
Anuradhapura	...	...	...	165,055
Polonnaruwa	...	...	...	109,210
Kurunegala	...	...	...	224,721
Puttalam	...	...	...	34,551
Badulla	...	...	...	43,088
Moneragala	...	...	...	23,840
Ratnapura	...	...	...	74,008
Kegalla	...	...	...	49,708

Source: Department of Census and Statistics.

1. Colombo
2. Kalutara
3. Galle
4. Matara
5. Nuwara Eliya
6. Kandy
7. Matale
8. Ratnapura
9. Kegalle
10. Kurunegala
11. Jaffna
12. Batticaloa
13. Amparai
14. Hambantota
15. Badulla
16. Moneragala
17. Anuradhapura
18. Polonnaruwa
19. Puttalam
20. Mannar
21. Vavuniya
22. Trincomalee



75" mean annual Isoheyt denotes division between wet and dry zones.

While paddy is the major crop of the peasant farmer, there are other components in the peasant agriculture which need to be mentioned to complete the picture. One region in the country, the Northern limestone belt has developed a different pattern of small-holding agriculture based on intensive dry farming with such crops as chillies, onions, potatoes, and vegetables. In this pattern of agriculture paddy is relatively unimportant. In selected parts of the country, peasants have been persuaded to take to the cultivation of tobacco through the efforts of the Ceylon Tobacco Co. and a small community of prosperous farmers has been developed around this crop. In peasant farming based on paddy, the pattern of agriculture combines the traditional cultivation of paddy on permanent irrigated or rain-fed holdings together with shifting cultivation in the forest land surrounding the permanent village settlement. This type of farming was based on rain-fed highland crops such as Indian corn, chillies, vegetables etc. and still continues to form part of peasant farming. Such shifting cultivation, however, is characterised by wasteful use of the land and low levels of productivity.

In the 1960's the Government's efforts at development of peasant agriculture were directed among other things at the systematic diversification of peasant farming with cropping patterns which would have weaned the farmer dependent on a single crop — paddy. The Government's import policies which led to the restriction or ban on the imports of a range of subsidiary food items, resulted in attractive prices for crops such as chillies, onions, potatoes, pulses. The Government's efforts at the diversification of peasant farming are beginning to take effect.

The paddy crop is normally cultivated in Ceylon in two seasons which are known as Maha (major) and Yala (minor) seasons. These two seasons differ in different parts of the country depending on the agro-climatic

zones. The country falls into two major agro-climatic zones — the wet zone and the dry zone. Out of the total area of 16.2 million acres, approximately one-third falls into the wet zone and the balance into the dry zone (vide map). In the dry zone the Maha, which is the major season, begins by about October. The sowing takes place at about this time of the year and the crop is harvested from about February of the following year. The Yala season in the dry zone begins by about March and the crop is harvested in July or August of the same year. Districtwise differences in the season are given below:

Maha	Yala	Districts
July to February	March to June	Colombo, Kalutara, Galle, Matara, Ratnapura, Kandy, Kurunegala, Puttalam, Kegalle
November to May	June to October	Badulla
September to February	March to August	Hambantota, Mannar, Vavuniya, Batticaloa, Amparai, Trincomalee, Anuradhapura, Polonnaruwa, Moneragala.

It is only in the areas with an assured supply of water for both seasons that there is double cropping of the paddy land. These areas fall into the wet zone with an average rainfall of 100 to 200 inches, with a satisfactory distribution during the year and parts of the larger areas which are served by major irrigation reservoirs which are capable of supplying water needed for paddy cultivation during both seasons. In the dry zone of Ceylon, that is the Northern, Northwestern and Eastern parts, irrigation from reservoirs is required for paddy during both seasons. In the Maha season it has to supplement an average rainfall

of 30 to 40 inches and in the Yala season it has to supply almost the entire water requirements.

By the year 1946 approximately 70% of the total land area in the wet zone had gone under agricultural use. The higher population density in this area has carried approximately 85% of the population. In sharp contrast to the agricultural and demographic characteristic of the wet zone only 11% of the total land area was in agricultural use in 1946. With the pressure of population in the wet zone and the potential for new land development in the dry zone there has been a significant movement of population from the wet zone to the dry zone. Up to the Maha season of 1970/71 approximately 669,715 acres of paddy land have been developed under several irrigation schemes which were implemented by Government. Two of the River Valley Development Schemes undertaken by the Government were Gal Oya in the Eastern part of the country and Uda Walawe in the Southern region of the country. Over a long period, the agriculture in these colonisation schemes on which much investments have been made were not significantly different from the rest of the peasant farming. The methods of cultivation and the levels of productivity were, if at all, only marginally better than those of the traditional subsistence farming. However, in the sixties, the Government's extension efforts and the development that formed part of the green revolution were more effective in the new agricultural settlements where agricultural holdings were of an economic size and where relatively assured supply of water was available.

The potential of small holding agriculture is two-fold. First, there is considerable scope for increasing the level of productivity, diversifying the cropping pattern, modernising agricultural activities and substantially increasing farm incomes in <u>already cultivated land</u>. Second, there are large tracts of undeveloped land in the dry zone which are available for agricultural use with adequate investment in

the infrastructure including irrigation. The total area still available for agricultural use has been estimated at around 3 million acres. A major River Valley Development Scheme based on the water resources of the largest river in the country, the Mahaveli, plans to bring approximately 600,000 acres of new land under irrigated cultivation and supplement the water supply for another 300,000 acres of land already cultivated which is not being utilised to the maximum on account of the shortage of water. The future development of peasant agriculture will, however, require greater diversification in cropping. By 1976 the country hopes to achieve self-sufficiency in rice. The potential for import substitution in paddy would, therefore, have been exhausted by 1976 and the cropping pattern for new land that would be brought under cultivation would have to give increasing importance to other crops. The possibilities for import substitution in other crops are considerable. Subsidiary foodstuffs such as chillies, onions and pulses have been imported into the country in large quantities. A programme of import substitution in these crops is in progress.

Although the major industrial programme is being implemented to achieve self-sufficiency in textiles the local production of cotton has been negligible. Substantial extents of land in the dry zone are agro-climatically suited for the cultivation of cotton under irrigation conditions. Approximately 95% of the sugar consumed locally is being imported. There is, therefore, substantial scope for the cultivation of sugar cane. Other crops which are part of the Five Year Plan for the agricultural sector include soya bean, cassava, sunhemp, castor and cashew.

As agriculture has shown steady progress during the last two decades, levels of productivity have increased both in regard to land and labour. Crop intensity in paddy for the whole Island has increased approximately from 1·08 in 1953 to approximately 1·27 in 1970. High

yields and high rates of production increases have been recorded in the thickly populated hill country, in parts of the wet zone, and certain districts in the dry zone. The yield per acre increased from 19 bushels per acre in 1946 to 44 bushels per acre in 1970. The production per unit of employment increased from 58 bushels in 1953 to 116 bushels in 1970. The increases in productivity of paddy were due to a combination of several factors. With the extension efforts of the Government, farmers became more receptive to improve agricultural practices such as application of fertiliser, weedicides, transplanting etc. The research on paddy developed new varieties such as H4, H8, BG.11-11 which increased the yields of the paddy crop. Expansion and improvement of the irrigation system assured a better supply of water and increased the cropping intensity. The Guaranteed Price Scheme which was in operation from 1944 together with the marketing arrangements for the Government purchase of paddy provided the farmer with a relatively stable market for paddy. Paddy, therefore, was one of the growth sectors in the economy during the period 1950 to 1970. It figured prominently in the programme of import substitution. In the 60's when the country moved into a serious foreign exchange crisis the performance of the small farming community had a critical influence on the management of the foreign exchange budget and the economy as a whole. The steady improvement of the small scale peasant sector in the economy of the country was a significant development in the 60's. It impelled the peasant or domestic agricultural sector into the centre of the economic scene and to that extent helped in reducing the dualism in the structure of the economy that prevailed in the past.

2. Profile of Farm Community

As described in the previous section, there are regional variations in the agriculture of the small farmer community depending on agro-climatic

factors and the cropping patterns appropriate to them.

In the wet zone approximately 4·2 percent of tea, 43 percent of rubber and 66 percent of coconut is cultivated in small holdings below 25 acres. In the wet zone the peasant farming based on small holdings exists alongside the large-scale plantation agriculture. This is particularly applicable to coconut and rubber as well as tea, grown in the southern parts of Sri Lanka at low elevations. In regard to tea grown in the hill country, the tea plantation covers very large areas of land in single contiguous extents and within such areas peasant communities based on small-holder farming would be few and far between.

In contrast almost the entire dry zone consists of small holdings owned by small farmers. Few exceptions are certain hereditary holdings under feudal forms of ownership such as land belonging to temples which though owned in large scale holdings are yet operated by tenants in small lots. These however do not constitute a significant proportion of the agricultural land. The typical holding in paddy in Ceylon is less than 2½ acres in extent. A feature of these holdings is their undivided ownership and fragmentation. Whilst some cultivation is done on a tenancy or share cropping basis, the farm size differs very widely and there is no homogeneity in the size of holding in different parts of the country. Table III depicts the number of paddy lands classified according to tenure and size of holding[1] as at the end of 1969. It contains data relating to the farm size, number of owner operators, owners hiring labour and owners who had their lands cultivated on a crop sharing basis known as "ande" cultivation. Table IV summarises the distribution

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1 An agricultural holding as defined in the Census of Agriculture, 1962, is the operational holding - the basic unit of enumeration at the Census. "All land which was used wholly or partly for agricultural production and formed a single technical and economic unit, operated or managed by one person alone, or with the assistance of others, without regard to title, size or location was enumerated as one agricultural holding."

of the total number of owners and operators of paddy land according to size class as at the end of 1969.

TABLE III

NUMBER OF OWNERS OF PADDY LANDS CLASSIFIED ACCORDING TO TENURE AND SIZE OF HOLDING

Size Class in Acres	Owner Operators		Owners hiring labour		Owners giving on 'Ande'*		Total	
	Number	No. in each size class as percentage of total No. of owners	Number	No. in each size class as percentage of total No. of owners	Number	No. in each size class as percentage of total No. owners	Number	No. in each size class as percentage of total No. of owners
Less than ½	210,021	26.2	1,637	0.2	74,205	9.3	285,863	35.7
½ - 1	158,216	19.8	2,611	0.3	74,425	9.3	235,252	29.4
1 - 2	90,402	11.3	1,616	0.2	45,187	5.6	137,205	17.1
2 - 5	91,945	11.5	1,137	0.1	20,822	2.6	113,904	14.2
5 - 10	17,954	2.2	323	0.0	4,873	0.6	23,150	2.9
Over 10	3,259	0.4	153	0.0	1,994	0.3	5,406	0.7
Total	571,797	-	7,477	-	221,506	-	800,780	-

* On the basis of the share of the produce.

Source: Department of Agrarian Services.

TABLE IV

TOTAL NUMBER OF OWNERS AND OPERATORS OF PADDY LAND ACCORDING TO SIZE CLASSES

Size Class in Acres	Total Number of Owners		Total Number of Operators		Extent of Paddy land in Acres
	Number	No. of owners in each size class as a percentage of total owners	Number	No. of operators in each size class as a percentage of total owners	
Under ½	285,863	35.7	289,766	34.7	97,054
½ - 1	235,252	29.4	253,581	30.3	170,992
1 - 2	137,205	17.1	148,543	17.8	.252,335
2 - 5	113,904	14.2	117,491	14.0	439,978
5 - 10	23,150	2.9	22,388	2.7	192,860
Over 10	5,406	0.7	4,439	0.5	119,721
Total	800,780	-	836,208	-	1,272,940

Paddy extents in each size class were not collected and have been computed from available information.

Source: Department of Agrarian Services.

The Table indicates that 65.1 percent of the operators hold land less than one acre. The percentage increased to 72.2 per cent for holdings less than two acres. 96.9 percent of the total number of operators had holdings less than five acres. This signifies the preponderance of small holdings and the importance of the small peasant farmer in the traditional agricultural sector. It should be noted that "operator" is not synonymous with 'owner'. However, from the patterns of ownership that are observed it could be presumed that operational holdings below five acres generally belong to one owner. On this basis approximately 97 percent of the operators with holdings less than five acres had 76 percent of the land area whilst 3.1 percent of them had 24 percent of the land area. The large majority of paddy farmers were owner operators, and the extent of paddy land cultivated by this group of farmers amounted to approximately 75% of the total extent of paddy. The figures presented in Table IV indicate the degree of fragmentation of land in this sector. Approximately 34% of the operators held land in extents of less than ½ an acre. However the structure of holdings has been relatively stable during the last two decades, and there has been no progressive or increasing fragmentation of land. In several districts various modes of joint ownership were in operation and helped to retain the size of the operational holding. Under these systems rights of cultivation were rotated among several owners, each of whom enjoyed the benefits of his ownership once in a number of years, depending on the number of owners.

The major tenurial reform implemented by Government was the Paddy Lands Act of 1958. This Act was primarily concerned with regulating the relationship between tenant cultivator and landlords. It was designed to afford a greater measure of security to the tenant as well as create an institutional framework which would enable cultivators to organise

themselves in Cultivation Committees and manage various aspects of paddy cultivation. Among other changes introduced into the paddy sector, it vested in a tenant cultivator the right of undisturbed occupation of the holding he cultivated provided he maintained a satisfactory standard of cultivation and paid the stipulated rent which was normally 25 percent of the crop.

The beneficiaries of the government sponsored agricultural credit schemes which are described in the study were mainly the paddy cultivators. The Scheme covered other subsidiary products as well; the farmers in the North of Ceylon whose agriculture consisted mainly of highland farming based on these crops participated in the scheme. But the major share of the credit was utilised for paddy cultivation. It is difficult to make an accurate estimate of the extent of participation in the government sponsored schemes with the data available. There is evidence that farmers continued to rely heavily on non-institutional sources of credit for both agricultural and non-agricultural needs. These aspects will be discussed later in the study. At this point it might be mentioned that access to the institutional credit schemes was generally available to all small farmers. The co-operative network through which the credit was channelled effectively covered the entire Island and the farmers through their co-operative societies could apply for and obtain credit provided they satisfied the criteria of eligibility that were stipulated.

There were no credit schemes which covered the small holders in the plantation crops. One other crop which enjoyed a well-organised scheme of credit was tobacco. The cultivation of this crop was organised by private sector enterprise — the Ceylon Tobacco Company, a firm manufacturing cigarettes, which supervised the small holders and supported them with a "package-programme" which included credit.

3. Historical Summary

(a) Management of Agricultural Credit from 1947 to 1970

Government action for the provision of institutionalised agricultural credit began in 1947. The Government came forward with a plan in 1947 to establish Co-operative Agricultural Production and Sales Societies (commonly known as CAPS Societies). The scheme consisted in organising societies of agricultural producers, for the purpose of granting loans for agricultural production, the supply of manure, seed, chemicals and various other agricultural inputs, and the marketing of the produce under a guaranteed price scheme.

These societies were financed by the Government through the Department of Land Development, and the risks of default were borne by the Government. In each District there was a District Agricultural Committee headed by the Government Agent, of which the Assistant Registrar of Co-operative Societies was a member. A food production programme was prepared for the area under each CAPS Society and after approval by the District Agricultural Committee, it became the basis on which the society was to be financed. Loan applications were recommended by the District Agricultural Committee and the Registrar of Co-operative Societies, before they were sent up to the Department of Land Development. At this stage, the Credit Scheme consisted of two types of credit — farm credit to farmers as well as marketing credit to the co-operative societies. The farm credit provided during this period included both short-term credit to meet the working capital needs of the agricultural operations as well as medium-term credit for acquisition of capital assets such as agricultural implements and machinery. Under the scheme of marketing loans to co-operative societies short-term loans were granted for working capital for their marketing activities. This scheme also provided for long-term capital loans for co-operative societies for capital items such as the construction of go-downs and stores for both consumer needs as well as agricultural inputs.

Up to 1952, the Scheme was administered by the Land Commissioner, using co-operative societies as credit agencies at the village level. During the period from 1947 to 1952, the Land Commissioner had disbursed Rs 29.7 million as loans out of which a sum of Rs 9·9 million or 33·3% was outstanding at the end of the period. The data available do not indicate the actual amount in default.

In 1952, the Agricultural Credit Scheme became the responsibility of the Department of Food Production. In the first year of administration of the scheme by this Department, the quantum of loans granted almost doubled over that of the previous year. In 1957 the management of the scheme was handed over to the Department of Agrarian Services which replaced the Department of Food Production. At that time loan disbursements under the scheme since its inception was Rs 112·2 million, the amount outstanding was Rs 19·4 million and the amount in default was 6·5 million. The defaults were only 5% of the total disbursements.

The credit scheme under the management of the Department of Food Production, at least as far as the recoveries go, did admirably well, when compared with the performance in later years. During this period there was also an almost steady increase in the annual volume of loans granted. Considering the period before the introduction of the new Agricultural Credit Scheme in 1967 the highest annual volume of credit was granted in 1956/57, the last years of operation of the credit scheme under the Department of Food Production.

With the management of the credit scheme by the Department of Agrarian Services the annual volume of credit started to decline and in 1962/63 it was half of the 1956/57 volume. Further, by 1962/63 the rate of default had reached a new high of 9·4% of the total disbursement. According to the estimates derived from a survey[1] conducted in 1962 by

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1 Survey of Coverage by Co-operative Societies reported in Administration Report of the Commissioner of Agrarian Services for 1962/63.

the Department of Census and Statistics and the Department of Agrarian Services, one-third of the Co-operative Societies were heavy defaulters on loans and as such were ineligible for credit under the scheme. The volume of credit was decreasing due to increasing defaults. The situation was so serious that the Ministry of Agriculture, Food and Co-operatives feared that its scheme to accelerate the adoption of improved practices which needed increased inputs and therefore better credit facilities, was in serious jeopardy. In 1963, the Ministry appointed a committee to examine the functioning of the scheme. The committee looked into the problem of expanding credit and the associated problem of defaults. Based on its recommendations the annual volume of agricultural credit was increased. However, no action was taken to implement the committee's proposals regarding the recovery of loans. The outcome of this scheme, in the words of a subsequent committee, was as follows:

> "The percentage of overdue loans has increased from about 9 percent on 30.9.63 to 11·4 per cent one year later and to 15·8 percent on 30.9.69. In the absence of effective measures to ensure the recovery of loans granted, the number of cultivators on whose behalf applications were received from Co-operative Societies during the Maha 1964/65 and Yala 1965 cultivation seasons even in areas which were not affected by drought, was less than the corresponding number received during Maha 1963/64 and Yala 1964. During the year 1964/65 the total number of societies which received loans from the Department was only 1,401, although during the same year the number of societies which functioned as purchasing agents under the Guaranteed Price Scheme was about three times that number." [1]

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[1] The Report of the Committee on Agricultural Credit submitted to the Minister of Agriculture and Food on 11.6.1966; unpublished document.

As a result of the report of this Committee, Government decided to reorganise the existing schemes and establish one credit scheme which was to be administered separately from other credit schemes so as to serve agricultural purposes exclusively. This scheme was put into operation in 1967 and has been referred to as the new Agricultural Credit Scheme. It will be so described in the rest of the report. In order to make this scheme as effective as possible and ensure a high rate of participation by farmers the Government decided to give a waiver of debts to farmers and co-operative societies which had previously defaulted in their loan repayments. The detailed manner in which this scheme operated will be commented upon in later sections of this report. As a result of this waiver of their debts from the introduction of the new Scheme, most farmers and co-operative societies became eligible for agricultural credit under this Scheme.

At present credit is provided under three separate Schemes:

(a) The extended credit scheme which was inaugurated in 1963 by the People's Bank,

(b) The Rural Bank Scheme which was inaugurated by the People's Bank in 1964. Multi-Purpose Co-operative Societies, each with a membership of about 300 and having a good record of loan repayment were generally selected by the People's Bank on the recommendations of the Co-operative Department as societies that were suitable for the opening of a Rural Bank within that society. 'Rural Bank' is the name given to the Loans and Savings Department of a Multi-Purpose Co-operative Society;

(c) The new Agricultural Credit Scheme which was introduced by the Government in 1967.

All three schemes are operated at village level, through Co-operative Societies and these cover the entire Island.

The People's Bank which was established in July 1961, is the chief financing agency for the co-operatives which operate these credit schemes. The People's Bank provides credit facilities to the co-operative societies for the purchase of consumer goods, purchase of agricultural produce under the Guaranteed Price Scheme, purchase of agricultural inputs to meet production requirements of the farmers and credit for agricultural purposes.

In addition to credit givenunder these three Schemes, the rural sector obtains a certain amount of credit from the Branch Bank network, specialised credit institutions and credit schemes operated by Government Departments for specific purposes and also from non-institutional sources.

The picture relating to rural credit will not be complete without mention of a recent development. In 1971, the government established a new institution to co-ordinate and promote development activity at the village level — the Divisional Development Council. This Council consisted of representatives of the main village institutions (such as the Local Government Authority at the village level, the co-operative society, the Rural Development Society, the Cultivation Committee) together with the government officials of the different development agencies working at the village level. These Councils were expected to formulate village development plans, monitor the implementation of government programmes, identify small-scale investment opportunities in their areas, and promote small scale enterprise on a co-operative basis. Approximately 500 such Councils have been formed and numerous small projects in the agricultural and industrial sectors have been formulated and submitted to government for financing. The government has implemented a scheme of financing by which part of the capital cost of these projects is given as an outright grant, and part as a repayable

loan through the People's Bank. The projects are being implemented primarily through the multi-purpose co-operative societies or through special co-operative societies established for their implementation and management. This is the first occasion on which credit has been channelled into the rural sector for capital development on as significant a scale. Up to date the majority of projects initiated under this scheme are in the agricultural sector; these include development of land for cultivation of subsidiary food crops, lift irrigation for similar purposes, animal husbandry projects etc. A sizable number of small industrial and infrastructural projects are also being implemented. The beneficiaries of these schemes are primarily the educated unemployed youth in the rural sector. While this programme is being briefly described here to provide an overview of the flow of credit to the rural sector, it will not be included as a part of the small farmer credit system which is analysed and evaluated in this study. The scope of the Divisional Development Council programme extends beyond that of agricultural credit to the farming community already employed in agriculture. Its primary objective is that of creation of new employment opportunities in agriculture, industry and other economic activites in the rural sector with a view to absorbing the educated unemployed youth in productive employment in the rural sector.

(b) <u>The Co-operative Movement</u>

As the Co-operative Society is the agency through which the credit schemes function, a short account of the development of the Co-operative Movement in Sri Lanka will be apposite to the study.

The history of the Co-operative Movement in Ceylon can be divided into four broad periods: (a) Period prior to 1947, (b) From 1947 to 1957; (c) From 1957 to 1967, and (d) From 1967 onwards.

The period prior to 1947

Co-operative Societies had been in existence from 1911. In the early stages these societies functioned mainly as Rural Credit Societies. Their resources were limited and they were not capable of meeting the needs of agricultural credit. These societies were established under the Ceylon Co-operative Societies Ordinance of 1911 on a recommendation made by the Agricultural Banks Committee of 1909. They conformed to the Raiffeisen type of co-operative credit society. Their chief characteristics were unlimited liability, small areas of operation, very small shares, no dividends, accumulation of capital by means of a reserve. Its transactions with members were limited to those who were able to produce proper security. In these early stages there was little or no government intervention in providing credit and the interest of the government was confined to registration and audit. In 1913, the Director of Agriculture was appointed as the Registrar of Co-operatives. After the constitutional reforms that took place the Legislative Council which was existing at this time was replaced by the State Council in June 1931. Under the State Council, Co-operatives was assigned to the Executive Committee dealing with Agriculture and Lands. In 1930, a separate Co-operative Department was formed. These societies catered to less than 10% of small farmers. As revealed by the data on rural indebtedness, in 1951, they still accounted for only about 7·4% of the rural indebtedness, in spite of substantial government intervention in providing credit after 1947.

Prior to 1942, apart from the Raiffeisen type, there were two other types of credit societies which emerged during this period: (a) the credit societies of limited liability known as urban banks, and (b) the co-operative thrift societies which granted loans to members up to 75% of their own savings. These societies could borrow from the local loan and development funds which were established under the Local Loans and Development Fund Ordinance of 1916.

The first step towards financial freedom of the co-operatives was taken when the Co-operative Central Bank of Jaffna was registered in 1926 and this Bank undertook the financing of credit societies in the Northern region. Other co-operative central banks followed in Colombo and Kandy. The Commissioners of the Local Loans and Development Fund continued to grant loans to credit societies which did not fall within the areas of central banks and banking unions.

TABLE V

PROGRESS OF THE CO-OPERATIVE MOVEMENT, 1926-1942

Year (1)	No. of Credit Societies Unlimited (2)	No. of Credit Societies Limited (3)	No. of Thrift and Savings Societies (4)	Total Number of Credit and Thrift Societies (2)+(3)+(4) (5)	Total Number of Societies including other types (6)	Total Membership (7)	Total Working Capital Rs '000 (8)
1926	288	27	N. A.	315	315	41,164	N.A.
1927	281	22	N. A.	303	303	35,112	N.A.
1928	338	22	N.A.	360	360	33,057	N.A.
1929	366	17	N.A.	383	383	27,970	N.A.
1930	423	36	N.A.	459	459	22,416	N.A.
1931	513	28	18	559	600	24,068	1,859.1
1932	589	19	22	630	655	24,415	2,175.7
1933	680	23	29	732	779	26,719	2,213.8
1934	735	29	48	812	897	30,277	2,307.3
1935	854	27	60	941	1,005	35,358	2,814.1
1936	847	27	71	945	1,008	39,055	3,236.9
1937	930	41	70	1,041	1,117	46,040	4,035.7
1938	1,051	58	96	1,205	1,299	55,726	4,519.6
1939	1,201	78	104	1,383	1,512	66,397	4,738.6
1940	1,302	93	119	1,514	1,659	71,929	5,158.0
1941	1,431	97	149	1,677	1,852	80,743	6,087.8
1942	1,519	103	164	1,786	2,036	91,988	6,988.8

Source: Co-operative Commission Report, 1968.

In 1942 as a consequence of the War situation, rationing was introduced in respect of rice and flour. But other foodstuffs continued to be in short supply resulting in numerous problems of distribution. The government considered that the most effective machinery for an equitable distribution of foodstuffs in a situation of scarcity was through a nation-wide network of Consumer Co-operative Societies. These were voluntary societies with government support. In 1942 there were 38 such societies and by 1945 these increased to 4,004.

TABLE VI

GROWTH OF CONSUMER STORES SOCIETIES FROM 1941/42 TO 1944/45

Year	No. of Societies	No. of Members	Sales Turnover Rs
1941/42	38	17,500	1.3 million
1942/43	845	239,313	3.7 "
1943/44	3,627	826,814	44.7 "
1944/45	4,004	1,010,575	119.3 "

Source: Report of the Co-operative Commission, at p.23.

The highlights of this period were -

(i) the establishment of the Raiffeisen system of rural credit;

(ii) the development of urban credit societies and thrift societies;

(iii) the establishment of co-operative central banks and banking unions;

(iv) the establishment of the consumer co-operative societies;

(v) the establishment of supervising unions, the Northern Division Co-operative Federation, the Supervision and Audit Fund and the creation and training of a non-government supervisory cadre in anticipation of the day when the movement would undertake its own promotional, supervisory and educational functions;

(vi) the beginning of consumer agricultural marketing societies;

(vii) creation of a tradition of co-operative education of members and the training of departmental staff.

Period 1947 to 1957

During the second world war years there had been societies called the Agricultural Produce and Sales Societies set up on government initiative. These societies functioned as wartime agencies for the purchase of local produce under the Internal Purchase Scheme. At the end of 1946/47, a committee appointed by the government presented a programme of development which was referred to as the Post-War Development Proposals, and the authors of this document, commenting on agricultural indebtedness, stated: "the chronic state of indebtedness the average peasant cultivator finds himself in, is a serious impediment to the development of agriculture and the growth of a sound village economy. Considerable progress has been made in the past in the establishment of rural co-operative societies. There remains, however, the problem of the chronically indebted, who would not be admitted to a co-operative society requiring the unlimited liability of all members. This question which is one of great difficulty requires the close attention of Government."

In 1947 the Agricultural Produce and Sales Societies were converted into Co-operative Agricultural Production and Sales Societies, the primary purpose of which was to help the Government Food Production Drive.

The Government was prepared to give loans to farmers at low interest through these societies. In 1957 there were about 2,126 Co-operative Agricultural Production and Sales Societies with a total membership of 240,000. However this membership accounted for about only 1/5th of the cultivator population. These societies covered very large areas with the result that they served those members in and around their headquarters. The volume of credit given by these societies is given in the Table below.

TABLE VII

LOANS GIVEN BY THE CO-OPERATIVE AGRICULTURAL PRODUCTION AND SALES SOCIETIES FROM 1947 TO 1957

Year	Loans Granted Rs	Recoveries Rs	Balance Outstanding Rs	Loans Rs
1947/48	4,356,000	2,544,000	1,812,000	N.A.
1948/49	5,563,000	2,040,000	5,335,000	N.A.
1949/50	4,247,000	3,654,000	5,924,000	N.A.
1950/51	6,695,000	4,147,000	8,472,000	N.A.
1951/52	8,836,000	7,420,000	9,888,000	N.A.
1952/53	15,864,000	7,428,000	18,324,000	N.A.
1953/54	11,709,000	11,305,000	18,728,000	N.A.
1954/55	14,674,000	15,030,000	18,372,000	5,940,000
1955/56	18,370,000	17,512,000	19,230,000	4,460,000
1956/57	21,934,000	21,787,000	19,377,000	6,488,000

Source: Co-operative Department

The Government used these societies for channelling the different types of loans described earlier.

At the beginning of 1957, the Co-operative Movement had expanded rapidly and included various types of co-operative societies. In the description given above, the types of society referred to are only the agricultural production and sales societies, the consumer co-operative societies and the co-operative credit societies. The co-operative form of organisation was also adopted for various industrial activities. Co-operative societies were formed among fishermen, weavers, craftsmen and other producer groups. The growth of the co-operative movement (which includes all types of societies) up to 1957 is indicated in the Table below.

TABLE VIII

GROWTH OF PRIMARY SOCIETIES
1947-1957

Year	No. of Societies	Membership	Share Capital Rs '000	Working Capital Rs '000	Turnover
1947	6,283	1,148,165	10,913.3	25,112.7	109,502.2
1951	7,005	1,173,066	12,732.2	41,569.0	198,749.0
1957	10,539	1,315,555	24,074.7	98,853.0	368,000.0

Source: Co-operative Commission Report, 1968.

The expansion of the consumer co-operatives mentioned earlier resulted in increased business for the co-operative banks. As a result these banks increased in their number and size and by the end of 1957 there were 11 such Provincial and District Co-operative Banks.

TABLE IX

GROWTH OF PROVINCIAL AND DISTRICT CO-OPERATIVE BANKS
1947-57

Year	Number of Societies	Membership	Share Capital Rs '000	Working Capital Rs '000	Turnover Rs '000
1947	4	2,508	395.0	4,882.9	88,620.4
1951	9	4,462	364.3	14,775.0	123,719.0
1957	12	6,243	961.9	28,605.0	376,000.0

Source: Co-operative Commission Report, 1968.

In 1949 the Co-operative Wholesale Establishment was established as a public Corporation, to assist and help the consumer societies to obtain their supplies. It had its origin in 1943 as a section of the Co-operative Department when the consumer societies had also come into existence. In 1945 it was a separate department, till it was transformed into a corporation in 1949.

The Period 1957 to 1967

In 1957 the Government undertook a major reorganisation of the Co-operative Movement with the intention of assigning to it a more active role in the tasks of national development. With this end in view, a number of Consumer and Co-operative Agricultural Produce and Sales Societies were amalgamated into Multi-purpose Co-operative Societies undertaking a variety of functions. The multi-purpose co-operative society became the main co-operative organisation and rapidly absorbed the other co-operative organisations within the area in which it functioned. At the same time, however, there were instances where specialised societies such as '.A.P. & S. Societies, consumer societies, as well as

other industrial societies continued to function separately. In 1964 there were 5,101 Multi-Purpose Co-operative Societies with a membership of 785,726 persons. In the same year there were 585 Co-operative Agricultural Produce and Sales Societies with a membership of 57,355 persons. According to the scheme every village was to have its own Multi-purpose Co-operative Society which could provide credit for production and the purchase of consumer goods and repayment of previous debts, but this was modified to provide one M.P.C.S. for a group of 3 or 4 villages.

The following Table shows the changes that took place in the number and the structure of the Co-operative Societies. It could be seen that with the formation of the M.P.C.S., the number of consumer and C.A.P. & S. Societies show a decline over the years due to amalgamation.

TABLE X

EFFECT OF FORMATION OF MPC SOCIETIES ON CONSUMER AND CAPS SOCIETIES

	1957	1958	1959	1960	1961	1962	1963	1964	1965
No. of Multi-purpose Societies	68	3,897	4,631	4,741	4,824	4,889	4,950	5,101	5,053
No. of Consumer Stores Societies	2,569	1,260	1,043	964	918	889	838	786	755
No. of CAPS Societies	2,126	1,667	1,702	474	486	593	603	585	589

The finances necessary for the consumer co-operative societies came from within these societies themselves. This, along with the increase in the number of credit societies, resulted in the increase of business

for Co-operative Banks. By 1959, the old Co-operative Central Banks changed their name to Co-operative Provincial Banks, when each Province was made an area of a Co-operative Bank. The Co-operative Federal Bank which was established in 1949 became the apex Bank of the Co-operative Movement and the other Co-operative Provincial Banks were eligible to hold shares in this Bank. The Co-operative Federal Bank was recognised under the Ceylon Monetary Act as a commercial bank and was a member of the Colombo Clearing House.

Commenting on the Co-operatives in Ceylon, the Report of the Royal Commission on the Co-operative Movement of 1968 says, "reviewing the Co-operative Movement in Ceylon, of the past 60 years brings into focus one fact above all. Government acting in the earlier period as trustee and guardian ended in the firm control of what was intended to be a voluntary movement. This complete reversal of roles was brought about partly by forces and trends of which the government had little or no control, partly as a result of moves made by government and its officers, and partly by the default of co-operatives themselves. Co-operatives have now become the hand-maid of the State and Co-operative Societies are virtually agencies directed to carry out government policies."

The People's Bank came into existence as a result of a proposal made by the Minister in charge of Co-operatives to form a Co-operative Bank in 1956. There was considerable controversy over this Bank in the political field and finally it came into existence in 1961 under the nameof the People's Bank. The Co-operative Federal Bank was compulsorily absorbed into the People's Bank whilst ten other Co-operative Banks at the Provincial and District levels merged with the People's Bank. In 1963 the People's Bank inaugurated the extended credit scheme and the Rural Bank Scheme in 1964. Prior to this credit was offered to the co-operative societies by Co-operative Banks.

During the period 1957-1967 the major changes that have taken place could be summarised as follows:

(i) The introduction of the multi-purpose co-operative society as the principal type of society, and the conversion of the co-operative stores societies and CAPS Societies into multi-purpose societies.

(ii) The reorganisation of the co-operative banking structure by the establishment of the People's Bank and the merger of eleven co-operative banks, including the Co-operative Federal Bank.

(iii) The transformation of the Co-operative Wholesale Establishment (which was earlier engaged in procuring and supplying goods for the co-operative stores) to carry on business as exporter and importer and also as wholesaler and retailer in goods of all description without restriction. Thus it became a state-trading organisation in addition to serving the co-operative movement.

(iv) The formation of a number of national level business organisations such as the Ceylon Co-operative Industries Union in 1964, the Ceylon Co-operative Consumers' Union in 1965, the All-Ceylon Rubber Production and Sales Co-operative Union in 1967 etc.

(v) The continued existence of the Co-operative Federation of Ceylon and the District Unions with somewhat marginal activities in the spheres of co-operative education and publicity.

<u>From 1967 onwards</u>

The Co-operative Societies continued to be the agents for the granting of loans for paddy production and for production of approved

subsidiary crops such as onions, chillies and potatoes. Over 95% of the loans are short term (less than one year) while medium and long-term loans continue to be made by the Department of Agrarian Services. At the end of the sixties the co-operative movement was structured at three levels. At the primary level there were 5, 818 M.P.C.Ss. Out of these, 983 or 16.8% were not functioning. Nearly 238 societies (4.0%) had been running at a loss.

Apart from these M.P.C.Ss there were 8,609 other specialised co-operatives such as fisheries ceoperatives, weavers' co-operatives and coconut producers' co-operatives.

At the secondary level there were 125 M.P.C. Societies Unions and 161 other Unions. These unions handled the distribution of goods and services among the primary societies. They were in fact wholesale organisations for the supply of consumer goods.

At the apex level or national level there were two types of organisations. The first group consisted of six organisations entirely co-operative in character and the second group consisted of two organisations, co-operative but essentially public corporations. Under the first group were the agricultural producers', coconut producers', industrial, fisheries and consumer Co-operative Unions. The second group consisted of two organisations which were established as public corporations, but in which the co-operative movement had some participation. In this group were the C.W.E. and the People's Bank. The C.W.E. was intended to be a central wholesale organisation whilst the People's Bank assisted Co-operative Development and half the shares of the People's Bank were held by Co-operative Societies.

Apart from these organisations there was also an ideological organisation known as the Co-operative Federation of Ceylon. This was partly meant to advise the Government on co-operative policies, but

according to the Commission on Co-operatives in 1968, "the Co-operative Federation does not seem to have been positive enough in articulating co-operative policy. Occasionally, by its very silence the Federation seems to be shielding the Government when it should be challenged or criticised."

In 1971 the Government undertook a major structural reorganisation of the Co-operative Movement. The main feature of this reorganisation related to the size, scale of operations and field of authority of the co-operative societies. The secondary unions were abolished and these together with the 5,818 M.P.C.Societies were converted into 372 Primary M.P.C. Societies with about 10,000 branches at regional and village levels. Each one of these 372 Primary M.P.C. Societies covered, in general, one or more local authority areas which may be a Village Council, Town Council, Urban Council or a Municipal Council.

Annexe 1 gives the important historical dates in the development of the Co-operative Movement.

4. Relation to National Credit System

One of the main objectives of the establishment of the People's Bank in 1961 was to provide an effective apex bank to the Co-operative Movement and ensure a greater supply of credit to the rural sector. It has opened up a number of branch offices (72 branches as at the end of 1970) to serve a less urbanised clientele in remote areas. Under its extended scheme of rural credit, loans are given to selected Co-operative Societies for re-lending to their members. Under its Rural Bank Scheme selected Co-operatives are authorised to set up rural banks at village level. Although the People's Bank had given loans to the rural sector for purposes such as housing, electrification, etc. earlier, it is in 1963 that it entered the field of agricultural

credit. This was the first time that the commercial banking system became directly linked with a major scheme of agricultural credit.

Under the existing co-operative system of credit, the Central Bank of Sri Lanka is only linked to the operation of the new Agricultural Credit Scheme which is operated with a guarantee given by the Central Bank (on behalf of the Government) to the banking system, which then becomes the secondary source of finance. So far only the People's Bank has entered this scheme. The Central Bank guaranteed the repayment of 75 percent of the loans given out by the People's Bank to the co-operatives. For this guarantee the People's Bank has to pay half percent interest. On re-financed loans under this scheme the rate of interest charged by the Central Bank is 1½% per annum. The People's Bank charges 8% per annum from the co-operatives with a rebate of 3% for prompt repayment.

5. Other Programme Activities

Unlike in most developing countries the Co-operative Movement serves both the urban as well as the rural areas. The Commission on the Co-operative Movement in 1968 observed that it serves "as weft of the State's economic warp, funnelling a great part, perhaps 30 percent, of the total non-plantation agricultural credit to cultivators playing an important role in the development of small industries and supplying 65 percent of the population with essential food commodities." The purchase of paddy and other agricultural products coming under the G.P.S. is done through the co-operatives. The co-operatives also help to promote the social and cultural activities of their members. The retail distribution of foodstuffs, the rationed items of food such as rice, Maldive fish, dhall, and a wide range of other commodities are done through the co-operative societies. Several M.P.C. Societies also engage themselves in productive activities such as the production of textiles. After the recent reorganisation, the co-operatives that

do make a profit are required to invest in development programmes, initiated by the Divisional Development Councils. The Divisional Development Councils have linked the Co-operative Movement to a new source of finance for a special programme of rural development which has been described in an earlier section. The finance provided for this programme comes almost entirely from the government budget. As indicated earlier part of the funds are given as an outright grant to the enterprise undertaking the project, and part is channelled as loan capital through the People's Bank.

6. Relation to pre-existing Local Institutions

The Co-operative Movement was nurtured in its early stages by the Agricultural Society of Ceylon and later developed by Campbell and Calvert who were Britishers in the Ceylon Civil Service in 1920.

The Co-operatives have to compete with other agencies in their consumer, marketing and credit functions. But in the purchasing of paddy they now have a virtual monopoly after the establishment, in 1971, of the Paddy Marketing Board, a State organisation which is statutorily empowered to operate as the sole trading organisation in paddy. In accordance with present government policy, this organisation makes its purchases from the producers through the Co-operative Societies. Under this set-up the Paddy Marketing Board and the Co-operative network will enjoy a monopoly of the trade in paddy. In actual operation however the Board's monopoly rights have not been strictly enforced and a sizable private trade in paddy and rice continues. On the credit function the Co-operatives have to fall in line mostly with government institutions such as the Department of Agrarian Services, and among the private institutions mostly with the finance companies.

In regard to other farmer associations which are linked to the Co-operative Movement, mention should be made of the Cultivation Committees set up under the Paddy Lands Act. These Committees are linked with

Co-operative Societies in the preparation of the production plans, for the cultivation season at the village level and targets of production, extent of land to be cultivated for the season, the needs of fertiliser, seed paddy, credit and other inputs are estimated by the Government officials in consultation with the Cultivation Committees and the Co-operative Societies. These production plans therefore form the basis for coordinating the activities of the Cultivation Committees and the Co-operative Societies in given areas. The recent establishment of the Divisional Development Councils has provided machinery for the coordination of the activities of Co-operative Societies with other development activities at the village level.

The Co-operative Department as well as the Co-operative Societies have drawn their staff from local personnel. There have been some foreign technical assistance for the development of the Co-operative Movement in Ceylon but apart from such assistance there have been no continuing links between the Co-operative Movement and any other international agencies.

B. Objectives

1. General Objectives

(a) Announced

The principle objective of the credit scheme described in this study is to provide the peasant farmers with the working capital required for his agricultural operations mainly in paddy cultivation, and thereby increase the production of rice and other foodstuffs in Ceylon to reach self-sufficiency in these items. A secondary objective which flowed from this main objective was to relieve the peasant of his chronic indebtedness to non-institutional sources of credit. The non-institutional credit system available to the farmer through middlemen, traders and a small minority of the more prosperous farmers imposed on him conditions,

interest rates and terms of payment which substantially reduced his farm income, contain him within a vicious circle of low income, low productivity and chronic indebtedness. One measure which would contribute towards breaking this vicious circle would be a system of equitable institutionalised credit. Reducing the burden of interest and debt was regarded as an essential element in providing the necessary incentives for higher productivity in the peasant sector. The government agricultural credit schemes were also motivated by the assumption that the supply of sufficient working capital to the farmer could also induce him to adopt more readily the new techniques such as transplanting, use of new varieties of seed paddy, use of fertilisers and agrochemicals. The use of agrochemicals and fertilisers was further encouraged by the issue of these items on credit as part of the agricultural credit scheme. These objectives have remained fairly stable over the period and they conform to declared national policies on food production and the social and economic upliftment of the peasant farmer.

(b) Apparent

Up to 1967 the rates of interest were highly subsidised and therefore although the avowed objective was increasing the production of paddy and other subsidiary food crops, the credit schemes also came to be regarded as welfare measures which were adopted by the government to assist the peasant farmer. The overtones of welfare which were associated with the credit scheme influenced the expectations of the peasant farmers. Among sectors of the farming community, government came to be regarded as a generous and benevolent creditor with whom repayment obligations could be violated with impunity.

The actual operation of the credit scheme therefore did not support the development objective to the extent and the manner envisaged. Where the government was the creditor there were social and political pressures

for the lenient treatment of defaulters and as a result there was no strict enforcement of recoveries. This undermined the efficacy of the credit system as a viable commercial credit system and emphasised its welfare aspects.

One objective of the scheme was to provide the farmer the credit he needs at the right time but in actual implementation, these objectives were only partially achieved due to procedural delays. He often received the credit when the need for it had been superseded by other forms of available credit (especially the non-institutional sources). The Government has been concerned that the lack of working capital should not prevent the adoption of improved cultivation techniques, and that co-operatives should replace the less desirable non-institutional lenders as a source of credit. In its anxiety to pursue the objectives this policy of support for the co-operatives followed by the government has also resulted in a high proportion of loans overdue in the total amount of loans outstanding; it was 65 percent in 1965/66, 70 percent in 1966/67 and 82 percent in 1970. As a result many co-operative societies and farmers have d e f a u l t e d and become ineligible for credit under the Schemes. According to the announced policies and objectives the credit scheme sought to extend its coverage to include the majority of small farmers. But although the volume of credit expanded over the years and there was a substantial input of agricultural credit into the small farmer community, the expansion of credit was not steady and progressive. There were fluctuations and the volume of credit expanded in stages and then contracted as defaults increased. Even at the peak of their operations, the agricultural schemes do not appear to have covered a majority of the paddy farmers. On the available data it is difficult to assess the proportion of small farmers who would have needed to participate in the schemes to satisfy their requirements of working capital, and the effective rate of participation of these farmers in the government sponsored schemes. However from the data on rural indebtedness,

there is no doubt that the major share of the outstanding rural debt was owing to non-institutional sources of credit. From the evidence it would appear that while the institutionalised schemes of credit were in operation, a great many farmers were still having recourse to non-institutional sources of credit for both agricultural and non-agricultural purposes.

2. Terms of Loans under the three Credit Schemes - Purpose and Period.

Extended Credit Scheme

The purposes for which the loan facilities are provided under the extended credit scheme were for agricultural production, animal husbandry, cottage industry, housing, debt redemption, electrification, consumption and emergencies such as funerals or medical expenses. Under this scheme, loans were given by the People's Bank to selected Co-operative Societies for re-lending to their members. But with the introduction of the Rural Bank Scheme, the lending operations of the co-operatives were to be handled by the Rural Banks once these were established. At present there are 76 co-operatives which operate under the extended credit scheme.

The following Table shows the credit limit by purpose and duration, under the extended credit scheme:

TABLE XI

EXTENDED CREDIT SCHEME - CREDIT LIMIT BY PURPOSE AND DURATION

Purpose		Maximum Limit	Duration
		Rs	
Production	...	2,500	12-60 months
Consumption	...	500	12 "
Housing Construction	...	2,500	60 "
Housing Renovation	...	500	36 "
Housing Extension	...	1,000	48 "
Debt Redemption	...	2,500	60 "
Electrification	...	2,500	60 "
Emergencies	...	200	12 "

Source: People's Bank

The Rural Bank Scheme

The scheme of the People's Bank is to have a Rural Bank in each Co-operative Society. From 1971 the People's Bank has stopped giving new loans under the extended credit scheme, but continue to give credit under the Rural Bank Scheme and the new Agricultural Scheme of 1967. The Rural Banks are given overdraft facilities by the People's Bank. The Rural Banks lend for several purposes and these purposes, in broad categories, are shown in the Table below. The credit schemes of the Rural Banks broadly correspond to the Extended Credit Schemes operated by the Co-operative Societies prior to the formation of rural banks under their management.

TABLE XII

RURAL BANK SCHEME - PURPOSE AND CREDIT LIMIT

Purpose	Credit Limit
	Rs
Production	2,500
Housing	2,500
Redemption of Debts ...	2,500
Consumption	500
Emergencies (such as deaths and illnesses) ...	200

The maximum credit limit per member is fixed at Rs 3,000.

Source: People's Bank

The New Agricultural Credit Scheme

Under this scheme the main purpose for giving loans is for cultivation. The credit requirements of the paddy farmer for all cultivation needs are estimated at Rs 220 per acre and the breakdown is as follows:

TABLE XIII

THE NEW AGRICULTURAL CREDIT SCHEME - PURPOSE AND CREDIT LIMIT

	Rs
Seed paddy (2 bushels) ...	32
Ploughing	55
Fertiliser ($4\frac{1}{2}$ cwts.) ...	58
Transplanting or row-seeding	25
Weeding and weedicides ...	25
Harvesting	25
	Rs 220

Within the maximum limit of Rs 220 per acre for paddy cultivation certain variations are permissible. For instance, the Rs 50 allotted for transplanting or row-seeding and manual or mechanical weeding may be used for the purchase of chemical weedicides. Loans may also be given for the purchase of approved insecticides and fungicides. The amount given as seed paddy varies according to whether it is broadcast, transplanted or row-seeded and the current price of seed paddy. Similarly, the amount released for fertiliser varies with the kind used and the subsidised prices of fertilisers.

It should be noted that in 1963 the maximum credit limit was revised upwards from Rs 175 per acre to Rs 220 per acre and each farmer was entitled to credit up to a maximum of 10 acres as against 6 acres previously.

The loans sanctioned are released in three stages. The first instalment up to a maximum of Rs 137 per acre is given to the farmer for ploughing, seed paddy, transplanting or row-seeding, and weeding. Where supplies are made in kind, direct payment is made to the Government Departments concerned and the farmer's loan is enhanced by that amount. This would constitute the second instalment. The third is released for harvesting.

Credit is also given under this scheme for the cultivation of vegetables, chillies, red onions, Bombay onions and potatoes. The amount granted as well as the period of repayment and purposes of loan varies with each crop. The conditions are summarised in the following schedules:

Purpose and Period for Loans under the New Agricultural Credit Scheme for subsidiary Crops

Crop	Rate to a max. of 5 acres per member	Period of Loan Days	Break-up by purpose and cash or kind basis
Chillies	Rs 125 per acre	270	In cash -
			(a) Ploughing and land preparation ... Rs 40
			(b) Transplanting .. Rs 50
			Rs 90
			In kind -
			Fertiliser and agro-chemicals Rs 50
Chillies (irrigated)	Rs 200 per $\frac{1}{4}$ acre	270	In cash -
			(a) Ploughing and land preparation, transplanting and weeding ... Rs 150
			In kind
			Fertiliser and agro-chemicals ... Rs 35
			Rs 185
Red Onions	Rs 200 per $\frac{1}{4}$ acre	180	In cash -
			Seed onions Rs 100
			In kind -
			Fertiliser and agro-chemicals ... Rs 100
			Rs 200

Crop	Rate to a max. of 5 acres	Period of Loan Days	Break-up by purpose and cash or kind basis	
Bombay Onions	Rs.200 per $\frac{1}{4}$ acre	210	In cash -	
			Seeds and nursery	Rs 100
			In kind -	
			Fertilisers and agro-chemicals	Rs 100
				Rs 200
Potatoes	Rs 175 per $\frac{1}{8}$ acre	180	In cash -	
	Initially, for $\frac{1}{8}$ acre and progressively increasable $\frac{1}{8}$ acre per season		Labour expenses	Rs 20/60
			In kind - or cash -	
			Seed potatoes (2 cwts.)	Rs 134/40
			In kind -	
			Fertiliser (1 cwt.)	Rs 20/-
				Rs 175/-

Rates and conditions for loans for vegetables

Region	Rate per acre	Period of loan by crop	
Nuwara Eliya ...	Rs. 100	Leeks ...	240 days
Badulla, Welimada, Kandy and Matale ..	Rs 750	Beans ...	90 "
Negombo, Chilaw and Puttalam ...	Rs 650	Potatoes ...	180 "
Ratnapura ...	Rs 600	Other vegetables	150 "
Kurunegala ...	Rs 500		
Other areas ...	Rs 500		

Agrarian Services Department Loans

Loans are also given by the Department of Agrarian Services for specific purposes. Medium-term loans are given for purchase of agricultural equipment such as sprayers and water-pumps and short-term loans are given for marketing,

jungle-clearing and terracing. The purpose and the period of loans given out by the Agrarian Services is given in the Schedule below:

Loan Schemes in operation by the Department of Agrarian Services — Loan to Co-operative Societies

Purpose	Long-term Loans Amount of Loan	Period of Repayment and Number of Instalments
1. Jungle-clearing for subsidiary food crops	Rs 250 per acre	5 years - annual instalments
2. Terracing and levelling	Rs 100 per acre	5 years - annual instalments
3. Construction of Wells	Rs 2,500 per well	10 years - annual instalments
4. Water Pumps	Price of the Pump	5years - 10 half yearly
5. Purchase of lorries	Price of lorry	5 years - 10 half yearly
6. Construction of Go-downs	Ranging from Rs 20,000 to Rs 41,500 depending on the capacity	10 years - annual instalments
7. Construction of Fertiliser Stores	Ranging from Rs 480 to Rs 6,300 depending on the capacity	10 years - annual instalments
8. Conversion of rocky land into arable land	Rs 1,000 per $\frac{1}{4}$ acre	6 years - annual instalments
9. Subsidiary food crops by Youth Settlement Schemes and Colonisation Schemes	Rs 600 per acre	6 years - annual instalments
10. Acquisition of land for Fertiliser Stores	Cost of the land and legal fees	10 years - annual instalments
11. Asweddumization - Paddy cultivation	Rs 250 per acre	5 years - annual instalments
12. Purchase of Iron Safes	Price of the iron safe	5 years - annual instalments
13. Purchase of Weighing Machines.	Price of the machine	5 years - annual instalments
14. Construction of Rice Mills	Cost of mill building as per Type Plan and Machinery	10 years—annual instalments

Medium-Term Loans

Purpose	Amount of Loan	Period of Repayment and Number of Instalments
1. Purchase of Barbed Wire	Minimum requirement per acre	2 years: 4 half-yearly instalments
2. Construction of single Mhote (Vavuniya District)	Rs 250 per Mhote	2 years - annual instalments
3. Pineapple cultivation	Rs 950 per acre	3 years and 9 months: Specific instalments
4. Purchase of Buffaloes	Rs 400 per pair	3 years - annual instalments
5. Purchase of Sprayers and Dusters	Price of machine	2 years - annual instalments
6. Agricultural implements, agro-chemicals	Price of implements or agro-chemicals	1 year - annual instalments

LOANS TO CULTIVATION COMMITTEES OUTSIDE THE NEW AGRICULTURAL CREDIT SCHEME -

Purpose	Amount of Loan	Period of Repayment and Number of Instalments
1. Construction of Village Level Fertiliser Store	Capacity 50 tons: Rs 6,300	10 years - annual instalments
2. Purchase of Sprayers and Dusters	Rs 200 maximum limit per Committee	2 years - 4 half-yearly instalments
3. Purchase of Two-wheeled Tractors and ancillary Equipment	Rs 2,000 maximum limit per Committee	3 years - 6 half-yearly instalments
4. Payment of Advances to Cultivation Committees for the purchase of Paddy under the G.P.S.	Rs 8,400 (equivalent cost of 600 bushels)	6 months - instalments

Note: Interest at the rate of 2% per annum is charged on the above loans.

C. Organisation

1. General Structure

To have a clearer picture of structure of relationships in the Co-operative Movement, it is important to discuss the functional relations between the officers of the Co-operative Development Department and the Co-operative Societies with the help of an organisational chart. Annexes 2 and 3 show the Departmental Organisation and the organisation of the Co-operative Movement.

A government department was established in 1930 for the exclusive purpose of administering the Co-operative Movement. The department is the main central government agency of administration and is in charge of a major activity or group of interrelated activities. It functions under a Ministry which consists of a group of departments and other agencies forming the area of responsibility allocated to a Minister of the Cabinet. The Co-operative Department has functioned under several Ministries since its inception. In the nineteen sixties it was under the Ministry of Food & Agriculture; with the new Government formed in 1970 it has been transferred to the Ministry of External and Internal Trade. The regulatory functions of the Co-operative Department in its relations with the Co-operative Societies are governed by the Co-operative Ordinance of 1921 and the subsequent Acts and Amendments to it. The Minister who is for the time being in charge of the Co-operative Department is responsible to the Cabinet and to Parliament for implementing government policies. Under the Constitution he is the chief political executive for the area of responsibility entrusted to him. Immediately under him is the Secretary who is the chief non-political executive. In regard to the Co-operative Movement, in the current allocation of functions, the Minister of External and Internal Trade and Secretary are at the apex of the organisational structure which deals with the Co-operative Movement. The Commissioner of

Co-operative Development who is also the Registrar of Co-operatives is responsible to the Minister through the Secretary for the implementation of policies relating to the co-operative field and the overall management of the Co-operative Movement. The Commissioner is responsible under the acts for the registration, supervision and audit of the Co-operative Societies, and he co-ordinates and implements Government policy in regard to the development of co-operatives. On matters of co-operative and administrative policy he will work under the guidance of the Secretary. The Commissioner is assisted by five Deputy Commissioners who are assigned the following functions:

(a) Administration — this function is confined to the Department

(b) Legal and Audit which includes registration, liquidation and auditing of societies

(c) Consumer activities

(d) Industry and Fisheries

(e) Agriculture.

The organisation for the 22 administrative districts in the country comes under four Senior Assistant Commissioners who are in charge of four Ranges or groups of Districts. They are directly responsible to the Commissioner of Co-operative Development for the operation of Co-operatives and their development programmes in each Range. The Senior Assistant Commissioners issue policy directives on behalf of the Commissioner to the Assistant Commissioners in each district. There are 26 Assistant Commissioners in the 22 districts and 13 other Assistant Commissioners in the Island in charge of auditing the Co-operatives. These A.C.C.Ds coordinate Departmental activities in the district. They supervise the Primary Co-operatives and their regions and they play the role of advisers to the Co-operatives. Assistant Commissioners attend meetings of

the General Council of Primary Co-operatives and attend to policy problems arising at these meetings.

At the level below the District Officer, the Co-operative Inspectors play an important role by linking the Department to the Co-operative Societies and their membership. There are several grades of Co-operative Inspectors in the Department. These Inspectors visit and supervise the Co-operative Societies. Co-operative Inspectors are given a training at the Co-operative Training College in the methods of supervision, maintenance of accounts, management, and other subjects relevant to co-operatives. The Co-operative Inspector has therefore an advisory and educational role in relation to Co-operative Societies. He supervises their activities, audits their accounts and settles various disputes that may arise. According to the provisions made in the Co-operative Ordinance, the Co-operative Inspector may be appointed as an arbitrator to settle disputes.

As already mentioned all societies registered by the Registrar of Co-operatives are subject to the control and supervision of the Department. But although the Co-operative Department is responsible for the specific co-operative elements — its legal form the proper maintenance of accounts, regularity in the procedures followed, the development of co-operation and participation of the membership in the organisation and so on — Co-operative Societies had close links with different government departments and were subject to their supervision depending on their functions and activities. The work of the Multi-purpose Co-operative Societies in regard to paddy purchases, agricultural credit and supply of agricultural inputs in the peasant sector was closely supervised and coordinated by the Agrarian Services Department and the Ministry of Agriculture. The Fisheries Co-operatives came under close supervision of the Fisheries Department. The activities of the textile co-operatives were closely supervised

and coordinated by the Small Industries Department. The division of functions between the Co-operative Department and the Departments responsible for the programmes and activities undertaken by the societies sometimes did cause problems of co-ordination.

Prior to 1971, at the primary level of the Co-operative Movement there was a multi-purpose co-operative society for every group of three to four villages or, on an average 400 households. Above this level were the Multi-purpose Co-operative Societies Unions which in fact were unions of several primary societies. These Unions usually covered an administrative division — a smaller unit below the District. There were approximately 125 such Unions serving the primary societies. Their functions included the wholesale distribution of goods among the primary societies and private traders. They purchased goods in bulk from the Co-operative Wholesale Establishment, the Government Departments such as the Food Commissioner's, Public Corporations such as the Cement Corporation, Ceramics Corporation, State Trading Corporation, Building Materials Corporation and distributed them to the retail societies and retail trade. The nature of their activities and their trade turnover enabled the Unions to make reasonable profits. Ofter a particular M.P.C.S. Union was able to operate at a profit even though the member societies in the Union were incurring lossess. The manner in which the Unions were organised, the lack of supervision of their activities by the member societies and the Department gave rise to serious conflicts of interest between the Unions and the Societies. The managements of Unions were often able to operate with a great measure of autonomy.

The primary co-operative society or the Multi-purpose Co-operative Society usually had a Committee comprising 9 to 15 members. This Committee was elected at the annual general meeting of the society. The Committee elected its Chairman, Secretary and other office-bearers who were responsible for the management of the societies. The Committee also

appointed the paid employees of the society — the manager, the salesmen and labour. The Committee itself functioned in an honorary capacity. The Co-operative Inspector was expected to maintain close contact with the society and assist it in its managerial and other tasks. The societies other than Multi-purpose Co-operative Societies, such as the Co-operative Stores Societies, Agricultural Produce & Sales Society, industrial societies etc. followed a similar pattern of management.

During the last two decades the Co-operative Movement even while it expanded rapidly, was subjected to repeated criticism for its numerous deficiencies. A number of co-operative societies were incurring losses. Management was often inefficient and service poor. It was believed that there was a high degree of corruption and misuse of funds in the Movement, and this impression was often confirmed by instances of irregularities which came to light. Above all the primary unit of co-operative activity the Multi-purpose Co-operative Society, did not have the economies of scale and the volume of trade that would have provided a base for a commercially viable well managed co-operative enterprise. In 1968 Government appointed a Royal Commission to examine and report on the Co-operative Movement. Some of the recommendations of the Commission were accepted and a major reorganisation of the Co-operative Movement undertaken in 1971. The present organisation of the Co-operative Movement is an outcome of these changes.

Under the new organisational strcuture for the Co-operative Movement, the primary unit of co-operative enterprise — the Multi-purpose — was considerably enlarged. As a general principle it was considered desirable to have one large Primary Society for one local government authority area. The principal objective of enlarging the co-operative in this manner was to achieve a scale of operations which provided a turnover and a volume of profit that would establish the society as a viable commercial entity.

This principle was however subject to a few modifications. In some instances when the local government area was too small to provide the desired economies of scale, a single primary was formed for more than one such area. In fact the area of operation and size of the new multi-purpose co-operative society brought it to a level which was midway between the M.P.C.S. Union and the primary. The new M.P.C.S. however could not perform the retail distribution for the entire area under its control from one point. Therefore the old primaries continued as branches of the new M.P.C.S. and functioned as retail stores closely linked with and supervised by the main society.

The new primary society replaced the Multi-purpose Co-operative Society Union which earlier undertook the wholesale function for the primaries. The new primary therefore combined the wholesale and retail activities for a given area of operation and distributed the goods to its other retail branches thereby retaining the profits of the wholesale activity within the main society itself.

In the reorganised set-up, 5,818 Multi-purpose Co-operative Societies have been converted into 372 Primary Co-operative Societies. Each primary society has several branch societies within its area functioning under its overall control and direction. There is no restriction in regard to the number of branches each primary can establish. This will be determined by the area, the population densities and similar factors. The average number of households served by a new primary society would be in the region of 5,100 households as against 350 to 400 households served by the old Multi-Purpose Co-operative Society. The new primary unit has therefore become a larger more viable commercial unit with a network of servicing points which are its branches in the area of its operations. The Rural Bank was attached to the primary society and therefore enjoyed the same improvement in its volume of business and scale of operations.

According to the by-laws governing Co-operative Societies, a person must buy at least one share to become a member. In order to be eligible for bigger loans for agricultural, industrial or any other development purposes, a member may require to possess more than one share depending on the size of the loan, as the loan will normally be a multiple amount of the value of his shares. All members can vote at the meeting of the region and any member can be elected as a representative to the General Council of a Primary Society. The Council of a primary Multi-purpose Co-operative Society comprises of not more than 100 members elected from the branch societies. The Board of Directors consists of 15 members elected from the Council. Out of these 15 members, 5 members are Government officers representing the Departments of Agrarian Services, Agriculture, Small Industries, Education, and Rural Development. The Board of Directors is responsible to the General Council for both the formulation of policy for the society and its administration ahd management. The Board is empowered to appoint a General Manager to the Primary Society. The General Manager has to be an officer who possesses certain qualifications in Co-operative Management. The Board issues the policy directives and orders to the General Manager who is required to manage the affairs of the Society in accordance with such directions.

In a branch society, the Committee comprises of 9 members selected from among the membership of the branch. The duties of the Committee are to supervise the activities of the branch society, make proposals for its development, recommend and scrutinise loan applications from the members, expand the membership, organise and promote the educational and cultural activities within the region, give directions to the Manager of the branch society in regard to its management and deal with complaints and grievances of members in regard to the services rendered by the Society. Annexes 4 and 5 show the organisation structure after the reforms of 1971.

The new structure is expected to create commercially viable units and to rationalise the somewhat heterogeneous and disorderly growth of the Co-operative Movement. The new primary becomes the focal point for the co-operative activities within a small territorial unit generally coterminous with a local government authority area. The resources of the Co-operative Department, the Inspectorate and other co-operative extension services could be concentrated effectively to upgrade the management and levels of efficiency of these primary units and by these means ensure better quality of supervision and service in the units functioning under the primaries. Within this set-up where primaries are responsible each for its own branch network and where primaries become the focus of the extension efforts of the Co-operative Department, the task of co-operative extension and the upgrading of the whole Movement becomes a more manageable one.

D. Beneficiaries

1. Selection criteria under the Extended Credit Scheme

All borrowers must be members of the Co-operative Societies and they are allowed to borrow up to 20 times their share capital. A member is not entitled to hold more than 1/5th of the share capital of the Co-operative society. The normal share of a member is limited to a single share of Rs 50 as most of the members operate on holdings of less than one acre. To obtain a loan each member has to sign a bond with two other shareholders who should also be members of the Co-operative Society. Applications for loans should be recommended by the Co-operative Inspector of the area to enable the Co-operative Society to obtain the necessary finance from the People's Bank.

Under this scheme, credit is also given by the Agrarian Services Department. For the M.P.C.S. to obtain loans from the Commissioner of Agrarian Services the Chairman and the Secretary of the M.P.C.S. have to

sign a bond with the Commissioner of Agrarian Services which covers the amount of the loan sanctioned.

The important criteria in all these cases is the purpose of the loan (this should be within the approved purposes for which loans are granted) and the acreage of cultivation, if it is a cultivation loan. Normally defaulters are not given further loans. The maximum limits and the purposes for which loans are given under this scheme are as given in Table XI.

The Rural Bank Scheme

The Co-operative Rural Bank operates under a Credit Manager who is an employee of the M.P.C.S. According to the present system an M.P.C.S. has a number of branch committees on an area basis. The Branch Committee usually consists of 9 people and it is this Committee that will study the loan application of each member and decide on the maximum credit limit according to their opinion of the individual member concerned. In this the Branch Committee will be bringing to bear the personal knowledge and available data it has of each member. Normally the maximum credit limit per member is fixed at Rs 3,000. All loan applications are processed by the Branch Committee before being forwarded to the Credit Manager of the M.P.C.S. who in turn will seek the approval of the M.P.C.S.

At present selected co-operatives which are now functioning under the extended credit scheme will gradually be converted into the rural bank scheme. Eventually the co-operative societies will operate this credit scheme only through its rural banks.

The New Agricultural Credit Scheme

Normally a society would grant a loan to a member on the basis of his individual maximum credit limit (IMCL) and the amount lent will not exceed the difference between the member's IMCL and his current indebtedness.

The IMCL is calculated on the following basis:

(a) An individual cultivator is entitled to a sum not exceeding Rs 220 per acre up to a maximum of 10 acres for the first cultivation. Where there are two cultivations a year for the second season his total indebtedness may rise to 1½ times this sum.

(b) In respect of loans obtained without hypothecation of property, no member engaged in the cultivation of such produce approved by the Asst. Commissioner should become indebted to the society for a sum in excess of 20 times, and no other member in excess of 5 times the first value of shares allotted to him, subject in every case to a maximum indebtedness of Rs 4,000.

(c) In respect of loans obtained against hypothecation of property any member's indebtedness to the society shall not exceed half the value of such property.

Notwithstanding the above, a member's total indebtedness shall not at any time exceed any credit limit fixed by the General Committee in respect of such credit. Normally defaulters are not entitled to further loans. Share defaulters may be granted a loan on condition that arrears of share payment are settled simultaneously with the grant of the loan.

The Department of Agrarian Services also continues to give medium and long-term loans to Co-operatives. The department has stopped giving short-term loans, as this function has now been taken over by the People's Bank and the New Agricultural Credit Scheme. The Chairman and the Secretary of the Co-operative Society has to sign a bond in favour of the Commissioner of Agrarian Services.

2. Graduation Policy

There is no fixed Graduation Policy as such but successful borrowers are able to win the confidence of their respective committees and are eligible to obtain further loans as they are considered creditworthy customers with a good repayment record.

3. Other Sources of Credit

In Ceylon the majority of the other sources of credit are from the non-institutional sources such as professional money-lenders, semi-professional money-lenders, landlords, commission agents and traders, boutique or trade credits, boutique loans and friends and relations. [1]

(a) Professional and Semi-Professional Money-lenders. According to the survey data, professional and semi-professional money-lenders are the most important sources of credit and together they provided 28.8% of the amount borrowed, 24.3% of the debt currently outstanding and 15% of the total outstanding debt. A person who engages himself in money-lending as his main occupation was considered a professional money-lender whereas a part-time money-lender engaged in lending in addition to his main occupation, for example, a school teacher who engages in money lending, was considered as a semi-professional money lender. These classes of lenders would lend at a high rate of interest, mostly on the pledge of security and on comparatively stringent terms. The terms on which credit is extended by them and the high rates of interest generally charged impose an economic burden on the peasant that is detrimental to the attainment of the objectives of increased agricultural production.

(b) Friends and Relations. According to the survey of rural credit and idebtedness of 1969 conducted by the Central Bank of Ceylon, among the specified categories, friends and relations were one of the most important sources of credit to the rural sector. Friends and relations were those lending out of consideration and friendship or relationship and not as a

[1] Report of the Survey of Rural Credit and Indebtedness 1969 conducted by the Central Bank of Ceylon.

part of business transactions. Of the total debt 25.8% of the amount borrowed in the reference period of the survey, 21.0% of the total amount outstanding and 25.4% of the amount currently outstanding were from friends and relations. However all loans from friends and relations were not free of interest though to a very large extent these were so. The absence of any interest as such was an indication that these loans were obtained on personal understanding and trust among the creditor and debtor. These factors account for the importance of this source of credit to the rural sector.

(c) Boutiques. In regard to credit given to boutiques a distinction has been made between trade credit and loans. Trade credits were more important of the two and represented as much as 10.5% of the total amount borrowed although its percentage share of the total amount outstanding was much less at 1.5% and was 2.8% of the total amount currently outstanding. Trade credits from boutiques is a facility that is commonly extended by traders to their customers to tide over periods of low cash receipts.

(d) Landlords, Commission Agents and Traders. A feature of equal importance that is revealed by the survey is the significance both of commission agents and landlords as other sources of credit. In peasant agriculture which is characterised by a preponderance of tenant cultivators the landlord would normally be an important source of credit. But the relative insignificance of the landlord could be a reflection of the degree to which credit transactions between the tenant cultivator and the landlord take place in kind.

The commission agent, on the other hand, is important as a source of credit largely in the vegetable-growing areas and, to a lesser extent, in the tobacco-growing area. Traders were in general urban based and advanced money to the cultivator on the mortgage of the expected crop. Their activities too were limited mainly to the vegetable-growing areas.

Apart from these non-institutional sources, loans were also obtained from the Branch Offices of the People's Bank on the surrender of collateral acceptable to the Bank. The Rural Banks engage in pawning activities as well. This also provides a certain amount of credit to the rural population.

E. Lending Policies and Procedures

1. Portfolio

The use of the People's Bank credit facilities under the 3 Schemes are given below.

(a). Extended Credit Scheme

The following Table summarises the progress of this Scheme since 1967:

TABLE XIV

EXTENDED CREDIT SCHEME 1967-1970: USE OF PEOPLE'S BANK CREDIT FACILITIES

End of Quarter		No. of Co-operative Societies	Aggregate Overdraft Facilities	
			Approved by People's Bank	Utilised by Societies
			(Amount in Rupees)	
1967	March	55	1,638,568	1,275,450
	June	56	1,651,068	1,279,757
	September	58	1,685,268	1,254,471
	December	67	1,901,118	1,295,673
1968	March	66	1,796,818	1,211,925
	June	67	1,829,818	1,231,479
	September	69	1,872,818	1,293,536
	December	69	1,837,118	1,162,904
1969	March	72	1,892,818	1,166,789
	June	72	1,914,818	1,224,288
	September	71	1,856,318	1,210,672
	December	72	1,861,950	1,163,384
1970	March	73	1,878,450	1,229,580
	June	74	1,903,450	1,207,662
	September	73	1,854,450	1,183,657
	December	76	1,903,450	1,200,847

Source: Central Bank Annual Report, 1970.

At the end of 1970 the Scheme was operated by 76 Co-operative Societies as against 72 at the end of the previous year. The aggregate overdraft limits approved for these Societies by the People's Bank increased from Rs 1·86 million at the end of 1969 to Rs 1·90 million at the end of 1970 while the aggregate utilised by the Societies increased from Rs 1·6 million to Rs 1·20 million. One Co-operative left the Scheme in 1970 on becoming a Rural Bank.

(b). Rural Banks

The following Table summarises the deposits and loans of Rural Banks on a quarterly basis since 1965. The finances of Rural Banks continue to expand with the opening of Rural Bank in the Co-operatives. When this happens the Rural Bank takes over the granting of credit which was actually done by the Co-operatives. At the end of 1970 there were 90 Rural Banks.

The total deposits with the Rural Banks recorded an unprecedented increase of Rs 10.7 million in 1970 which could be attributable mostly to the demonetisation that took place in 1970. The number of savings deposits increased by 24,313. The average size of a savings deposit was Rs 322 as against Rs 199 at the end of 1969. The number of fixed deposits rose from 724 at the end of 1969 to 892 at the end of 1970.

The expansion in credit granted by the Rural Banks is seen in the increase in the number of loans from 7,893 in 1969 to 10,017 at the end of 1970, and in the increase in the outstanding loans from Rs 5·6 million to Rs 7·1 million. The average loan increased from Rs 706 in 1964 to Rs 711 at the end of 1970.

TABLE XV - DEPOSITS AND LOANS OF RURAL BANKS, 1965-1970

Amount in Rupees

End of Quarter	No. of Banks	Deposit Accounts									Loans		
		Savings			Fixed			Total					
		No.	Amount	Average	No.	Amount	Average	No.	Amount	Average	No.	Amount	Average
1965: March	6	1556	194,013	125	10	8,100	810	1566	202,113	129	572	489,485	856
June	7	1925	305,250	159	7	3,682	526	1932	308,932	160	771	693,621	900
September	8	2597	504,160	194	7	3,734	533	2604	507,894	195	1038	855,946	825
December	8	2924	491,626	168	9	4,734	526	2933	496,360	169	1153	914,699	693
1966: March	8	3244	499,462	154	9	8,732	970	3253	508,195	156	1316	1,010,628	768
June	8	3519	525,370	149	13	20,586	1583	3532	545,956	155	1433	1,072,293	748
September	11	3923	604,505	154	11	19,868	1806	3924	624,373	159	1611	1,204,125	747
December	13	4636	703,011	152	15	22,737	1516	4651	725,748	156	1783	1,326,457	744
1967 March	14	5150	707,475	137	16	21,587	1349	5166	729,062	141	2037	1,413,639	694
June	16	5971	821,448	138	20	38,952	1948	5991	860,400	144	2173	1,560,560	718
September	20	6968	1,038,201	149	28	40,242	1437	6996	1,078,433	154	2529	1,815,637	718
December	27	8792	1,305,846	118	41	65,381	1595	8833	1,371,227	155	2897	2,029,476	701
1968 March	30	10378	1,650,228	159	85	111,430	1310	10463	1,761,658	168	3336	2,366,359	709
June	34	12137	2,063,947	170	137	161,486	1179	12274	2,225,433	181	4128	2,592,847	628
September	39	14689	2,643,592	180	254	221,270	871	14943	2,864,862	192	4713	3,105,393	659
December	44	17359	3,110,576	179	287	222,614	776	17646	3,333,190	189	5586	3,630,731	650
1969 March	54	19763	3,624,967	183	621	267,109	430	20384	3,892,072	191	6109	4,161,873	681
June	57	22314	4,406,770	197	575	283,550	667	22889	4,790,320	209	6770	4,397,883	669
September	64	25598	4,930,514	193	687	437,884	637	26285	5,368,398	204	7379	4,969,245	673
December	68	28626	5,712,893	199	724	460,168	636	29350	6,173,061	210	7893	5,572,281	706
1970 March	80	31663	6,209,882	196	420	521,345	1241	32083	6,731,227	209	8506	6,049,586	711
June	86	34887	7,104,222	176	841	697,101	829	35728	7,801,323	212	8894	6,265,170	705
September	89	38417	8,255,943	215	932	721,352	774	39349	8,977,295	220	9671	6,779,046	701
December	90	49939	16,109,287	322	892	799,117	896	50831	16,908,405	333	10017	7,122,213	711

Source: Central Bank Report, 1970.

(c) The New Agricultural Credit Scheme

The following Table gives the loans granted under this Scheme from 1967 to 1970:

TABLE XVI

NEW AGRICULTURAL CREDIT SCHEME - PADDY LOANS

	Amount in Rupees Million					
Season:	Maha 1967/68	Yala 1968	Maha 1968/69	Yala 1969	Maha 1969/70	Yala 1970
Loans granted	61.4	11.3	45.7	9.9	39.2	11.5

Source: Central Bank Annual Report, 1970.

Loans granted in 1969/70 Maha Season amount to Rs 39·2 million compared with 45·7 million in the Maha Season 1968/69 and 61·4 million in 1967/68. Loans granted in 1969/70 amounted to only 64 percent of the loans granted in 1967/68, which was the first Maha Season under this Credit Scheme. Loans for the Yala Season 1970, however, improved somewhat, amounting to Rs 11·5 million as against Rs 9·9 million in 1969 and Rs 11·3 million in 1968.

The annexed Table shows the loans granted for the subsidiary crops.

Loans granted for the production of subsidiary crops such as chillies, red onions, potatoes and vegetables rose from Rs 6·4 million between October 1968 and September 1969 to Rs 7·9 million in September 1970. Loans for chillies, red onions, potatoes and vegetables continued to account for the bulk of the total loans for subsidiary crops.

TABLE XVII

LOANS FOR SUBSIDIARY CROPS UNDER THE NEW AGRICULTURAL CREDIT SCHEME

	Chillies		Red Onions		Potatoes		Vegetables		Percentage of Recoveries			
	Granted	Recovered	Granted	Recovered	Granted	Recovered	Granted	Recovered	Chillies	Red Onions	Potatoes	Vegetables
1968/69	20,414	11,830	24,704	23,552	15,021 50*	12,343 50*	4,348	3,795	57.95	95.33	82.17 100.00*	87.28
1969/70	23,934	10,113	29,597	18,193	16,838	12,189	2,813	1,743	42.25	61.46	72.38	61.96

* Bombay onions

Source: Central Bank of Ceylon - Annual Report 1970.

The loans given out by the Department of Agrarian Services in 1965/66 to 1969/70 to Co-operative Societies are given in the following Table.

TABLE XVIII

CLASSIFICATION OF LOANS GRANTED TO CO-OPERATIVE SOCIETIES ACCORDING TO PURPOSE

Purpose of Loan	Amount taken during 1965/66	Amount taken during 1966/67
	Rs. cts.	Rs. cts.
Short Term Loans:-		
1. Seed Paddy	4,205,031.40	3,499,600.80
2. Chemical Fertiliser ..	3,837,614.45	4,828,465.00
3. Agro-chemicals	15,855.25	10,354.70
4. Ploughing	10,801,301.00	9,259,229.00
5. Transplanting or Row Seeding	2,243,718.50	2,314,765.75
6. Weeding	3,232,178.50	3,345,336.85
7. Harvesting	1,371,460,50	1,715,389.00
8. Electorate Farms	382.50	-
9. Marketing of Cotton ..	630,000.00	500,000.00
10. Subsidiary Food Crops ..	1,472,561.00	2,192,890.98*
11. Pineapple Cultivation ..	62,258.75	-
12. Poultry Farming	-	13,418.29
Medium Term Loans:-		
13. Sprayers	2,204.00	1,184.75
14. Agricultural Implements & Machinery	38.00	-
15. Barbed Wire	9,939.42	13,364.00
16. Water Pumps	19,217.10	412,785.90
17. Wells	7,000.00	9,000.00
18. Asweddumization - (Youth Farm)	-	66,000.00
19. Asweddumization - (Other Societies)	6,775.00	217,945.00
20. Making Rocky lands Arable ..	6,000.00	-
21. Iron Safe	-	1,200.00
Long-Term Loans		
22. Purchase of land	2,800.00	1,600.00
23. Buildings	143,067.23	347,697.97
24. Rice Mills	41,553.80	159,226.00
25. Vehicles	24,058.13	24,058.13
26. Paddy Marketing Loans ..	-	3,373,400.00
Total	28,138,014.53	32,306,912.12

* Onion Cultivation Rs.1,678,277.00
Chillies Cultivation 409,870.00
Potatoes Cultivation 104,743.98
Rs.2,192,890.98

TABLE XVIII - (continued)

Classification of Loans Granted to Co-operative Societies according to Purpose

Purpose of Loan	Amount taken during 1967/68	Amount taken during 1968/69
	Rs. cts	Rs. cts.
Short-Term Loans		
1. Seed Paddy ..	2,455.20	-
2. Agro-chemicals ..	2,871,40	-
3. Marketing of Cotton ..	600,000.00	800,000.00
4. Subsidiary Food Crops ..	77,455,86	-
Total ..	682,782.46	800,000.00
Medium-Term Loans		
5. Sprayers	-	47,585.00
6. Buffaloes	-	408,400.00
	-	455,985.50
Long-Term Loans		
7. Water Pumps ..	133,680.00	382,430.00
8. Asweddumization (Youth Farming) ..	1,323,960.00	1,238,999.66
9. Asweddumization (Other Societies) ..	11,200.00	3,000.00
10. Making Rocky land Arable..	750.00	3,750.00
11. Buildings ..	72,052.52	37,287.37
12. Village Level Fertiliser Stores ..	259,217.02	113,421.40
13. Rice Mills ..	123,997.50	38,421.40
14. Vehicles ..	22,639.38	-
15. Weighing Machines ..	-	4,100.00
	2,630,278.88	3,077,857.93

TABLE XVIII - (continued)

Purpose of Loan	Amount taken during 1969/70
	Rs. cts.
Short-Term Loans	
1. Seed Paddy	-
2. Cultivation	-
Total ..	-
Medium-Term Loans	
3. Sprayers	1,340.50
4. Buffaloes	33,600.00
5. Barbed Wire	21,504.00
6. Pineapple Cultivation ..	14,615.00
Total ..	374,259.50
Long-Term Loans	
7. Water Pumps	340,962.25
8. Asweddumization (Youth Farming)	463,949.14
9. Making Rocky Lands Arable ..	500.00
10. Buildings	54,809.00
11. Village Level Fertiliser Stores	95,604.51
12. Vehicles	37,500.00
	993,324.90

Source: Commissioner of Agrarian Services

The short-term loans given by the department have progressively decreased until in 1969/70 there were no short-term loans given. This is because, as stated earlier, the granting of short-term loans had been taken over by the People's Bank and the New Agricultural Credit Scheme. The granting of long-term loans also shows a decline mainly due to defaults in repayments.

2. Interest Rates

Prior to the formation of the New Agricultural Credit Scheme in 1967, the rates of interest carried with it a large element of subsidy by the Government. In fact part of the misuse of funds may have been due to the fact that some borrowers realised that the going rate in the market is higher and that they could make larger profits by re-lending the money given to them by Government at a subsidised rate of interest. Prior to 1967 the lending rates were around 4 to 5 percent. These were the rates calculated on the basis of funds provided by the Department of Agrarian Services at 2 percent. These rates were very low in comparison to actual rates of interest prevailing in the rural sector as revealed by a survey of rural indebtedness conducted in 1968. The rates of interest prevailing in the rural sector at the time were such that the bulk of loans carried rates of interest well over 18 percent. The maximum rate of interest under the Money Lending Ordinance is fixed at 18 percent.

The Committee of the New Agricultural Credit Scheme which submitted its Report in June 1966 recommended that there was no necessity for the Government or the Banks to undertake lending in the rural sector at low (subsidised) rates of interest especially when it is considered that interest charges, however high the rate, would form only a very small part of the total production costs in rural agriculture. The Committee therefore felt that the rate of interest should be worked out in such a way that the lending institutions will have an adequate margin to cover

cost involved in operating this Scheme as well as the high risks involved in lending to the rural sector. As a result the rates of interest under the New Agricultural Credit Scheme have been so adjusted that the Bank will lend to the Co-operative Societies at 9 percent interest per annum and the Societies in turn should lend to their members at not more than 12 percent. Where a Society repays a Bank loan in full on or before the due date, the Bank will give the Society a rebate of 3 percent on the interest recoverable. The Society is expected to give the same rebate in respect of monies that have been re-lent to its members, if the members repaid their loans on or before the due date. The facilities of organised credit through financing institutions available to the urban borrower are not available to the rural borrower. If Co-operative credit was not available, the rural borrower will have to go to the private money lender and obtain at interest rates which were much above the legal maximum of 18% whilst the urban borrower can get it at around 15 percent.

The rate of interest given under the Rural Bank Scheme and the Extended Credit Scheme are the same as for the New Agricultural Credit Scheme.

The rates differ within the limits mentioned depending on the period of the loan.

3. Collateral

Normally the peasant farmers are not in a position to submit any type of acceptable collateral. Loans given by the Department of Agrarian Services to the Multi-purpose Co-operative Societies are based on a bond signed by the Chairman and Secretary of the Multi-purpose Co-operative Society in favour of the Commissioner of Agrarian Services. A copy of this bond is given in Annexe 6. The members of the Co-operative Societies in turn sign a bond in favour of the Co-operative Societies. This bond

is signed by the member with two sureties who should also be members of the Co-operative Societies. Under the New Agricultural Credit Scheme the individual members submit their loan applications to the Primary Societies through their branch committees. These applications must be recommended by the Branch Committee and the Co-operative Inspector. Wherever possible land, buildings, vehicles, and other assets which are acceptable to the Co-operative Society will be accepted as collateral.

4. Other Subsidy

The Department of Agrarian Services operates a fertiliser subsidy scheme. On a recommendation made by the Committee on Paddy Fertilisers appointed by the Minister of Agriculture and Food in 1968 the Government decided to introduce a single rate of subsidy of 50 percent for both cash and credit purchases of fertiliser, with the commencement of the Maha 1968/69 season. This brought to an end the system of dual subsidy under which purchasers of fertiliser for cash payment were entitled to a subsidy of 50 percent and purchasers of fertiliser under the Credit Scheme were entitled to a lower subsidy of $33\frac{1}{3}$ percent. This introduction of a uniform subsidy resulted in a considerable simplification in the administration of the fertiliser subsidy scheme. Under the earlier scheme a Co-operative Society which obtained fertiliser on the $33\frac{1}{3}$ subsidy and sold the whole or part of it for cash (i.e. at the 50 percent subsidised price) was entitled to a subsidy conversion of such cash sales provided it applied for conversion within 45 days. Similarly with effect from 1.10.67 a cultivator who obtained his fertiliser under the $33\frac{1}{3}$ percent subsidy was entitled to a conversion to the higher subsidy if he repaid his entire cultivation loan to the Co-operative Society in time.

Fertiliser issues made during 1963/64 to 1969/70 (a) for direct payment of cash and (b) under the Credit Scheme are given below with the comparative figures for the previous years.

TABLE XIX

FERTILIER ISSUE FOR CASH & CREDIT - 1963/64 TO 1969/70

Year	For Cash	Percentage of Total	On Credit	Percentage of Total
1963/64	39,064	65	21,032	35
1964/65	30,471	72·5	11,575	27·5
1965/66	31,059	76·7	9,429	23·7
1966/67	38,071	72	14,784	28
1967/68	49,862	58.3	34,369	41·7
1968/69	63,157	73·3	22,909	26·7
1969/70	74,016	86·7	11,341	13·3

Source: Department of Agrarian Services

These figures show that sales of fertiliser on credit had decreased by 11,460 tons between 1967/68 and 1968/69 and by a further 11,568 tons between 1968/69 and 1969/70 in spite of the fact that the subsidy was raised from $33\frac{1}{3}$ percent to 50 percent for fertiliser supplied under the Credit Scheme. It would not be incorrect to ascribe part of the reduction in credit sales of fertiliser to the reduction in cultivation loans granted by the People's Bank as a result of the high rate of default which rendered a large number of farmers ineligible for loans in the succeeding cultivation season. The shift of farmers from 'credit' purchases to 'cash' purchases of fertiliser during 1968/69 is seen from the increase of cash purchases from 49,862 tons in 1967/68 to 63,157 tons (an increase of 13,295 tons) and to 74,016 tons in 1969/70.

The above Table indicates that it is normal for cash sales of fertiliser to be over 72 percent of the total sales except in the years 1963/64 and 1967/68. It would be seen that in these years there has been a significant change in the proportion of 'cash' sales of fertiliser. The increase in credit sales of fertilisers bear some relation to the

increase in the total volume of credit obtained under the agricultural credit schemes.

As in previous years the Multi-purpose Co-operative Societies continued to be the main suppliers of fertiliser to the farming population. This is seen from the following Table:

TABLE XX

ISSUE OF FERTILISER

Year	Co-operative Societies (tons)	Cultivation Committees (tons)	Authorised Dealers (tons)	Individual buyers (tons)	Total (tons)
1966/67	39,540	3,093	2,774	7,448	82,855
1967/68	61,039	2,063	6,599	14,530	84,234
1968/69	65,054	2,411	7,721	10,880	86,066
1969/70	63,178	2,181	10,761	9,237	85,357

Source: Department of Agrarian Services

The co-operative societies obtained their fertiliser from the Department on loans granted by the People's Bank or by direct payment in cash. Apart from the fertiliser subsidy, other subsidies play an important role in encouraging agricultural production both in the plantation and peasant sectors.

The following Table summarises the rates of subsidy on inputs given in the late 1968 and early 1969 for various crops:

TABLE XXI

RATES OF SUBSIDY ON INPUTS IN 1968/69

Crop	Operation	Subsidy per Unit
Tea	Replanting	Rs 3,750 per acre [1]
	Fertiliser	Rs 400 per acre over 5 years [2]
	Tea machinery	50% subsidy at normal interest rates
Rubber	Replanting	Rs 1,400 or Rs 1,500 per acre [3]
Coconut	Seedlings	70% of cost
	Fertiliser	50% of cost
Rice [4]	Fertiliser	50% of cost
	Seed paddy	Rs 2 per bushel
	Seeders and Weeders	40% of cost
	Tractor hire	Government tractor stations operated at loss
	Irrigation	Variable [5]

1 Subsidy paid from the self-financed Tea Fund.

2 The subsidy at an annual average rate of Rs 80 per acre per annum is for holdings under 100 acres and intended to cover 50% of the cost of fertiliser.

3. The higher rate is for estates of under 100 acres

4. Neither credit provision nor extension services has been included as subsidised inputs.

5. Under major schemes an attempt was made to charge for maintenance on a per acre basis at a rate varying from Re.1 to Rs 5. These charges have been waived after 1970. The subsidy involved in providing irrigation for major schemes may, however, be equivalent to around Rs 200 per irrigated acre per year.

Source: Ministry of Agriculture, Agricultural Development Proposals - Colombo, 1966, and Implementation Programme and Targets, 1967-1968.

The Government also operates the food subsidy in rice and sugar. 2 lbs. of rice per week are given free to every member of the Co-operative Society whilst another 2 lbs. is sold at 50 cents per pound to each member of a Co-operative Society.

5. Appraisal Techniques

Loans are given only to members of Co-operative Societies. Under the new Agricultural Credit Scheme the maximum borrowing allowed to a cultivator is restricted by the number of shares of Rs 50 each, which he holds and depends on whether he cultivates for a single season or two seasons in the year.

The following Schedule shows the maximum borrowing allowed to a cultivator up to 10 acres. Prior to the introduction of the New Agricultural Credit Scheme, an individual cultivator was entitled to obtain a sum not exceeding Rs 175 per acre up to a maximum of 6 acres for the first cultivation season, and where there were two cultivations a year, for the second season his total indebtedness could rise to 1½ times this sum. Under the present Scheme, the limit of Rs 175 per acre was increased to Rs 220 and the maximum of 6 acres was raised to 10 acres.

No. of shares held	Acreage to be cultivated	Maximum entitlement for 1st season Rs	Total IMCL for the year Rs	Maximum entitlement for 2nd season
One	One	220 (1½ xRs220)	330	Difference between the IMCL and the indebtedness at time of lending
One	Two	440	660	
One	Three	660	990	
One	Four	880	1,000	
One	Five	1,000	1,000	
Two	Four	800	1,320	
Two	Five	1,100	1,650	
Two	Six	1,320	1,980	
Two	Seven	1,540	2,000	
Two	Ten	2,000	2,000	
Three	Seven	1,540	2,310	
Three	Eight	1,760	2,640	
Three	Nine	1,980	2,970	
Three	Ten	2,200	3,000	
Four	Ten	2,200	3,300	

On receiving individual loan applications the Committee of the Co-operative Society will consider the eligibility of each applicant for loans on the basis of his individual maximum credit limit and his credit needs for cultivation. The Co-operative Inspector is required to test check 10 percent of these applications and also to see that the Society deals with them promptly. The Committee will thereafter prepare the Composite Loan Application Form of the Society and also summon a General Meeting for determining a society's maximum credit limit. All this should be done early enough to ensure that this loan application (duly endorsed by the Co-operative Inspector to the effect that the loan applied for, is within the maximum credit limit approved by the Assistant Commissioner for Co-operative Development) reaches the Bank at least 1½ months prior to the commencement of the cultivation season.

Just before the commencement of the season the Committee of the Society will study the Production Plan prepared at the village level by the Cultivation Committee. The Government Agent who is also the Deputy Commissioner of Agrarian Services and Deputy Commissioner of Co-operative Development is required to supervise very closely the village level production plan and nominate an officer as his agent for certifying the village level plans and the loan applications prepared by the Co-operative Society. The Village Level Officer's certificate is given on behalf of the government and it is the basis on which a credit guarantee is given by the Central Bank on behalf of the government.

After the study of the Production Plan by the Committee of the Society and other officers responsible for the preparation of the plan, a revised loan application on the basis of the conditions for cultivation actually prevailing, will be prepared and sent to the Bank together with the bond and usance note.

In Appendix 7 is given a model time table of operations relating to loan applications in the Dry Zone of Ceylon where the North East

monsoon commences about October. And in Appendix 8 is given the manner in which the maximum credit limit of a Society should be assessed.

Part of the loan is in cash and part in kind. In regard to loans in kind the procedure adopted after 1.9.67 was as follows:

(a) Fertilisers

The usual application form for fertiliser loans in kind will be perfected by the Society and despatched to the Bank together with the Revised Loan Application Form (Form No.2). The Bank in granting the loan will despatch the fertiliser application form to the Assistant Commissioner of Agrarian Services requesting him to supply fertiliser at the 50 percent subsidy rate up to a value not exceeding a specified sum and to send the Bank his bill and the Society's receipt for supply. The Assistant Commissioner of Agrarian Services will thereupon check the application, arrange for supply and prepare and remit to the Bank his bill and a copy of his Storekeeper's Sale Invoice together with the acknowledgment of the duly authorised representative of the Society. (For convenience the Asst. Commissioner of Agrarian Services may send fortnightly one bill in respect of several transactions with different societies). The Bank will then pay the bill, debit the relevant Society's account and despatch to the Society a debit note showing the amount of the fertiliser loan, and quoting reference to the relevant Sale Invoice.

(b) Seed Paddy

After 31st August 1967 seed paddy loans are given in cash, excepting loans for certified seed paddy which will be given in kind for distribution only among farmers selected by the District Agricultural Extension Officer. Where a society requires such a loan in kind, the requirement should be separately included in the revised loan application form, and the quantity and variety needed and the source of supply given in an annexe to that

form. Of course it will be necessary for the Society to ensure that the certified seed paddy required is reserved by the Agricultural Instructor for the members who are to receive it. When the Bank decides to grant such a loan, it will forward to the Assistant Commissioner of Agrarian Services the annexe referred to and request him to supply the seed paddy and remit to the Bank his bill together with the Society's receipt for the commodity. The Bank will subsequently pay the bill, debit the society's account and send the society a debit note showing the quantity and value of the seed paddy. The Assistant Commissioner of Agrarian Services will also send to the Divisional Agricultural Extension Officer a monthly return of issues of certified seed paddy under this Scheme.

(c) Agro-chemicals

In applying for insecticides and fungicides as loans in kind, the Society will state in an annexe to the revised loan application form the recognised institution from which it proposes to make the purchase, and give the varieties, quantities and approximate value of the agro-chemicals required. The Bank will request the Assistant Commissioner of Agrarian Services to arrange for the supply from a suitable institution and remit the bill and the Society's receipt for the supply. Thereafter the Bank will pay the bill, debit the Society's account and despatch a debit note to the Society giving particulars of the loan. The Department of Agrarian Services will study the market conditions relating to the more popular varieties of agro-chemicals and take the necessary steps to see that these commodities would be available in each district at a reasonable price. Where a society anticipates any difficulty in obtaining timely supplies of the required variety through this procedure, it is at liberty instead, to apply for a cash loan for this purpose.

(d) Barbed wire and other loans in kind

A procedure similar to that for the supply of agro-chemicals will be followed in such cases.

Under the Extended Credit Scheme and the Rural Banks Scheme the usual technique adopted depends mostly on the personal knowledge the Committee of a Co-operative has of the individual member. So long as the member is not in default and is acceptable, he will be granted loans according to the purpose of borrowing and within the limits allocated to him.

F. Collection

1. Repayment Record

The repayment of debt shows a deteriorating trend and the balance outstanding has increased progressively. The following Table (Table XXII) shows the quantities of loans granted, recoveries made and the balance outstanding, for loans given out by Government Departments (as distinct from those schemes financed by the People's Bank.) It will be seen from the Table that in the year 1963/64 there is a sharp increase in the loans granted. This was a result of making only those members who were in default ineligible for loans rather than the earlier practice of debarring the entire membership of a co-operative society which had defaulted in their repayments, the other reason being the extension of the credit limit per member. The amount of recoveries, and the balance outstanding also shows a sharp rise during the same year.

TABLE XXII

LOANS GRANTED TO CO-OPERATIVE SOCIETIES, AMOUNT RECOVERED ANNUALLY AND BALANCE OUTSTANDING AT END OF EACH YEAR

Year	Loan Granted	Recoveries	Balance Outstanding
	Rs	Rs	Rs
1947/48	4,356,000	2,544,000	1,812,000
1948/49	5,563,000	2,040,000	5,335,000
1949/50	4,247,000	3,654,000	5,924,000
1950/51	6,695,000	4,147,000	8,472,000
1951/52	8,836,000	7,420,000	9,888,000
1952/53	15,864,000	7,438,000	18,324,000
1953/54	11,709,000	11,305,000	18,728,000
1954/55	14,674,000	15,630,000	18,372,000
1955/56	18,370,000	17,512,000	19,230,000
1956/57	21,934,000	21,787,000	19,377,000
1957/58	13,809,000	12,544,000	20,642,000
1958/59	18,382,000	13,022,000	26,022,000
1959/60	13,961,000	13,815,000	26,148,000
1960/61	11,406,000	13,395,000	24,159,000
1961/62	12,618,000	13,134,000	23,643,000
1962/63	10,667,000	9,462,000	24,848,000
1963/64	34,588,000	16,200,000	43,200,000
1964/65	27,555,000	16,517,000	54,238,000
1965/66	28,138,000	21,324,000	61,052,000
1966/67	32,307,000	14,825,000	78,534,000
1967/68	2,630,000	1,146,000	75,018,000
1968/69	3,078,000	1,527,000	76,569,000
1969/70	1,367,000	1,140,000	76,796,000
1970/71	225,000	397,000	76,624,000*
Total	322,979,000	246,315,000	-

* Of this sum, loans granted prior to 1.10.58 amounting to Rs 5,784,000 have been written off leaving a balance of Rs 70,840,000 outstanding.

Source: Department of Agrarian Services.

The following Table shows the overall position of loans granted and repayments under the New Agricultural Credit Scheme for paddy loans i.e. from the inception of the Scheme in 1967 to 1970:

TABLE XXIII

New Agricultural Credit Scheme - Paddy Loans

Season / Operation	Amount in Rupees Million						As percentage of amount utilised					
	Maha 1967/68	Yala 1968	Maha 1968/69	Yala 1969	Maha 1969/70	Yala 1970	Maha 1967/68	Yala 1968	Maha 1968/69	Yala 1969	Maha 1969/70	Yala 1970
Loans granted	61.4	11.3	45.7	9.9	39.2	11.5	100.0	100.0	100.0	100.0	100.0	100.0
Total Repayments of which	52.4	9.5	27.0	7.8	18.7	6.9	85.3	84.0	59.1	78.8	47.7	52.2
Voluntary	43.0	9.0	24.9	7.6	18.7	6.0	70.0	79.6	54.5	76.8	47.7	52.2
Rice Ration Coupons	9.4	0.5	2.1	0.2	0.0	0.0	15.3	4.4	4.6	2.0	0.0	0.0
Crop Failure Extensions	0.4	0.2	4.9	0.6	0.5	0.0	0.7	1.8	10.7	6.1	1.3	0.0
Dues not in Default	0.0	0.0	0.0	0.1	0.7	4.7	0.0	0.0	0.0	1.0	1.8	40.9
Defaults	8.6	1.6	13.8	1.4	19.3	0.8	14.0	14.2	30.2	14.1	49.2	6.9

Source: Central Bank of Ceylon, Annual Report, 1970.

The deteriorating level of voluntary repayments has been a significant feature accounting for the decline in the coverage of the Scheme. Voluntary repayments, which were 70·0 percent of loans granted in the Maha Season of 1967/68 and 54·5 percent in the Maha Season of 1968/69 declined further to 47.7 percent in the Maha Season of 1969/70. Voluntary repayments in the Yala Season declined from 79.6 percent in 1968 to 76.8 percent in 1969.

In the previous years the total recoveries were higher than voluntary repayments when the value of rice ration coupons hypothecated under the scheme are taken into account. (In Ceylon rice is rationed and issued on coupons to members of Co-operative Societies.) In 1970 however, with the government's decision to restore hypothecated rice ration coupons to the defaulting borrowers, total recoveries do not exceed voluntary repayments.

The broad picture emerging from this Table is that (a) the decline in the use as well as in the repayment of credit began in the very next year after the commencement of the scheme; (b) the declining trend in both use and repayments of credit has become pronounced in later years and (c) the decline in repayments has been at a much faster rate than the decline in the use of credit.

Since the defaulting borrowers render themselves ineligible for further loans under the Scheme, the utilisation of credit falls along with a decline in repayments. However, the more pronounced decline in the rate of repayment was found to be mainly due to new borrowers utilising the Scheme and due to borrowers who had defaulted on past loans borrowing in others' names. The district-wise position as regards repayment in shown in the Table annexed.

TABLE XXIV

DISTRICTWISE CLASSIFICATION OF REPAYMENTS AS A PERCENTAGE OF AMOUNT BORROWED

District	Maha				Yala		
	1967/68	68/69	69/70	70/71	1968	1969	1970
Group A							
Kandy	99	94	89	31	97	95	83
Polonnaruwa	96	89	89	66	95	88	78
Kegalle	95	100	93	36	100	89	73
Badulla	94	85	79	80	93	93	86
Group B							
Colombo and Kalutara	92	84	63	44	87	67	54
Matale	95	96	46	28	96	100	55
Ratnapura	92	91	71	67	98	81	58
Matara	94	96	61	40	87	83	49
Moneragala	86	86	61	64	100	100	100
Jaffna	94	79	61	54	100	-	87
Nuwara Eliya	97	79	72	22	78	62	36
Group C							
Anuradhapura	74	17	20	20	40	55	36
Puttalam	81	44	40	30	71	67	58
Amparai	71	56	55	46	90	91	75
Trincomalee	83	66	46	14	78	57	55
Vavuniya	90	38	40	-	23	79	-
Mannar	87	49	52	-	-	-	-
Batticaloa	87	60	27	39	80	35	34
Galle	78	77	61	67	64	71	43
Kurunegala	87	70	26	29	82	61	37
Hambantota	89	80	43	82	60	60	66

Source: Defaulters' Survey, Central Bank of Ceylon.

The districts of Kandy, Polonnaruwa, Kegalle and Badulla have consistently maintained high levels of repayments as shown by Group A in Table 4. The districts included under Group B recorded very high levels of repayments in the first two seasons of operation of the scheme, showed a slight deterioration in the Yala of the second year and from the third year onwards the repayments were very poor. The districts under Group C have almost a consistently low record of repayments.

This position is also confirmed by the Annual Report of the Central Bank 1970, which states that the level of voluntary repayments in Maha 1969/70 were lower than in the previous Maha in most districts. The levels in districts like Kandy, Matara, Polonnaruwa, Moneragala, Ratnapura, and Kegalle which were higher than in the previous season, also declined, markedly in some cases. In Matara the level dropped to 59.43 percent of loans granted from 91.95 percent in Maha 1968/69; in Moneragala, the level declined from 77.29 percent, to 58.47 percent.

Subsidiary Crops

The district-wise position for loans granted and the amount recovered for 1968/69 for subsidiary crops (according to the Annual Report of the Central Bank for 1970) are shown in the Table annexed.

As can be seen from this Table recovery levels have been lower in 1969/70 than in 1968/69. Recoveries were the highest in the case of loans for potatoes with 72.38 percent of loans granted, while Groundnuts and Maize recorded the lowest recovery rate of 15.38 percent.

The recovery of loans in the Jaffna District has been lower at 65.2 percent of loans granted as against 89.3 percent in 1968/69. Recoveries in the Badulla District amounted to 48 percent as compared with nearly 90 percent in 1968/69.

TABLE XXV

District-Wise Analysis of Loans for Subsidiary Crops - 1968/69

Amount in Rupees Hundred

District	Chillies		Red Onions		Potatoes		Vegetables		Percentage of Recoveries			
	Granted	Recovered	Granted	Recovered	Granted	Recovered	Granted	Recovered	Chillies	Red Onions	Potatoes	Vegetables
Colombo	-	-	-	-	-	-	-	-	-	-	-	-
Kalutara	-	-	-	-	-	-	210	210	-			100.00
Kandy	-	-	-	-	-	-	962	877	-	-	-	96.16
Matale	153	46	-	-	-	-	-	-	30.06	-	-	-
Nuwara Eliya	-	-	-	-	3,527	1,670	1,113	958	-	-	47.34	86.07
Galle	-	-	-	-	-	-	-	-	-	-	-	-
Matara	-	-	-	-	-	-	-	-	-	-	-	-
Hambantota	1,705	727	224	149	-	-	-	-	42.63	66.51	-	-
Jaffna	12,704	9,102	21,815	21,372	3,411	3,409	-	-	71,64	97.96	99.94	-
Mannar	-	-	-	-	-	-	-	-	-	-	-	-
Vavuniya	1,993	337	-	-	-	-	-	-	16.90	-	-	-
Batticaloa	-	-	-	-	-	-	-	-	-	-	-	-
Amparai	-	-	-	-	-	-	-	-	-	-	-	-
Trincomalee	246	139	1,461	1,023	-	-	-	-	56.50	70.07	-	-
Kurunegala	127	9	148	133	-	-	-	-	7.08	89.86	-	-
Puttalam	554	185	2	2	-	-	-	-	33.39	100.00	-	-
Anuradhapura	1,682	177	-	-	-	-	-	-	10.52	-	-	-
Polonnaruwa	223	215	140	140	-	-	-	-	96.41	100.00	-	-
Badulla	4	4	7	7	8,083	7,264	1,636	1,479	100.00	100.00	-	-
Moneragala	454	434	261	261	-	-	-	-	95.59	100.00	-	-
Ratnapura	569	455	646	465	-	-	427	271	79.96	71.98	-	63.46
Kegalle	-	-	-	-	-	-	-	-	-	-	-	-
Total	20,414	11,830	24,704	23,552	15,021	12,343	4,348	3,795	57.95	95.33	82.15	87.28
					50*	50*					100.00*	

* Bombay Onions.

Source: Central Bank of Ceylon, Annual Report 1970

TABLE XXV (Contd.)

District-Wise Analysis of Loans for Subsidiary Crops - 1969/70

Amount in Rupees Hundred

District	Chillies		Red Onions		Potatoes		Vegetables		Percentage of Recoveries			
	Granted	Recovered	Granted	Recovered	Granted	Recovered	Granted	Recovered	Chillies	Red Onions	Potatoes	Vegetables
Colombo	-	-	-	-	-	-	-	-	-	-	-	-
Kalutara	-	-	-	-	-	-	155	155	-	-	-	100.00
Kandy	-	-	-	-	82	68	950	767	-	-	82.92	80.73
Matale	-	-	-	-	-	-	-	-	-	-	-	-
Nuwara Eliya	-	-	-	-	2,827	2,041	773	509	-	-	72.19	65.84
Galle	-	-	-	-	-	-	-	-	-	-	-	-
Matara	-	-	-	-	-	-	-	-	-	-	-	-
Hambantota	893	63	134	38	-	-	-	-	7.05	28.35	-	-
Jaffna	15,651	8,270	26,125	16,920	6,654	6,409	-	-	52.84	64.76	96.31	-
Mannar	-	-	-	-	-	-	-	-	-	-	-	-
Vavuniya	600	2	-	-	-	-	-	-	.33	-	-	-
Batticaloa	-	-	-	-	-	-	-	-	-	-	-	-
Amparai	-	-	-	-	-	-	-	-	-	-	-	-
Trincomalee	269	67	2,198	774	-	-	-	-	24.90	35.21	-	-
Kurunegala	479	107	122	71	-	-	-	-	22.33	58.19	-	-
Puttalam	1,289	302	-	-	-	-	-	-	23.42	-	-	-
Anuradhapura	2,982	351	-	-	-	-	-	-	11.77	-	-	-
Polonnaruwa	112	89	-	-	-	-	-	-	79.46	-	-	-
Badulla	-	-	-	-	7,275	3,671	935	312	-	-	50.46	33.36
Monaragala	1,100	541	410	211	-	-	-	-	49.18	51.46	-	-
Ratnapura	559	321	608	179	-	-	-	-	57.42	29.44	-	-
Kegalle	-	-	-	-	-	-	-	-	-	-	-	-

Source: Central Bank of Ceylon, Annual Report 1970

In 1971 the Central Bank conducted a survey[1] of farmers who had defaulted in their repayments of loans taken under the new Agricultural Credit Scheme. The survey covered the period 1.9.67 to 31.12.70. This sample survey threw light on the causes of default as well as the attitudes of farmers to their borrowings and repayments. The following Table contains some of the relevant data.

TABLE XXVI

Income, Area Cultivated & Borrowings per Family

(Defaulting Unit) per season

Income Group of family - per season	% of defaulters	Area cultivated per season per family	Av. income per season per family (all sources) Rs.	Av.Borrowing per season per family New Agricultural Loan Rs.	Av.Borrowing per season per family	All loans as % of income
0- 300	5.6	1.02	196.2	61.2	108.0	55.0
301- 600	18.1	1.61	473.2	96.6	170.4	35.5
601-1500	47.4	1.93	1005.0	112.8	214.2	21.3
1501-3000	19.6	3.05	2181.0	184.2	406.2	18.6
3001-4500	5.0	3.42	3570.0	195.6	566.4	15.8
4501-6000	2.6	5.61	5271.6	318.0	1087.8	20.6
Over 6000	1.7	14.30	13983.6	444.0	1877.4	13.4
Total	100.0	2.41	1551.0	136.2	306.0	19.7

Source: Defaults Survey Central Bank of Ceylon.

The average debt (all loans) is nearly 20 percent of the average income, except for the two lower income groups the proportion of debt to income deferred little from the average.

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1. Report of the Survey of Defaults in the repayment of new agricultural loans - conducted by theDepartment of Economic Research - Central Bank of Ceylon.

Nearly 95 percent of the defaulters were paddy farmers and they had taken 97 percent of the loans granted. The total area cultivated was 14,190 acres or on an average of 16.9 acres per farmer defaulter for the 7 seasons. Thus the average per season works out to 2.41 acres per defaulter.

TABLE XXVII

Non-Agricultural Loans - Amount borrowed, repaid and overdue by income groups per defaulting Unit

Income group per season	Amt. borrowed as % of Income	Amt. repaid with interest as % of Income	Amt. overdue with interest as % of amount borrowed.
0 - 300	31.2	16.5	63.1
301 - 600	20.2	12.0	52.0
601 - 1500	11.2	6.6	52.5
1501 - 3000	8.4	4.6	56.5
3001 - 4500	5.5	3.2	54.1
4501 - 6000	6.0	3.1	56.2
Over 6000	3.2	1.7	56.0
Total	8.8	5.0	54.3

Source: Defaults Survey, Central Bank of Ceylon 1972.

The amount overdue was 4.8 percent over income while the amount borrowed was 8.8 percent. The gap between the amount borrowed and amount repaid as a percentage of income increases with a decrease in income. This is true of all loans.

Reason for Default

The Defaulters Survey made it possible to identify 17 causes of default on the basis of answers given by the informants. The following Table gives the percentage distribution of defaulters, the amount overdue under the new Agricultural Credit Scheme and the amount overdue in respect of all loans taken classified by each of the causes for default.

TABLE XXVIII

Amount Overdue Classified by Causes of Default

Cause of Default	Defaulters		New Agricultural loan Overdue	
	No.	% of Total	Amount Rs.	% of Total
1. Crop failed	222	26.4	135,931	32.8
2. Low Income	145	17.2	66,968	16.2
3. No intention to repay	101	12.0	80,503	14.6
4. Illness/Death	75	8.9	36.680	8.8
5. Indifference of Co-operative Officials	74	8.8	26,122	6.3
6. Malpractices of Co-operatives	66	7.8	20,803	5.0
7. Heavy Expenditure (legal, ceremonial etc.)	19	2.3	8,674	2.1
8. Think Loans may be written off	17	2.0	6,603	1.6
9. Misuse of Loans	16	1.9	7,188	1.7
10. Think loan will be outright grant	14	1.7	7,163	1.7
11. Lack of Irrigation facilities	13	1.5	4,885	1.2
12. Heavy Indebtedness	10	1.2	5,451	1.3
13. Malpractices of Government Officials	5	0.6	3,234	0.3
14. Heavy Capital Expenditure	4	0.5	2,915	0.7
15. Unemployment	3	0.4	1,005	0.2
16. Political Interference	3	0.4	1,216	0.3
17. Withdrawal of facilities to surrender Rice Ration Book	2	0.2	75	-
18. Other	52	6.2	19,282	4.7
Total	841	100.0	414,698	100.0

Source : Ibid Page 30

The two most important causes are low incomes and crop failure. These two are related to each other and accounted for 49 percent of the loans overdue. Of the defaulters 8.8 percent reported that if the Co-operative Officers had not shown indifference but had been active they would have repaid their loans in time.

It is not surprising to note that 12 percent of the defaulters had no intention to repay while another 2.0 percent thought that some day the loans will be written off. This would be a natural consequence of the waiver of debt given in 1966. Still another category of defaulters considered these loans to be outright grants. This could mean that nearly 18 percent of the overdue loans in the surveyed sample will not be returned because of these attitudes by the borrower.

Crop Failure

Crop failure has been the more common cause of default. The area affected by crop failure was 19.1 percent of the cultivated area.

The following Table gives the present distribution of area cultivated, area of crop failure, amount borrowed and amount overdue, during the reference period of the Survey of Defaults (i.e. from 1.9.67 to 31.12.70).

TABLE XXIX

Percent Distribution of Area Cultivated. Area of Crop Failure. Amount Borrowed And Amount Overdue

Size of Area Cultivated (Acres)	Area culti-vated %	Area Crop Failure %	Crop Failure as a % of area culti-vated	Amount Bor-rowed as % of Total	Amount Overdue as % of Total
0 - 169	-	0.1	61.3	0.4	0.8
161 - 320	0.2	0.2	29.6	0.6	0.9
321 - 480	0.4	1.0	45.3	1.0	1.2
481 - 600	1.1	1.7	28.2	2.0	3.1
601 - 800	0.6	0.8	24.5	1.6	1.9
800 - 1600	10.4	12.2	22.4	13.5	15.2
1601 - 2400	14.3	18.1	24.1	13.8	15.6
2401 - 3200	14.7	16.8	21.9	15.6	15.1
3201 - 6400	34.2	30.3	16.9	35.6	29.7
6401 -12800	14.3	12.6	16.9	12.8	13.9
Over 12800	9.8	6.2	12.1	3.1	2.6
Total	100.0	100.0	19.1	100.0	100.0

Source: Ibid page 33

There does not seem to be a uniform distribution of the crop failure on apercentage basis. The burdens imposed by such losses would be heavier among the lower income groups. Except in case of the highest income groups, crop failure affected the repaying capacity of all other income groups by more than the amount that was overdue.

Low incomes have also accounted for 16.2 percent of the overdue loans. It is the most important economic feature and

it stems from low productivity of land and labour combined. Low yields have been the cause of low incomes. The average yield per defaulting cultivator was 37 bushels per acre which was 65 percent of the national average. District-wise variations were very wide. Generally the Colombo and Kalutara Districts had low yields while Polonnaruwa and Mannar had very high yields. The yield data obtained in the survey are compared below with the average yield in each district obtained from crop cutting surveys done by the Department of Census and Statistics.

TABLE XXX

Paddy - Maha Yields in 1970/71 - Defaulters Survey

Data Compared with Average Yields

District	Average Yield (Survey of Defaults)	Average Yield (Department of Census & Statistics)
Colombo	28.8	38.85
Kalutara	28.0	33.18
Galle	28.1	28.50
Matara	34.5	29.85
Hambantota	31.4	40.95
Kandy	35.9	35.98
Matale	32.3	63.25
Nuwara Eliya	30.3	93.92
Badulla	26.0	66.42
Moneragala	39.7	50.95
Kegalle	37.6	61.80
Ratnapura	35.7	44.85
Kurunegala	34.0	48.62
Amparai	34.5	52.38
Polonnaruwa	45.7	89.15
Anuradhapura	39.0	58.32
Puttalam	23.7	44.92
Batticaloa	37.2	46.90
Vavuniya	32.3	43.15
Mannar	48.6	52.48
Trincomalee	29.9	55.60
Jaffna	35.8	33.00
Total	37.0	52.21

Source: Ibid page 35.

Several reasons were given by the cultivator for these low yields. These were:

1. Land was not suited to paddy cultivation but under the existing circumstances they could do nothing else with that land. Unsuitability of land for paddy cultivation arose from excessive water-logging and lack of drainage facilities in the South West while lack of irrigation facilities mostly accounted for low yields in the Dry Zone belt.

2. Inputs are either not available in adequate quantities or not available at the time he wants it most.

3. Lack of Extension Services. In most areas the Extension Officers had not visited the farmers. He himself has no understanding about modern scientific technology. In the absence of help of a scientific nature from the Extension Officers, he relies on his own "hunches" or he is influenced by his neighbours about modern methods of production.

4. Lack of supervision by members of Cultivation Committees or Cultivation Officers or Colonisation Officers.

5. Since the yields are low the farmers find it difficult to work the land systematically because of monetisation of rural areas and the shortage of labour in certain areas.

6. Cost of inputs are rising and the farmers are unable to utilise the most efficient combination of inputs.

7. Farmers are not properly organised to employ their own advisers. They do not have sufficient knowledge of scientific farming and they have no clue as to how they could assess their success or failure. They

are unable to check on progress. Only when the crop has failed can they put the blame on some extraneous factors. No education or Extension is received in methods of scientific farming.

The Defaults Survey states that "The bulk of these defaulters are generally the small farmers to whom agricultural credit is another form of static credit as it does not help them very much to raise their incomes without other forms of assistance. Very often they are neither better off nor worse off at the end of the credit period".

According to this Report interest payments are neither regular nor are they paid separately from capital repayments. Very often only a portion of the interest charges are paid back along with the capital. There were instances where borrowers defaulted only in the payment of interest charges. Interest payments on the New Agricultural Credit Scheme Loans formed 4.2 percent of the amount borrowed. There was only a small deviation from this average when interest payments were classified by the size of the loan.

It could be said that the size of the loan had little influence on the actual interest payments. Evidently the amount paid as interest was very much less than the amount stipulated. There was a larger proportion of interest charges due than were actually settled. On the average interest charges due were 7.4 percent of the amount borrowed. Clearly the sum of interest charges paid and due was almost the same as the maximum leviable by the Co-operatives on loans not repaid in time. However, the small borrowers and medium borrowers had defaulted on loans prior to the reference period thus causing the interest rates paid and those overdue to go above the legal amount that could be charged. The interest rates thus varied from 7.6 percent to 20.5 percent of the amount borrowed.

Interest charge of over 12 percent of the amount borrowed is certainly too high when compared with the interest charged on

consumption and other loans. These other interest charges varied widely depending on the nature of security, type of borrower and the type of lender. Table XXXI below shows the interest charges as percent of the amount borrowed and the interest charges that are due, classified by income groups.

TABLE XXXI

Interest Payments Per Defaulting Unit

(Rupees per month)

Income Group Rs.p.m.	Amt.Borrowed NA Loans Rs.	Amt.Borrowed All Loans Rs.	Amt.paid as Interest (NA Loans) Rs.	Interest paid other Loans	Interest due NA Loans Rs.	(NA Loan) Payment of interest as % of amount borrowed Int. Pd.	Int. due	Total
0-50	10.2	18.0	0.5	0.6	1.2	4.9	11.8	16.7
51-100	16.1	28.4	0.6	1.3	1.2	3.7	7.5	11.2
101-250	18.8	35.6	0.8	3.0	1.4	4.3	7.4	11.7
251-500	30.7	67.7	1.2	6.9	2.3	3.9	7.5	11.4
501-750	32.6	94.4	1.4	8.9	2.8	4.3	8.6	12.9
751-1000	53.0	181.3	2.0	16.3	2.7	3.8	5.1	8.9
Over 1000	74.0	312.9	2.2	17.5	4.1	3.0	5.5	8.5
Total	22.7	51.0	0.9	4.2	1.7	4.0	7.5	11.5

Source: Ibid Page 50.

Note: NA = New Agricultural Credit Scheme.

The actual interest payments by size of new agricultural loans indicate that the charges tend to rise with the rising incomes. The difference between the low interest charges and the highest interest charge is not significant. But the amount of interest overdue in respect of both NA loans and all loans forms a high proportion of

repayments in the lowest income groups. Payment of interest on New Agricultural Loans as percentage of amount borrowed varied between 3.0 percent to 4.9 percent with a national average of 4.0 percent. Compared to the agricultural loans, consumption loans carried a 16 percent interest charge while other loans on the average had an interest charge of 14 percent. In the case of consumption loans there were instances where the borrower paid nearly 100 percent of the amount borrowed as interest charges while in the case of other loans (mainly for cultivation purposes) the interest charges varied from about 8 percent to about 45 per cent. The low interest payments in the case of Agricultural loans as a percentage of the amount borrowed is mainly due to the fact that interest payments have been very irregular. The interest charges that have been paid are very much less than the amounts due from loans. Very often the cultivator does not pay the interest charges but only the capital and the Co-operative Society merely accepts the capital repayment as what is due and calculates the interest charges at the end of the contract. These interest charges that are due on agricultural loans varied from 7.6 percent to 17.5 percent while the national average was 7.4 percent. Interest charges that are shown here as due also refers to the loans that were taken during the earlier period prior to the reference period of the Survey.

2. Methods of Collection

Repayment is made both in cash and in kind. Recoveries in kind are made by the Co-operatives when the producers sell to the Co-operative Societies. The Societies will deduct the loan instalments due and pay the balance to the producer. Prior to 1971 the producer was able to sell his paddy in the open market and to settle his loan instalments in cash to the Societies. But after the forming of the Paddy Marketing Board in 1971 the Board has been given full authority to carry on the business as

purchaser, seller, supplier, distributor, huller, miller or processor of paddy rice and provide services in connection therewith. The Board was constituted in March 1971 and it started paddy purchases in December 1971 in the Matara District and by the end of September 1972 it became the sole purchaser of paddy in all districts of Ceylon. The paddy is purchased by the Board through Co-operative Societies. Section 9 of the Paddy Marketing Board provides for recovery of money due to Government and to Co-operative Societies from the producer. The Co-operative Societies could deduct the money owed to them by the producer and pay the balance.

The Co-operatives buy the paddy at Rs.14 per bushel and deliver the paddy so bought to the Paddy Stores of the Paddy Marketing Board. These stores, after testing the paddy for quality, issue a goods receipt to the Societies. These goods receipts are discounted at quarter percent interest at the various branches of the People's Bank. Afterwards cash receipts are sent to the Paddy Marketing Board for reimbursement. The Co-operatives, if necessary, obtain the finances to purchase the paddy from the People's Bank and they are also entitled to a transportation fee of 60 cents per bushel of paddy. In its budget for 1973, the government has provided a further inducement for the sale of paddy to the Paddy Marketing Board. The price per bushel has been increased to Rs.15, but the additional rupee will not be paid direct to the producer but deposited in his account into a Provident Fund.

3. Special Enforcement Procedures

If any Co-operative or its members defaults in the repayment, the Commissioner of Co-operative Development has the authority to appoint an arbitrator to decide on an Award. Up to 1968/69, 10,634 disputes were referred to arbitration. Arbitration particulars are shown in the Table below as at 1968/69:

TABLE XXXII

Arbitration Particulars

	Number	Value in Rupees
Arbitration pending at the beginning of the year ..	10,634	9,204,701
References to Arbitration during the year	2,299	4,796,392
References decided during the year ..	1,738	2,766,518
(a) Official Arbitrators ..	853	793,284
(b) Unofficial Arbitrators ..	885	1,973,234
Appeals pending at the beginning of the year	234	931,192
Appeals submitted during the year	99	266,046
Appeals allowed	19	42,665
Appeals dismissed	31	82,338

(Source: Administration Report of the Commissioner of Co-operative Development, 1968/69).

With effect from 16th January 1969, provision was made under the Co-operative Societies (Temporary Provisions) Act No.43 of 1968 to remove unfit members and their employees. The Commissioner of Co-operative Development has the power to cancel the registration of the [illegible] and also to liquidate defunct Societies. At the end [illegible] there were 2,775 Societies under liquidation.

[illegible]heduling

[illegible] With the introduction of the Agricultural Credit Scheme in [illegible]967, the Government decided in the case of both Societies and their individual members (a) to waive all loans granted prior to 1.10.58 and outstanding from Societies as at 31.10.66 and to waive the corresponding loans outstanding from members to Societies, (b) to waive all loans granted to Societies between 1.10.58 and 30.10.66, where defaulting repayments have been due to total or partial crop

failure and waive corresponding loans outstanding from members to Societies, (c) where a Society's loan repayments during the first three years of the operation of the new Scheme were satisfactory, to consider waiver of its remaining debts to the Department of Agrarian Services, and where such waiver is effected to give a corresponding waiver of related loans outstanding from members.

Of the loans granted by the Commissioner of Agrarian Services to Co-operative Societies prior to 1.10.58 (see (a) above), all sums outstanding on 1.11.66 were to be written off; and subsequent repayments were to be credited to other loan accounts of the debtor society. Where the loans so written off have been granted against the security of any land, building or machinery (for example, loans for the construction of go-downs or for the purchase of tractors) the Department of Agrarian Services could reserve the right to sieze the asset so hypothecated and where desirable rent it out. In the case of default due to crop failure (see (b) above), this was to be decided by a Committee consisting of the District Agricultural Extension Officer, the Assistant Commissioner of Co-operative Development, the Assistant Commissioner of Agrarian Services of the District and one representative of the Co-operative District Union.

G. Cost and Finance

1. Portfolio of Profits and Losses

As at the end of 1968/69, the number of Multi-purpose Co-operative Societies showing profits was 47.8% of the total number of active societies. The corresponding figure for the previous year, i.e. 1967/68 was 43.9%. In 1967/68, 1989 Multi-purpose Co-operative Societies made profits amounting to Rs.4.3 million whilst 3,119 societies suffered losses totalling Rs.5.5 million. The Table below shows the profits and losses of these societies according to their functions for the year 1968/69: (i.e. before the reforms that took place in 1971).

TABLE XXXIII

Multi-purpose Co-operative Societies - Profits & Losses

Functions	Nett Profit		Nett Loss	
	Number	Amount Rs.	Number	Amount Rs.
Consumer functions only	524	896,000	463	660,000
Agricultural functions only	208	260,000	285	498,000
Several functions	1,331	3,699,000	1,498	4,715,000
Others (including defunct Societies)	60	30,000	705	74,000
Total	2,123	4,885,000	2,951	5,947,000

(Source: Administration Report of the Commissioner of Co-operative Development, 1968/69).

As can be seen from the above Table, there has been an improvement in 1968/69 in the number of Societies earning profits and the amount of profit earned during this year.

The profits and losses of Co-operative Societies according to type of Societies as in 1968/69 are given in the Table below:

TABLE XXXIV

Profits and Losses according to type of Societies

Type of Society	Profits		Losses	
	Number	Amount	Number	Amount
		Rs.		Rs.
(a) Primary Societies				
Multi-purpose	2,123	4,884,462	2,951	5,946,958
Industries	426	1,040,137	791	149,792
Credit Unlimited	1,509	429,604	2,066	45,537
Credit Limited	190	418,298	88	6,612
Thrift	172	553,920	187	6,641
Stores	307	1,076,419	322	322,173
Agricultural Production & Sale	25	48,441	94	101,543
Coconut	8	416,328	11	51,763
Tea	6	135,814	12	12,022
Rubber	1	1,917	3	5,102
Tobacco	36	1,791	59	54,840
Dairy	10	40,636	24	20,020
Other Agricultural	18	37,806	296	69,932
Fisheries	87	96,065	197	129,414
Labour	58	81,129	119	184,749
Schools	1,053	117,915	991	30,080
Other Primary	58	553,191	117	178,220
Total Primary	6,087	10,439,273	8,328	7,315,388

TABLE XXXIV (contd.)

Type of Society	Profits		Losses	
	Number	Amount	Number	Amount
(b) Secondary				
District Banks	7	562,376	-	-
Multi-purpose Unions	100	7,130,427	25	349,071
Industrial Societies Unions	23	1,205,478	14	117,723
Agricultural Societies Unions	2	245,827	8	2,293
Fish Sales Unions	-	-	1	18,987
District Unions	8	52,944	16	164,933
Credit Unions	2	356	67	447
Ceylon Agricultural Producers' Societies Union	-	-	1	158,713
Ceylon Coconut Producers' Societies Union	-	-	1	55,164
Ceylon Industrial Societies Union	-	-	1	49,308
Ceylon Consumers' Union	1	11,560	-	-
Other Unions	5	29,344	3	16,456
Total Secondary	148	9,238,312	137	933,095
Federation	1	103,956	-	-
Grand Total	6,236	19,781,541	8465	8,248,483

(Source: The Administration Report of the Commissioner of Co-operative Development, 1968/69).

As can be seen from the Table, the number of Multi-purpose Co-operative Societies that have shown a loss is more than the number of Societies that have shown profits.

According to the Administration Report of the Commissioner of Co-operative Development, the financial turnover of the Co-operatives in Ceylon during the period 1968/69 was Rs.2,146.0 million which is Rs.93.2 million more than that of the previous year. It should be borne in mind that the volume of business transacted by the

Co-operatives is much more than that reflected in the above figures as rice is distributed free by them. Assuming the price per measure to be Re.1, the estimated value of sales of rice is Rs.450.0 million. The total financial turnover would then be Rs.2,596.0 million.

The turnover of societies dealing with production, sales and purchase and of the corresponding sections of the Multi-purpose Societies amount to Rs.309.2 million as against Rs.283.0 million in the previous year. The Unions dealing with production and sales had a total turnover of Rs.43.5 million of which the turnover of Industrial Unions (mainly Textile Unions) was Rs.36.1 million.

2. Administrative Costs

It is not possible from available statistics to ascertain the cost per loan given out by the Co-operative Societies. Credit is only one of the functions of a Multi-purpose Co-operative Society and as such the available data does not make it possible to calculate the average cost per loan given out by them.

The recent reorganisation of the Co-operative Movement in 1971 amalgamated the number of Co-operative Unions and Multi-purpose Co-operative Societies existing prior to 1970 and at present there are only 373 Primary Co-operative Societies controlling more than 10,000 branches distributed all over the Island.

3. Beneficiary Savings

According to the present scheme the beneficiaries are not required to accumulate savings or equity investment. However, if

farmers require their individual maximum credit limit to be raised and also if they possess the required number of acres (not exceeding 10 acres) it is possible for them to purchase further shares with any savings that they may have. It is difficult to estimate the extent of "savings" in the rural sector as much of it is non-monetised and may go into a wide range of investments such as capital improvements of land, wells, housing and so on. From the data available in regard to the capital of co-operative societies, it does not appear that there has been any appreciable flow of savings into these societies, and that farmers have saved and significantly increased their share capital in the societies. But the fixed savings deposits in Rural Banks have shown an increase over the years.

The savings or equity investment made by peasant farmers does not play an important role in the internal finances of the Rural Credit Programme. Most of the financing of the Credit Programme is undertaken by the People's Bank.

4. External Finances

The credit requirements of the Co-operative Societies were met by the following institutions:

(a) People's Bank;
(b) Co-operative District Bank;
(c) Government Departments -
  (i) Land Commissioner's Department;
  (ii) Fisheries Department:
  (iii) The Agrarian Services Department;
  (iv) The Co-operative Department; and
  (v) The Labour Department.

The following Table indicates the Capital Structure of Co-operative Societies as at 1968/69:

TABLE XXXV

Capital Structure of Co-operative Societies as at 1968/69

	Primary Societies				Secondary Societies		
	Stores	MPCS	Others	Total	MPCS Unions	Others excluding Banks	Total
		(Rs. Millions)					
(a) Owned Capital							
Paid-up Share Capital	1.8	25.1	33.3	60.2	2.8	0.7	3.5
Statutory Reserves	5.6	24.5	14.5	44.6	17.6	4.3	21.9
Other Funds	0.9	6.4	3.9	11.2	14.3	3.8	18.1
Profits carried forward	2.4	18.4	8.3	30.1	9.9	4.7	14.6
Total	10.7	74.4	61.0	146.1	44.6	13.4	58.0
Less - Deficit	0.9	18.9	7.0	26.8	3.2	.5	3.7
(A)	9.8	55.5	54.0	119.3	41.4	12.9	54.3
Percentage of A on Total (A + B + C)	88.3	27.4	49.1	37.2	53.1	50.0	52.4
(b) Borrowed Capital							
(i) Loans from People's Bank	0.1	39.9	11.7	51.7	14.0	0.1	14.1
(ii) Provincial Bank	0.1	25.1	7.2	32.4	10.3	1.9	12.2
(iii) Government	0.1	64.3	8.1	72.5	3.4	7.9	11.3
(iv) Other Sources	0.5	6.4	6.8	13.7	5.9	1.7	7.6
Total (B)	0.8	135.7	33.8	170.3	33.6	11.6	45.2

TABLE XXXV (Contd.)

	Primary Societies				Secondary Societies		
	Stores	MPCS	Others	Total	MPCS	Others Excluding Banks	Total
	(Rs. Millions)						
(c) Deposits from Co-op. Institutions	0.1	0.7	1.2	2.0	1.7	0.6	2.3
Individuals	0.3	5.6	18.6	24.5	0.3	0.3	0.6
Government	-	1.8	0.3	2.1	0.1	-	0.1
Other Sources	0.1	3.0	2.1	5.2	0.9	0.4	1.3
Total (C)	0.5	11.1	22.2	33.8	3.0	1.3	4.3
Percentage of B + C on Total (A + B + C)	11 .7	72.6	50.9	62.82	46.8	50.0	47.6
Grand Total (A+B+C)	11 .1	202.3	110.0	323.4	78.0	25.8	103.8

(Source: Administration Report of the Commissioner of Co-operative Development, 1968/69).

It could be seen from the above Table that the Primary Societies own 37.2%, and the Secondary Societies (excluding the Co-operative Bank, own 52.4% of their total capital employed. It is interesting to note that the Stores Societies own 88.3% whereas the Multi-purpose Societies own only 27.4% of their respective capital employed.

Most of the credit given out by the Co-operatives is obtained from People's Bank. All credit given by the People's Bank under the New Agricultural Credit Scheme is guaranteed by the Central Bank. The Central Bank charges half percent of the total loans

as premium and undertakes to make good up to 75% of the amount in default on a loan. The Government would undertake to refund to the Central Bank money spent in the discharge of the guaranteed scheme. People's Bank can also obtain funds from the Central Bank for this purpose at a rate of $1\frac{1}{2}$ percent interest. The Central Bank offers the guarantee of repayment to the People's Bank on behalf of the Government. The following Table shows the debts of the Co-operative Societies for 1967/68 and 1968/69:

TABLE XXXVI

Debts of Co-operative Societies

(a) The following were the debts of Co-operative Societies to

	1967/68 Rs.Millions	1968/69 Rs.Millions
(i) People's Bank ..	57.0	68.00
(ii) Co-operative District Banks	34.6	45.58
(iii) Other Co-operative Society Deposits ..	3.1	4.65
(iv) Local Loans & Development Fund	0.2	0.27
(v) Government ..	90.4	91.80
(vi) Members' Individual Deposits	29.0	25.09
(vii) Others ..	19.9	22.40
	234.2	257.52

(b) The debts of Co-operative Banks were -

(i) To People's Bank ..	25.2	30.3
(ii) Government ..	2.4	1.2
(iii) Societies ..	15.6	13.7
(iv) Others ..	2.5	2.8
	46.0	48.0

(Source: Administration Report of the Commissioner of Co-operative Development).

As can be seen from the Table the People's Bank is by far the biggest debtor of the Co-operative Banks. As far as the Co-operative Societies are concerned, their biggest debtor has been the Government followed by the People's Bank and other Co-operative District Banks.

The total capital of all Primary Co-operative Societies increased during the year 1968/69 by Rs.31.5 million to Rs.323.4 million at the end of the year. The total capital of all Multi-purpose Societies was Rs.202.3 million, which is 66.6% of the total capital of all Primary Societies as against 62.4% in the previous year.

The borrowed capital (loans and deposits held excluding fixed deposits) was Rs.204.2 million which is 63.8% of the total capital. The comparative figures for the previous year were Rs.186.3 million and 64.5% respectively. The borrowed capital of Multi-purpose Societies was Rs.146.8 million. The Primary Societies owed the People's Bank Rs.51.7 million; Co-operative Bank Rs.32.4 million and the Government Rs.73.0 million at the end of 1968/69 on account of loans.

5. Institutional Solvency

The People's Bank has been the main source of finance to the Co-operative Movement. As mentioned earlier in the report, the ultimate source of funds for the New Agricultural Credit Scheme is the Central Bank. By the end of 1970 there were 90 Rural Banks in operation. Table XV shows the deposits and loans of Rural Banks from 1965 to 1970.

As can be seen from this Table the deposits have grown from Rs.202,113 in March 1965 to Rs.16,908,405 as at the end of December 1970. The total number of loans granted has also shown

a remarkable increase from 572 in March 1965 to 10,017 as at the end of December 1970.

The Rural Banks also engage in pawning activities and the annexed charts depict the development of pawning activities from 1961/62 to 1968/69.

The Profit and Loss Account of the People's Bank for the year ended 30th September 1969 is given below:

TABLE XXXVII

Profit and Loss Account of the People's Bank for the Year ended 30th September 1969

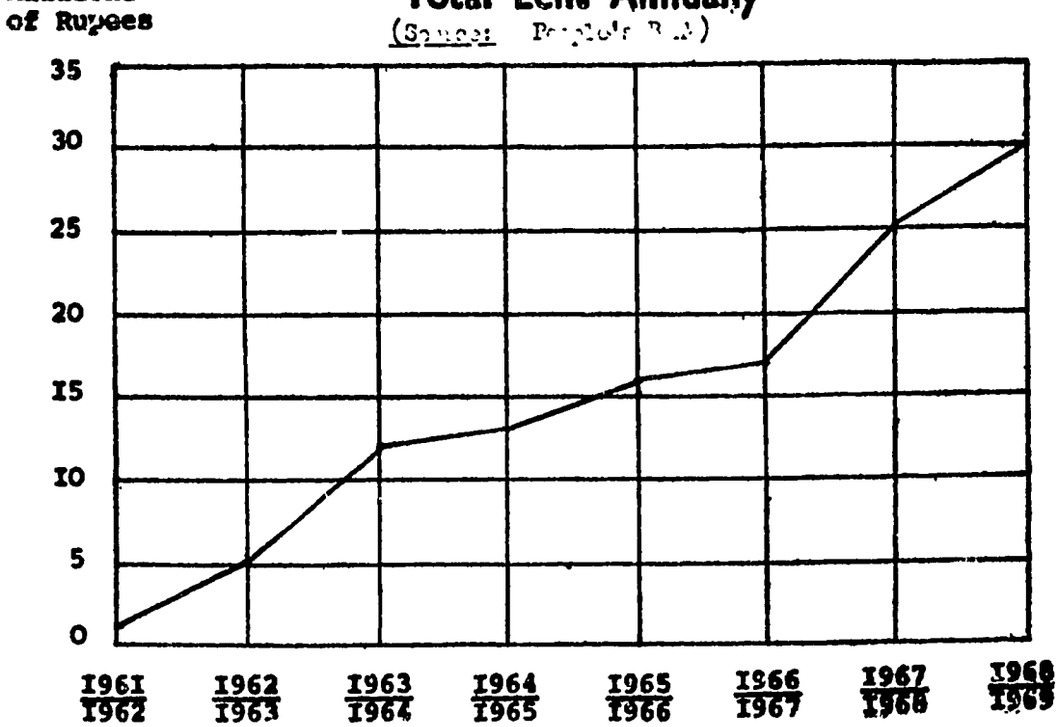
To Dividend Appropriation Account ..		339,120	By Balance Brought forward	Rs.82,145	
" Transfer to General and Other Reserve ..		1,500,000	Add: Over-provision for Bonus in previous year	Rs. 3,817	85,962
" Pension Fund ..		60,000			
" W.&.O.P.Fund ..		135,000			
" Co-op. Education		100,000			
" Rural Bank Deposits Guarantee Fund ..		250,000	" Net Profit after providing for Taxation and all other expenses (including Directors' Fees Rs.33,450/-)		2,301,922
" Balance carried forward		3,764			
		2,387,884			2,387,884

6. Foreign Exchange Balances

As rice is the staple food of the people of Ceylon and since a part of the requirements of rice has to be imported any increase in the production of rice will help to conserve the vitally important foreign exchange reserves. The production of rice in Ceylon has been increasing as given in Table XXXVIII.

PAWNING
Total Lent Annually

(Source: People's Bank)



Number of Borrowers

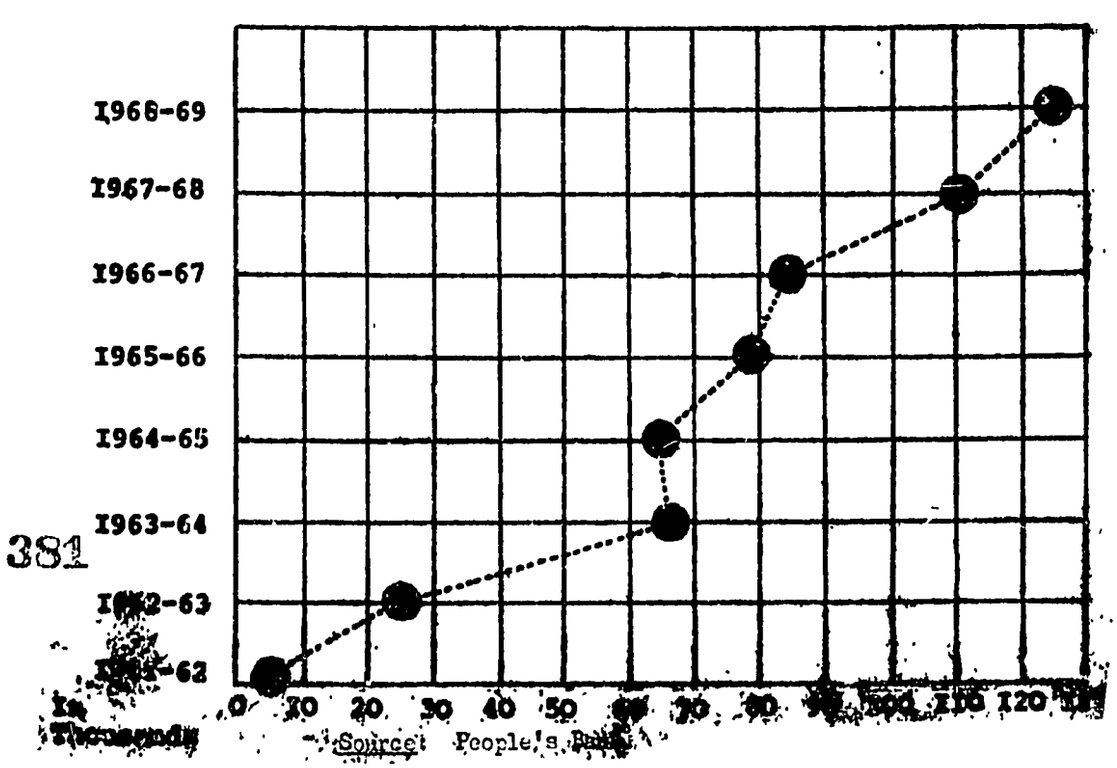


TABLE XXXVIII

Area and Production of Paddy in Ceylon

Year	Nett Harvested Extent (Thousand Acres)	Production (Million Bushels)
1952	936	28.9
1953	809	21.9
1954	1,022	31.1
1955	1,092	35.7
1956	916	27.5
1957	968	31.3
1958	1,054	36.6
1959	1,044	36.4
1960	1,184	43.0
1961	1,195	43.1
1962	1,269	48.1
1963	1,297	49.2
1964	1,305	50.5
1965	1,056	36.3
1966	1,285	45.7
1967	1,332	55.1
1968	1,387	64.6
1969	1,371	65.9
1970	1,765	77.4

(Source: Department of Census and Statistics)

The total harvested extent of paddy in 1952 was 936,000 acres and in 1970 it had increased to 1,765,000 acres giving an annual compound rate of increase of 3.2%. Over the same period the production of rice had increased by an annual compound rate of 5.5%.

In 1964 the total consumption of rice in Sri Lanka (Ceylon) has been estimated at 1,138,944 tons. In terms of paddy this should

be equivalent to 80 million bushels. In the same year domestic production was 50.5 million bushels of paddy and when an allowance is made for seed paddy the quantity available for consumption was about 47.5 million bushels. Local production could thus meet only about 60% of the total consumption required and the deficit which had to be made up by imports amounted to 32.5 million bushels of paddy. In 1970 the requirement of rice was 106.7 million bushels but the total production of rice was 77.4 million bushels and thus we were able to meet 72% of the requirement of rice in 1970.

The increase in the production of rice cannot be solely attributed to the credit programme. The extension services made available by the Department of Agriculture has also made a contribution towards this increased production, especially the introduction of new varieties of rice such as H^4. Therefore it is difficult to assess the impact that the credit programme had on the balance of payments. Nevertheless it could be justifiably argued that to the extent the Credit Schemes met the Working Capital needs of the farmer and supported the package of policy measures and programmes for increased production of rice, this did contribute to successful implementation of the import substitution programme.

H. Complementary Factors

1. Technology

(a) Directing, Tying and Packing

The Credit Scheme, the composition of the loan and the limits of the loan are related to the cultivation needs at a given level of technology. For example, the loan provides for the approved inputs of fertiliser; it makes provision for improved varieties, transplanting and use of agro-chemicals. The loan is tied to some of the inputs; for fertiliser, seed paddy, agro-chemicals

and barbed wire. The loan is given in kind. The cultivation loan is given in stages as required for seed paddy, ploughing, transplanting, weeding and harvesting.

(b) Programme Extension Services

The role of agricultural extension has recently been defined in a Food and Agriculture Organisation publication as one of 'improving the human resources in rural areas and promoting its mobilisation for family and social development'. This in fact is one of the basic objectives of agricultural development and in the context of Sri Lanka covers the functions of the Department of Agriculture, Department of Agrarian Services, the Department of Co-operative Development, the River Valleys Development Board, Department of Rural Development, the Land Commissioner's Department and the Advisory Services of Tea, Rubber and Coconut Research Institutes and the voluntary organisations such as the Rural Development Societies and the Mahila Samitis (Societies)

Out of these various agencies the most important is the Department of Agriculture. The extension services conducted by the Department of Agriculture are closely related to the credit programme of the Government. It may be mentioned that the ultimate finances for the credit programme and the extension services are from Government funds.

Under the new agricultural credit scheme the credit given to farmers must be in fonformity with the production programme prepared by the Extension Officers and the Cultivation Committees for a given area. The Food Production Overseer has to certify that the credit applied for is in conformity with this plan. In this respect, the role of the extension services is to ensure that the credit needs for the use of new technologies such as seed paddy, fertilisers, etc. are taken into consideration in drawing up the plan and deciding on the credit needs. In this way the extension

services are closely linked to the credit schemes. In organising and implementing the extension programme Government has generally adopted the package programme approach where the transmittal of scientific know-how, spread of new varieties, better cultural practices such as application of fertiliser, agro-chemicals, transplanting etc. are combined with a better supply and marketing organisation and schemes of agricultural credit.

The Extension Division of the Department of Agriculture is presently organised in terms of a Head Office in Colombo and 22 Districts.

Extension services are co-ordinated at headquarter level by the Extension Division of the Department of Agriculture. The functions of the Head Office is to assist in the preparation and supervision of the production and extension programmes, to supervise the work of the District Agricultural Extension Officers and to provide the necessary facilities for the field staff in carrying out their work. The Extension Division is in charge of a Deputy Director and he has other Assistant Directors and Staff Officers to assist him.

Within each District there are three levels, viz:-

(i) The District level;
(ii) the Divisional level; and
(iii) the Farm Unit (Village) level.

The Districts correspond with the Administrative Districts and are not agro-climatic divisions as were the Divisional Agricultural Officer Districts in the past. While this arrangement has its disadvantages in that it has led to an unbalanced distribution of staff in relation to agricultural potentialities of the country, it has also its advantages in that the planning and implementation of the current agricultural programmes have settled down on the basis of administrative districts.

District Level. At District Headquarters each District Agricultural Extension Officer is assisted by a Senior Agricultural Instructor. The District Agricultural Extension Officer works in close association with the District Agricultural Co-ordinating Committee. Among his various functions his more important responsibilities include:

1. Formulating and supervising the extension education programmes including such activities as staff training classes, demonstrations,

2. Directing the agricultural extension services in the District (a) to transmit the findings of research to the field, (b) to promote adoption of scientific techniques, (c) to take preventive and curative measures against diseases and pests, and (d) to take all the measures to improve the technology of farming.

3. Preparation and implementation of district agricultural production programmes covering rice, other field crops, vegetables, fruits, minor export crops, livestock etc.

4. Organising and supervising 'adaptive' trials in farmers' fields.

Each District Agricultural Extension Officer has an extension staff working under him in the field ranging from 6 Agricultural Instructors and 29 Agricultural Extension Workers in the smaller districts to 17 Agricultural Instructors and 118 Agricultural Extension Workers in the larger districts. The contact between the Agricultural Instructor and the District Agricultural Extension Officer is about two or three times a month - once at the monthly

conference at District Headquarters and once or twice a month in the field. As and when required additional extension staff is posted to districts to carry out any special technical programmes of importance in the district. This has proved to be useful.

Divisional Level. The Agricultural Instructor is located at the Divisional level. Each District Revenue Division is divided into one or more Agricultural Instructor ranges depending on the size of the division and the importance of agriculture in the Division. There is at present a total of 202 ranges. The ranges are based on administrative level rather than geographical or climatic divisions. The distribution of Agricultural Instructors is done on the needs of agriculture in each division.

The Agricultural Instructor is now a generalist dealing with all crops and livestock problems that arise within his range. He works in close association with the Divisional Agricultural Committee under the chairmanship of the Divisional Revenue Officer and he is expected to execute all the functions of the District Agricultural Extension Officer and also train and supervise the work of the extension workers in his range. He has to link himself with the Multi-purpose Co-operative Societies and the cultivation committees in his area and is expected to attend as many meetings of these organisations as possible.

On the average, the Agricultural Instructor covers about 7,500 acres of paddy land, and has to deal with around 3,000-6,000 farm families, 20-25 Cultivation Committees, 25-30 Multi-purpose Co-operative Societies and about 50 schools. He has on the average about 4 to 12 Extension Workers working under him in his range. Each Agricultural Instructor works from an extension centre located in his range. The total number of such extension centres is 189.

Taking into consideration the multifarious duties of an agricultural instructor, the size of his present range is too large if he is to investigate and deal with the technical problems of farming and work closely with farmers' organisations in improving their farming skills and knowledge.

Village Level. Each agricultural instructor's range is sub-divided into a number of agricultural extension workers' ranges. There are about 4-12 Agricultural Extension Workers in each Agricultural Instructor's range. These agricultural extension workers become a final link in the extension organisation. There are at present 1,345 agricultural extension workers in the Extension Division of which 1,091 are in the field. Each agricultural extension worker is a generalist and assists the Agricultural Instructor in carrying out all the functions assigned to the latter within the area of his range. The agricultural extension worker has to work closely with the Cultivation Committees and Multi-purpose Co-operative Societies in his range and attend as many meetings as possible of these organisations. On the average, each agricultural extension worker has to deal with 700-1000 farmers, 2-5 Cultivation Committees and about 4-10 Multi-purpose Co-operative Societies and also with about 15 schools. Although there has been no systematic study to determine the frequency and intensity of contact between extension staff and the farmers, there is evidence from some of the surveys that have been done that in certain areas farmers receive visits from Extension Staff at very infrequent intervals. The defaulters survey of the Central Bank makes reference to this fact. A survey of 51 farm families in the North Western Province indicated that the visits were rare. A similar study of a few villages in Anuradhapura revealed that visits to the village by the Extension Staff took place once in 6 to 8 months. In special areas which have been selected for a concentrated production effort, such as the "colonisation schemes" - the agricultural settlement under renovated reservoirs - the

frequency of contact between Extension Staff and farmers is much higher. In these areas which have been designated special projects, the government has adopted the 'package programme approach' at a more intensive level than in the rest of the country.

The quality of the Extension Staff and facilities for their training need some comment. The Agricultural Instructors are generally recruited from Diploma holders from the School of Agriculture which admits students with a minimum educational qualification at G.C.E. (O) Level and provide a 2-year course in Agriculture.

At present the Department of Agriculture runs an "In-service" Training Institute at Peradeniya which provides a two-week course of training for new recruits in the grades of Agricultural Instructor and Food Production Overseers. The Institute also provides a two-week "In-service" training for Agricultural Instructors and Food Production Overseers with the emphasis on specific subjects and extension methods to be adopted in the different areas of the Island.

The Department of Agrarian Services has yet no regular scheme of training for Departmental Officers except in the grade of Village Cultivation Officers who are given occasional technical training organised by the Minor Irrigation Branch of the Department. Courses are also run for Co-operative Inspectors at the School of Co-operation, Polgolla, on specific aspects of the Co-operative Movement, especially on the rules and regulations governing the establishment, supervision and auditing of Co-operative Societies.

Apart from these training programmes, practical farm schools were also established during the year 1942 onwards for the purpose of giving training in practical agriculture to young men and women

who would be engaged in agriculture after leaving school on their own land or on lands given to them by the Government.

The following chart indicates the distribution of Extension Officers amongst the various Departments dealing with extension work:-

National Level	Dept. of Agriculture Extension Division	Dept. of Co-op. Development	Dept. of Agrarian Services	Dept. of Rural Development
Directorate	5	4	3	4
Staff Officers	8	15	14	8
Other Technical Staff	12	-	2	4
District Level				
Agricultural Officers	33	-	-	-
Asst. Commissioners	-	37	48	22
Agri-Instructors	52	-	-	-
Headquarter Asst.	-	28	-	22
Inspectors (Devlpmt.)	-	954	-	-
Inspectors (Audit)	-	1,015	-	-
Other Staff	-	-	-	235
Divisional Level				
Agri-Instructors	220 (covers divisional as well as village level)	-	-	-
Divisional Officers	-	-	141	154
Village Level				
Agri. Extn. Workers	1,410	-	-	-
Overseers	-	-	400	-
Demonstrators	-	-	-	3,009

The Cultivation Committee is also expected to play an important role in extension. It usually assists the groups of farmers in the area and they are kept informed of new technologies through the

Agricultural Extension Workers and Agricultural Instructors. These Committees in turn advise other farmers in the area of the benefit of such technologies.

The other units in the Department which work in close liaison with the Extension Division are -

(i) The Extension Aids Unit. This unit is really an Agricultural Information Unit and is responsible for the publication of technical literature for issue to Extension staff and farmers; agricultural education and propaganda through mass communication media such as the Press and Radio; and organising national agricultural exhibitions and agricultural shows and also assisting district staff in carrying out exhibitions and shows at district and village levels.

(ii) The Agricultural Economics and Farm Management Unit. This Unit was established in 1968 and consists at present of two Agricultural Economists and two Agricultural Instructors. The functions of this unit, as far as extension work is concerned, are as follows:-

1. To conduct studies in the evaluation and selection of crops and livestock system and combinations in order to maximise farm incomes;
2. Testing of research findings of the Department with regard to their applicability on a profitable basis in the field before recommendations are released to the public.
3. Guiding farmers in the use of simple records for regular evaluation of their farming business.
4. To progressively introduce and popularise "Farm planning and budgeting" techniques among the farmer population of the country.

Apart from these units, the Agriculture Department also organised Young Farmers' Clubs. The main objective of these clubs is to

orient young farmers towards scientific agriculture and the use of modern techniques.

(c) Other Arrangements for Technical Transfer

Apart from the services supplied through the Government Agencies, there are no other extension services that are provided by other agencies (except where the Ceylon Tobacco Company provides aid and guidance in the production of tobacco).

(d) Nature of Technologies

The rice-breeding programmes would be broadly divided into two Districts -

(a) Breeding varieties for general improvement and wide adaptability;
(b) Breeding varieties for specific areas of the Island to meet the demands for specific conditions.

The most important contribution that is made towards the objective of increased production of rice is the breeding of high-yielding varieties with resistance to disease, resistance to lodging and grain shedding, high milling outturn, superior rice quality and wide adaptability.

Investigation work on rice is carried on in the laboratories and rice fields of research and experimental stations and in Government Farms. Much of the laboratory and green-house work is situated at the Central Agricultural Research Institute at Peradeniya. In connection with field work pertaining to a region, separate research or experimental stations exist. A team of officers are stationed at these regional stations.

These Research Centres are engaged in planning varieties for specific areas of the Island to meet demands for special conditions such as -

1. Breeding for cold tolerance.
2. Varieties for conditions of poor drainage.
3. Breeding for salt and flood resistance.
4. Drought resistance varieties for upland rice.
5. Long-age varieties in the Colombo, Kurunegala, and Kegalle Districts which have high rainfall.
6. Fertiliser experiments.
7. Cultural practices such as transplanting.
8. Weed control.
9. Plant protection.
10. Control of rice pests, and
11. Control of rice diseases.

The results of the research work carried out has helped substantially to improve upon the existing practices, especially in the breeding of high-yielding rice such as H.4 and the scientific use of fertilisers.

2. Supplies and Sales

(a) Program Supplies

The Government's policy in regard to agricultural inputs is to ensure the ready availability of fertilisers, agro-chemicals, seeds, machinery, and to subsidise certain of these inputs. At the moment the major portion of subsidy expenditure is on fertilisers. Seeds are subsidised while agro-chemicals are not subsidised, but sold on commercial terms, by the private trade or through the Department of Agriculture. Machinery is for the most part distributed privately although the Minister of Agriculture recommends the allocation of foreign exchange for private tractor importers.

All fertilisers used for paddy are imported by the Fertiliser Corporation. These are distributed through Co-operative Societies and to a limited extent through the Cultivation Committees in the villages. The farmers have to come to the Co-operatives to obtain their fertiliser either on cash basis or as credit in kind.

One of the problems of this system was that the Co-operative Societies did not have sufficient storage to store all the necessary quantity of fertiliser required by the farmers in the area. This leads to a situation where fertilisers are not available at the time when it is required. At present the Fertiliser Corporation has a programme for constructing fertiliser stores in the village areas.

Seed provision and extension services. Improved seed varieties are largely purchased from private seed farms by the Department of Agriculture and sold to farmers with a Rs.2 per bushel subsidy. Official policy is that fresh improved seed should be distributed only every three or four years, the farmer meanwhile using part of his harvest for seed. The Department's research is directed to discovering the optimum seed for different soils and temperatures and for different sowing/harvest periods. The most common improved variety is H42 , a four month variety with a genetic petential of 160 bushels per acre, and H8 another improved variety, is popular both because of its high yields and its taste. Recently a range of new varieties with higher yields have been developed. IRR.8 varieties are being increasingly used and 15,000 bushels were distributed officially for the first time in 1968. However, only some 40,000 acres were sown with IRR.8

Extension services are provided free by the Department of Agriculture. However, the number of extension workers does not appear to have risen in recent years and this may be a major constraint on agricultural development. Until recently the field workers were distributed, as nearly as possible, equally over the Island, with workers supposedly capable of advising on all domestic crops. Since 1964 slight changes have been made by assigning some workers for advice only on certain crops. There has been a further important change in concentrating extension work in certain limited areas with high agricultural potential.

Machinery. Tractor services are provided directly to a very limited extent by the Department of Agriculture, but it is not intended to expand this service and in fact nearly all tractors are owned privately. The Departmental Tractor service is confined to about 380 machines and is run at a loss. At present, aid-

financed tractors are given only to farmers holding permits granted by the Government Agent of their District and these permits are only issued on condition the holder ploughs an area in addition to his own land, designated by the Government Agent, at a rate of Rs.55 per acre. Four major tractor importers have also been asked to create pools of twenty machines each to be hired out at the same rate. Simple weeders and seeders are manufactured by the Department of Agriculture and are sold at a subsidised rate of about 60% of cost to individual farmers.

(b) Programme - Infrastructure

The credit system described above is not extended to capital works such as the construction of irrigation facilities or feeder roads. At present credit is given to the Co-operative Societies themselves for the construction of storage facilities and other minor rural works. The Department of Agrarian Services gives loans to societies for the purchase of lorries, construction of go-downs, acquisition of land for fertiliser stores, purchase of iron safes, purchase of weighing machines, conversion of rocky land into arable land and for the construction of rice mills. Feeder roads and minor irrigation works are constructed and maintained by separate Government Departments and local authorities, and are fully financed from Government funds.

By the end of 1968/69 Ceylon's Fertiliser Corporation had completed the construction of 20 District Fertiliser Stores with a capacity of 28,000 tons. These 20 district stores were part of the programme to construct 31 stores (with a capacity of 43,000 tons) in the District Fertiliser Stores Construction Programme launched in 1966 under the Agricultural Development proposals of 1966/67. With the operation of these stores, some of the stores owned or rented by the Agrarian Services Department became surplus and uneconomical to maintain. The Department, therefore took steps to effect a certain degree of rationalisation and closed down some of its stores.

Government has also assisted co-operative societies to construct stores for the storage of paddy at the village level. At the peak periods of grain deliveries by farmers the storage of the Paddy Marketing Board and the Food Commissioner are used to capacity and the co-operative societies have to be equipped to carry stocks of paddy if they are to take delivery of the paddy offered by the farmer for sale.

(c) General Access and Availability

The farmers at present have direct contact with the services and supplies given through the co-operative societies and the Agricultural Extension Officers of the Department of Agriculture. As a Co-operative Society is normally centrally situated in a village and covers a specific area, farmers who live in close proximity to such centres are in a better position to have access to the services and supplies that are provided.

Food Production Overseers and Agricultural Instructors visit farmers in the village to provide help and advice.

The Government programme for the distribution of seed paddy is through the co-operative societies. Improved varieties of seed paddy such as H.4 and BG.11-11 are made available to the farmers as credit in kind. The problems of access to resources and supplies arise mainly out of the farmer's inability to keep to the schedule of repayment of his loans. Although there are no statistics which quantify the effect that such limitations have had on production, it may be fair to assume that there would have been some impact on the farmer's output if he was unable to obtain the services and supplies provided.

As in previous years, the issue of fertiliser by the Agrarian Services Department was mainly channelled through Multi-purpose Co-operative Societies.

(d) Guaranteed Sales and Price Supports

The Government operates a Guaranteed Price Scheme for paddy and other crops through the Department of Agrarian Services. The schedule in Annexe IX gives the products and their prices which come under the Guaranteed Price Scheme.

The main policy objectives of the Guaranteed Price Scheme were to -

(i) assure to the producer fair prices and a market for his products,
(ii) stimulate the production of food crops consumed in the country and thereby
(iii) replace food imports by locally produced food, with self-sufficiency as the long-term goal.

During the initial stages of the Guaranteed Price Scheme, the Government was to buy only what was offered by the producer. The local producer was not prepared to sell his produce to the Government if he could get a better price in the local market. Thus, the guaranteed price for a bushel of paddy was raised from Rs.9 in August 1951 to Rs.12 in September 1952. From 1948 to 1952 the guaranteed price for paddy kept in line with the world market price with a small inducement factor added to the local producer. In 1966, the guaranteed price was raised to Rs.14 per bushel. The following Table indicates the fluctuation in the guaranteed price as compared with the imported C.I.F. price:-

TABLE XXXIX

Guaranteed Price for Paddy from 1948 to 1966

Year	Guaranteed Price (Rs. per bushel of paddy)	Imported Price (c.i.f.)
1948	8.00	7.88
1949	8.00	7.79
1950	8.00	7.74
1951	9.00	8.15
1952	12.00	11.24
1953	12.00	10.95
1954	12.00	9.40
1955	12.00	7.99
1956	12.00	7.45
1957	12.00	6.78
1958	12.00	6.84
1959	12.00	6.72
1960	12.00	6.57
1961	12.00	6.43
1962	12.00	6.75
1963	12.00	7.00
1964	12.00	7.30
1966	14.00*	8.00

* The price remains at Rs.14 up to the present.

(Source: Administration Report of the Commissioner of Agrarian Services)

The present guaranteed price of paddy is Rs.15 per bushel.

The cost to Government of the producer subsidy is given in the Table below:-

TABLE XL

Cost of Producer Subsidy to Government from 1955/56 to 1968/69

Year		Cost of Producer Subsidy (Million Rupees)
1955/56	..	78.0
1956/57	..	61.1
1957/58	..	93.0
1958/59	..	108.6
1959/60	..	133.9
1960/61	..	156.6
1961/62	..	169.9
1962/63	..	175.1
1963/64	..	172.9
1964/65	..	162.0
1965/66	..	157.5
1966/67	..	76.4
1967/68	..	36.5
1968/69	..	51.3
1969/70	..	50.3

(Source: Food Commissioner's Department, E.B.Branch)

In 1961 the Agricultural Products (Guaranteed Prices and Control of Milling and Hulling) Act No.33 of 1961 was passed and this gave legal sanction to the entire scheme. The Act provided for the Committee in consultation with the Minister of Finance to fix guaranteed prices for a regulated number of agricultural products. At the village level the MPCS were appointed as authorised purchasers of paddy and other guaranteed commodities direct from the producer. The funds required by the MPCS for the purpose was to be borrowed from the People's Bank which came into existence in 1961 or from the Co-operative Banks. One oo the chief drawbacks of this scheme was the inadequacy of the storage facilities at society level. Because of this middlemen have exploited producers whenever congestion

arose at these stores. This difficulty has been overcome to a certain extent with the formation of the Paddy Marketing Board in 1971.

The Paddy Marketing Board does not directly pay for the paddy it collects. The procedure is as follows: The co-operatives obtain the finances for their marketing function by submitting "Usance Notes", valid for six months, to the People's Bank. The People's Bank submits these to the Central Bank and obtains cash at 3% interest. The Usance Notes usually cover the need of the Co-ops for the purchases they make under the G.P.S. Paddy is the largest component under the Guaranteed Price Scheme. Although the Paddy Marketing Board is by law the sole purchaser of paddy, it does not buy the paddy direct. All purchases of paddy is done by the Co-operative Societies. After purchase the Co-operatives send the paddy to the various stores of the Paddy Marketing Board. After testing for quality, these stores issue a "goods receipt" to the co-operative for the paddy taken over. The co-operatives then hand over these goods receipts to the local branch of the People's Bank and these banks discount the goods receipt at $\frac{1}{4}$ % interest. The goods receipts are then forwarded to the Head Office of the People's Bank which obtains reimbursement from the Paddy Marketing Board.

For the other products the goods receipts follow the same procedure but the final reimbursement to the People's Bank comes from the Agrarian Services Department.

The G.P.S. which covers a large number of rural agricultural products removes the price uncertainties for the farmer. Initially, the G.P.S. acted as a floor price and prevented prices falling below floor level. But later, until about 1966 the guaranteed price was somewhat above the market price. In December 1966 the rice ration was reduced from two measures per head at the rate of 25 cents per measure to one measure per head given free. The reduction in the rice ration together with an increase in the guaranteed price

of a bushel of paddy from Rs.12 to Rs.14 resulted in very buoyant open market.

Although it is difficult to assess the contribution made by the G.P.S. towards the increase in the production of paddy, it can be said that there has been a marked improvement in the production of rice after the introduction of this scheme, and it has also helped in no small measure to improve the standard of living of the peasant farmer, as a direct result of the increased incomes arising out of price stability for his products.

The following Table shows the G.P.S. prices of paddy and other subsidiary crops, as compared with the c.i.f. prices for the year 1967:

TABLE XLI

GPS and CIF Prices for Subsidiary Crops - 1967 1/

Crop	Unit	CIF Price	GPS Price
Paddy	Bushel	9 2/	14
Dry Chillies	Cwt	100	252
Onions	"	16	22-48 (Seasonal)
Potatoes	"	18	45
Green Gram	"	37	67

1/ Pre-devaluation: in 1968, the c.i.f. rice price nearly reached Rs.14.

2/ Paddy equivalent.

(Source: Agriculture in Ceylon until 1975, P.Richauds)

It can be seen from the Table that all the G.P.S. prices were above the C.I.F. prices, the largest price difference being for dry chillies which has a big demand in the local market.

Apart from the G.P.S. provided by the Department of Agrarian Services, vegetable cultivators are provided with a minimum floor price as set out by the Marketing Department . Under this scheme the Extension Officers of the Marketing Department fix the price for vegetables, fruits and eggs, after observation of the Colombo prices at the Pettah market. These prices are broadcast over the radio for the benefit of the producers.

The Marketing Department collecting centres are obliged to buy at these fixed prices. The price-lists are prepared once a month and corrections are made as and when necessary. The operation of the Guaranteed Price Scheme and minimum floor prices for products other than paddy have not been altogether effective. The Scheme worked satisfactorily in respect of onions. But in respect of chillies the guaranteed prices were ineffective in encouraging local production as long as low-priced imports of this commodity continued and were made available to the consumer at much below the guaranteed price. The scheme for the purchase of these products by the Co-operatives from local producers did not work satisfactorily as societies were reluctant to purchase these commodities which presented problems of storage and driage and did not give them satisfactory margins of profit. It was only when the imports of these commodities were banned and open market prices rose steeply that local producers responded with a substantial increase in output.

(e) Insurance

At present there is a Crop Insurance Programme which is operated by the Department of Agrarian Services. This programme has, however, no tie-up with the credit programme. The 10th term of the Crop Insurance programme commenced with the 1969/70 Maha Season. The following Table indicates the districtwise acreage under crop insurance in 1968/69 and 1969/70. The insured

acreage increased from 201,660 in 1968/69 to 205,184 in 1969/70, i.e. an increase of 3,524 acres. However, in the districts of Galle, Matara, Vavuniya, Amparai, Kurunegala, Badulla and Kegalle there was no change in the acreage over the preceding year while the other districts showed an increase, with the exception of Jaffna and Ratnapura which showed a decrease.

TABLE XLII

Acreage under Crop Insurance

District	Extent Insured	
	1968/69	1969/70
Colombo	12,919	13,148
Kalutara	6,806	6,951
Kandy	7,837	7,907
Galle	6,455	6,455
Matara	12,752	12,752
Hambantota	28,062	28,326
Jaffna	5,771	5,721
Vavuniya	14,022	14,022
Batticaloa	11,211	12,529
Amparai	8,656	8,656
Trincomalee	5,833	5,855
Kurunegala	28,259	28,259
Anuradhapura	32,862	34,245
Badulla	5,911	5,911
Ratnapura	7,863	7,028
Kegalle	6,441	6,441
TOTAL	201,660	205,184

(Source: Department of Agrarian Services).

One of the principal criticisms directed against the present scheme is that it is based on a subsidy from the Government and therefore cannot be considered an insurance scheme proper. So far as peasant agriculture is concerned, crop insurance cannot be undertaken without some form of subsidy. No commercial firm would be prepared to undertake crop insurance, particularly with a cereal crop like rice. Crop insurance has therefore inevitably to be compulsory in nature to match the low or high risk areas, unless the Government policy is to discourage farmers to cultivate in high-risk areas. Even after such matching, the premium payable is beyond the capacity of the average peasant farmer in Ceylon. Therefore the Government subsidy was both necessary and inevitable. in Ceylon the actual contribution or subsidy by the Government each year amounts to only the difference between estimated indemnity payments and expected premium collections from the farmer.

Another criticism of the scheme relates to the uniform premium rate that is prevalent. This is said to be not fair by farmers in low-risk areas where losses are infrequent. This is one of the main reasons for varying coverages between different areas, the low-risk areas being given higher coverages. Even with the present uniform rate, if the farmer suffers loss once in 10 to 15 years, he will still receive more as indemnity than the amount paid by him as premium during the period. The experience in Ceylon has been that the average Ceylon farmer suffers some form of crop damage within a period of 10 to 15 years.

The third criticism is that the coverage offered at present is too low and totally unrelated to the productivity of the area. Those subsidies that provide a minimum coverage of Rs.10 per acre does not even amount to the value of a bushel of paddy at the guaranteed price. Even the maximum coverage of Rs.100 per acre represents only the value of eight bushels of paddy. The tendency to keep the coverages low in order to keep the premium low is quite natural but the problem has been aggravated by uniform premium

rates which means that coverages had to be further reduced taking into account variations in regard to different areas.

The present Government has in mind the establishment of a crop insurance corporation to review and reorganise the entire scheme of crop insurance in the country.

(f) Other Programme Marketing Arrangements

The Marketing Department plays a key role as regards the collection and distribution of the vegetables that are cultivated in the village areas. This Department has 33 collecting centres distributed in various districts of the country. The Department is responsible for the purchase of about 7 to 10% of the total production of vegetables in the Island.

Although the Marketing Department has no connection with the collection of produce under the guaranteed price scheme operated by the Department of Agrarian Services, the Marketing Department also provides a guaranteed price for vegetables, fruits and eggs. The Divisional Officer of the Department fixes the prices after observation of the Colombo prices in the Pettah market. These prices are then broadcast for the information of the producers and consumers.

The Pricing Committee of this Department fixes the prices at which the various collecting centres should buy different varieties of vegetables from the villagers. Price-lists are prepared once a month and revisions are made in these lists as and when necessary.

(g) General Marketing Conditions

One of the problems that farmers in certain areas have to face is the question of transportation of his paddy from the farm to the nearest Co-operative Stores. In areas not served by proper farm to market roads, transportation becomes a burdensome and time-consuming operation. Due to the difficulties of

transportation of paddy and other subsidised foodstuffs, farmers in such areas often come under the control of middlemen who undertake to transport their goods. These middlemen purchase the goods at a price considerably lower than what prevails in the market. This is done because the purchases are made by such traders at the farm level.

The crops that come under the guaranteed price are usually those that are in great demand and what was often imported in the past. Government has now totally banned the import of several items of subsidiary foodsturffs and as such the producer is able to get a better price than what is given under the guaranteed price scheme for the subsidised crops. At times the farmer encounters problems in his sale of paddy to the co-operative store. Bureaucratic procedures, excessively strict enforcement of quality tests, corruption, and inability to accept deliveries due to lack of storage have reduced the efficiency of the co-operatives as a purchasing organisation. Government attempted to overcome these problems by providing an incentive scheme for purchases. The Paddy Marketing Board has plans for streamlining and facilitating sale of paddy to the co-operative societies. As far as paddy is concerned, according to the Paddy Marketing Board Act, the farmer is compelled to sell his paddy to the co-operative societies. This Act debars any person to purchase and transport large quantities of paddy anywhere in the Island. Even so, the practice of selling at the village level to the private trade still continues to a limited extent among the farmers. In these circumstances the farmer is in a sellers market and benefits from the competition among traders for the purchse of his product. Many producers, however, are not able to get the maximum benefit from the prevailing scarcity conditions. The most prudent method of marketing would be for the farmer to hold to his crop and release it in stages as prices rise rather than unload his crop in the market immediately

after harvest when prices are low. To adopt such a marketing plan the farmer needs resources and working capital. While the well-to-do farmers have resorted to this method the poorer farmers have had to dispose of their crop at the low prices following the harvest, and thereby profits have accrued to the middlemen.

In the case of perishable commodities such as vegetables, marketing conditions in the village do not help the village producer to obtain the best price for his products. The only place where he gets a fair price for his vegetables according to the market conditions is at the collecting centres of the Marketing Department.

(h) Profits and Risks

There has been a significant increase in paddy production during the period 1960 onwards backed by Government measures for promoting production such as agricultural credit schemes, subsidies, guaranteed prices and improved extension services. Throughout the period more land has been brought under major and minor irrigation schemes at an average rate of 10,000 to 15,000 acres per annum. The extent of rain-fed land has also risen. Detailed information on the use of new technologies is difficult to obtain, except for fertilisers which has been discussed earlier. However, there has been an increase in the use of improved seed varieties, in extension services provided by the Government and also probably in labour inputs per acre for such operations as transplanting.

Cost, yields and returns from paddy cultivation will naturally vary between the different parts of the Island according to climatic conditions, type of irrigation available, if any, and use of inputs. There is great variation in seasonal and annual yields per acre in the different parts of the country.

The following table indicates paddy farm budgets annual outputs, profits and subsidies (per acre):-

TABLE XLIII

Paddy Farm Budgets Annual Output, Profits and Subsidies (per acre). 1967

	Colombo/ Kandy	Nuwara Eliya/ Kandy	Polonnaruwa Hambantota
Output at GPS prices	630	1,008	1,190
Output at World prices	356	571	673
Profits (net, of paid and inputed costs):			
G.P.S. prices	206	474	638
Profits plus imputed labour costs:			
G.P.S. price	474	794	912
World prices	200	357	395
Subsidy on Seed & Fertiliser[1]	14	17	25
Subsidy on irrigation	-	-	300
Total input subsidy	14	17	325
Profits minus input:			
Subsidy (GPS) prices	-192	457	313
World prices	-82	20	-204
Subsidy on output[2]	274	437	517

[1] Fertiliser subsidy, net, of import duties and taxes.

[2] Value of output at GPS prices minus value of output at world prices.

(Source: Agriculture in Ceylon until 1975)

These prices however reflect the official rate of exchange. If impprted rice is costed at the rate inclusive of FEECs the relative cost of inputs would be approximately 65% more than the CIF price given. As the rupee is considerably overvalued at the official rate

and import substitution benefits could be valued more realistically at FEEC rates, the real cost of the subsidy to the economy could be estimated more reliably by adjusting the import prices to include FEECs.

A typical paddy farm estimate of output and costs is given in the Table below:-

TABLE XLIV

Paddy Farm Budgets; Output and Cost

	Rs. per acre		
	Colombo/ Kalutara	Nuwara Eliya/ Kandy	Polonnaruwa/ Hambantota
(Bushels acre)			
Yield: Maha	30	45	57 [1]
(bushels) Annual [2]	45	72	85
Value at Rs.14 bushel	630	1,008	1,190
Value at world price [3]	356	571	673
Costs: Maha Rs.			
Fertiliser	9	14	20
Seed paddy (2 bushels)[5]	32	32	32
Tractor and buffalo[6]	50	75	89
Hired labour	-	-	31 [7]
Pest control	n.a.	n.a.	7 [7]
Transport[8]	7	7	7 [7]
Paddy land levy	6	6	6
Total costs (Maha)	104	134	192
Total costs (Annual)[9]	156	214	278
Imputed labour costs (per annum) [10]	268	320	320 [11]
Total costs, paid and imputed (per annum)	424	534	552

[1] This yield figure may be an exaggeration as it may be the result of measuring output per acre net of uncultivated portion in the

TABLE XLV

TOTAL RECEIPTS AND NON-CURRENT EXPENDITURE PER DEFAULTING UNIT PER MONTH

Income Group	RECEIPTS				NON-CONSUMPTION EXPENDITURE					Excess of Income over Non-Current Expenditure
	Income	Amount borrowed	Sale of Assets	Total Receipts	Amount Repaid Capital	Interest paid	Family Expen-diture	Capital Expendi-ture	Total Non-Current Expen-diture	
	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs
0 - 50	32.7	18.0	1.2	51.9	5.6	1.1	28.2	0.4	35.3	16
51 - 100	79.7	28.4	1.6	109.7	13.2	1.9	32.0	2.5	49.6	60.1
101 - 250	167.4	35.6	2.3	205.3	16.4	3.8	38.2	5.3	63.7	141.6
251 - 500	363.5	67.7	5.4	436.6	30.7	8.1	57.0	21.3	117.1	319.5
501 - 750	595.0	94.4	0.7	690.1	54.9	10.3	90.3	22.0	177.5	512.6
751 - 1000	878.6	181.3	16.8	1076.7	44.1	18.5	74.2	28.3	165.1	911.6
Over 1000	2330.6	312.9	17.9	2661.4	93.8	19.7	172.1	198.1	483.7	2177.7
Average	258.5	51.0	3.3	312.8	22.0	5.1	46.0	12.3	85.4	227.4

Source: Defaults Survey, Central Bank of Ceylon.

field such as bunds, paths, etc. and possibly should be reduced by 15% to be comparable with those for the other districts.

2. Reckoned by applying the following cropping indices: Colombo/Kalutara, 152; Nuwara Eliya/Kandy, 160; Polonnaruwa/Hambantota, 151.

3. 1967 average cif price; Rs.600 per 68 bushels, minus a 10 percent deduction for value added in rice milling.

4. Average actual application 1967 (for all except Polonnaruwa/Hambantota, where Mahaweli Ganga survey data used); cost to farmer with 50 percent subsidy.

5. Subsidised price.

6. Estimated.

7. Mahaweli Ganga survey data.

8. Resumed same in all districts.

9. Reckoned by applying cropping indices to Maha costs.

10. Reckoned at Rs.4 per day for the following number of days per annum: Colombo/Kalutara, 67; Nuwara Eliya/Kandy, 80; Polonnaruwa/Hambantota, 80.

11. Including cost of hired labour.

(Source: Agriculture in Ceylon until 1975, at p.91)

The output and costs were highest in the Polonnaruwa/Hambantota region, almost double that of the Colombo/Kalutara area. Costs may be higher in the former region due to the increasing use of fertiliser per acre, the cost of hired labour and the higher cost of tractors and buffaloes.

Total receipts shown in the above Table include regular income from produce plus the amount borrowed and the amount realised from the sale of assets. (The data is presented on a permanent basis rather than on a seasonal basis. No allowance is made for the capital gains or losses in this calculation. Income data refers to gross incomes after payment of rental and other dues at the harvesting field).

The definition of non-current expenditure includes farmers' expenditure consisting of expenditure on ceremonial occasions, marriage, litigation, illness, death, schooling, capital expenditure and repayment

of capital and interests. The excess of income over non-concurrent expenditure varied from 51% in the lowest income group to 103% in the second highest income group with an overall average of 88% for all the income groups. Even so, the debt servicing obligations that were in default remained high and these obligations were on the average 43.0% for loans under the New Agricultural Scheme and 50% for other loans in default. Considering this high rate of default, it is necessary to find out whether any group of income-receivers would have a positive balance out of the excess of income over non-current expenditure, after meeting current consumption. This could give an idea whether some defaulters have a surplus of income, to repay. For this purpose, a comparison of the data obtained from the Socio-Economic Survey of 1969/70 conducted by the Department of Census and Statistics, was used in respect of current consumption.

TABLE XLVI

Expenditure over Income - Percentages

Income Group Rs. per month (1)	Current expenditure as % of Income (Socio-Economic Survey 1969/70) (2)	Gross Receipts less non-current expenditure as % of Income (3)	Proportion of Income left after meeting reported Expenses (3)-(2) = (4)
0 - 50	96.0	50.8	-45.2
51 - 100	95.9	75.4	-20.5
101 - 250	95.9	75.4	-20.5
251 - 500	73.2	87.9	+14.7
501 - 750	66.0	86.1	+20.1
751 - 1000	55.3	103.8	+48.5
Over 1000	43.1	93.4	+50.3
Total	79.7	88.0	+ 8.3

Note: Some interpolation was done in the case of certain groups that did not broadly fall within the income

groups of the socio-economic survey.

(Source: Defaults Survey, Central Bank of Ceylon: at page 68).

It is clearly seen from column (4) that those receiving an income of over Rs.250 had a positive balance to settle the overdue loans. This balance is compared below with the overdue loans.

TABLE XLVII

Capacity to settle Overdue Loans compared with Overdue Loans

Income Group Rs. per month	Overdue Loans (with interest) as percent of income		Proportion of Income left after meeting all reported expenses	Capacity to settle Overdue Loans (4) - (3) =
	N.A.Loans	All Loans		
(1)	(2)	(3)	(4)	(5)
0 - 50	19.7	43.1	-45.2	-88.3
51 - 100	10.5	21.7	-20.5	-42.2
100 - 250	5.9	13.0	+ 0.2	-12.8
251 - 500	4.8	11.9	+14.7	+ 2.8
501 - 750	3.0	7.6	+20.1	+12.5
751 - 1,000	3.4	16.7	+48.5	+31.8
Over 1,000	1.8	10.0	+50.3	+40.3
TOTAL	4.8	12.6	+ 8.3	- 4.3

(Source: Defaults Survey, Central Bank of Ceylon: at p.68)

It is clear that incomes are inadequate in the three lowest income groups (those receiving less than Rs.250) to meet all expenses reported. The capacity to settle overdue loans is indicated in the last column of the above Table. The lowest income group should have an increase in income of nearly 90% to meet the deficit in income over reported expenditure and settle overdue loans. On the average, this income group had to cultivate 1.02 acres and if the yield is

about the national average of 50 bushels per acre, the income rise would be more than 100%. However, the lowest income group with monthly household incomes less than Rs.50 is not typical of the average low income household in the peasant sector. According to the Socio-Economic Survey of 1969/70 the average monthly income in the rural sector was in the region of Rs.140 and was closer to the third group in the Defaulters Survey. It should be noted that the highest percentage of defaulters were in this group according to the defaulters survey. The two groups with lower incomes would therefore be marginal groups and not representative of the average low income farm family. For the third group with an average extent of 1.95 acres, the potential on income increases through higher productivity and for raising repayment capacity of overdue loans is quite high.

The data on incomes, expenditure, and levels of poverty collected through the sample surveys that have been conducted must be treated with a great deal of caution. The percentage of error is quite high. In the income data of the defaulters survey and the Socio-Economic Survey the income effect of free rice has not been included. It is doubtful whether the non-monetised income of these households has been correctly estimated and included. The institutions conducting the survey have drawn pointed attention to the fact that the respondents to the survey questionnaires invariably tend to understate income and overstate expenditure. This partly due to unintentional inaccuracies, partly due to the belief that government is collecting data on which it expects to revise its policies on subsidies, taxation, debt redemption, agricultural credit and so on. Therefore the conclusions regarding poverty at the margin which is apparently even below subsistence level in the lowest income categories in the defaulters survey, need to be critically re-examined on the basis of further data.

It is difficult to derive a clear profile of the poverty in the rural sector from the data available from the different surveys, as taken separately they present a somewhat confusing and conflicting picture. For example, the data on the structure of paddy holdings, vide Table IV , indicate that approximately 65 percent of persons owning paddy land had paddy holdings below 1 acre. According to the defaulters survey, defaulters with lowest incomes cultivated an average holding of about 1 acre. From the data on paddy holdings, it might appear that the majority of paddy farmers owned uneconomic mini-holdings which may not be capable of yielding even a subsistence income. However, the majority of these operators are only engaged part time on paddy farming and have other sources of income from highland holdings they possess as well as wage employment in adjoining plantations and other enterprises. Furthermore a significant proportion of holdings below one acre are jointly owned and cultivated by owners in rotation over a cycle of seasons. Therefore before any reliable conclusion could be drawn about the agrarian structure, the pattern of economic activities, forms of ownership and operation, and level of income in the paddy sector with holdings below 1 acre, a great deal of primary data collection and socio-economic research has yet to be done. When this has been said, it should also be noted that the holdings below 1 acre account only for about 20% of the total paddy extent. The full time paddy farmers would fall mainly into the categories of holdings above 1 acre. If we take the farmer in the third category of the defaulters survey (which contained the highest percentage of defaulters) as the typical farm household dependent on paddy, then as given in Table IV the income of this household from paddy alone will be approximately Rs. 2000 per annum on an average yield of 45 bushels and a crop intensity of 1.6. This income will be further supplemented by other garden produce and subsidiary food crops if he possesses a small plot of highland. For example, farmers in the Dry Zone will supplement their incomes from low land cultivation with produce from shifting cultivation in adjoining forest land. Therefore an income of Rs. 2400 per annum for a typical farm household would not be an excessive estimate. The cost

of production of 1.6 acres excluding family labour would be approximately Rs.350 which the farmer could obtain from a credit scheme; he would therefore not incur any expenditure out of his own resources but out of borrowings. The net cash income available for consumption and other household expenditure after repayment of loans would be in the region of Rs.2000 per annum for each household, or Rs.167 per month. The minimum household budget on nutritional norms for the urban sector was estimated at Rs.170 per month by the Medical Research Institute in Sri Lanka in 1971. On these figures one might conclude that our typical farm household for a holding of about two acres of paddy and yielding 45 bushels of paddy an acre by taking 1.6 crops from his land is at a level of poverty which is not appreciably below the poverty line and is very close to the point where it would have crossed it. As stated earlier the prospect of raising repayment capacity for farmers in this category is good as the potential for further yield increases is high. However, this projection of a typical farm household dependent on paddy is subject to numerous qualifications. The yields and cropping intensity will depend on the condition of the land and the availability of water.

PART III

Evaluation

(A) Performance

(1) Apparent use of credit

The Committee which studied Agricultural Credit in 1966 observed the fact that under the credit schemes that were then in operation, there was some misuse of funds. According to this report "the present lending rates carry with it a large element of subsidy by government. In fact, part of the misuse of these funds might be due to the fact that some borrowers have at least realised that the going rate in the market is higher and that they could make larger profits by relending the money given to them by government at a subsidised rate of interest." They also noticed that there was no proper system for relating the request for loans to the actual requirements of each farm in relation to the crop he proposes to grow on the extent of land given to him, to the cultivation practices that are present on such land for cultivation of such crops and that there was also no proper mechanism for effecting supervision of the use of loans once granted. Although there was no reliable data to quantify the extent to which agricultural credit was applied by farmers to purposes other than agriculture, instances of misuse of credit were observed. The Committee therefore recommended several measures to eliminate some of the deficiencies in the existing credit schemes. These included (a) the preparation of a detailed cultivation plan on which the requirements of credit to individual farmers was to be granted (b) the preparation of this plan well ahead of the cultivation season to eliminate delay in the granting of credit (c) the granting of credit in kind - seed paddy, fertiliser, etc. and (d) the supervision of the entire programme from the stage of plan preparation to the granting and utilisation of credit by a set of village officials under the direction of the Government Agent. These proposals including the higher rate of interest were incorporated in the New Agricultural Credit Scheme, but an evaluation of this scheme by the Central Bank

conducted in 1972 showed that the deficiencies in the previous scheme had not been entirely eliminated and that some misuse of agricultural credit continued. This was illustrated in a scheme in the North Western Province, Devahuwa, where the cultivation programme including credit was intensively supervised, and where it was detected that some cultivators resold some part of the subsidised fertilisers for use in sectors where the subsidy for fertiliser was not available.

2. Effects

(a) Production

The following Table gives the index numbers of extent, yields of paddy and fertiliser used from 1952 to 1970:

TABLE XLVIII

Index Numbers of Extent, Yields of Paddy and Fertiliser used

	Sown Extent	Production Base Year 1952-54 = 100	Yield	Fertiliser	Population
1952	101	106	105	72	97
1953	91	80	92	92	100
1954	109	114	102	136	103
1955	117	131	111	173	105
1956	102	99	102	204	109
1957	105	115	111	244	112
1958	120	134	118	380	115
1959	115	133	119	291	118
1960	127	158	124	419	121
1961	127	158	123	549	125
1962	133	176	129	679	128
1963	135	180	129	867	130
1964	137	185	132	606	134
1965	126	133	117	584	137
1966	140	167	122	762	140
1967	142	201	141	1214	143
1968	151	236	159	1241	147
1969	148	241	172	1231	150
1970	162	284	176	1297	153

(Source: Ministry of Agriculture)

It is difficult to relate the impact of the credit programme to the increase in the production of paddy. This is because other factors such as introduction of new varieties, improved cultural practices, use of fertilisers, irrigation and extension services all contribute to the production of paddy. It is not possible to isolate each of these variables and estimate the contribution which each variable makes to the increase. The index of the sown extent had increased from 101 in 1952 to 162 in 1970; production had increased from 106 to 284 and the yield from 105 to 176. A greater part of the increase in the yield is due to the increasing use of high-yielding varieties of rice and the use of fertilisers. Fertiliser application is one of the most important factors for raising yield per acre. With the introduction of new high-yielding strains, the inputs of fertiliser, agrochemicals etc. had to increase and the management practices became more sophisticated all of which demanded more resources of working capital from the farmer. The farmer's capacity to increase yields and benefit from the advances in technology in his field therefore depended on the ready availability of credit. The total input of credit to the small farmer through the scheme administered by Government from 1947-1970 was in the region of Rs.567 million and this gives some indication of the support the farmer received during this period. Of course the Government schemes met only part of the credit needs of the small farmer. Reliable data on the volume of short-term credit in the form of working capital available to the small farmer from other sources have not been collected. Such credit was obtained on terms which were less favourable. Such credit usually came from middlemen who advanced part of the sale value of the crop to the cultivator and therefore purchased the crop at prices appreciably below the market price. The operation of Government credit schemes on a large scale helped to mitigate some of the excesses of such private credit.

TABLE XLIX

Paddy Production in Ceylon, 1960-1968

	1960	1961	1962	1963	1964	1965	1966	1967	1968
Production, million bushels[1]	43.0	43.2	48.1	49.1	50.5	36.3	46.1	55.1	63.6
Net acres harvested '000 acres[2]	1184	1196	1268	1296	1304	1058	1284	1332	1432
Yield per net acre harvested, bushels	36.3	36.2	37.9	37.9	38.6	34.3	35.9	41.4	44.4
Gross acres sown '000 acres	1468	1472	1536	1562	1585	1453	1617	1636	1700[3]

1. Crop years include the Maha season beginning the previous year and the Yala season of the year stated.

2. Gross area sown minus crop failures gives gross area harvested; that minus 15 percent for paths, bunds, etc. gives the net area harvested on which official yield figures are based.

3. Estimated.

(Source: Agriculture in Ceylon Until 1975)

In the Table given above the production of paddy, the net acres harvested and the yield per net acre harvested, show an increasing trend over the years, except for the years 1965 and 1966, when a severe drought and crop failure affected all these variables. This brings into focus the importance of the water input in the paddy production process. As such, the fall in 1965 and 1966 would have been greater if not for the provision of major irrigation schemes and the opening up of new lands.

The increase in output which could be attributed to the increase in yield (and thereby to inputs such as new seed varieties and fertilisers which in turn are influenced by the credit programme as mentioned earlier) may be ascertained by comparing the increase in production between 1960 and 1968 (the increase being 20.6 million bushels) with what the increase would have been in 1968 at the yield rate obtained in 1960. On this basis 56.3% of the increases was due to the use of inputs such as new varieties and fertilisers. This increase in productivity could not have been achieved if the credit programmes had not provided the farming community with part of the working capital needed to raise the inputs to higher levels.

The story of the Agricultural Credit Scheme as it unfolds itself in the fifties and sixties has a recurrent pattern of peaks and troughs. During this period there have been peak years during which Agricultural Credit reached substantial proportions and thereafter declined. It is possible to point to several such peak periods during the last 20 years. In 1952/53 loans granted rose to 15 million rupees as against 8 million rupees in the previous year. In 1956/57 it once again reached a peak of 21 million rupees and declined to 10 million rupees in 1962/63. Then again in 1963/64 it reached 34.5 million rupees and declined to million rupees in 1966/67. Under the new Agricultural Credit Scheme it reached 73 million rupees during the peak period of

participation by farmers in the new Agricultural Credit Scheme. It could be concluded that during these peak years, participation in the Agricultural Credit Schemes by paddy farmers was relatively high.

It is difficult to estimate the exact rate of participation from the data available but some idea of the level of participation could be gained from an estimate of the working capital requirements for the whole of the paddy sector. In 1967/68 which is the year during which the highest volume of Agricultural Credit flowed into the peasant sector there was approximately 1.2 million acres of paddy land available for cultivation. Of this extent, the area cultivated for the Maha Season was in the region of 1,100,000 acres. On an estimate of working capital requirements per acre of paddy as estimated in the Agricultural Credit Scheme, i.e. Rs.220, the total amount of working capital requirements for the entire extent cultivated for the Maha Season would be in the region of 240 million rupees. If one assumes that a certain proportion of farmers with relatively large holdings enjoyed a position of liquidity which made agricultural credit unnecessary for them the total requirement of agricultural credit would have been less than this figure of Rs.240 million. The extent owned in holdings above five acres was approximately 300,000 acres. If this figure is excluded from the Agricultural Credit Scheme the total requirement of agricultural credit would have been in the region of 175 million rupees. From these figures the participation of farmers in the Agricultural Credit Scheme in 1968/69 would have been between 40-45 percent.

Another way of arriving at the rate of participation in the Agricultural Credit Scheme is to examine the data for fertilizer used and the proportion obtained on credit. During years of peak performance under the Credit Scheme the percentage of fertiliser obtained on credit was correspondingly high. In 1963/64 it was 35 percent, in 1967/68 it was approximately

42 percent. These figures give some indication of the rate of participation in the Credit Scheme by farmers. In examining these figures it should be noted that the usage of fertiliser among farmers will vary depending on the nature of the paddy land and the region in which it is located, the technological level of the farmer and the efficiency with which supplies of fertilisers are organised at the village level. Therefore the percentage of fertiliser obtained on credit need not be identical with the rate of participation but will only serve as a general indicator. During the peak period when the Agricultural Credit Scheme was in operation it is likely that about 50 to 60 percent of the farmers in need of Agricultural Credit participated in the Credit Scheme.

The impact of the Agricultural Credit Schemes on the total agricultural development programme cannot be estimated only in relation to the rate of participation. The peak years resulted in inputs of agricultural credit which induced farmers to reach higher levels of fertiliser use and improved technology for farming in general. For example, in 1952/53 when credit jumped from 8 million rupees to 15 million rupees there was a substantial increase in resources made available to the farmer. Even if the rate of participation declined after it reached this peak level, the farmers appear to have attempted to maintain levels of inputs that they reached when credit was available. For example, in 1967/68 fertilizer use rose from 52,000 tons to 84,000 tons and thereafter this level has been maintained although the proportion obtained on credit declined. The sudden drop in fertilizer use between 1963/64 and 1964/65 is attributable to drought conditions which prevailed in 1964/65. The fact that farmers have been able to maintain and improve on the level of fertilizer use in spite of the decline in credit may point to the fact that farm incomes have been increasing in the recent past, farmers therefore enjoyed

a better level of liquidity thereby reducing their dependence on credit and at the same time they became more creditworthy for non-institutional lending.

This however should not be taken as an argument that an Agricultural Credit Scheme with a much larger degree of coverage and higher rate of participation is not very essential for an agricultural development programme. The fact is that even the present levels of fertilizer use are far below the recommended dosage and have reached only about 33 percent of these dosages. The recommended dosages themselves are not anywhere near the optimum dosage. An Agricultural Credit Scheme properly administered which ensures the necessary working capital to the farmer to raise the agricultural inputs to the desired technological level can increase production at a very much faster rate than at present. The essential problem is therefore one of implementing an Agricultural Credit Scheme which raises the level of agricultural inputs and consequently raises agricultural incomes and repayment capacity of the farmer. Such a scheme however would have to be so administered that the farmer recognises his obligation for repayment and is fully conscious of the need for continued participation in the Scheme in order to achieve a rapid increase in his income.

(b) Farm Income

As explained in the previous section, agricultural credit was one critical input in the programme to raise the level of productivity of the small farmer and consequently raise his income level. However, the Government credit schemes have conformed to a recurring pattern. With the introduction of each new scheme and each reorganisation, participation in the scheme and utilisation of credit by farmers are high. Thereafter progressively participation drops, as farmers default on repayment and probably return to non-institutional

sources of credit. To the extent that this happens, the benefits from the increase in productivity do not accrue in full measure to the farmer. He incurs debts to the non-institutional lenders at high interest rates and he is unable to avail himself of the guaranteed prices as his crops are hypothecated to the private lender. The rural indebtedness survey conducted by the Central Bank in 1970 indicated that the incidence and magnitude of debt among the farming communities to the non-institutional lenders is quite high. The Survey estimated the total outstanding debt at Rs.15,713,000 which is an average of Rs.602 per rural household or 19% of their total annual income.

Another indicator of farm incomes might be the changes that have occurred in the structure of agricultural small holdings. Data available for the period 1958 to 1963 indicate that there has been no significant reduction in the size of holdings at the bottom of the scale. The relative stability in the structure of holdings supports the conclusion that farm incomes have increased and a substantial part of the increment must have accrued to the farmer himself.

Prior to 1967, the guaranteed price scheme for paddy was very helpful to the farmer in that it gave him a higher price than that which prevailed in the open market. After 1967, with the reduction of the rice ration, the paddy market changed dramatically and the open market price per bushel of paddy was higher than that of the guaranteed price scheme; the open market price for paddy steadied at a level comparable to the guaranteed price and at times rose above it and this helped to increase the farmer's returns.

According to the Survey on Cost of Production of Paddy conducted by the Central Bank of Ceylon in the Maha Season 1966/67, the following Table shows the position as regards the gross value of output, production costs and the net return to land and labour.

TABLE L - Gross Value of Output, Production Costs and the net Return to Land and Labour

Gross return			
Yield (bu/acre)	..	40.8	
Price of paddy per bu.	..	14.0	
Gross return	..	571.0	
Production costs			
Cultivation	..	76.04	
Seed	..	30.56	
Fertiliser	..	17.57	
Agro-chemicals	..	4.34	
Other	..	7.39	1/
Total	..	136.00	
Man-days per acre	..	42.0	
Net return to land and labour		435.00	

According to this Survey the net return to land and labour was in the region of Rs.435.00 per acre per crop. Yields per acre have further risen after this survey and were in the region of 50 bushels in 1970. With the introduction of new high-yielding varieties further substantial yield increases are being recorded in the recent harvests. On experimental data from Paddy Research Stations, the net return per acre on a yield of 80 bushels could be as high as Rs.788 on one crop. With double cropping, the return per acre could be doubled.

These figures do not take into account the cost of hired labour that might be required to supplement the family labour available. It will be seen that for a single crop approximately 42 man-days would be sufficient for cultivation of one acre. With double cropping an acre would be able to absorb 85 man-days which still does not amount

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1/ The costs in this table represent the national averages excluding labour costs and will therefore not be identical with the figures in Table XLIV.

to more than $\frac{1}{3}$ to $\frac{1}{4}$ of a man-year. This calculation, however, does not take into account the seasonal peaks of labour requirements on the operations that are involved. The demand for labour is not spread evenly round the year and therefore during the peak periods such as ploughing, transplanting, harvesting, hired labour is used to supplement family labour while during the slack season, family labour is under-utilised. However, on a $2\frac{1}{2}$ to 3 acre allotment of paddy, a family with three units of labour would require only a marginal input of hired labour to supplement their own effort. This brief comment on the labour situation in the family farm draws attention to the scope for diversification and multi-cropping which would be able to take up the slack periods that are inevitable in the present mono-cropping pattern. The current programs of the Government are directed at such diversification and have as their objective the raising of income levels in the farming community.

(c) Technology

The availability of credit has no doubt improved the capacity of the farmer to absorb the new technology and adopt the better cultural practices, e.g. the use of high-yielding seeds, fertilisers, agro-chemicals, etc.

TABLE LI

Fertiliser Issues by Components (in Tons)

Year	Ammonium Sulphate 20.6%(N)	Urea 46.0%	Rock Phosphate 27.5% (P_2O_5)	Muriate of Potash 50% (K_2O)	Compound Pelatsed Fertiliser 15% (P_2O_5) 15% (K_2O)	Concentrated Superphosphate 42.0% (P_2O_5)	Bone Meal	Mixed Fertiliser	Total
1958-59	12,832	503	8,700	4,306	-	-	-	-	26,341
1959-60	11,473	107	5,521	5,521	-	-	-	-	20,173
1960-61	18,512	258	6,723	-	-	-	-	-	29,041
1961-62	24,747	675	8,020	4,633	-	-	-	-	38,075
1962-63	31,023	872	9,946	5,217	-	-	-	-	47,058
1963-64	39,780	3,131	11,389	5,796	-	-	-	-	60,096
1964-65	26,266	2,567	8,676	4,537	-	-	-	-	42,046
1965-66	19,582	7,014	9,078	4,811	-	-	-	-	40,485
1966-67	18,154	12,624	13,241	7,462	500	72	540	262	52,855
1967-68	29,907	19,219	16,441	10,496	5,791	1,370	830	177	84,231
1968-69	23,710	26,384	10,968	9,356	10,469	5,162	17	-	86,066
1969-70	23,297	28,150	7,512	8,732	10,641	7,025	-	-	85,357

(Source: Department of Agrarian Services)

The total increase in the use of fertiliser was at an annual compound rate of 12.6%. The credit programme has had an appreciable i impact on the use of fertiliser throughout the Island. Fertiliser is supplied under the credit scheme and also made available for purchase on a cash basis. The farmers are able to purchase their requirements from the Co-operative Societies which are the point of retail distribution at the village level.

The following Table shows the inputs in paddy production from 1960 to 1967.

TABLE LII

Inputs in Paddy Products

	1960	1961	1962	1963	1964	1965	1966	1967
Prepared land, '000 acres								
major schemes ..	325	340	338	362	366	381	402	401
Minor irrigation schemes	388	344	351	364	370	377	368	545
Rainfed land ..	497	496	508	504	513	515	533	545
Total prepared land[1]	1,160	1,180	1,197	1,230	1,249	1,273	1,325	1,331
Fertiliser use, nutrient tons (thousands) ..	5.5	7.5	10.1	12.1	15.7	11.2	12.2	15.2
Acres transplanted (thousands) ..	64.9	72.5	8.10	99.7	93.4	n.a.	n.a.	n.a.
Value of agrochemicals used (million Rs.)..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3.5	n.a.
Certified seed paddy issued (th.bushels)	80[2]	80[2]	80[2]	n.a.	n.a.	n.a.	n.a.	140
Tractor imports (nos.)	n.a.	900	n.a.	700	600	470	1,474	1,456[3]
Government services (million Rs.)[4]								

1. Prepared land is the acreage on which paddy could be grown and is not equivalent to either gross sown or net harvested acreage.

2. Estimated.

3. Sales.

4. Expenditure on rice extension (100 percent) on agricultural extension and research, pest control and loss on tractor services (75 percent). Doubtless many other items should be added under the heading of government services; however, expenditure which can justly be ascribed to paddy services is naturally difficult to identify.

(Source: Agriculture in Ceylon Until 1975)

The above Table shows that the most important input has been fertiliser which has shown a continuing increase from 1960 to 1967. The data on the value of agrochemicals is available only for the year 1966 during which year Rs.3.5 million worth of agrochemicals had been used. The use of certified seed paddy varieties shows an increasing trend although the figures for 1963 to 1966 are not available.

Little information is available on the benefits of transplanting, but according to the Survey on Cost of Production of Paddy, the average yield per acre from transplanting was higher than from the broadcasting method. This is shown in the following Table.

TABLE LIII

Average Yield per Acre by Districts

District	Broadcasting			Transplanting			Broadcasting and Transplanting
	Area in Perches	Yield in Bushels	Yield per acre (Bushels)	Area in Perches	Yield in Bushels	Yield per acre (Bushels	Yield per acre (Bushels)
Amparai	50,960	9,379	29.45	6,000	1,465	39.07	30.46
Anuradhapura	42,303	9,893	37.42	3,001	940	50.13	38.26
Badulla	3,150	654	33.23	5,652	1,979	56.01	47.86
Batticaloa	88,525	14,859	26.86	1,440	414	46.00	27.16
Colombo	13,574	2,029	23.92	1,883	385	32.71	24.99
Galle	14,164	2,077	23.46	-	-	-	23.46
Hambantota	17,685	4,913	44.46	2,560	668	41.75	44.11
Jaffna	26,755	3,607	21.57	3,375	522	24.75	29.93
Kalutara	14,726	2,235	24.28	-	-	-	24.28
Kandy	4,756	904	30.41	8,386	2,099	40.05	36.56
Kegalle	4,523	919	32.51	3,096	784	40.52	35.76
Kurunegala	25,338	4,668	29.48	2,952	877	47.53	31.36
Mannar	16,061	2,930	29.19	8,396	3,230	61.55	40.30
Matale	4,097	777	30.34	2,576	676	42.99	34.84
Matara	13,448	1,568	18.66	320	80	40.00	19.15
Moneragala	5,300	991	29.91	2,645	853	51.60	37.13
Nuwara Eliya	1,232	230	29.87	3,572	704	31.53	31.10
Polonnaruwa	17,520	5,123	46.79	36,440	11,367	49.93	48.90
Puttalam	8,020	1,353	26.99	-	-	-	26.99
Ratnapura	12,895	1,769	22.95	1,640	559	54.54	25.63
Trincomalee	43,783	8,853	32.35	-	-	-	32.35
Vavuniya	43,381	10,882	40.14	800	389	77.80	40.82
All Island	472,196	90,613	30.70	94,734	27,991	47.27	33.47

(Source: Survey on Cost of Production of Paddy, 1969)

According to the above Table, the yield obtained from transplanting was 47.27 bushels per acre (all-Island average) as compared with 30.70 bushels per acre obtained from the broadcasting process. Transplanting however is a labour intensive process and family labour would have to be supplemented with hired labour if the farmer is to adopt this practice. This would necessitate an increase in his working capital. It draws attention to the importance of agricultural credit in any programme for improvements in the technology of farming.

(d) Savings and Other Sources of Finance

Under the existing credit schemes there is no stipulation that the farmer should save a certain part of his profits. However, the farmers are obliged to become members of the Co-operative Societies by the purchase of at least one share costing Rs.50 and this share capital is payable in 10 instalments. It is likely that these instalments are paid from the income received. It is also a fact that the number of savings accounts and the quantum of savings deposits in the Rural Banks have increased over the years as can be seen from Table XV discussed earlier. It was seen that credit is also given to farmers for acquisition of capital assets such as water pumps; these schemes which operate on a limited scale have in a small way contributed to channel farm incomes into capital formation. However, for the most part farmers have been dependent on short-term credit for their requirements of working capital. There is increasing evidence however that a small minority of farmers who are highly productive and have small holdings above the average size have reached a level of income and achieved a state of liquidity that have rendered them self-reliant.

The credit programme so far has not induced any other Bank, except the People's Bank, to come into the new Agricultural Credit Scheme. It is unlikely that any other Commercial Bank in Ceylon would like to come into the Scheme under the present conditions. It is not

only the low interest rates that have discouraged the flow of capital into farm finance, but also the lack of collateral and the high incidence of defaults. However, the non-institutional sources of credit have continued to be an important source of finance.

(e) Employment

The average requirements of labour for growing one acre of paddy comes to about 60 man-days. This can, however, vary from about 40 man-days under the broadcasting process to 80 days under transplanted paddy. Among the various operations that are necessary for paddy cultivation, land preparation accounts for 30-40% of the total labour requirements. Next in order of importance comes 'Dry/thresh, bag, transport' accounting for another 25-30% of the labour requirements. These two operations together constitute about 55-70% of the share of the labour requirements. The other important operations are harvesting, irrigation and weeding.

There is no data to show that the credit programme has had any positive employment effects but it may be said that the programmes have contributed to the increased use of improved practices such as transplanting, weeding, etc. which means that additional labour will be employed for these purposes. From this point of view, it may be accepted that the credit programmes have, in one way or other, contributed towards employment in the rural sector.

The estimated labour requirements for crops, other than paddy, are shown in the following Table.

TABLE LIV

Estimated Labour Requirements for Crops (other than Paddy)

		Irrigation Programme Review	Draft Agricultural Plan, 1971-77
		Man-days per acre	
1.	Red Onion ..	210	216
2.	Bombay Onion ..	220	307
3.	Groundnut ..	75	-
4.	Cotton (irrigated)	70[1]	82
5.	Tobacco (cigarette)	125[2]	220
6.	Sugarcane (planted)	100[3]	-
7.	Green gram ..	30	42
8.	Maize ..	35	50
9.	Chillies ..	205[4]	208
10.	Tomato ..	-	142

1. Cotton on chena = 40 days
2. Boedi tobacco = 85 days
3. Rattoon 182 - 60 days
4. Present - 85 days.

(Source: Notes on Rural Policy - Ministry of Agriculture & Lands)

As can be seen from the above Table, the per-acre labour requirements are the highest for red onions and Bombay onions. In the case of groundnut and cotton, about 75 man-days are required. The lowest labour requirements are for green gram and maize, being around 40 to 50 man-days.

In the case of intensively cultivated crops such as onions and groundnuts, labour requirements for weeding and irrigation are quite substantial. Fro crops that are not intensively cultivated, e.g. green gram and maize, a major share of the labour requirements goes towards land preparation. In general, labour requirements

for all those crops are within reasonable limits and will rely substantially on family labour but as stated earlier during certain months of the year it may be necessary to employ additional hired labour or mechanise some of the operations such as land preparation for which tractors are extensively used. Credit has been given under three schemes for the cultivation of the above crops and as such an expansion of the cultivation of these crops would mean that the credit programme will help in the diversification of peasant farming with the introduction of employment intensive crops and by this means will increase employment in agriculture.

(f) Political and Social Structure

It is difficult to make any reliable assessment of the political implications of these credit programmes. However, the rural voter has the highest weightage in the national electorate. All programmes affecting his welfare have very high political priority in a democratic system based on universal franchise as operating in Sri Lanka. Government policy in regard to the administration of agricultural credit is therefore significantly influenced by political factors. The desire to expand rural credit, lenient treatment of defaulters, the grant of amnesties in respect of past debts, the reorganisation of schemes and introduction of new schemes to widen the coverage and increase participation are all influenced by the political motivation to appease the numerically strongest section of the electorate. Succeeding governments have given their attention to agricultural credit. While the Schemes have the primary objective of assisting the small farmer to increase production, their formulation and implementation have been greatly influenced by political considerations.

In regard to the social structure a few aspects deserve comment. The Government Agricultural Credit Schemes with all their shortcomings have improved the condition of the farmer in that he is less dependent on the middlemen and traders.

The influence of these social groups - the middlemen and the retail traders - has diminished in village society, and to that extent

the small farmers have become more independent of extortionate sources of credit. Although the data indicate that the average farmer oscillates between the Government source of credit and the non-institutional source, the presence of competing sources of credit by itself has changed the social environment in which the farmer operates. Another aspect that needs comment is the structure of ownership. As stated earlier, the structure of small holdings has remained relatively stable. Although there has been some increase in landlessness and a considerable accumulation of rural unemployment, there is no evidence pointing to major fragmentation of holdings or concentration of ownership. If the smallholder had been entirely dependent on non-institutional sources of credit, the picture might have been very different as quite often lands that were hypothecated to non-institutional lenders were eventually taken over for unpaid debts. The society of smallholders has continued without any significant alterations in the pattern of ownership. Finally, the Agricultural Credit Schemes have helped to strengthen some of the new institutions at the village level - the Co-operative Society and the Rural Bank. Although these institutions have many shortcomings and have not been fully effective in achieving their objectives, the enlargement of their functions through the agricultural credit scheme, the expansion of the economic activities of these institutions have given them a crucial role in the village economy.

3. Progress towards other objectives

The secondary objective of this scheme was to relieve the peasants of their chronic indebtedness to non-institutional sources. But according to the available data, and as revealed by the Survey of Rural Indebtedness in 1969, the credit schemes have not been able to relieve the peasant from his indebtedness to an appreciable degree. However, it may be said that if the credit schemes were not available the position of the peasant would have been worse, in relation to his credit needs.

4. Image

(a) Farmers' Attitudes

The attitude of farmers to the Agricultural Credit Schemes has been influenced by the welfare policies of Government as a whole. The food subsidies, free medical treatment, free education, relief during crop failures, generous schemes for settlement of landless peasants, has created the expectation among the rural poor that the function of the State is to provide them with free assistance in all their activities. The attitude to Government as a source of free services has therefore influenced the farmer in his approach to the agricultural credit scheme. He is aware that Government is both a lenient and generous creditor from past experience; hence his readiness to make use of the short-term benefits of repudiating his debts to Government (or People's Bank) and have recourse to a less generous non-institutional lender until the Government once again admits him to the credit scheme.

According to the Report of the Survey of Defaults about 12% of the defaulters had no intention to repay the loans because they thought these loans were advanced in pursuance of State policies and should be regarded as outright grants, or would be ultimately written off. nearly 15.7% of the defaulters did not expect to repay the overdue loans. These unpaid loans comprised 17.9% of the loans overdue. Opinions sampled in the survey indicate that some of the defaulters rationalised their defaults by being critical of Government programmes which had failed to make any substantial improvement in their conditions. They therefore argued that Government could not expect them to possess the capacity to repay their loans.

As against this picture of default it should be noted that recoveries under the new Agricultural Credit Scheme have been in the region of 64% and the amount overdue in the region of 26%. These figures would indicate that still a large number of peasant farmers

who participate in the Scheme have fulfilled their obligations and have protected their eligibility to the Scheme. That is disturbing, however, is that as in the case of past schemes the volume of credit has sharply declined and the rate of default has continued to increase. It is the image of the Credit Scheme among the farmers who have responded positively to it that needs to be identified clearly and prljected in a manner which influences the other elements in the farming community who have repeatedly caused the brekdown of the scheme. The basic motivation for repayment present when the farmer deals with the non-institutional lender is not present in his relations with the Government. The money-lender is a fairly influential person in the village community and has a controlling voice in some of its economic activities. He may be a retail trader who supplies the consumer needs; he may be a landlord. He has enough authority to enforce the borrower's obligations, as normally he would have obtained collateral for the loan either in the form of property or in the form of the crop. In the case of the government scheme, there are no punitive measures, no firm legal sanctions for recovery except the negative sanction of not being able to borrow again. Hence the attitude of the defaulter.

(b) General Image of the Programme

There is general agreement among policy makers and planners that the Agricultural Credit Scheme is an indispensable link in the chain of programmes required to modernise the traditional agriculture of the peasant farmer. The fact that Governments have made repeated attempts to reorganise the Schemes and render them effective is testimony of the priority attached to the programmes. At the same time, it has been acknowledged that the economic viability of the Scheme has been jeopardised by the welfare expectations of the beneficiaries on the one hand and the welfare approach of the policy makers on the other.

The general image of the Scheme has therefore suffered as a result of the framework of welfare policies within which it is set. A major effort made in the New Agricultural Credit Scheme was to

transform the general image by making the People's Bank the lender. It was felt that the Bank would impart the necessary commercial discipline to the Scheme as a whole and the commercial nature of the transaction would become clear to the borrower when the Bank becomes the principal agency. This, however, did not succeed as there was no loss to the farmer nor effective penalty in the case of default. The change of agency was therefore only a formality.

Apart from the general policy image of the Scheme, the implementation of the scheme often tended to confirm its unbusinesslike character. The instrument at the village level, the Co-operative Society, was partly to blame for this. It was caught between its membership and the main lender. Its links wi the membership made it either ineffective in its efforts at recovery or deliberately neglectful of its obligations to recover the debts. The default survey draws attention to this aspect. Unlike the private lender the Co-operative was the creature of the borrowers and often did not inspire the fear and respect the non-institutional lender inspired. It therefore could not project its image as a lender responsible to the bank and ready to exert all its influence and use all sanctions available to it to fulfil its functions as an agent of the Bank. In this function, its effectiveness also depended on how efficiently it operated as a Co-operative Society and rendered services to the community. The general image of the Co-operative Society was poor; its management standards were relatively low; some societies were not free of corruption and irregularities; the honorary office bearers could seldom give their attention to it on the basis of a full-time business activity even if they possessed business ability and management skills which most often they did not. Consequently, the Agricultural Credit Scheme itself became part of this general framework and its image inevitably suffered.

In the way in which the Scheme has functioned in the past, it has become with other similar programmes of Government, a means for the transfer of incomes. The criticism of policy makers, planners and committees who have appraised the Scheme have drawn attention to this

aspect, the resulting burden on the Government and the net effect of inflationary financing that it produces. But all critics are agreed that the agricultural credit scheme cannot be withdrawn for these reasons as it function in meeting part of the requirements of working capital in the peasant sector is too vital to permit such a drastic measure. The indispensability of the Scheme, the unquestioned benefits to the peasant sector as a whole, and the need to reduce the rate of default and make it economically viable constitute the main elements of the public image of the Scheme.

(B) Evaluation Procedures and Feedback

1. Programme Evaluation Procedures

There are no significant evaluation procedures built into the credit programme. But however there is a certain amount of credit supervision to see that the loans are utilised for the purposes mentioned. For this purpose the committee of the cooperative society studies the increase in the quantum of production by a farmer, and purchase of any equipment by him and also any new technologies that they have used. By these means the Committee is able to get some idea of how the credit has been utilised.

There has been no sample survey done to find the income changes as a result of these schemes. To some extent the crop delivery made by the beneficiaries are recorded at the Co-operatives. The following Table shows the district-wise paddy purchases made by Co-operatives in 1967/68, 1968/69 and 1969/70.

PADDY PURCHASES

District	1967-1968			1968-69			1969-70		
	Paddy Ordinary Bushels	Seed Paddy Bushels	Total Bushels	Paddy Ordinary Bushels	Seed Paddy Bushels	Total Bushels	Paddy Ordinary Bushels	Seed Paddy Bushels	Total Bushels
Colombo	25,524	924	26,448	39,190	1,006	40,196	14,892	968	15,860
Kalutara	151,811	1,752	153,563	145,685	1,672	147,357	93,225	1,118	94,343
Kandy	919,516	6,206	925,722	934,799	13,354	948,153	910,612	12,220	922,832
Matale	211,166	10,938	222,104	239,699	9,516	249,215	352,233	8,006	360,239
Nuwara Eliya	30,597	2,443	33,040	56,818	3,460	60,278	60,955	2,417	63,372
Galle	172,158	706	172,864	131,772	464	132,236	174,177	350	174,527
Matara	123,893	-	123,893	93,260	2,092	95,352	121,655	128	121,783
Hambantota	481,682	17,014	498,696	549,588	16,442	566,030	379,309	11,172	390,481
Jaffna	429,740	6,663	436,403	325,666	5,880	331,546	767,976	3,692	771,668
Mannar	570,005	27,208	597,213	551,883	32,272	584,155	1,023,386	19,308	1,042,694
Vavuniya	726,547	11,448	737,995	439,198	10,560	449,758	1,132,063	11,116	1,143,179
Batticaloa	1,372,597	14,776	1,387,373	1,428,792	22,973	1,451,765	1,597,497	14,709	1,612,206
Amparai	2,943,352	58,566	3,001,918	3,012,954	31,354	3,044,288	2,897,701	31,588	2,929,289
Trincomalee	1,324,187	19,100	1,343,287	1,245,474	17,226	1,262,700	+1,625,436	14,475	1,639,911
Kurunegala	292,273	22,288	314.561	417,147	18,072	435,219	103,344	12430	115,774
Puttalam	120,744	3,156	123,900	142,044	3,238	145,282	219,921	2,548	222,469
Anuradhapura	1,374,064	43,988	1,418,052	1,073,499	21,876	1,095,375	2,613,012	40,472	2,653,484
Polonnaruwa	2,580,388	25,488	2,605,876	2,461,801	35,298	2,497,099	3,389.091	33,656	3,422,747
Badulla	364,828	7,010	371,838	422,992	12,764	435,756	+ 435,501	8,616	444,117
Moneragala	457,906	8,970	466,876	432,857	11,930	444,787	468,744	10,772	479,516
Ratnapura	327,778	4,625	332,403	449,728	3,924	453,652	442,269	1,518	443,787
Kegalle	79,431	1,020	80,451	106,322	948	107,270	108,466	678	109,144
Total	15,080,187	292,289	15,374,476	14,701,168	276,301	14,701,168	18,931,465	241,957	19,173,422

(Source: Commissioner of Agrarian Services.)

According to the above Table, Amparai has the highest paddy purchases followed by Polonnaruwa, Batticaloa, Trincomalee and Anuradhapura. The total paddy purchased in 1968 showed a decrease of 397,007 bushels when compared with the 1967/68 figures. This is partly explained by the favourable conditions in the open market for paddy following the reduction of the rice ration. In 1969/70 there is an increase of about 4 million bushels over the 1968/69 figure. This is partly due to the increase in paddy production in 1969/70.

In regard to the evaluation of the impact of the credit schemes on peasant farmers' incomes, it has to be noted that no surveys have been carried out for the specific purpose of ascertaining and measuring the effects of these schemes on farm incomes. But surveys have been carried out to determine the cost of production of paddy. The Central Bank of Ceylon conducted a survey on the cost of production of paddy during the Maha season of 1966/67. In this survey information was sought by interviewing farmers. According to this survey, the average cost per acre exclusive of labour costs, was Rs 162/39. Labour costs (exclusive of family labour) vary widely among the different districts of the Island. The survey data has been of some value in ascertaining the credit needs of the farmer as far as his costs of production of paddy is concerned.

There have been several other studies and reports which have made estimates of farm expenditure and production costs of various crops. The reports of the Irrigation Programme Review - Ceylon, F.A.O./I.B.R.D., Co-operative Programme (January 1968) gives estimates of the per acre requirements by operational costs of material, for paddy and other selected crops and also other information on the use of fertilisers, seed paddy and irrigation facilities. The I.B.R.D. Mission in 1972 has prepared similar estimates for a wide range of crops.

A Socio-Economic Survey of nine colonisation schemes in Ceylon was conducted by the Agricultural Economic Research Unit of the Faculty of Agriculture, University of Ceylon, Peradeniya, 1967/68. This study gives information about income and expenses, farm costs and labour supply, intensity of cropping, fertiliser use, credit and indebtedness and several other aspects of peasant farming.

The Mahaweli Ganga Irrigation and Hydro Power Survey conducted by the Food & Agricultural Organisation of the United Nations also provided estimates of the budget costs and return per acre as regards paddy cultivation.

The most recent and important survey in respect of the credit schemes now in operation was the Default Survey conducted by the Central Bank in 1972. According to this survey, by the end of 1971 defaulters on loans under the new Agricultural Credit Scheme had progressively increased and the State was facing the prospect of incurring substantial losses under the scheme. A defaulter was defined as any borrower under the Agricultural Credit Scheme in respect of whom any repayment was overdue. The survey covered all 22 districts of the Island. The principal objective of the survey was to find out the main reason for the low rate of repayment of loans with a view to improve the working of the present scheme.

2. Feedback and Changes in Programme

The agricultural credit schemes administered by the Government were subjected to periodic evaluation and re-appraisal. This was partly necessitated by the deficiencies in the schemes under operation and the unsatisfactory rate of recovery of loans granted. In 1963 a critical analysis of the Credit Scheme as it had operated from 1947 was undertaken by an official Committee appointed by the Minister of Agriculture, Food and Co-operatives. The objective of the Committee was to study the scheme as it was in operation, and make recommendations as to how the scheme

should be used to facilitate the adoption of improved cultural practices particularly in paddy cultivation and to expand the use of institutional credit vis-a-vis the credit available from private money-lenders. This Committee found that only about 65% of the paddy cultivators in Ceylon were members of any Co-operative Society. About half the cultivators who are members of the Co-operative Societies were share capital defaulters and were, therefore,ineligible for receipt of loans; about one-third the number of Co-operative Societies were considered uncreditworthy. Most members had paid only one share and their maximum credit limit was thus limited to Rs 220.

The Committee made 22 recommendations which were subsequently accepted by the Cabinet in July 1963. Of these 22 recommendations, 12 were intended to expand the flow of institutional credit to intensify agriculture, while 10 recommendations were designed to strengthen the procedure for loan recovery and distribution of credit. The recommendations regarding the expansion of institutional credit were implemented without adequate attention being given to the recommendations of the Committee calling for a stricter control on recoveries. This resulted in an increase of overdue loans from 9% in September 1963 to 15.8% in September 1965.

The Government appointed another Committee on Agricultural Credit in June 1966 to review the credit schemes that were in existence at that time. In their report the Committee brought forward its proposal to establish a new Agricultural Credit Scheme, which was put into operation in 1967. This has been described in Part II of this report. Because of the farmer's inability to repay loans, the Government has been forced (in order to encourage paddy cultivation) to give waivers of loans from time to time. It would be observed therefore that there has been regular feedback on the performance of the credit schemes and repeated efforts have been made to introduce changes and modifications to overcome some of the problems encountered.

C. Problems

1. Government Level

(a) The Government's basic problem in regard to the agricultural credit schemes derives primarily from the failure to recover a considerable portion of the loans granted. The increasing rate of default has a whole chain of adverse consequences:

(i) It immediately impairs the self-financing capacity of the schemes, casts a heavy burden on the Central Government and affects the limits of expansionary financing within which Government seeks to manage the country's monetary system.

(ii) It reduces the economic impact of the scheme in that it progressively reduces the coverage of the scheme as increasing numbers of defaulters become ineligible to credit.

(b) The successful implementation of a credit scheme will depend heavily on the close co-ordination between the numerous agencies which are engaged in promoting the development of the peasant sector — the credit agencies like the People's Bank and the Agrarian Services Department, the Co-operative Department, the Extension Services of the Agricultural Department, the Land Commissioner's Department which administers the new agricultural settlements and so on. The extension services of the Agricultural Department provides the farmer with the technical know-how to increase his output and to raise his level of productivity. The extension services are mainly responsible for ensuring the timely preparation of the cultivation plan.

The Agrarian Services Department is responsible for (1) the implementation of the Paddy Lands Act No. 1 of 1958, (2) the working of the Guaranteed Price Scheme for specified agricultural products except paddy, (3) the grant of long-term and medium-term loans to

cultivators, Co-operatives and Cultivation Committees for agricultural purposes, (4) the supply of agricultural inputs such as fertiliser and agricultural implements, (5) the construction of irrigation wells for food production purposes, and (6) the working of the Crop Insurance Scheme.

The People's Bank is responsible for the granting of the necessary finances under the three credit schemes discussed earlier. This Bank also grants loans for the purchase of fertilisers etc.

The Co-operative Department is responsible directly to the Minister for the implementation of policy regarding Co-operatives. This Department is also responsible for the registration, audit and supervision of the Co-operatives. Government exercises considerable authority and control over the Co-operatives. The Co-operative organisation is used by the Government as agents in the distribution of a selected range of essential foodstuffs, in the grant of credit, in the purchase of agricultural produce, in production and various other activities in which co-operative action could be organised for the development of the community.

The Paddy Marketing Board is now responsible for the purchase of paddy.

Recent legislation relating to agricultural productivity envisages the creation of another set of agencies at the local level which will undertake a number of functions relating to agricultural activity.

The effectiveness of the agricultural scheme could have been enhanced if all the various agencies directly linked with the farmers could have coordinated their efforts more closely in relation to the operation of the Agricultural Credit Scheme. This would have meant a a more intensive propaganda among farmers regarding their obligations

and value of remaining in the Scheme. Defaulting farmers would have for attention and criticism at all points — extension, marketing, co-operative activity and so on.

(2) Agency Level - The Co-operative Societies

The major problem at the agency level is the poor management of the Co-operative Societies - according to the report of the Co-operative Commissioner, "if there is one cog missing in the mechanism of the Co-operative Movement in Ceylon it is the cog of Management; it is in respect of capable Managers that more societies are found wanting." Poor management is reflected in the inefficiency in managing the loan schemes. In many societies the accounting of loan disbursements was unsatisfactory. The Defaulters' Survey draws attention to the poor state of the records relating to disbursements and repayments of interest. The laxity in the recovery of loans is due to a deeper malaise than mere inefficiency. It reflects the attitude to the Scheme itself and the conflict of loyalties and obligations within the Co-operative itself where the "goodwill" of the membership rates higher than the responsibilities to the People's Bank. The operation of the Scheme in regard to the approval and granting of loans has often come in for criticism on account of the delays encountered by borrowers. Most often the Co-operative Society as the agency of the credit scheme at the village level has not adequately performed its task of understanding, managing and promoting the Scheme. However, the problem of good management in the Co-operative Society has several underlying causes. The lack of competent managers in the Movement is partly due to the low salaries paid to co-operative employees. The economic philosophy of the Co-operatives where prices to the consumer are kept at minimum levels prevents the accumulation of sizable profits which in turn has its consequences for cadres and salaries, and the resulting poor management complets the vicious circle of low efficiency and low

profits or losses. In the reorganisation of the Co-operative movement government is paying attention to ways and means of improving the economic viability of the co-operative units and raising its quality of management.

The lack of sustained interest in the co-operative activities by the office-bearers and the membership is another factor in the poor performance of the Co-operative. In regard to the office-bearers it has to be noted that the honorary and voluntary character of their work probably bears some relation to the managerial concern they bring to their responsibilities and the standards of honesty they maintain. A new approach to this problem therefore appears necessary. The lack of active participation by the membership is another factor which reinforces the conditions which result in low standards of management and efficiency. Active participation will depend on the economic significance to the member of his relationship with the Co-operative. As his links with the Co-operative grow in strength in relation to consumer supplies, supplies of farm intermediates, marketing of produce, credit, savings, his participation may become stronger. To the extent that the Co-operative's activitees are marginal to the member's economic activities his particpation is bound to be indifferent.

The activities of Co-operatives have also suffered by being too closely linked with the politics of the locality. Control of the Co-operative is sometimes influenced by political rivalries and there is intervention in the affairs of the Society by both politicians and others not directly responsible for its management. It is therefore essential to establish the economic character of its functions and ensure its autonomy in regard to non-economic influence and factors which diverts it from its objectives as an economic enterprise and reduces its efficiency.

3. Farm Level

The problems encountered at the farm level in the operation of the agricultural credit programmes have already been described in different sections of this study. They may be briefly summarised as follows:

(i) The coverage of the Scheme has been limited. Varying estimates have been made of the extent to which the Schemes have been able to fulfil the credit needs of the farming community. According to one set of estimates, the programme at best has been able to reach about 25% of the farmers. Of the credit obtained for paddy the institutional programmes have been able to meet about 50%. Among the variety of causes for the restricted coverage of the scheme, the quality of the administration of these programmes was a major factor. The initiative and incentive to reach as many farmers as possible were not always present. Consequently farmers in less easily accessible areas were neglected. The progressive increase in the rate of default and the number of the participants who became ineligible for credit, became a disincentive for expanding the coverage of the scheme.

(ii) The credit was not always available in time for cultivation. The complicated procedures, the time taken to process credit applications and the inefficiency of the co-operative system were responsible for the delays.

(iii) Farm credit for different purposes had to be sought from different agencies. Short-term working capital needs were met from the Agricultural Credit Scheme, as well as non-institutional sources, loan capital for certain types of production investments from the Agrarian Services Department, credit for other investment purposes such as housing from other lending agencies, and credit for consumption, relief of distress such as illness death etc. from non-institutional sources.

The wide range of lending sources and conditions of lending complicated and confused the situation regarding rural credit and rural indebtedness. The credit needs of the farmers for purposes other than agriculture had to be sought from non-institutional sources and this situation itself created conditions in which the non-institutional sources took control of farmer's production and marketing and rendered the "institutional" programme of agricultural credit ineffective.

(iv) The Agricultural Credit Scheme as operated did not take into account regional variations which affected the pattern of cropping, the cost of production and the creditworthiness of farmers. Both 'highly productive' and inefficient farmers were treated alike. The uniformity of the credit limits also ignored the differences in the credit needs of the farmers.

(v) The lack of a proper system of land tenure. The prevalence of a share-cropping system which deprives the farmer of a great part of the fruits of his labour, makes him reluctant to invest capital because the other partner will also benefit without any contribution on his part. Under such circumstances, a systematic increase in productivity can hardly be forthcoming. The same applies where farmers have no security of tenure or where the leases granted to them are for a short period of time. Under the circumstances there is also the possibility of the farmer having to pay a higher rent, if he shows an increase in his productivity.

The non-institutional sources were able to effect recoveries because their lending was closely linked to marketing — the lender had a lien in the crop or had the land as collateral. The Co-operatives had to depend on persuasion to get the farmers to deliver their crops to the Society. Where the produce was delivered to the Co-operative, the loan recoveries were effected without difficulty. But delivery of produce at the Co-operatives was fraught with problems for the producer —

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grading of the produce, rejections for poor quality, delays in acceptance of the produce when delivered, corruption. Owing to these defects in the Co-operatives, the close coordination of lending and marketing essential for the success of the agricultural credit scheme could not always be achieved.

D. Conclusion about small farmer credit

1. Economic problems of small farmers.

The economic problems of the small farmer eventually have their source in the low farm incomes and the level of technology. The circularity of these problems is obvious and has been repeatedly analysed — the low incomes, the low savings or indetedness, the lack of resources to absorb new technology, the poor organisational capacity at the village level for self-management and the creation of efficient institutions for credit marketing etc., and the resulting low productivity and income. The specific problems of small farmers that deserve comment here are enumerated below:

(i) Poor organisational and managerial skills to operate the village level institutions such as the Co-operative Societies successfully. This problem requires a new approach to the management problems at the village level. Technological extension services would have to be supported by a new type of management extension services where farmers are given the basic elements of farm management, marketing, operation of small business units such as village stores, co-operatives, etc.

(ii) The marketing network. While the paddy market is relatively well organised through the G.P.S., there is still a great deal of improvement needed before the Co-operatives function as efficient self-managing marketing institutions for the farming community. But outside

the Paddy sector, the links between the farm and the consuming centres are weak. As a result the farmer does not receive the best price for his produce. Modern marketing has been best organised in the Tobacco industry, where a highly efficient manufacturing enterprise has provided a package programme of agricultural know-how, credit, and marketing to a widely dispersed community of small holding cultivators of tobacco. Similar machinery which streamlines the chain of economic activities from production, to retail marketing is necessary for various other crops, e.g. vegetables, fruits, minor export crops, subsidiary food items, soya bean, cassava etc., if the small holder is to diversify his farming activities, become market oriented and raise his productivity and income level.

(iii) The infrastructure for farming has to be improved. This includes irrigation, drainage and reclamation. In the Dry Zone the farmer suffers from a lack of water and this requires best use of water resources, new irrigation schemes, and rehabilitation of existing ones, including the improvement of existing distribution systems to minimise transmission losses. In the Wet Zone there is often an excess of water and this requires drainage and flood control. Government programmes have taken account of both needs, but owing to limited capital resources these programmes cannot expand facilities at the pace required. Farm to market roads and an efficient rural transportation system are other important elements.

(iv) Comprehensive credit facilities. The specialised credit programmes have ignored the farmer's credit needs for other purposes if he is to effect the transition from traditional low productivity farming to the intensive market-oriented scientific farming. A selective credit programme which caters to the credit needs of the farmer as a whole appears an urgent need. In this connection, the comments in (iii) under "Problems at Farm Level" are relevant.

(v) Administrative and institutional support. The slowness or failure to deal effectively with the economic problems of the farm derive often from the shortcomings in the institutional set-up and the administrative system which deals with the farmers. The multiplicity of organisations at the village level each representing a separate Government department or activity, and the innumerable lines of communication with the Central Government have led to inadequate coordination at the farm level. These have been overcome to some extent in "Special Projects" which are 'special development areas' in which all the activities — extension, credit, irrigation, marketing, supplies, co-operative activities — are closely co-ordinated by a team of officials under a 'Project Manager'. The special project offers a prototype of rural administration which might provide the necessary managerial and technological inputs that can speed the process of modernisation in the rural sector.

Social Problems

(i) These problems are closely connected with the problems enumerated in the preceding section. The old forms of social organisation based on caste divisions persist in the new setting. While they are present in the traditional villages and have achieved some state of equilibrium and adjustment, they are evident in the new settlement where different castes have been brought together. These divisions and value systems certainly affect the growth of new co-operative institutions and community action at the village level. But the operation of the caste system has never been as rigid as in the Indian sub-continent. The mass education system which penetrated all rural areas and dramatically raised the standards of literacy has acted as a solvent in the traditional society and contributed to a slow breakdown of the traditional value system. Rate of literacy in the age group 15-24 are over 90% compared with approximately 60% for the group over 55 years of age.

(ii) The growth of education has affected the attitude to agriculture among the young generation in the rural sector. The demand for employment is unceasingly for jobs in the modern sector; factory type, skilled, clerical, administrative and professional; non-manual as against manual, wage earning as against self-employed. These job aspirations by-pass the agricultural occupation. Consequently there has been a rapidly growing unemployed workforce of rural educated youth.

Political problems

(i) The national electorate has been divided fairly evenly between the two major political groupings in the country. These divisions are often reflected at the village level and result in a certain degree of functionalism which affects village activities. Political activity affecting the village is at two levels: there is the political activity relating to local government — the village council — and the national politics in regard to parliamentary elections. The political divisions at both levels are more or less identical, local politics generally reflecting the party grouping at the national level.

(ii) The role of the politician and particularly the Member of the State Assembly in village life is an important one pervading all aspects. The Member is an Ombudsman for the constituency, sponsoring his constituents for employment, intervening in real or imagined grievances against the administration, having a voice in the transfer and appointment of public servants in his constituency, overseeing government programmes in his electorate, exercising his influence in village level institutions — co-operative, rural development society, village council, District Development Council. This works both to the advantage and disadvantage of development programmes. A capable honest politician becomes the instrument for activating a lethargic administation and motivating the people; an incompetent self-seeking

representative interfers in the administration and the institution, impair their efficiency, and demoralises the public service.

(iii) The close links between the Member for the State Assembly and his constituents result in strong popular pressures which move Government policies and programmes in the direction of welfare. The defaults and amnesties under the Agricultural Credit Scheme partly illustrate the impact of politics.

2. The role of rural credit in meeting these problems

In different sections of this study an attempt has been made to assess the role of agricultural credit in relation to various aspects of agricultural development in the small-holding sector. These could now be summarised:

(i) It has to be noted that the agricultural credit programmes were able to reach only a minority of farmers. Even so there is no doubt that the presence of the agricultural credit scheme combined with guaranteed prices had mitigating effects in regard to the credit available from non-institutional sources, and assisted the farmer to improve his economic conditions.

(ii) In all the agricultural credit programmes supplied approx. Rs 567 million mostly as working capital to the small farmer and thereby helped him to raise the level of inputs, increase his yields and reach a higher level of income. Credit for investments on farm equipment helped farmers to add to their capital resources and operate at a higher level of efficiency.

(iii) The agricultural credit schems also helped to establish the co-operative movement firmly at the village level and link production and marketing with the co-operative consumer activities. By this means it strengthened the institutional infrastructure for small holding agriculture and in spite of numerous shortcomings laid the basis for

associations of producers to manage their economic activities and protect their interests through well-organised marketing and credit arrangements.

(iv) The growth of the Co-operative movement was promoted by variety of Government programmes and policies — the rationing system, the guaranteed price scheme etc. — of which agricultural credit was one important element. The Co-operative Society with all its defects was the major new institution at the village level which gave room for popular participation in economic activities, and attempted to promote collaborative effort which cut across the factionalism at the village level. Inevitably it partook of the value system in its environment, but its structure made it possible for the village community to work itself out of the divisive and faction-ridden context where the Co-operative Society was properly motivated.

(v) Agricultural credit is only one element in a whole complex of development activities which are needed to modernise peasant farming. Its role has therefore to be appropriately assessed. Within this overall framework agricultural credit programmes in Sri Lanka have exploited only a small part of their potential to speed the modernisation process for the reasons that have been set out in the earlier sections.

(vi) Owing to the laxity with which the Schemes were administered, the Government schemes also generated the wrong type of expectations in small farmers, increased their dependence on governmentasssistance and inhibited the growth of attitudes which emphasised self-improvement and self-reliance.

3. Credit and the New Technology

The importance of agricultural credit in the spread of new farm technology has already been discussed in Section H. With the improvement of technology the small farmer is slowly moving from a monocrop

undiversified cultivation pattern which depended largely on paddy to a diversified pattern with high-income crops such as chillies, onions, soya, etc. Apart from the more sophisticated management that would be needed, the new type of farming will require more costly inputs of fertiliser, seed material, labour and so on, and therefore call for larger working capital resources on the part of the farmer. In the initial stages of this diversification programme agricultural credit will have to play a very important role. In time, the higher level of farm incomes may provide scope for an increase in savings and improvement in the liquidity position of the farmer, reducing his dependence on recurrent short-term credit.

4. Conditions for success or failure and possible improvements

The history of the agricultural credit programmes in Sri Lanka drew attention to the conditions which are indispensable for the successful operation of small farmer credit scheme in the country's context and the combination of socio-economic and political factors which operate within it.

(i) The discipline of a commercially viable, self-financing credit scheme is the first priority. This discipline has to be accepted at all levels — by national policy makers, by the implementing agencies such as banks and co-operatives and by the beneficiaries. Primarily this means action on defaults and elimination of defaults, and such action will depend first on the determination of the policy makers to discard the vestiges of the welfare approach to agricultural credit and cease regarding it as a means of income transfers. The fact that the laxity of administration of Government Schemes drives the farmer to non-institutional sources of credit which are less favourable needs to be emphasised. Also, the fact that the majority of farmers live with these sources of credit, honouring the less favourable conditions that are imposed. Legal sanctions for recovery of loans and the actual imposition of these sanctions is an essential prerequisite for the success of a credit programme.

(ii) Effective recoveries will depend on the efficiency with which credit is linked to marketing. The monopoly purchase of paddy expects to achieve this coordination. Under this scheme the farmer will have to deliver his produce to the Co-operative Society as there will be no other outlets for his produce. This programme has come in for a great deal of controversy. In principle the monopoly will firmly tie up credit and marketing, but doubt has been expressed as to whether the State marketing system and the Co-operatives possess the administrative capacity to handle the entirety of the market in rice and whether bureaucratic inefficiencies will cause problems for the small farmer which will eventually have repercussions on his productivity. The other problem relates to the diversification programme. Monopoly of the Paddy market will still leave out considerable portion of farm produce, and increasing diversification will increase this proportion. It seems necessary that agricultural credit in all these cases be tied with marketing. This could be achieved if the Co-operative has a lien on the crop of the farmer who obtains credit and if the Co-operative is legally and administratively equipped to enforce this lien.

(iii) Specialised programmes of credit geared to a specific purpose and fulfilling part of the credit needs of the farmer have proved to be inadequate. As a result the rural sector has had a multiplicity of lending sources both institutional and non-institutional. While the farmer may go to the institutional lending source for his agricultural credit, he is compelled to seek other sources of finance for other purposes such as expenses in the case of ill-health, death in the family, housing, consumption needs etc. When he becomes a "victim" of non-institutional credit, his agricultural activities become inevitably drawn into the "non-institutional" net. He pays more interest, pays more for his consumer goods supplied by the lender, receives less for his produce and gets into a state of chronic indebtedness to the non-institutional source.

The non-institutional pattern of lending however draws attention to the effectiveness of a comprehensive scheme of credit which looks after the whole range of the farmer's needs. The attractiveness of non-institutional credit lies precisely in its capacity to offer a more complete package to the farmer than the specialised schemes of credit. Recognising this aspect Government has been working on a comprehensive scheme of rural credit which -

(a) makes allowance for the regional variations in economic activity and credit needs based on these variations;

(b) takes into account individual variations depending on the level of efficiency of the farmer, his income level, and repayment capacity. Consequently each farmer could have a credit rating which will determine his eligibility for credit;

(c) provides for a wider range of needs of the farming family and in this manner makes credit available in the all purpose manner of commercial banking. The purposes will include production loans, consumer loans, loans for construction, loans for redemption of debts, electrification, emergencies etc. Limits for each type of loans, maximum limits for individual borrowers, differential terms of repayment and interest for the different types of loans will be prescribed. Loans will be granted on personal guarantees up to a certain limit and collateral security which will include land and buildings, insurance policies, fixed deposits, shares and other capital assets.

(d) elaborates a detailed procedure for credit planning and supervision which will depend a great deal on the efficiency of the Cooperative Rural Bank and the Multi-purpose Co-operative Society.

The comprehensive credit scheme offers an imaginatively conceived attractive set of proposals which is expected to revitalise the rural credit programme. Its principal weakness is that it once again depends on the machinery at the village level which proved inadequate in the past.

(iv) This draws attention to the crucial importance of the village level institutions in a rural credit programme. A much more intensive programme for the improvement by these institutions is needed. This should include -

(a) a concentrated effort to provide the necessary management inputs to improve the quality of management in the co-operative. A Co-operative Management Centre is being established by the Government for this purpose. This will have to play a key role.

(b) a Co-operative education programme for the beneficiaries which will elicit greater participation of the membership in co-operative activities, demonstrate the value of credit programmes and need to protect their eligibility under these programmes through prompt repayment and by these means raise the general level of civic consciousness and social responsibility in the village community.

(v) The supervision of the credit programmes at the village level has to be much more effective and there has to be greater initiative on the part of Co-operatives in the recovery of loans. One of the major problems in the Co-operative movement is the honorary and voluntary nature of the services of the body of office-bearers who are ultimately responsible for the management of the Co-operative. Their stake in the success of the Co-operative is therefore very different from that of a paid employee or private investor. Some change in the status of

the Managing Committee which provide an incentive for successful management and which would result in some personal loss in the event of failure has to be evolved. This could even be in the form of annual bonuses, on performance.

The evaluation of performance of credit schemes and follow-up on evaluation has also not been as regular or systematic as is desirable. A periodic evaluation of performance which identifies shortcomings, weak links in the scheme, in efficient co-operation is essential. The performance of individual co-operatives would have to be given publicity, a healthy spirit of competition generated, public criticism of irresponsible units and a greater civic consciousness generated.

(vi) The rural credit programmes depend for their effectiveness on the other all-important development inputs in rural sector. These include extension services which impart the new technology, the supplies system which ensure the timely availability of seed, fertiliser, agro-chemicals, the marketing system which ensures timely disposal of produce, the infrastructure which provides suitable well-developed land resources served with irrigation, drainage, transportation etc. Where agricultural credit forms part of a package programme as in the case of special projects referred to, the most beneficial results have been obtained and farm incomes, recoveries of loans, savings have come up to satisfactory standards. Therefore, a pre-condition of effective rural credit is a well-conceived package programme which reaches the farmer.

(vii) Any rural credit programme depends for its success on careful credit planning. This was achieved under the new Agricultural Credit Scheme where individual cultivation plans were drawn and credit needs were closely estimated. But credit planning under a comprehensive credit scheme may have to go beyond these limits. Credit planning

may have to take a longer time span, project productivity improvements and rise in income levels over this time span based on efficient farm management and estimate the capital and working capital needs for creating the capacity to reach a high standard of living. The incentives in the form of a larger package of goods and service and a better standard of living will have to be spelt out in specific terms and should demonstrably be realisable in the near future. A credit plan linked to a farm development plan which may include capital improvements, housing, redemption of debt etc. would receive more ready acceptance of the farmer who will subject himself more willingly to the disciplines of the credit scheme. Pilot projects based on this concept could be implemented and examined for their feasibility.

(viii) While non-institutional lenders have generally operated successfully protecting their loan capital, effecting recoveries and increasing their capital government programmes have invariably run into difficulties. As stated earlier this was largely attributable to the beneficiary's attitude to the government which is regarded as a source of charity. In such a context the entry of commercially oriented agencies into the credit schemes can have a salutary effect. Such efficiencies will of course be entirely different in character from the non-institutional lender whose relationships with the farmer are personal ones and therefore not regulated by public norms as in the case of a bank. These agencies would have to be institutions such as commercial banks, public companies which undertake one part of the development activity such as marketing, or well-established voluntary institutions. An example is available in the Ceylon Tobacco Company which provides a package programme including credit and marketing to the tobacco grower. The Ceylon Chamber of Commerce has undertaken the integrated development of a cluster of villages in one of the least developed zones, and expects to provide a similar programme of extension, credit, marketing, and overall village development.

Business firms which could organise small holders to cultivate crops such as kenaf, cassava, castor, maize, and a wide range of other agro-industrial crops for the purpose of industrial processing or export could under appropriate agreements provide credit schemes which fall within the pattern of the national rural credit programme. Well established voluntary movements such as the Sarvodaya which is a rural development movement could also enter into the credit programme and undertake the supervision and administration in selected areas.

PART IV

Role of Technical Assistance

A. A.I.D. Inputs

A.I.D. has not given any aid to the Institutional Credit Programmes in Sri Lanka.

B. Other Donor Inputs

No other technical or capital assistance has been provided by any international organisation for the institutional credit programmes.

C. Effects

Does not arise as no technical assistance has been forthcoming so far.

D. Recommendations

1. In the first instance A.I.D. could help programmes for providing assistance, sponsor a much more comprehensive credit survey to study the credit needs of the different categories at different income levels and the dependence of the farmer on different sources of credit institutionalised as well as non institutionalised. Such a survey could examine in greater detail the reasons for past failures in operating the credit systems and also inquire how both institutionalised and non-institutionalised forms of credit could be integrated into total system of resources at the farm level for the implementation of agricultural development programmes.
2. A. I. D. could also participate directly in the credit programme by channelling different aid in support of the Agricultural Credit Programme such as improved fertiliser, agro-chemicals and agricultural machinery.

3. A.I.D. could sponsor a pilot Project in selected areas to implement a model Credit Scheme. Such a scheme could explain the purposes of credit to deal with both the agricultural and non-agricultural purposes and provide a comprehensive scheme on land cultivation suggested in the Evaluation Part. The Project could also attempt an integration of both institutional forms of credit as well as non-institutional forms. It would be based on a much more intensive supervision of use of credit and its recovery.

ANNEXE 1

IMPORTANT DATES IN THE HISTORY OF THE CO-OPERATIVE MOVEMENT OF CEYLON

Dates	Events
1909	Appointment of the Agricultural Banks Committee which recommended the enactment of the Co-operative Credit Societies Ordinance.
1911	The enactment of the Co-operative Credit Societies Ordinance.
1912	Registration of the first Co-operative Credit Society (Wellabodapattu Co-operative Credit Society).
1913	Director of Agriculture appointed as Registrar of Co-operative Societies.
1916	Establishment of the Local Loans and Development Fund. (Local Loans and Development Fund Ordinance, No.22 of 1916).
1921	Amendment of the Co-operative Credit Societies Ordinance to enable registration of secondary Societies and types other than Credit Societies.
1924	The registration of the Colombo District Co-operative Union (the first secondary Society to be registered).
1926	W. K. H. Campbell assumed duties as Joint Registrar, of Co-operative Societies.
1927	Registration of the first Estate Labourers' Co-operative Stores Society in Passara Group.
1929	Registration of the first supervision union (Tholpuram-Kodai).
	Registration of the first Co-operative Central Bank in Jaffna.
	Appointment of Honorary Supervisors
1930	Establishment of a separate Co-operative Department.
1934	Registration of the Jaffna-Malayam Tobacco Co-operative Society.

Dates	Events
1935	Mr Campbell ceases to be Registrar. Mr Calvert takes over duties as Registrar for one year.
1936	The consolidation and amendment of the Co-operative Societies Ordinance
	Registration of the Tholpuram-Moolai Co-operative Hospital.
1937	Registration of the Northern Division Co-operative Federation. Establishment of Supervision and Audit Fund.
1938	Appointment of first Ceylonese Registrar of Co-operative Societies (Mr G. de Zoysa).
1942	The beginning of the "drive" to form Consumer Societies in large numbers during World War II.
	Registration of the Coconut Producers' Societies Union.
	Registration of the Northern Division Agricultural Producers' Co-operative Union.
1943	Inauguration of the School of Co-operation.
	Beginning of the Co-operative Wholesale Establishment.
	Co-operative Wholesale Unions began to be formed.
1945	Formation of a separate Department of Co-operative Development.
1947	Co-operative Agricultural Production and Sales Societies began to be formed.
	Co-operative Provincial Unions began to be formed.
1949	C.W.E. is established as a Corporation by an Act of Parliament. Establishment of a Co-operative Federal Bank. The amalgamation of the Department of Registrar of Co-operative Societies and the Commissioner of Co-operative Development under one head, namely, Commissioner of Co-operative Development and Registrar of Co-operative Societies.
1950	Co-operative Congress attended by delegates from 6,000 Societies.
	New scheme of government financial assistance to Fishermen's Co-operatives and Industrial Co-operatives.
1952	Registration of Ceylon Co-operative Fish Sales Union. Establishment of the Jaffna Training School.

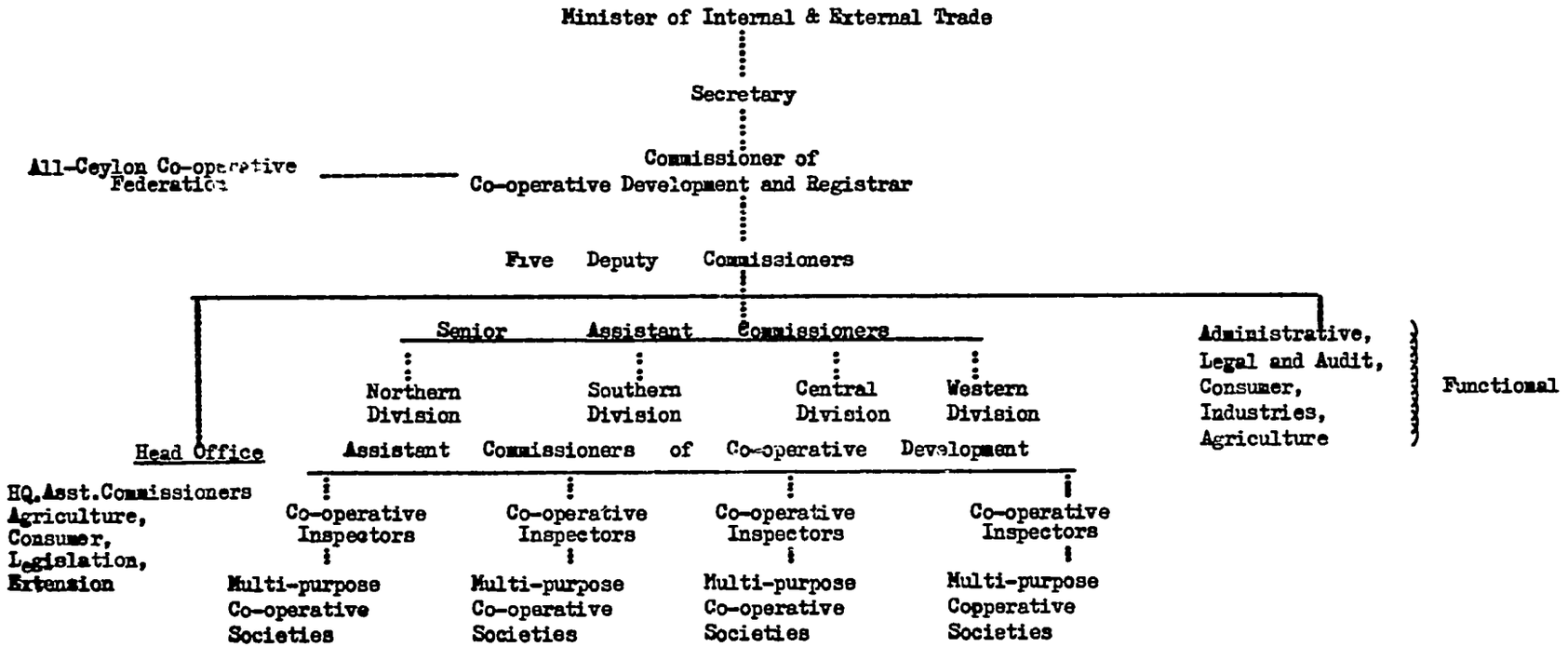
Annexe 1 - (contd.)

Dates	Events
1955	Registration of the Co-operative Federation of Ceylon.
1956	Creation of an Extension Division in the Co-operative Department.
1957	The beginning of the drive to form Multi-purpose Co-operative Societies.
1961	Establishment of the People's Bank.
1962	Establishment of the Ceylon Agricultural Producers' Union.
1963	Inauguration of the Extended Credit Scheme by the People's Bank.
1964	Formation of the Ceylon Co-operative Industries Union Inauguration of the Rural Banks Scheme by the People's Bank.
1966	Registration of Ceylon Consumers' Co-operative Union.
1967	The inauguration of the New Agricultural Credit Scheme.
1968	Appointment of the Royal Commission on the Co-operative Movement.
1970	Reorganisation of the structure of the Co-operative Movement.

ANNEXE 2

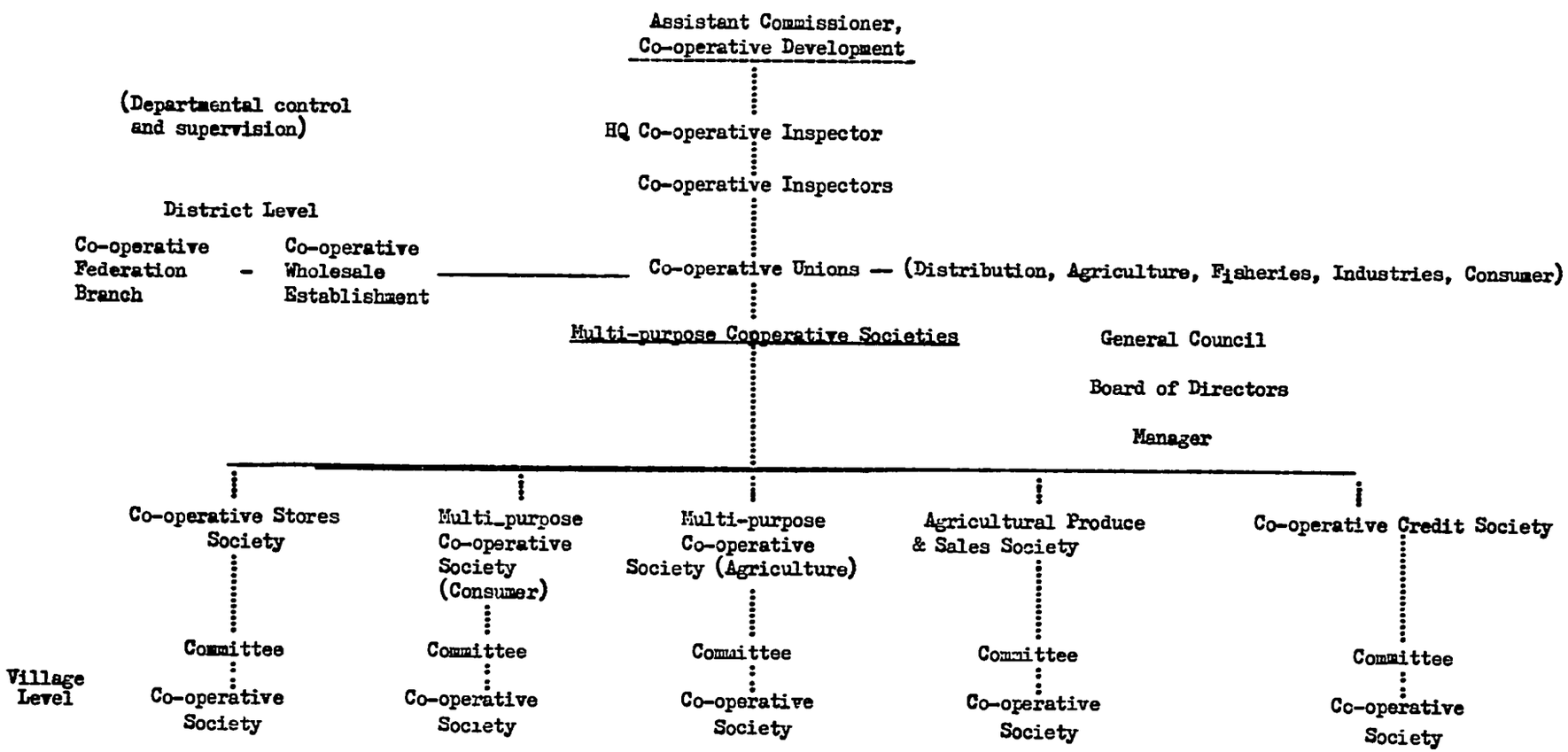
THE STRUCTURE OF THE CO-OPERATIVE DEPARTMENT

(Prior to reforms)



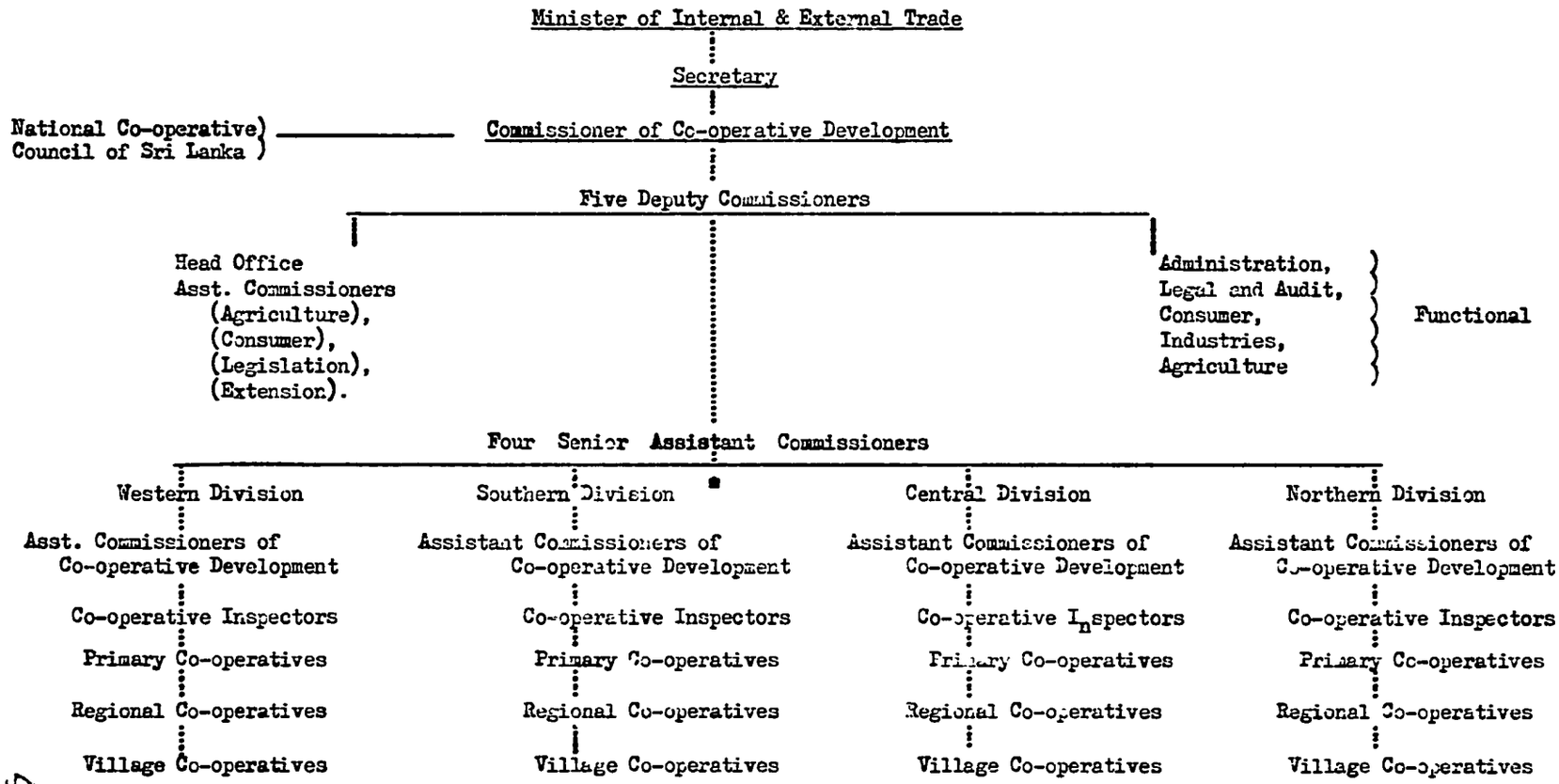
ANNEXE 3

THE ORGANISATIONAL STRUCTURE OF CO-OPERATIVES — (Prior to reforms)



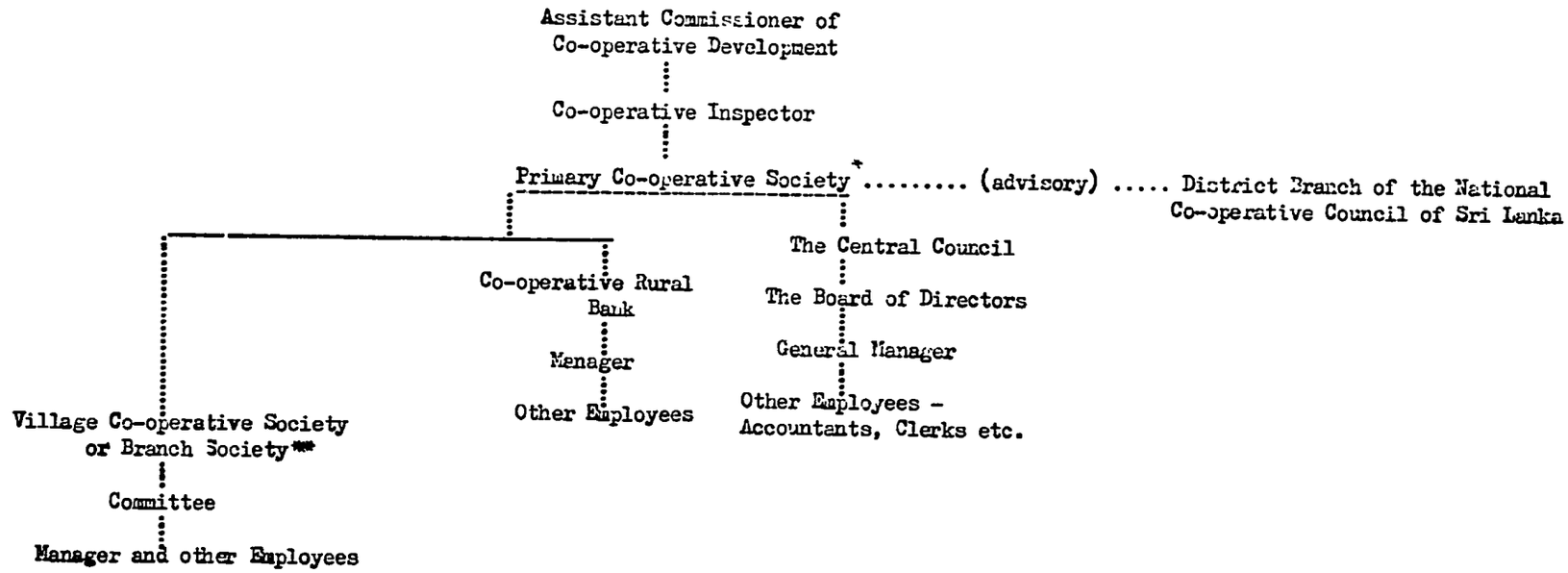
ANNEXE 4

THE STRUCTURE OF THE DEPARTMENT OF CO-OPERATIVE DEVELOPMENT



ANNEXE 5

THE ORGANISATIONAL STRUCTURE OF CO-OPERATIVES AFTER THE REFORMS



* 372 Primary Co-operatives
** Branch Societies exceed 10,000

ANNEXURE 05

Annexure 6.

KNOW ALL MEN BY THESE PRESENTS THAT THE .....

.....Multi-purpose Co-operative Society, Ltd.,

is held and firmly bound unto the Commissioner of Agrarian Services, his successors and assigns in the sum of Rupees ..... (Rs. .....)

lawful money of Ceylon, for which payment well and truly to be made the said Society binds itself firmly by these Presents.

WHEREAS the said Society, registered under the provisions of Section 6 of "The Co-operative Societies Ordinance, No. 16 of 1936", having its registered address at .....

....., is desirous of encouraging thrift, self-help and co-operation among agriculturists, artisans and persons of limited means;

AND WHEREAS application has been made by the said Society to the Commissioner of Agrarian Services in terms of the by-laws made under Section 46 (2) (u) of the said Ordinance for the loan to the said Society of the said sum of Rupees .....

..... (Rs. .....) bearing interest at the rate of two per centum per annum, which said Society binds itself to repay with interest then due by the .....

..... day of .....

AND WHEREAS the Commissioner of Agrarian Services has paid the sum of Rupees .....

..... (Rs. .....)

to the credit of the funds of the said Society;

NOW THE CONDITION of this obligation is such that if the said Society shall well and truly repay the said sum of Rupees .....

(Rs. .....) with interest due thereon in the manner provided by these Presents, then this obligation shall be null and void, but otherwise shall be and remain in full force and effect.

IN WITNESS WHEREOF the .....

Multi-purpose Co-operative Society, Limited, hath caused its common seal to be affixed to these Presents at .... this ..... day of .....

One Thousand Nine Hundred and ....

The Common Seal of the .....

..... Multi-purpose Co-operative Society Limited, is hereto affixed in the presence of the Chairman, and the Secretary of the said Society, who hereby attest the sealing thereof.

_____

Chairman.

_____

Secretary.

Witnesses:

1. _____

Source: Dept. of Agrarian Services.

ANNEXE 7

Time Table of Credit Operations

1st Week July	Food Production Officer gets individual farmers to apply to the Society for loans on the specified form, certifying on these forms that the amount of credit requested by the farmer is in keeping with the requirements of the production plan for that area.
2nd Week July	The Committee of the Co-operative Society examines the eligibility of the member for the loan applied for. The Co-operative Inspector test-checks 10 percent of the individual applications to ensure that they are equitably and expeditiously dealt with and conform to the conditions laid down.
3rd Week July	The Committee of the Co-operative Society meets to work out the maximum credit limit to be given to individual members and prepare a composite application to be sent to the nearest branch of the Bank with which it has its usual dealings, after the Co-operative Inspector in charge certifies that the loan applied for is within the maximum credit limit sanctioned by the A.C.C.D. for the particular Society.
4th Week July to September	The lending Bank processes the loan applications and decides on the maximum amount that can be given.
1st Week October	The Committee of the Society meets to examine each individual application once again the light of the actual conditions and the extents actually cultivated and makes an amended application to the lending authority supported by the necessary documents. The Co-operative Inspector, the Food Production Officer, the Divisional Officer, the Village Cultivation Officer and the Agricultural Instructor will attend this meeting.
2nd Week October	The lending authority credits the Society's Bank Account with the cheque covering the loan before the end of this week.

N.B. - This time table will apply only to the Dry Zone areas where the North East Monsoon commences about October.

Annexe 8 gives how the maximum credit limit of a Society should be assessed.

ANNEXE 8

ASSESSMENT OF A MULTI-PURPOSE CO-OPERATIVE SOCIETY'S MAXIMUM CREDIT LIMIT

		Rs cts.
A. Funds required for the business -		
1. For consumer goods		
2. For cultivation		
3. For other agricultural purposes ...		
4. For marketing of - (a) paddy ...		
(b) other commodities ...		
5. For execution of contracts		
6. For purchase of fixed assets		
7. For rural banking purposes		
Total		
B. Owned Capital of Society		
1. Paid-up shares		
2. Reserves		
3. Undistributed profits ...		
Total		
C. Fixed Assets		
1. Land and Buildings... ...		
2. Machinery		
3. Equipment		
4. Vehicles		
Total		
D. Difference between 'B' and 'C' (B-C)		
E. Maximum Credit Limit ('A'-'D')		

ANNEXE 9

CROPS UNDER THE GUARANTEED PRICE SCHEME

		Rs. cts per bushel	
1.	Paddy	14.00	.. from 1.1.71 to 31.12.71
		(per Cwt.)	
2.	Maize	24.64	.. -do.-
3.	Kurakkan, Grade I	15.00	.. -do.-
	" Grade II	13.00	.. -do.-
4.	Sorghum	20.16	.. -do.-
5.	Toor Dhal (Whole)	56.00	.. -do.-
6	Cotton, Grade I	75.00	.. -do.-
	" Inter Grade	60.00	.. -do.-
	" Grade II	45.00	.. -do.-
	" Grade III	30.00	.. -do.-
7.	Mustard	67.20	.. -do.-
8.	Gingelly	38.00	.. -do.-
9.	Chillies (All varieties of chillies that do not contain white or black pods)	392.00	.. from 12.2.71 to 31.12.71
10.	Green Gram, Grade I... ...	67.20	.. from 1.1.71 to 31.12.71
	" " Grade II.. ...	61.60	.. -do.-
11.	Tamarind	33.60	.. -do.-
12.	Black Pepper	140.00	.. -do.-
13.	Cow Pea (Arlington)... ...	67.20	.. -do.-
14.	Cow Pea	42.56	.. -do.-
15.	Ground Nuts	43.28	.. -do.-
16.	Murmeric	130.00	.. -do.-
17.	Coffee, Grade I	224.00	.. -do.-
	" Grade II	154.00	.. -do.-
18.	Potatoes	44.80	.. -do.-
19.	Red Onions:- January ...	48.16	.. from 1.7.71
	February ...	43.68	.. -do.-
	March ...	35.84	.. -do.-
	April ...	38.08	.. -do.-
	May ...	40.32	.. -do.-
	June ...	43.68	.. -do.-
	July ...	35.84	.. -do.-
	August ...	38.08	.. -do.-
	September ...	40.32	.. -do.-
	October ...	43.68	.. -do.-
	November ...	48.16	.. -do.-
	December ...	48.16	.. -do.-
20.	Bombay Onions	44.80	.. from 1.1.71 to 31.12.71
21.	Garlic	168.00	.. -do.-

Source: Department of Agrarian Services.

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