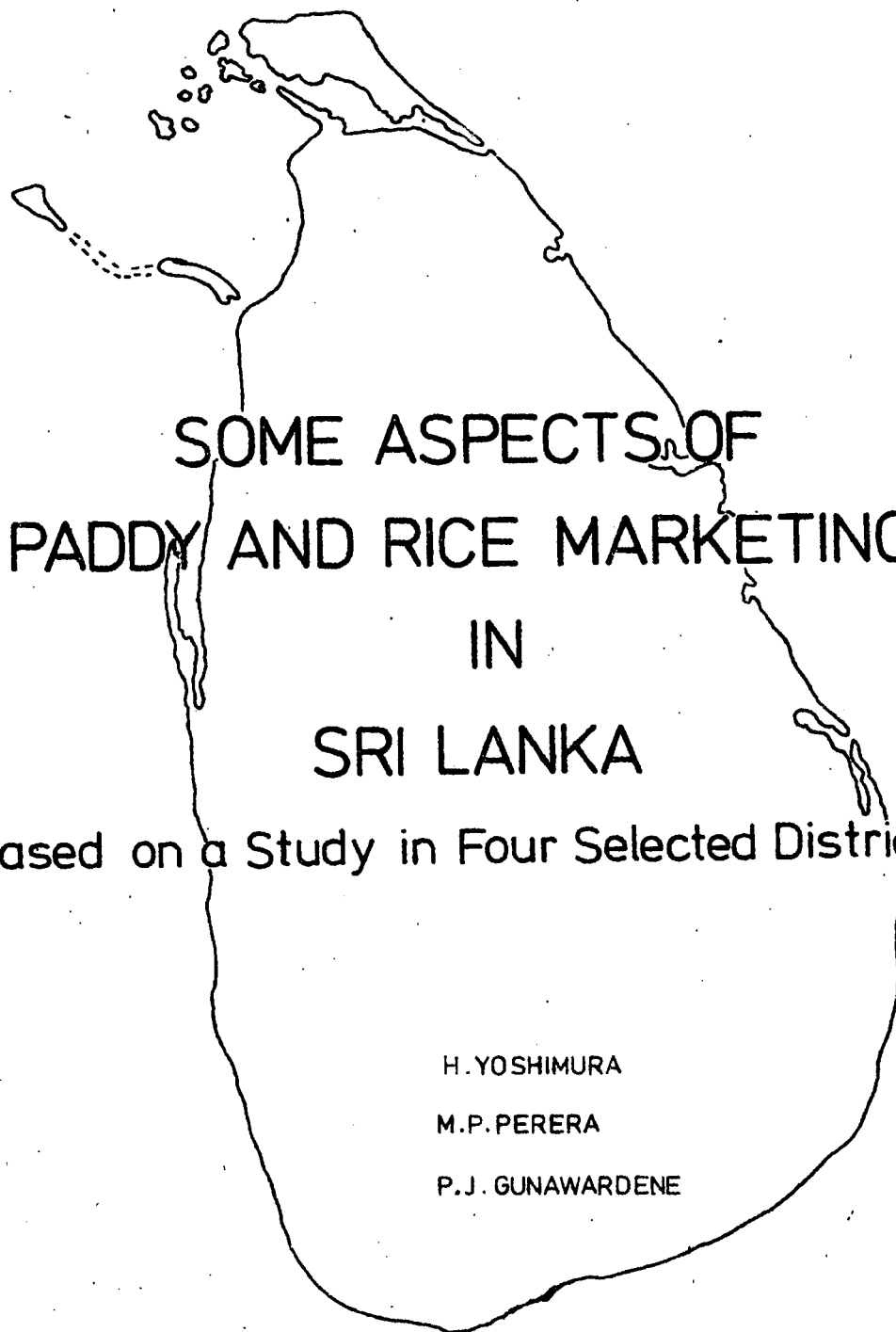


AGRARIAN RESEARCH AND TRAINING INSTITUTE

COLOMBO



**SOME ASPECTS OF
PADDY AND RICE MARKETING
IN
SRI LANKA**

(Based on a Study in Four Selected Districts)

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RICE MARKETING IN SRI LANKA

- *Based on a study in four
selected districts* -

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FOREWORD

The Paddy Marketing Board which was established by an Act of Parliament in 1971 is in law responsible for the procurement and marketing of paddy. It was hoped that the Paddy Marketing Board would be able to procure maximum quantities of paddy in order to feed the rationing scheme. It was, however, observed that the Paddy Marketing Board encountered several difficulties in increasing its collections progressively.

This study which is in the nature of a preliminary one was undertaken to ascertain the factors that hinder the maximum collection of paddy and marketing of good quality rice by the Paddy Marketing Board. Field studies were conducted in four districts which were purposively selected in order to examine the situation relating to the marketing and processing of paddy. As field surveys were conducted in four selected districts the findings of the study may have only limited applicability and relevance in the national context. However, it is hoped that the study will offer useful data and suggestions for consideration by the authorities concerned.

The publication is being released at a time when the situation in regard to marketing of paddy remains altered consequent to the removal of restrictions placed on the transport of paddy. Nevertheless, it is hoped that the study will prove useful if evaluated in the context in which it was undertaken.

C. Narayanasamy
Director
Agrarian Research and Training Institute

December 1975

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Our thanks also go to all FAO staff and the Research and Training Officers of the Institute for their useful suggestions. In particular we are grateful to Dr.P. Wickramasekara and Miss T.Sanmugam who very kindly read our original drafts and offered their comments.

Finally, we deeply appreciate the comments and suggestions made by the Director, Mr.C. Narayanasamy and the Chief Advisor, FAO, Mr.F.G. Saunders in the preparation of this report.

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INTRODUCTION

Paddy and rice marketing¹ in Sri Lanka has not received all the attention it should receive, particularly in recent years. The Paddy Marketing Board (PMB) set up by an Act of Parliament (No.14 of 1971), is in law the sole marketing outlet for paddy in Sri Lanka. However, the collection of paddy by the Paddy Marketing Board has decreased progressively over the years (1972-1974), as shown in Table I. Hence, a preliminary examination of the problems of paddy and rice marketing was considered necessary and useful for in-depth studies in the future.

The objectives of the present study are to ascertain the factors that have hindered a) maximum collection of paddy by the Paddy Marketing Board, and b) the marketing of good quality rice.

The problems to be examined relate to procurement, storage and processing of paddy and the distribution of rice and suggestions are made which might improve the marketing situation.

This study was undertaken at a time when regulations under the Public Security Ordinance were in force to restrict the movement of rice and paddy in quantity and to limit the amounts which any producer or other person could have in his possession. These regulations which are detailed in Appendix XI, were repealed on 8 October 1975, about two months after the completion of this study. The immediate effect of lifting the restrictions — at a time when both rice and flour stocks were adequate to meet public demand — has been a fall in the open market price of rice to the Urban Consumer.

This study documents some of the factors that have hindered the Paddy Marketing Board in the collection of paddy and the marketing of good quality rice. A decision will have to be taken in the future whether to legalise a free market in rice and paddy or to make further attempts to enforce the monopoly purchase regulations. Changes in the availability of supplies, world prices, government ration policy, milling facilities, etc., could all strongly affect the issue and the information given in this study should be viewed in the context of the time.

¹The concept of Marketing used in this study covers all activities from the point of production to the point of purchase by the consumer. These include a) assembling, b) financing, c) grading and standardizing, d) transporting, e) packing and storing, f) processing, and g) distributing.

Background

Up to 1965, the Government relied mainly on imports to meet the country's requirements of rice. This was due to a) the price of imported rice being lower than the price of locally produced rice, and b) the local production being insufficient to meet the country's total requirements of rice. Since then, the imports have shown a decreasing trend (see Appendix I). This can be attributed to an increase in the local production due to a) the extension of the gross acreage sown and the increase in the yield of paddy per acre, (see Appendices III and IV), and b) the high price of rice in the World Market, (see Appendix II).

Since 1948, paddy has been purchased by the Government under a Guaranteed Price Scheme (GPS). Up to 1973, the guaranteed price of paddy was higher than the c.i.f. value of the paddy equivalent of imported rice while in 1974, the position was reversed, (see Appendix II).

The Paddy Marketing Board, established under the Paddy Marketing Board Act No.14 of 1971, took over the functions relating to paddy marketing from the Department of Agrarian Services, in January 1972. However, both the Paddy Marketing Board and the Department of Agrarian Services continued to purchase paddy until April 1972.

The present situation in respect of marketing channels of paddy and rice are illustrated in Figs.1 and 2. Fig.1 shows the legal channels while Fig.2 gives the illegal channels.

Legal Channels

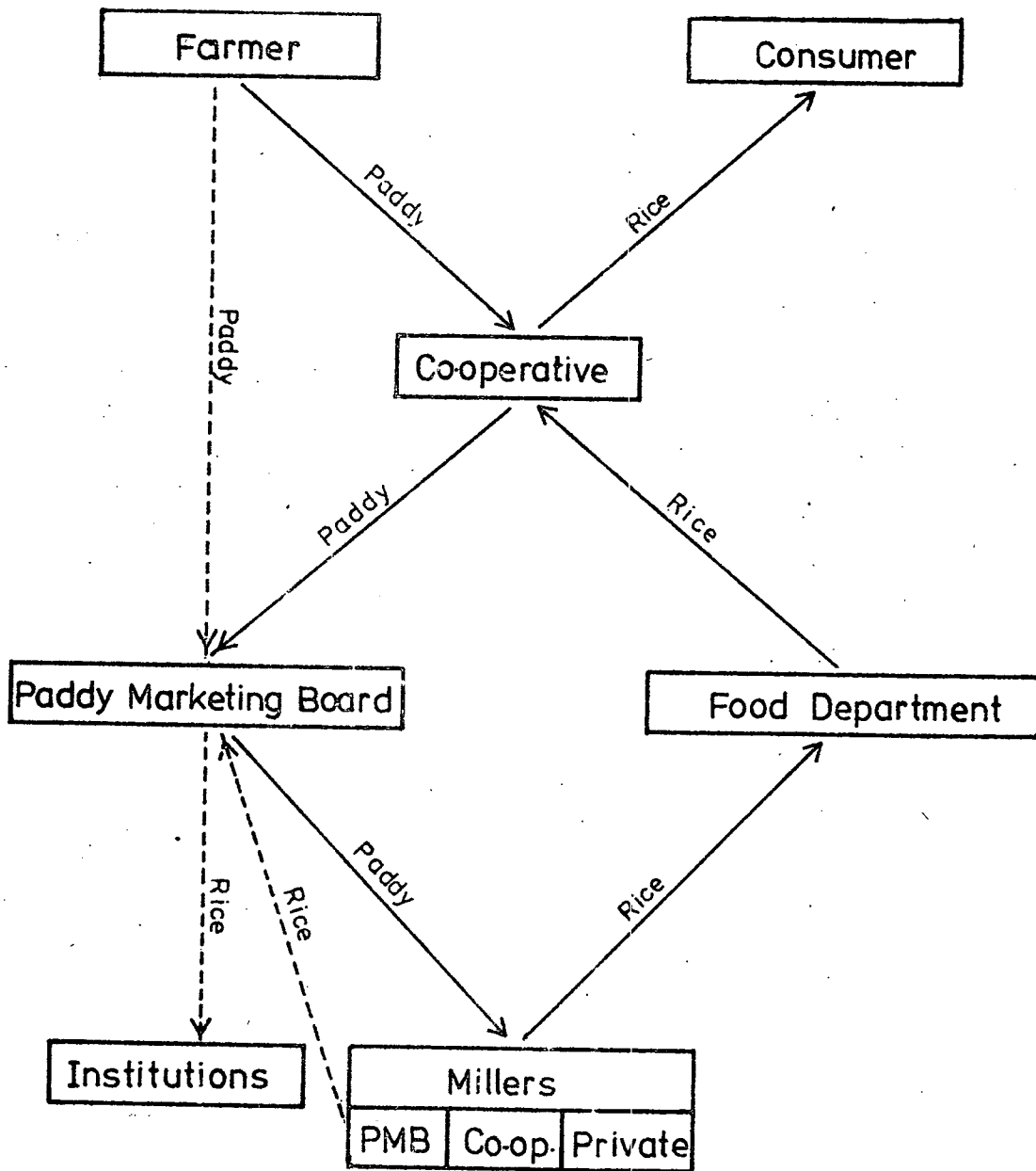
The Paddy Marketing Board remains the sole legal purchaser of paddy. The Co-operatives collect the paddy from the farmer on behalf of the Paddy Marketing Board, which hires private millers to process the paddy.¹ The millers hand over the rice to the Food Department which in turn issues it to the Co-operatives for distribution to the Consumers on the ration.

Illegal Channels

The removal of the ban on transport of rice referred to earlier does not legalise free trade in rice and paddy but resulted in it being impossible to enforce the monopoly purchasing powers of the Paddy Marketing Board. Private traders buy paddy from the farmers and sell the rice at prices higher than the price of rationed rice. The operations are described in Chapter 3.

¹There are also 5 Paddy Marketing Board Mills and 5 mills belonging to the Co-operatives, doing milling in the four districts.

Legal Channels



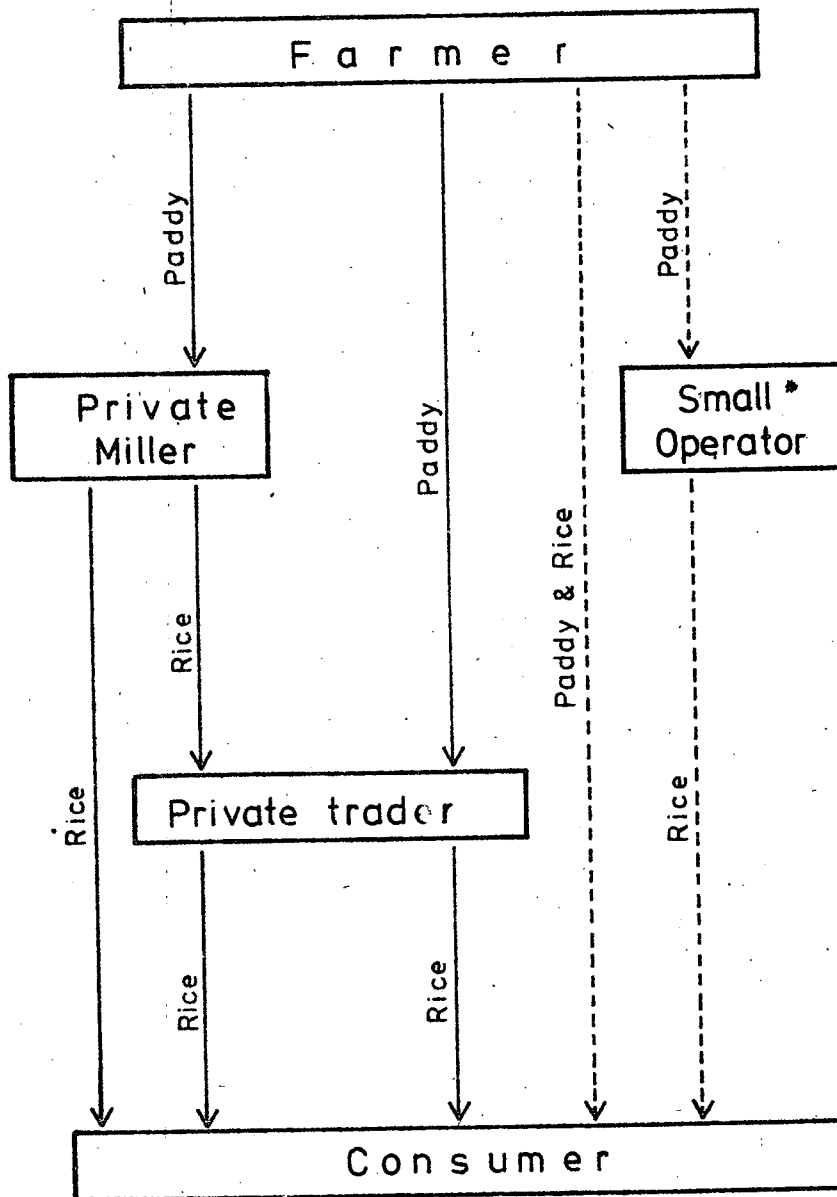
Note: main flow \longrightarrow very small flow \dashrightarrow

Institutions

Armed services hospitals hotels
and eating houses etc.

Fig. 1

Illegal Channels



Note: Main Flow ———> Very small flow - - - - ->

* Small operator = sellers of rice at public places (Polas, bus stands, etc.) as a livelihood.

Fig. 2

Purchase of Paddy under the GPS

The quantity of paddy purchased under the GPS as a percentage of the total production has shown a declining trend since 1972, the year in which the Paddy Marketing Board commenced operations.

Table 1 GPS purchases as a percentage of the total estimated production 1965-1974

Year	Total estimated paddy production (million bushels)	GPS purchases (million bushels)	GPS purchases as a % of estimated production
1	2	3	4
1965	36.3	21.4	58.95
1966	45.7	28.0	61.26
1967	54.9	13.4	24.40
1968	64.6	15.1	23.37
1969	65.9	13.9	21.09
1970	77.4	26.5	34.23
1971	66.9	32.3	48.28
1972	62.7	26.3	41.90
1973	62.9	22.9	36.40
1974	76.8	20.9	27.21

Sources: Column 2 - Department of Census and Statistics, Statistical Abstract 1970-71.

Column 3 - Statistics Division of the Paddy Marketing Board.

The Government took several administrative measures during 1974 in order to ensure a higher collection of paddy by the Paddy Marketing Board. They were:

1. Upward revision of the guaranteed price from Rs.18/- per bushel in 1973 to Rs.30/- per bushel in January 1974 and to Rs.33/- per bushel in July 1974.
2. Limitation on the quantities that a farmer may retain in his house, i.e. not allowing him to retain a quantity greater than his own production,¹ and
3. Prohibition of private transport of paddy or rice above a minimum quantity without a valid permit.

Despite these measures and incentives the available data implies that the Paddy Marketing Board collected only 27% of the total estimated production of paddy in 1974, as compared with 42% in 1972 when it first started its marketing operations.

¹ A person was allowed to transport two measures of rice or 4 measures of paddy without a permit, and a farmer only allowed to keep on his premises a quantity of rice or paddy equal to that produced by him. These regulations were repealed with effect from 8 October 1975.

Methodology

Area

Field studies on the marketing situation were conducted in four districts, viz. Polonnaruwa, Kurunegala, Amparai and Kegalle. These districts were selected purposively, Polonnaruwa and Amparai being distinctive surplus paddy producing districts,¹ while Kegalle is a distinctive deficit one. Kurunegala, even though a deficit district has the largest acreage under paddy.

Collection of Data

1. Problems relating to marketing of paddy were ascertained and cost of production data collected through informal interviews with farmers, who brought paddy for sale to the Co-operatives. These interviews were held in their homes.
2. Data on milling costs and margins of profit were obtained by administering a questionnaire to four millers in each district. Ancillary information was also collected by follow-up discussions with these millers.
3. Information on different aspects of marketing was collected by interviewing officials and by examination of records of the following institutions:
 - (a) Co-operative Societies;
 - (b) Paddy Marketing Board (Head Office as well as Regional Offices);
 - (c) Food Department (Head Office and Regional Offices).

Limitations of the Study

As the field surveys were confined to four districts, the data cannot be considered adequate to permit generalisation for all districts. These surveys were carried out over a period of about two weeks and it was not intended that the study would be comprehensive and cover all aspects of the problem. However, this study offers useful data on some major problem areas.

¹ A surplus paddy producing district is considered here to be a district which produces paddy in excess of the consumption requirements of that district.

There are 22 districts in Sri Lanka, of which 6 are regarded as paddy surplus districts, 11 as deficit ones while 5 cannot be classed into either category, (see Appendix X).

SOME ASPECTS OF CEREAL CONSUMPTION IN SRI LANKA

1.1 General

This chapter attempts to estimate:

- (a) the per capita consumption in 1975, of cereals, mainly rice and wheat flour, as these two cereals form the bulk of cereal consumption in Sri Lanka (sorghum and maize constituting only a very negligible proportion);
- (b) the consumption requirements of rice for 1975;
- (c) the surplus paddy with the farmers in 1975.

Of the many factors affecting consumption of cereals, the two most important ones are i) the disposable incomes of the consumers; and ii) the price of the cereals.

Wheat flour is a major substitute for rice, particularly in the form of bread, which is in demand as a very convenient pre-cooked meal.

1.2 Per capita consumption of rice and wheat flour

The following factors act as constraints in determining the per capita consumption of rice and wheat flour.

- i. High degree of Government intervention in the rice market prevents to some extent the normal operation of supply and demand factors. Under such conditions, the effects of price and income changes on consumption may not be clearly seen; and
- ii. frequent changes in the quantum and price of rice and wheat flour issued under the rationing scheme, particularly in 1973 and 1974. This makes forecasting very difficult.

Still, an attempt has been made to estimate the per capita consumption of rice and wheat flour for 1975 by analysing the time series data from 1966 to 1974 as well as from cross-sectional data.

Vidya Sagar (1971)¹ analysed the rice and flour consumption for the pre-1969 period and estimated that the average per capita per annum consumption of rice may stabilise at about 100 kg., the balance of cereal requirement (25-30 kg) to be met from wheat flour.

¹ Cereal Consumption in Ceylon - Pattern and Demand Estimates - Ministries of Planning and Employment and Agriculture (UNDP Special Fund Economic Planning and Programming Project).

ANNUAL PER CAPITA CONSUMPTION
OF CEREALS IN SRI LANKA

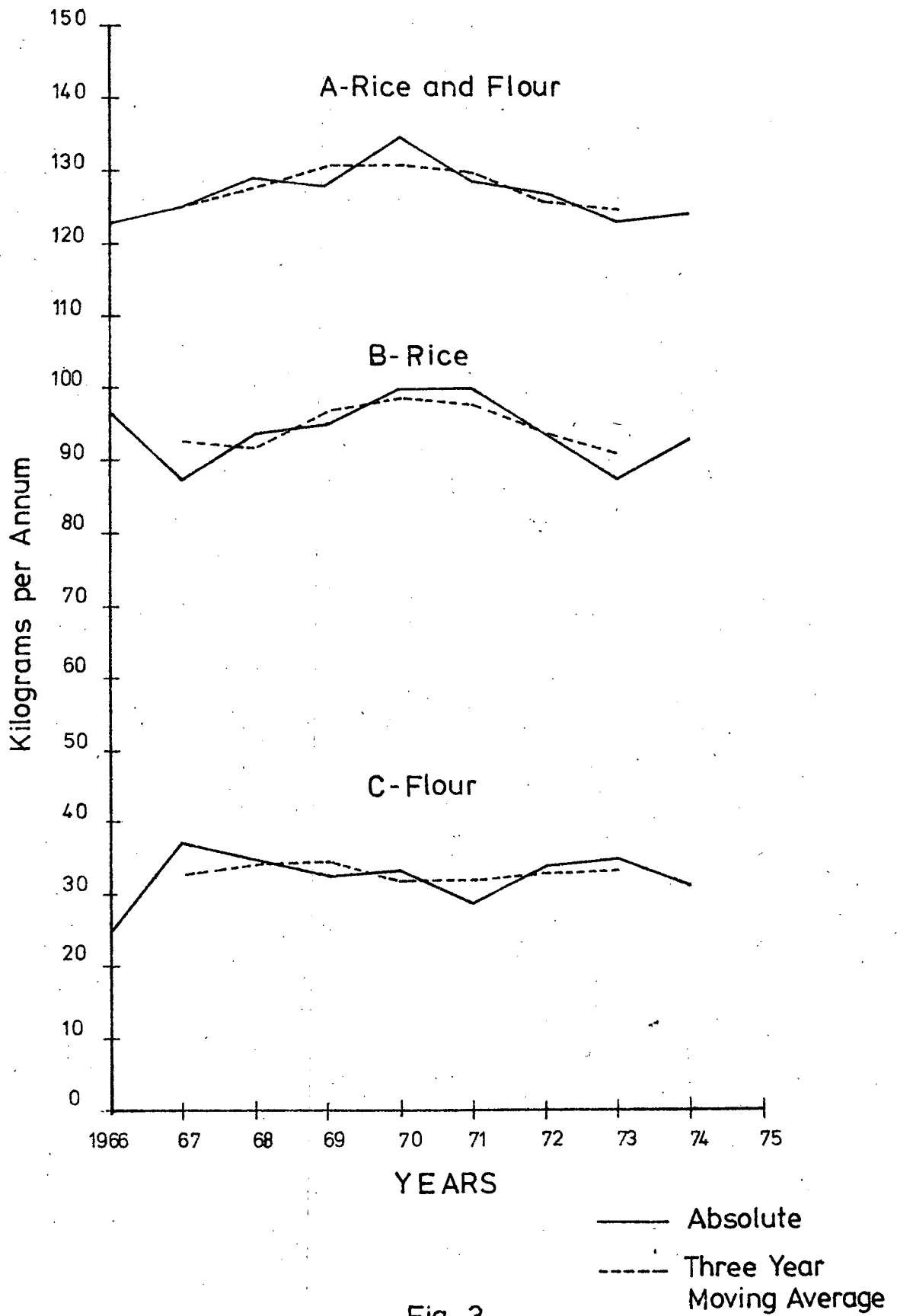


Fig - 3

(a) Time-series data

Per capita consumption is analysed in Tables 2, 3 and 4. Fig. 3 illustrates the annual per capita consumption of rice and wheat flour (individually as well as together) during the period 1966 to 1974, as well as the three-year moving average. In the years after 1969, the annual per capita consumption of rice was highest in 1970/71 (about 100 kg) when production was high, while it was lowest in 1973 (87.8 kg). In the case of wheat flour the reverse trend was observed i.e. the lowest being reached in 1971 (29 kg) and the highest in 1973 (34.7 kg) when rice production was low. This indicates that flour is substituted for rice when production of the latter restricts the supply.

The per capita rice consumption in 1971 was high due to the increase of the rice ration to two measures in September 1970 -- one measure free and the other at -/75 cts. In 1973 it decreased due to the reduction of the rice ration in October 1973 -- half measure free to non-income tax payers and half measure sold to income tax payers at a higher price of Rs.1.40 a measure (from Rs.1/-).

From 1971 to 1973 there was a decline in the total consumption of rice and wheat flour, probably implying that there was some degree of substitution by other cereals and yams for both rice and wheat flour, or that total food consumption decreased due to increase in cost of living.

In 1974, when the price of wheat flour was -/70 cts a pound for the most part of the year and the rice ration was $1\frac{1}{2}$ measures at Rs.2.30 a measure (half measure issued free to non-income tax payers), the per capita consumption of rice was 92.6 kg. In 1975, with the price of wheat flour being Rs.1.10 per pound, we could expect an upward shift in the per capita consumption of rice, assuming that there is no change in the quantum of the ration and the price of rice. However, this upward shift should not exceed the per capita consumption of rice in 1969 (96 kg) because in 1969, rice was available free to all consumers on the ration (one measure) and there were no restrictions on the open market sale of rice. Therefore, we could reasonably expect the per capita consumption of rice in 1975 to stabilise between 92.6 kg and 96 kg i.e. around 94 kg (the average annual per capita consumption of rice over the period 1966-1974 is 94.4 kg).

The balance of cereal requirement (30-35 kg) to meet the optimum recommended by the Medical Research Institute for nutritional purposes will be met from wheat flour (the average annual per capita consumption of wheat flour for the period 1966-1974 is 32.7 kg).

(b) Cross-sectional Data

i. 1973 Consumer Finance Survey of the Central Bank

This survey showed that the average consumption of rationed and unrationed rice per head for two months was

Table 2

PER CAPITA

1 Year	2 C * (metric tons)	3 P (million	4 G bushels)	5 S bushels)	6 W	Available Paddy (million bushels)
1966	941,155	45.7	28.0	3.2	2.3	12.2
1967	525,135	54.9	13.4	3.3	2.7	35.5
1968	518,984	64.6	15.1	3.5	3.2	42.8
1969	538,351	65.9	13.9	3.4	3.3	45.3
1970	640,354	77.4	26.5	3.7	3.9	43.3
1971	880,508	66.9	32.3	3.6	3.3	27.7
1972	792,934	62.7	26.3	3.6	3.1	29.7
1973	686,176	62.9	22.9	3.6	3.1	33.3
1974	559,072	76.8	20.9	4.1	3.8	48.0

Column 2 - C = Consumption of rationed rice the conversion factor 1.016. Source - Food

Column 3 - P = Estimated production. Source -

Column 4 - G = GPS paddy purchases. Source -

Column 5 - S = Seed requirements. This was
The source for the data on sown acreages

Column 6 - W = Wastage. 5% of total production was used transport and handling.

Column 7 - X = Consumption of unrationed rice. This is
Quantities used for animal food was
The conversion factor from paddy to rice

Column 8 - X + C = This column gives the total consumption

Column 9 - P_o Average mid-year population. Source -

Column 10 - Q Per capita consumption of rice in kilograms

* Note: No account of the carry over stocks was taken, scheme was used.

CONSUMPTION		OF RICE		
⁷ X	Rice	Total consumption of rice	P ₀	Q
	<u>equivalent</u>	X + C	9	10
	(metric tons)	8 (metric tons)	(million)	Kg/head
	173,148	1,114,303	11.4	97.7
	503,832	1,028,967	11.7	87.9
	607,437	1,126,421	12.0	93.9
	642,918	1,181,269	12.3	96.0
	614,533	1,254,887	12.5	100.4
	393,131	1,273,639	12.7	100.3
	421,516	1,214,450	13.0	93.4
	472,609	1,158,785	13.2	87.8
	681,238	1,240,310	13.4	92.6

Department. Long tons were converted to metric tons using

Department of Census and Statistics.

Paddy Marketing Board, Statistics Division.

calculated on the basis of two bushels of paddy per sown acre.
was the Department of Census and Statistics.

to calculate the wastage of paddy and rice in storage,

calculated from the algebraic equation $X = P - (G + S + W)$
considered negligible.

is: 1 Metric ton of rice = 70.46 bushels of paddy.

of rice

1974 Annual Report of the Central Bank of Ceylon

per head. This is calculated from the algebraic equation, $Q = \frac{C+X}{P_0}$
as the total quantity of rice issued under the rationing

Table 3 Per Capita consumption of wheat flour

Y e a r	Consumption (metric tons)	P ₀ (million)	Q (Kg/head)
1	2	3	4
1966	280,162	11.4	24.6
1967	440,059	11.7	37.6
1968	430,072	12.0	35.8
1969	407,495	12.3	33.1
1970	422,556	12.5	33.8
1971	368,561	12.7	29.0
1972	440,274	13.0	33.9
1973	457,404	13.2	34.7
1974	422,950	13.4	31.6

Mean Q = 32.7

Source: Column 2 - Food Department. Long tons were converted to metric tons using the conversion factor 1.016.

Assumption: Wastage was considered negligible.

Table 4 Per Capita consumption of rice and wheat flour

Y e a r	Q Kg/head
1966	122.3
1967	125.5
1968	129.7
1969	129.1
1970	134.2
1971	129.3
1972	127.3
1973	122.5
1974	124.2

Mean Q = 127.1

15.94 measures. This works out at approximately 87 kg per head per year. According to time series data, the figure for 1973 was 87.8 kg.

ii. 1969-70 Socio Economic Survey for Sri Lanka -
Department of Census and Statistics

This survey showed that the estimated per capita consumption of rice per month was 17.45 lb. This works out at approximately 95 kg per year. According to time series data, this figure for 1969 was 96 kg. The estimated per capita consumption of bread was 3.71 lb (or 2.78 lb of wheat flour, assuming each pound of bread to contain 12 oz of flour). This works out to about 30.8 kg per year. According to time series data, the figure for 1969 was 33.1 kg.

From the above, it is seen that there is general agreement between per capita consumption figures calculated from time series data and cross-sectional data.

1.3 Estimated consumption of rice for 1975

In this attempt to assess the consumption requirements of rice for 1975, it is assumed that the disposable incomes of consumers will not change. Also, since cereals form a basic food and the price difference between a pound of rice and a pound of wheat flour on the ration has remained almost constant, it is assumed that consumption of either is not affected unless substantial price changes take place. Hence, the projected consumption of rice for 1975 will depend on the average per capita consumption of rice and the projected population.

On an estimated mid-year population of 13.6 million and an estimated annual per capita consumption of 94 kg, the estimated consumption of rice for 1975 would be 1.278 million metric tons. In terms of paddy, this is equal to about 90 million bushels.

The estimated production of paddy for 1975 is about 55 million bushels.¹ Paddy required for seed purposes is 4.1 million bushels (same estimate as for 1974).

Paddy wastage in storage, transport and handling is 3% of production i.e. 1.65 million bushels.

Therefore, net paddy available for consumption in 1975 is (55-4.1-1.65) i.e. 49.25 million bushels.

This represents about 55% of the national requirement $\left(\frac{49.25}{90} \times 100\right)$ and production has to be increased substantially in order to eliminate imports. However, this aspect will not be dealt with here, as it is beyond the scope of this study.

¹ Ministry of Agriculture and cross-checked with other sources.

1.4 Estimation of Surplus Paddy with Paddy Farmers

The net quantity of paddy available for consumption in 1975 is estimated at 49.25 million bushels.

The estimated annual consumption of paddy by paddy farm families is given by Number of paddy farm families x average household size¹ x Annual per capita consumption of rice (in terms of paddy).²

$$= 757,500 \times 5.63 \times 6.2 \text{ bushels}$$

$$= 26.44 \text{ million bushels}$$

Due to non-availability of data, the number of farm families was approximated by taking the number of cultivators of paddy from the Department of Census and Statistics 1971 census of population preliminary report - May 1971. This will tend to slightly over-estimate the figure. However, it is assumed that this will be corrected by the increase in paddy farm families from 1971 to 1975.

On the assumption that the consumption requirement of farm families are met from the paddy they produce, the estimated surplus paddy with the paddy farm families would be:

$$49.25 - 26.44 \text{ million bushels}$$

$$= 22.81 \text{ million bushels}^3$$

i.e. there will be an estimated 23 million bushels of surplus paddy with the paddy farm families in 1975.

Due to lack of data, it has not been possible to calculate the farmers' rent payments in the form of paddy, and also the paddy given by them to friends and relations. This further diminishes the supply of paddy available with the farmers for collection.

¹ Average household size for the rural sector - 1973 Consumer Finance Survey of the Central Bank.

² Calculated from the 1973 Consumer Finance Survey of the Central Bank (16.18 measures of rice per head per two months for the rural sector); 1 metric ton of rice = 70.46 bushels of paddy.

³ Since the consumer subsidy for rationed rice is available to the producers as well, some farmers may consume the ration and dispose of part of their produce. Hence this figure could be slightly more.

FACTORS INFLUENCING THE PURCHASE OF PADDY
BY THE PADDY MARKETING BOARD

2.1 General

As pointed out earlier, the Paddy Marketing Board purchases of paddy as a percentage of estimated production has declined progressively over the last three years. A considerable amount of paddy leaks from the farmer or the landlord to the open market through private marketing channels. Hence the Paddy Marketing Board has to compete with the private trader in the collection of paddy in order to have sufficient rice for distribution on the ration by the Food Commissioner.

2.2 Factors contributing to the sale of paddy to sources other than the PMB

A. Relationship between the guaranteed price for paddy and the open market price¹

As long as the open market price remains above the GPS price of paddy, farmers naturally prefer to sell paddy to the private dealer. The open market prices of paddy and rice were as follows at the time of the study.

Table 5 The variation of open market prices of paddy and rice January - May 1975

District	Paddy (Rs. per bushel)	Rice (Rs. per measure)
Polonnaruwa (January)	50 - 65	3.00 (average)
Kurunegala (March)	45 - 60	3.25 - 3.75
Amparai (April)	50 - 60	3.00 - 3.50
Kegalle (M a y)	45 - 50	3.25 - 3.75

The guaranteed price paid by the Government was Rs. 33/- per bushel.

B. Cost of Production and GPS price

Almost all the farmers interviewed claimed that the GPS price is inadequate to meet the cost of production of paddy. An attempt was therefore made to collect information from these farmers on their production costs.

Altogether twenty-four farmers were interviewed in four districts in order to obtain data which although may not be representative, gives a general idea. The data collected for Maha 1974/75 is given in Table 6.

¹ Paddy Marketing Board also sells rice off the ration (see Appendix VIII).

Table 6 The Cost of Production of Paddy per acre of 24 farms
in the 4 districts studied - Maha 1974/75

District	Polonnaruwa ¹	Amparai	Kurunegala ¹	Kegalle
Average holding size (acres)	5	10	1	1
Number of farmers	3	9	5	7
<u>Average cost of material inputs and operation per acre</u>				
Seed paddy	115.40	130.00	90.00	90.00
Land preparation, bunding and sowing	244.34	297.00	200.00	348.00
Transplanting.. ..	264.00	-	315.00	139.00
Fertiliser	324.00	266.00	344.00	162.00
Handweeding and weedicides, pesticides and insecticides	145.85	198.00	35.00	64.00
Harvesting	110.43	88.00	130.00	74.00
Threshing, transport and winnowing	137.13	244.00	150.00	86.00
Tending and watching	-	256.00	-	-
Acreage tax	4.60	6.00	6.00	6.00
Average Cost/acre	1,345.75	1,485.00	1,270.00	969.00
Average yield (bu/ac)	70	53	42	53
Average Cost/bushel	19.22	28.00	30.25	18.28
Profit/bushel (Rs)	13.78	5.00	2.75	14.72

GPS price of paddy = Rs.33.00 per bushel

The cost per bushel varied from Rs.17.00 in Kegalle to Rs.30.00 in Kurunegala. The cost per acre on an average varied from Rs.825.00 in Kegalle to Rs.1,300.00 in Amparai.

The above analysis indicates that the GPS price (Rs.33.00 per bushel) is higher than the cost of production per bushel, which is contrary to what the farmers had to say.

¹The cost per bushel of paddy for Maha 1972/73 for Polonnaruwa and Kurunegala Districts were Rs.8.85 and Rs.11.49 respectively. Izumi and Ranatunga, Cost of Production of Paddy Maha 1972/73, ARTI, April, 1974. This was when the GPS price of paddy was Rs.18.00 per bushel and the cost of fertiliser formed only about 8% of the total cost.

C. Institutional Factors

Problems at the Co-operatives

The Paddy Marketing Board purchases paddy through its purchasing agents - the Co-operatives. However, a number of shortcomings in the Co-operatives act as impediments to the collection of paddy. They are:

(a) Purchasing is restricted to specific days

Co-operatives do not accept paddy on certain days. This may prevent the farmers from selling their produce to Co-operatives at the time most convenient to them. This particularly affects the smaller farmer who can take his produce to the Co-operative only when transport is available. These farmers therefore prefer to sell their paddy to private traders.

(b) Insufficient cash to pay the farmers

The branch Co-operatives obtain cash from their primary Co-operatives to pay the farmers. There are delays in the primary Co-operatives sending cash to their branches, due to:

- i. their unsatisfactory liquidity position;
- ii. the Banks having suspended the granting of marketing loans to them until their earlier commitments are settled; and
- iii. the remoteness of the branches from their primaries.

Some branches try to get over this problem by temporarily paying out of their day's collection, but their daily collections are often inadequate to bridge the gap.

Farmers need immediate cash to settle the loans they have taken for their cultivation as interest on private short-term loans is very high, and also for domestic purposes. Hence, any delays in payment will encourage farmers to sell their paddy to the private traders.

(c) Delays at the Co-operatives

The farmers have to wait unnecessarily long periods at the Co-operatives to complete their transactions due to:

- i. congestion at the Co-operatives caused by -
 1. lack of storage space for paddy, particularly during the harvest periods;
 2. the congestion at the Food Commissioner's Stores, caused by incoming shipments of rice and flour during the local harvesting period upset the milling programme of the Paddy Marketing Board. This, in turn causes congestion at the Paddy Marketing Board Stores and the Co-operatives;
 3. rejection of poor quality paddy at the Paddy Marketing Board Stores. The common objective of the farmers and

the Co-operatives is to get quick money - farmers for their produce and the Co-operatives their commissions. With this objective predominating, very little attention is paid to the quality of paddy. Purchases of poor quality paddy result in the rejection of the paddy at the Paddy Marketing Board Stores. For instance, at the Co-operatives, the moisture content is determined by touch and appearance whereas at the Paddy Marketing Board Stores moisture meters are used. Hence, there is a likelihood of the paddy being rejected by the Paddy Marketing Board.

- ii. inadequacy of staff to handle large stocks of paddy during the peak harvesting periods;
- iii. inadequacy of gunnies to store the paddy;
- iv. inadequate facilities to transport the paddy to the Paddy Marketing Board Stores; and
- v. testing devices for paddy at the Co-operatives:
The specifications relating to the quality of paddy to be purchased and the change over from volume to weight in the purchase of paddy involve the use of an instrument to measure the refraction and a weighing scale. (They do not have moisture meters). The acceptance of paddy at the Co-operatives using these instruments will naturally take some time. But the farmers consider this as a form of harassment, particularly when the private traders raise fewer difficulties about quality specifications than the Co-operatives. This unavoidable delay could be offset by streamlining the Co-operative purchasing system and eliminating or minimising the avoidable delays caused by factors mentioned above.

Difficulties in obtaining credit from Institutional Sources

In almost all the districts studied, farmers complain that they encountered problems in obtaining credit from institutions. Institutional credit is either not available in time to the farmers or is insufficient to meet farm expenses. Farmers therefore borrow from private dealers. Sometimes farmers obtain credit from these sources by mortgaging their crops. Thus, immediately after the harvest the private dealers collect the farmers' produce in order to recover loans.

D. Other Factors

(a) Attitudes of Farmers towards the Co-operatives

Some Co-operative personnel are not responsive to farmers' grievances. Lack of a sense of dedication and service to the farmers results in discouraging them from selling their paddy to the Co-operatives. Most private traders are from the same area in which the farmers live. The farmers consider that by selling paddy to the private trader they can enjoy a certain amount of social and other

benefits such as getting loans (*athamaru*) at the time they need it. Hence they consider that they are socially obliged to sell their paddy to the private traders.

(b) Exposure to unscrupulous officials

The farmers are exposed to unscrupulous officials due to:

- i. their unfamiliarity with various instruments used at the Co-operatives for acceptance of paddy; and
- ii. absence of moisture meters at the Co-operatives to determine the moisture content. This is determined at present by touch and appearance, which is very subjective.

(c) Uncertainty of the quantum of rice on the ration

The rice ration has changed quite frequently over the last two years (see Chapter 1). This uncertainty in the rice ration may prompt the farmer to retain more paddy in stock for consumption in case the ration is reduced.

(d) Transport of paddy to the Co-operative

The farmers indicated that they have to bear the transport cost for selling paddy to the Co-operatives, while the private dealer visits the farm gate to purchase the paddy.

THE NATURE OF THE OPEN MARKET OPERATIONS
DURING THE PERIOD OF RESTRICTION ON
THE MOVEMENT OF PADDY AND RICE¹

At the time of the study the regulations restricting the movement of paddy and rice were in force. Of the four districts studied, the open market operations were most organised in the Kurunegala District. This is because Kurunegala is a large paddy farming district, bordered by urban districts like Colombo and Kandy. It has also a good rail-road network to facilitate these operations. Surprisingly, Kegalle being a distinctive deficit district, had its share of open market operations too. Most of the farmers sold their surplus paddy to traders. These traders could easily transport this paddy to places like Colombo, Kandy, etc., since no barriers operated.

The *modus operandi* of the open market activities is given below:

(a) Individual Traders

Individual traders, from both within and outside the village buy the paddy from the farmers at the *Kamatha* or farm gate itself. This is milled into rice and transported to deficit areas like Colombo, Kandy, Jaffna and other up-country areas by train from stations like Polgahawela, Potuhera, Kurunegala, Wellawa, Ganewatte, Maho and Galgamuwa in the Kurunegala District and stations like Kadugannawa, Rambukkana and Ambepussa in the Kegalle District. Rice is transported in small quantities ranging from 64 lb to 160 lb at a time. The Paddy Marketing Board conducts a number of raids on the trains, buses and other vehicles suspected of carrying rice and also on mills. For instance, in Kurunegala District, the Paddy Marketing Board raids showed that 60% of trafficking in rice was done in trains, 10% in buses and the balance in other vehicles like lorries, vans and cars.

¹Restrictions on the open market drive the sale of paddy underground, and it is believed that the cost of subterfuge and risk are passed on to the consumer resulting in higher prices of rice retailed outside the ration scheme. The immediate result of removing the restrictions on the transport of rice and paddy (October 1975), has been a noticeable drop in the retail price of rice to the Urban Consumer. The full extent of the change can only be assessed over a period during which the total availability of rice (and substitutes such as flour), is likely to be the controlling factor.

(b) Private Quota Millers

The private quota millers make use of the law for their open market operations. The regulations permit a farmer to keep a quantity of paddy equal to his own production in his house. The quota miller buys the farmer's paddy at a price higher than the GPS price and then keeps this paddy in the farmer's house itself, paying him a "storage" fee. The miller obtains part of his quota of paddy from the Paddy Marketing Board Stores, mills this quantity and sells in the open market while at the same time replacing this quantity of paddy with a similar quantity of paddy from his "store" — the farmer's house! The miller is well within the law, as the quantity of paddy with him at any given moment does not exceed the quota he gets from the Paddy Marketing Board.

(c) Others

There are others, particularly women, who indulge in the rice trade purely as a livelihood. They buy a few bushels or measures of paddy from the farmers or traders at a price higher than the GPS price, convert this into rice in their houses, and then sell in public places like the *Polas*, bus stands and market places.

PROCESSING OF PADDY AND QUALITY OF RICE¹

- 4.1 The number of registered mills in 1972 and the number functioning as at May 1975, were 257 and 144 respectively, (Table 7). This shows a drop of about 44% in May 1975 as compared to the 1972 figure. This chapter analyses the reasons for the reduction in the number of mills and seeks to assess the approximate profits of some of the millers who are still functioning. The factors affecting the quality of rice is also examined.

Table 7 Distribution of Registered Mills in 1972 and in May 1975

District	PMB region	No. of registered mills in 1972				No. of mills functioning as at May 1975			
		Pri- vate	PMB	Co-op	Total	Pri- vate	PMB	Co-op	Total
Kegalle	} Ratna- pura	8	-	2	10	7	-	2	9
Ratnapura		17	-	-	17	18	-	-	18
Kurunegala	Kurune- gala	62	2	1	65	19	2	1	22
Amparai	Amparai	59	1	-	60	34	1	-	35
Polonnaruwa	Polon- noruwa	100	2	3	105	56	2	2	60

Source: PMB Statistics Division and PMB Regional Managers' Offices in the districts.

¹The Paddy Marketing Board is constructing four milling complexes at Hasalaka, Galgamuwa, Polonnaruwa and Inginiyagala for storing, drying and milling of paddy in large quantities. Each complex has about 12 Silos, and has a storage capacity of about 5,800 tons. The milling capacity of each complex will be 2 tons of paddy per hour or about 10-11 thousand tons per year (working 2 eight-hour shifts a day). Therefore, the four complexes will be able to mill about 40 to 44 thousand tons of paddy per year. According to the Paddy Marketing Board, the estimated collection of paddy for 1975 is about 11 million bushels, i.e. about 226 thousand tons of paddy. The operating capacity of the four milling complexes will be about 18-20 per cent of the estimated Paddy Marketing Board collection for 1975.

Table 8 shows the average milling period in respect of millers functioning in 1974. In arriving at this, the following assumptions have been made:

- (a) the millers functioning at present, functioned in 1974, as well;
- (b) the millers were given quotas only from the paddy purchased by the Paddy Marketing Board in the respective districts in 1974, except in the Kegalle District¹;
- (c) a 'day' refers to eight hours of work (one shift)

Table 8 Average Milling period per Mill for each district in 1974

District	No. of mills functioning	PMB paddy purchases in 1974 (million bushels)	Average milling capacity per mill (bushels)	Average quantity of paddy available for milling per Mill in 1974 (million bushels)	Average Milling period per Mill 1974 Days Months	
1	2	3	4	5	6	
Kegalle) Ratnapura)	27	1.081	300	0.040	133	4.5
Kurunegala	22	1.096	300	0.050	166	5.5
Amparai	34*	2.772	300*	0.082	273	9.0
Polonnaruwa	60	4.075	300	0.068	227	7.5

Sources: Column 3 - PMB Statistics Division
Column 4 - PMB Milling Section

* The Paddy Marketing Board Mill at Chavalakadai in Amparai District which has a capacity to mill about 165 bushels of paddy per hour has been excluded here. Its inclusion would have the effect of reducing the average milling period.

4.2 Some reasons for decrease in the number of registered millers

1. Table 8 shows that in 1974 the average milling period varied from about 4½ months in Kegalle to about 9 months in Amparai, assuming an average milling capacity of 300 bushels per eight-hour day per mill. This shows that much milling capacity is under-utilised. Also, since income for milling is dependent on the quantity of paddy milled (for raw milling Rs.1.25 per 100 lb. of paddy milled and for par-boil milling Rs.2.35 per 100 lb. milled), those millers, whose income from milling is insufficient to cover the milling costs or those whose profit margins are inadequate to cover the investment costs, will cease to function.

¹ Millers in the Kegalle and Ratnapura Districts drew their quotas of paddy from the paddy produced in either or both of these two districts, depending on the availability of stocks.

2. All millers are called upon to furnish high bank guarantees to the Paddy Marketing Board. When the validity period of these guarantees end, the less affluent millers are unable to renew them;
3. Mechanical deficiencies of milling equipment and the high cost of materials or the lack of parts for repair and renovations.

4.3 Costs and Income

In addition to the usual milling costs like labour, electricity, diesel, engine oil, servicing costs, rubber rollers and so on, the millers incur losses on the transport charges paid to them by the Paddy Marketing Board and on the payment for gunnies by the Food Department. Transport charges levied by private lorry owners vary within the district as well as from district to district. The price of gunnies too varies from district to district and is higher than the price paid by the Food Department. The losses incurred per gunny for each district are given below:

	Rs. cts.	
Kegalle	.40	per gunny
Kurunegala	1.00	" "
Amparai	.95	" "
Polonnaruwa	1.30	" "

In order to ascertain the profits of the millers, four mills in each district were studied. The information given by some of the millers was very unreliable and had to be rejected. The net profits of other mills were calculated from the data given by them and are given below. It is however reasonable to expect the costs to be slightly overstated and income understated.

Table 9 Approximate Net Profits of Millers

District	Type of milling	Quantity of paddy milled per month (lb)	Approx. (calculated) net profit per mill per 1,000 lb. of paddy milled (Rs)	Approx. profit per month as stated by the millers themselves (Rs)
Kegalle	Par-boiled	82,800 - 220,800 *	5.50 - 13.00	500 - 2,000
Kurunegala	Par-boiled	338,360	6.00	1,500
Amparai	Raw	368,000	4.00 - 4.75	1,000 - 1,500
Polonnaruwa	Raw	600,000	4.50	2,000

* Volume measure (bushels) converted to pounds
1 bushel = 46 lb

In calculating the profit margins of the millers it was assumed that:

- i. only the stipulated out-turn of 71% (when paddy is purchased by weight) and 51% (when paddy is purchased by volume) was obtained;
- ii. the loss on gunny bags and transport were treated as "costs";
- iii. the bran was sold by the Millers and the proceeds from it were treated as income.

However, some millers were honest enough to admit that they could get out-turns of up to 73%, depending on the quality of paddy supplied.

Table 10 shows the estimated additional income earned by the millers if an out-turn higher than the specified 71% (or 51% in the case of purchases by volume) is obtained and if the resulting excess rice is sold at the prevailing open market prices.

Table 10 Estimated additional income earned by the millers
(for out-turns higher than 71% or 51%)

District	Out-turn %	Paddy quota per month (lb)	Open market price of rice (per measure) Rs	Type of Milling	Adtl. income per 1000 lb of paddy milled Rs	Approx. Adtl. Income per month Rs
Kegalle	52*	82,800 - 220,800	3.50	par-boil	24.35	2,000 - 5,000
	53		3.50		48.70	4,000- 10,000
Kurunegala	72	338,360	3.50	par-boil	17.50	6,000
	73		3.50		35.00	12,000
Amparai	72	368,000	3.00	Raw	15.00	5,500
	73		3.00		30.00	11,000
Polonnaruwa	72	600,000	3.00	Raw	15.00	9,000
	73		3.00		30.00	18,000

* In Kegalle the stipulated out-turn is 51% as paddy is purchased in bushels: 1 bushel of paddy = 46 lb.

The technical feasibility of obtaining an out-turn of rice higher than the stipulated percentages with the other required specifications and standards being maintained was not examined as it was beyond the scope of this study. However, the quality of part of the rice accepted at some Food Department Stores, was so inferior that it could be surmised that the millers obtained these higher out-turns at the expense of quality. This would be possible by reducing the polish on the rice. Most mills visited did not have polishing machines and those which had were found to be not functioning or needed repairs.

4.4 Quality of Rice and Paddy

The Government endeavours to ensure the supply of good quality rice to the consumers on the ration, but when the millers supply poor quality rice with the connivance of corrupt or negligent officials, the Government as well as the consumers are cheated. The role and responsibilities of the respective parties from the time paddy is purchased up to the time the rice is issued to the consumers should be established. By virtue of the fact that the private millers are the hired employees of the Paddy Marketing Board, at least theoretically, the Paddy Marketing Board is responsible for the rice taken to the Food Department Stores. However, in practice, any influence of the Paddy Marketing Board ceases from the time the private millers remove their quotas of paddy from the Paddy Marketing Board Stores.

There are two reasons for the supply and acceptance of poor quality rice:

- i. lack of adequate supervision of the millers; and
- ii. subjectivity of the tests for accepting rice at the Food Department Stores, even though the Food Commissioner has laid down rigid specifications for moisture content, degree of polish, broken seeds, etc.¹ In spite of these rigid specifications the stores have only moisture meters. These moisture meters are of Scottish make while the moisture meters used in the Paddy Marketing Board Stores for accepting paddy are of Japanese make. The use of non-standardised meters affects the measures of moisture content. Rice or paddy rejected by a standard instrument may have a chance of being accepted when tested with a less accurate instrument. Only the use of standardised instruments at the Food Department Stores, the Paddy Marketing Board and the Co-operatives would eliminate the purchase of sub-standard paddy and rice.

It was also observed that the method of stacking of paddy at the Paddy Marketing Board Stores and rice at the Food Department Stores left much to be desired. The policy that the stocks coming in first have to be moved out first was observed in the negative due to improper stacking. This results in the deterioration of the older stocks causing wastage as well as loss in quality.

¹ See Appendix IX

SUMMARY AND CONCLUSIONS

1. It is forecast that the per capita consumption of rice and wheat flour in 1975 will stabilise around 94 kg and the balance of cereal requirement (30-35 kg), to meet the optimum recommended by the Medical Research Institute for nutritional purposes will be met from wheat flour. The average annual per capita consumption of wheat flour for the period 1966-1974 was 32.7 kg. Based on the above per capita consumption of rice, the estimated consumption requirement of rice for 1975 would be 1.278 million metric tons or 90 million bushels of paddy. Considering the estimate of paddy production for 1975 and allowing for seed paddy requirements and wastage, this represents about 55% of the national requirement. The estimated surplus paddy available with the paddy farm families for disposal in 1975 will be about 23 million bushels.
2. Although in law the Paddy Marketing Board is the sole legal buyer of paddy, the factors contributing to the sale of some paddy in the open market are as follows:
 - 2.1 According to the farmers interviewed, paddy is sold in the open market because -
 - (a) the open market price is much higher than the GPS price;
 - (b) the cost of production is higher than the GPS price;
 - (c) of deficiencies in the institutions as well as the unhelpful attitude of some of the officials involved.

Analysis of the cost of production in this study shows that the present GPS price of Rs.33.00 per bushel is adequate to cover the producers' costs and also to give them a profit margin. The operators' overall profit will obviously be small if the land area operated is limited or his production methods inefficient. He will therefore seek the highest possible price for his meagre surplus. The reasons for the leakage of paddy to the open market could be attributed principally to (a) and (c) above.
 - 2.2 Institutional Factors
 - A. Shortcomings at the Co-operatives
 - (a) Co-operatives do not accept paddy on certain days, as a result of which, the small farmer who has to bring his produce when transport is available, and is in need of quick money, is seriously inconvenienced;

(b) Insufficient cash to pay the farmers. This is due to -

- i. their liquidity position being unsatisfactory;
- ii. suspension of credit facilities by the banks until the settlement of earlier commitments;
- iii. remoteness of the branches from their primary societies.

(c) Delays at the Co-operatives -

Farmers have to spend unnecessarily long periods at the Co-operatives to sell their produce due to -

- i. congestion at the Co-operatives;
- ii. inadequate staff to handle large stocks of paddy that come in during the peak harvesting periods;
- iii. lack of gunnies to hold the paddy brought in by the farmers

The factors causing congestion at the Co-operatives are:

- i. lack of storage space for paddy, particularly during the peak harvesting periods;
- ii. inadequate transport facilities to take the paddy to the Paddy Marketing Board Stores;
- iii. congestion at the Paddy Marketing Board Stores leading to delays in the intake of paddy. This is due to congestion at the Food Department Stores, which retards the milling programme of the Paddy Marketing Board;
- iv. return to Co-operative of poor quality paddy rejected by the Paddy Marketing Board Stores.

(d) the purchasing of paddy by weight involves the use of a number of instruments, and it is inevitable that the farmers have to spend some time at the Co-operatives when handing over paddy. However, due to other shortcomings referred to above, the farmers have to spend longer periods than necessary and this is regarded by the farmers as a form of harassment.

B. Difficulties in obtaining adequate or timely credit from institutional sources

This results in the farmers borrowing from private traders at high interest rates and mortgaging their crops to them.

2.3 Other Factors

(a) Some Co-operative personnel are not responsive to farmers' grievances, and their relationship with the farmers is impersonal. By contrast, there are many kinds of social relationships between the farmer and

the private trader. Hence, the farmers are socially obliged to sell their produce to private traders in return for services previously rendered.

- (b) The uncertainty in the quantum of the rice ration may prompt farmers to retain more paddy than they eventually require for consumption. (In 1974, the rice ration was adjusted several times).
 - (c) The private traders (i) have greater flexibility to buy paddy of varying quality than the Co-operatives; (ii) pay a higher price than the GPS price; and (iii) buy paddy at the farm gate eliminating transport problems.
3. The arrival of substantial shipments of rice and flour during the harvest time creates congestion at the Food Department Stores thereby interfering with local collection and processing of paddy, creating storage problems at the Paddy Marketing Board Stores.
 4. Some private quota millers evade restrictions imposed by law and carry out such operations as described in Chapter 3, Section (b).
 5. The number of registered mills functioning in May 1975 had decreased to 56% of the number of registered mills in 1972. Some possible reasons for this decline are:
 - (a) There is insufficient paddy available for continuous milling and the available milling capacity is thereby under-utilised. The milling periods per mill in 1974 varied from about five months to nine months in the four districts. Hence, those millers whose income (which is dependent on the quantity of paddy milled) is insufficient to cover the milling costs, or those millers whose profit margins are inadequate to cover the investment costs, will cease to function.
 - (b) The inability of less affluent millers to renew their bank guarantees.
 - (c) Mechanical deficiencies of milling equipment and the high cost or the lack of parts for repairs and renovations.
 6. The net profits of the small number of millers in the four districts studied varied from Rs.5.50 to Rs.13.00 per mill for each 1,000 lb of paddy milled, in the case of par-boiled rice millers and from Rs.4.00 to Rs.4.75 in the case of raw-rice millers.
 7. The millers incur a loss on the transport charges paid to them by the Paddy Marketing Board and on the reimbursement for gunny bags made by the Food Department. The loss on a gunny varied from .40 cents in Kegalle District to Rs.1.30 in Polonnaruwa.
 8. The millers usually obtain a higher out-turn of rice than the stipulated out-turn, by reducing the polish on the rice. They earn additional income by selling the excess rice in the open market. The additional income earned for every

one percent increase in the actual out-turn from the stipulation (calculated on the open market price of rice in each district) varies from Rs.15.00 in Amparai and Polonnaruwa Districts to Rs.24.35 in the Kegalle District per 1,000 lb of paddy milled.

9. The quality of the rice is adversely affected by -

- (a) break-down in responsibility for the quality of rice taken to the Food Department Stores;
- (b) lack of adequate supervision of the millers;
- (c) subjectivity of the tests for accepting rice at the Food Department Stores even though the Food Commissioner has laid down rigid specifications for moisture content, degree of polish, broken seeds, etc.
- (d) unsystematic stacking of bags of paddy and rice, thereby failing to ensure the movement of old stocks before the newer ones;
- (e) lack of standardisation in the types of moisture meters used for testing paddy and rice before acceptance. This does not allow for comparative checks to be made and also makes it difficult for the Storekeepers to demonstrate clearly any discrepancies in the moisture content when accepting paddy or rice; and
- (f) out-moded machines for processing of paddy. Some of the machines of the private quota millers are very old and their defects affect the quality of rice, particularly if the polishers are bad.

RECOMMENDATIONS

To achieve its objectives, the Paddy Marketing Board has to collect most of the surplus paddy available with the farmers and then ensure that paddy is properly milled so that there will be an equitable distribution of good quality rice to consumers. In the long-term adequate production to fulfil the national demand for paddy will resolve the major problems; meanwhile the following recommendations may assist in remedying some of the defects.

1. Minimising the operations of the private traders

In the short-term, there are three possibilities:

A. Streamline the Co-operative purchasing system in order to collect more paddy. The following are some of the recommendations in this direction:

- (a) the primary Co-operatives should ensure that adequate funds are given to the branch Co-operatives in time. The quantum of money given to the branches should be increased during the peak harvesting periods. Since some primary Co-operatives misuse the marketing loans advanced to them, it is recommended that loans be given for specific purposes with separate accounting systems for each, e.g. loans for purchase of paddy, for purchase of textiles, etc.
- (b) It is necessary to provide Co-operatives with adequate storage facilities to eliminate wastage as well as to minimise health hazards caused by stacking bags of paddy with other commodities such as fertiliser, agro-chemicals, etc. It is also essential that the Co-operatives accept only well dried, good quality paddy so that the acceptance of this paddy at the Paddy Marketing Board stores will not cause any problems.
- (c) Provision should be made for casual labour to be employed during the peak harvesting seasons to minimise delays.

- B. Agricultural Productivity Committees and Cultivation Committees to provide alternative marketing arrangements wherever the Co-operatives are inefficient or defunct.

It is suggested that institutions like Agricultural Productivity Committees and Cultivation Committees which are farmer-based, step into the business of purchasing paddy where the services of the Co-operatives prove inefficient. Administrative difficulties such as lack of funds, storage facilities, etc., will have to be overcome before farmers' organisations enter the business, but if genuine farmer support is forthcoming, these problems can be resolved. The Paddy Marketing Board can ensure that adequate commissions are paid to these institutions in cases where they consider an alternative marketing agency is justified. Already four Agricultural Productivity Committees are purchasing paddy, viz:

- | | | | |
|----------------------|-------|--------------|----------|
| 1. Ulpothagama | APC - | Kandy | District |
| 2. Tanamalwila | APC - | Moneragala | " |
| 3. Thampalakaman | APC - | Trincomalee | " |
| 4. Kahatagasdigiliya | APC - | Anuradhapura | " |

These have replaced the Co-operatives which are either inefficient or defunct, and they have their own storage facilities and transport and are able to obtain marketing loans from the Bank of Ceylon. They have been engaged in this activity only for a short time and it is too early to ascertain their efficiency, but they will provide useful pilot experience.

2. Judicious spacing of Imports

The Food Department should attempt to space out incoming shipments of rice and flour suitably so that purchasing and processing of paddy are less affected by pressure on storage space. This factor is one component of a national food policy which is required to control both quantitative and timing factors of cereal imports in relation to home production of paddy and other food crops.

3. Supply of good quality Rice

- (a) In order to ensure the supply of good quality rice to the consumer, responsibility has to be assigned from the time paddy is purchased from farmers to the time rice is issued to consumers on the ration. This could be most effectively achieved if the Paddy Marketing Board handled the entire purchasing and processing of paddy and the distribution of rice. This idea is not new. However, if it is not possible to implement this due to administrative or other difficulties, it is recommended that there be close co-ordination between the Paddy Marketing Board and the Food Department. This co-ordination involves, among other things:

1. regular checking of the mills by the Paddy Marketing Board; and

- ii. adoption of a system whereby the Paddy Marketing Board and the Food Department jointly accept responsibility for the quality of rice. This could be done through a quality check method such as the following¹ -

(a) millers should be asked to submit to the Paddy Marketing Board four samples of rice milled from a quota of paddy issued for milling. Once the Paddy Marketing Board in association with the Assistant Food Commissioner (or Deputy Food Commissioner) approves the samples, one sealed sample is sent to the Food Department Stores, one is given to the miller (who then proceeds with the milling according to the approved sample) and the other two are retained by the Paddy Marketing Board and the Assistant Food Commissioner (or Deputy Food Commissioner) respectively. The Storekeeper of the Food Department Stores is then instructed to accept the rice strictly according to the approved sample. The Assistant Food Commissioner (or Deputy Food Commissioner), should make regular checks on the stores. This process is repeated for each quota of paddy issued to the millers.

(b) the bags of paddy and rice should be so arranged that the older stocks could be disposed of first making room for incoming fresh stocks.

(c) standardised moisture meters should be used both at the Paddy Marketing Board Stores and the Food Department Stores. (It is also desirable to issue similar moisture meters to the Co-operatives). The other specifications stipulated for the acceptance of paddy and rice should be reviewed, realistically amended, and then be enforced.

Registered millers should be compelled to install polishing machines in their mills and a realistic degree of polish should be stipulated and adhered to after taking into consideration the nutrition aspects and the supply position of rice.

4. Training of Farmers

It is recommended that extension training for farmers should include instructions on the efficient drying of paddy and use and operation of weighing machines and other instruments used in its purchase. It would be possible, if this is done, to prevent farmers being cheated by corrupt officials. The Agricultural Productivity Committees must accept the responsibility for this type of farmer education with the assistance of the Rural Institutions and Productivity Laws Division of the Ministry of Agriculture and the Department of Agriculture (Extension Officers). This would enable farmers to avoid being cheated by purchasing officials through lack of knowledge and also assist in group action by farmers to safeguard their joint interests.

¹ A similar procedure was adopted by the Co-operative Wholesale Establishment in the milling of pulses and was found to be reasonably satisfactory.

APPENDIX I

The Local Production and Import of Rice
1953 - 1974
(quantity in '000 tons)

Year 1	Local production 2		Change from previous year 3	Quantity imported 4		Change from previous year 5
1953	313		-	439		-
1954	444	+	131	407	-	32
1955	510	+	66	381	-	26
1956	393	-	117	471	+	90
1957	447	+	54	556	+	85
1958	523	+	76	580	+	24
1959	521	-	2	519	-	61
1960	615	+	94	532	+	13
1961	617	+	2	497	-	35
1962	687	+	70	515	+	18
1963	702	+	15	551	+	36
1964	722	+	20	547	-	4
1965	518	-	204	642	+	95
1966	654	+	136	485	-	157
1967	785	+	131	375	-	110
1968	923	+	138	344	-	31
1969	941	+	18	260	-	84
1970	1,098	+	157	526	+	266
1971	951	-	147	334	-	192
1972	889	-	62	262	-	72
1973	889	Negligible		338	+	76
1974	1,097	+	208	297	-	41

Source: Column 2 - Department of Census and Statistics

Column 4 - Food Commissioner's Administration
Report (up to 1968).

Food Department (1969-1974)

APPENDIX II

Price Variation of Guaranteed Price Scheme
Paddy and Imported Rice

Year/Time Period	GPS Price of Paddy (per bushel) Rs.	c.i.f. value of imported rice per bushel (paddy equivalent) Rs. cts
1949/1950	8	7.74
1950/1951	9	8.15
1951/52 to 1965/66	12	11.24 (1951/52)
1966/67 to 1971/72	14	9.15 (1966/67)
1973	18	14.35
1974 January to June	30	40.10)
1974 July to date	33	40.10)) (average)

Source: Central Bank of Ceylon Staff Studies - Vol. 5, No.1,
April 1975.

APPENDIX III

Paddy - Gross Extents Sown from 1964 to 1974

Cultivation Year	Gross Extents Sown (acres)
1964/65	1,455,349
1965/66	1,616,883
1966/67	1,638,931
1967/68	1,742,469
1968/69	1,709,152
1969/70	1,875,557
1970/71	1,793,611
1971/72	1,794,572
1972/73	1,792,122
1973/74	2,038,058

Source: Department of Census and Statistics

APPENDIX IV

Average yield of paddy (bushels per acre)
1964 to 1974

Cultivation Year	Yield per acre (bushels)
1964/65	34.3
1965/66	35.6
1966/67	41.3
1967/68	46.5
1968/69	50.3
1969/70	48.75
1970/71	45.91
1971/72	46.31
1972/73	44.15
* 1973/74	44.73

Sources: Implementation Programme - Ministry of Agriculture

* Department of Census and Statistics

APPENDIX V

Payment to millers by the Paddy Marketing Board
in respect of transport, loading and unloading
as at January 1975

(a) Transport of paddy	<u>Per 100 lbs</u>
For the first 5 miles	10.7 cts
From 5 - 15 miles	02 " per mile
Above 15 miles	01.3 " " "
(b) Transport of rice	
For the first 5 miles	09.8 cts
From 5 - 15 miles	02 " per mile
Above 20 miles	01 " " "
(c) Unloading of paddy	03.2 "
(d) Loading of rice	03.2 "

Source: Paddy Marketing Board, Circular No.117 - 1973-07-02

APPENDIX VI

Milling charges paid by the Paddy Marketing Board
to millers as at January 1975

(a) Per 100 lb of par-boiled paddy	Rs.2.35
(b) Per 100 lb of raw-milled paddy	Rs.1.25

Source: Paddy Marketing Board

APPENDIX VII

Price of off-ration rice sold by the Paddy Marketing
Board as at May 1975

	Description	Wholesale Price* 80 measures Rs.	Retail Price ** 80 measures Rs.	Price per measure (retail) Rs.
Samba	Grade 1	266.00	272.00	3.40
	Grade 2	262.00	268.00	3.35
	Grade 3	250.00	256.00	3.20
Par-boiled	Grade 1	258.00	264.00	3.30
	Grade 2	254.00	260.00	3.25
	Grade 3	246.00	252.00	3.15
Raw-milled	Grade 1	242.00	248.00	3.10
	Grade 2	234.00	240.00	3.00
	Grade 3	212.00	228.00	2.85

* for resale stores only. ** for hotels and restaurants.

Source: Paddy Marketing Board

APPENDIX VIII

Payment to Farmers for the Paddy Purchased
by the Co-operatives according to Grades
as at January 1975

Grade	Description	Price per lb cents
Unmixed		
1	Ordinary Paddy with refraction not over 6%	71½
2	Ordinary paddy with refraction over 6% but not over 12%	69
3	<i>Midi</i> paddy with refraction not over 6%	66
4	<i>Midi</i> paddy with refraction over 6% but not over 12%	63
Mixed		
1	Ordinary paddy with refraction not over 6%	66
2	Ordinary paddy with refraction over 6% but not over 12%	63
3	<i>Midi</i> paddy with refraction not over 6%	62
4	<i>Midi</i> paddy with refraction over 6% but not over 12%	59

Source: Paddy Marketing Board Circular No.156

Note:

Stones, sand grit and other extraneous matters contained
in every grade of paddy should not exceed 1% by weight.

APPENDIX IX

The Specifications adopted by the Food
Department when rice is accepted from
the millers
as at January, 1975

(a) Moisture content

The moisture content of rice should not exceed 15% in dry weather and 15½% in wet weather, both for raw-rice and par-boiled rice.

(b) Degree of polish

There should be a minimum of 40% polish on each grain for raw-rice and 75% polish on each grain for par-boiled rice.

(c) Brokens

A maximum of 30% brokens in raw-rice and 12% brokens in par-boiled rice is allowed.

(d) Paddy grains

Number of paddy grains in a cut measure of rice should not exceed 100. Rice which does not meet the stipulated standard is accepted with the following penalties:

101 - 150 paddy grains . . . penalty of 25 cts per bag

151 - 200 paddy grains . . . penalty of 50 cts per bag

Any rice with over 200 paddy grains in a cut measure of rice is rejected.

Source: Food Department Stores, Polonnaruwa

APPENDIX X

Surplus Paddy Producing Districts

Polonnaruwa	Trincomalee
Amparai	Hambantota
Batticaloa	Ratnapura (including Walawe)

Deficit Paddy Producing Districts

Colombo	Kandy
Kalutara	Kurunegala
Galle	Jaffna
Matara	Vavuniya
Kegalle	Badulla

Nuwara Eliya

Others

Moneragala	Mannar
Anuradhapura	Puttalam
Matale	

Source: Paddy Marketing Board, Statistics Division

APPENDIX XI

Regulations made by the President Under Section 5
of the Public Security Ordinance
Gazette Extraordinary 18/27 17.9.75

1. These regulations may be cited as the Emergency (Paddy Marketing) Regulations No.9 of 1975.
2. These regulations shall have effect notwithstanding the provisions of the Paddy Marketing Board Act No 14 of 1971, and the regulations made under Section 62 (2) thereof and published in Gazette Extraordinary No.14,992/8 of January 14, 1972.
3. The Competent Authority or any person authorized in writing by the Competent Authority is hereby empowered to issue permits for the transport or possession of rice or paddy for the purpose of these regulations.
4. (1) Subject to the provisions of paragraph (2) the transport or removal of any quantity of paddy or rice within the Republic without a permit issued by the Competent Authority, is hereby prohibited.
(2) The provisions of paragraph (1) shall not apply -
 - (a) to the transport or removal of any paddy or rice by any person on behalf of the Government or the Paddy Marketing Board;
 - (b) to the transport or removal of any seed paddy on the authority of a permit issued by or on behalf of the Government Agent or the Director of Agriculture;
 - (c) to the transport or removal by any person carrying a ration book, of the quantity of paddy or rice obtained on the surrender of any coupons from such ration book, from the place at which such paddy or rice was obtained to the place of residence of the holder of that book;
 - (d) to the transport or removal of any paddy by the producer thereof from the threshing floor to the place of storage, and from such place of storage to the authorized purchaser; and
 - (e) to the transport or removal by any person of a quantity of rice not exceeding two measures or four pounds.

In this paragraph "place of storage" means any place within the area of authority of a Co-operative Society within which the Paddy lands are situated and to which place paddy may be transported or removed by the producer for the purposes of cleaning and drying such paddy.
- (3) Where any quantity of paddy or rice is transported or removed without a permit such quantity of paddy or rice shall be seized, impounded or sequestered and the paddy or rice so seized, impounded or sequestered shall, with immediate effect, vest in the Paddy Marketing Board free from all encumbrances and the Competent Authority or an officer duly authorized by him may dispose of such paddy or rice in such manner as he may deem fit and the proceeds of such disposal shall be credited to the revenue of the Paddy Marketing Board.
5. No producer of paddy shall sell or offer for sale any paddy or rice except to the purchasing centre of the authorized purchaser which is situated closest to his paddy land or place of storage.
6. Subject to the provisions of regulations 5 no person save and except the Paddy Marketing Board, or a person duly authorized by the Board, or an authorized distributor shall sell or offer for sale any quantity of paddy or rice.

7. No person other than a producer of paddy shall have in his possession a quantity of rice or paddy in excess of one bushel or sixty-four pounds in the case of rice or two bushels or ninety-two pounds in the case of paddy.
8. (a) The quantity of paddy or paddy and rice that may be in the possession of any producer of paddy shall not exceed the quantity of paddy that has been produced by him or the quantity of rice processed therefrom.
- (b) Notwithstanding the provisions of paragraph (a) of this regulation the Minister of Agriculture and Lands may from time to time by Order published in the *Gazette* specify the quantity of rice or paddy which a producer may possess.
- (c) The quantity of paddy or paddy and rice that may be in the possession of a landlord or any paddy land shall not exceed the quantity of paddy which such landlord is entitled to as rent payable by his tenant cultivator or the quantity of rice processed therefrom.
9. No person carrying on the business of hulling, milling or processing of paddy or rice by virtue of a licence issued under section 10 of the Paddy Marketing Board Act, No.14 of 1971, and to whom paddy has been issued or sold by the Paddy Marketing Board shall have in his possession in addition to the quantity of paddy issued or sold to him or rice processed therefrom, a quantity of rice or paddy exceeding one and a half bushels or ninety-six pounds in the case of rice or three bushels or one hundred and thirty-eight pounds in the case of paddy.
10. No person carrying on the business of hulling, milling or processing of paddy or rice by virtue of a licence issued under section 10 of the Paddy Marketing Board Act, No.14 of 1971, for hulling, milling or processing at his huller or mill shall have in his possession a quantity of rice exceeding three bushels or one hundred and ninety-two pounds or paddy exceeding six bushels or two hundred and seventy-six pounds.
11. No person duly authorized to distribute rice under the Food Control Act shall have in his possession a quantity of rice in excess of the amount authorized by the Food Commissioner.
12. The quantity of paddy that may be in the possession of an authorized purchaser shall not exceed a quantity of paddy duly purchased by him in accordance with the provisions of the Paddy Marketing Board Act, No.14 of 1971, and the instructions that may have been issued or may be issued from time to time by the Paddy Marketing Board.
13. (1) It shall be lawful for the Competent Authority or any person duly authorized in writing by him, to enter into any land, premises, house or building of whatever nature or description at any reasonable hour and inspect such land, premises, house or building and seal, seize, impound or sequester any quantity of paddy or paddy and rice in excess of the quantities specified above that may be found therein.
- (2) Where any quantity of paddy or paddy and rice is sealed, seized, impounded or sequestered under the provisions of paragraph (1) of this regulation, the right title or interest in the paddy or paddy and rice so sealed, seized, impounded or sequestered shall, with immediate effect, vest in the Paddy Marketing Board free from all encumbrances and the Competent Authority or any officer duly authorized by him may dispose of such paddy or paddy and rice in such manner as he may deem fit and the proceeds of such disposal shall be credited to the revenue of the Paddy Marketing Board.

14. Any person who contravenes any of the provisions of these regulations shall be guilty of an offence and shall on conviction by a Magistrate be liable to rigorous imprisonment for a period not exceeding one year or to a fine not exceeding five thousand rupees or to both such fine and imprisonment.
15. Any vehicle or vessel used in the commission of any offence under these regulations shall be seized and produced before a Magistrate by any police officer or any other officer authorized in writing by the Competent Authority, and such Magistrate may release such vehicle or vessel upon the deposit of such sum of money as security as the Magistrate may consider reasonable, being a sum which is not less than half the market value of such vehicle or vessel.
16. (1) Upon the conviction of any person of any offence under these regulations, the Magistrate, shall, in addition to any punishment that he may impose under regulation 14, order the confiscation of the vehicle or vessel used in the commission of the offence and may make order that if the market value of the vehicle or vessel is paid on or before a date that shall be specified, the vehicle or vessel shall be released notwithstanding the order of confiscation and for this purpose authorize the appropriation of any security deposited under regulation 15 in payment of such sum:

Provided that in any case where the vehicle or vessel has been released under regulation 15, and is not produced in Court on the date the sentence is pronounced, the Court shall order the forfeiture of the security deposited under regulation 15, and where such security is not equivalent to the market value, further order the payment on or before a date to be specified, a sum equal to the difference between the market value and such security, and if such sum is not paid on or before the date so specified, such sum shall be deemed to be a fine remaining unpaid and the provisions of section 245 of the Administration of Justice Law, No. 44 of 1973, shall ~~mutatis mutandis~~, apply in relation to such unpaid fine.

(2) In this regulation and in regulation 15, "market value", in relation to any vehicle or vessel, means the market value of such vehicle or vessel at the time it was produced before the Magistrate.

17. Where no legal proceedings have been instituted against any person in respect of any offence under these regulations within three months of the detection of such offence or where any person charged in respect of such offence has been acquitted or discharged, any vehicle or vessel seized and produced before the Magistrate under regulation 15 shall be returned to such person or where security has been deposited in lieu thereof such security shall be released.
18. In these regulations:-

"authorized distributor" means any person authorized by the Food Commissioner under the Food Control Regulations made under section 6 of the Food Control Act (Chapter 171);

"authorized purchaser" means a person authorized by the Paddy Marketing Board to purchase paddy under section 4 of the Paddy Marketing Board Act, No. 14 of 1971;

"Competent Authority" means the Chairman of the Paddy Marketing Board appointed under section 14 (1) (a) of the Paddy Marketing Board Act, No. 14 of 1971; or a person appointed to act for such Chairman under section 14 (II) of the said Act, or the Government Agent of an Administrative District within the meaning of the Administrative Districts Act (Cap. 392);

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"landlord" with reference to an extent of paddy land means the person other than an owner-cultivator, who will for the time being be entitled to the rent in respect of such extent if it were let on rent to any person and includes any tenant of such extent who lets it to any subtenant;

"permit" includes a receipt issued by the Paddy Marketing Board for purchase of paddy or rice;

"producer" means any cultivator, or owner-cultivator within the meaning of the Agricultural Lands Law, No.42 of 1973.

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