AAU 3763

Dimikrofiskan pada 4 - 8 - 94
No. Mikrofis 11603
Jumlah Mikrofis 1

Amear Puzi b. A. Wahab.

Unit Mikrofilem
Universiti Malaya
Kuala Lumpur.

PER. UTAMA-UM
A004477347

# THE MARKETING OF RUBBER IN THE BILUT VALLEY F.L.D.A. SCHEME

by

Abdul Samad b. Mohd. Daham

356017

A Graduation Exercise presented to the University of Malaya in part fulfilment towards the Bachelor of Economics Degree with Honours in Rural Development

UNIVERSITI MALAYA PERPUSTAKAAN KUALA LUMPUR

University of Malaya

TABLE OF CONTENTS

Page



University of Malaya

## LIST OF DIAGRAMS

LIST OF TABLES

## LIST OF APPENDICES

# CHAPTER I

## INTRODUCTION

### Outline of Smallholders' Rubber Marketing

It would seem proper to discuss briefly the marketing of smallholders' rubber in West Malaysia. This is intended to give a view of the existing channels and to give a picture of the role of the Federal Land Development Authority (F.L.D.A.) in the whole marketing system for smallholders' rubber.

The term "smallholding" is used to refer to a farm, contiguous or otherwise, totalling not more than 100 acres. In practice, most of the rubber smallholdings are below 100 acres in size, and relatively few are larger than 25 acres. The average size of rubber smallholdings under F.L.D.A. Schemes are about 7 to 10 acres.[1] In Malaysia, under the existing pattern of development, it is possible to separate the rubber smallholders into two broad production categories. Firstly, production from well organised, high yielding agricultural development schemes. Under this category, the settlers under F.L.D.A. Schemes form the bulk of the producers. Secondly, production from small, scattered, low yielding holdings ranging in size from 1 to 15 acres, producing at rates ranging from 250 lbs per acre to 450 lbs per acre per annum.

Holdings owned by smallholders cover about 2.53 million acres or about 58% of the estimated 4.34 million acres of rubber in West Malaysia. In 1966, they contributed about 43% of the total rubber production.[2] The main systems used for processing and primary marketing of smallholders' rubber may be classified as follows:-

(a) Latex processed into sheet rubber on the holding or at home and sold to dealers as unsmoked sheets or smoked sheets.

(b) Co-operative schemes that consist of

---

[1] Lembaga Kemajuan Tanah Persekutuan - A Policy Statement page 10.

[2] Rubber Statistics Handbook, 1966. Department of Statistics Malaysia, Table 4.1, page 47.

(i) the organised collection of liquid latex, bulk processing at a central factory and sale of smoked sheet to dealers;

(ii) purchasing unsmoked sheet then either selling it onward in the same state or smoking it prior to sale; purchasing smoked sheet and/or scrap for onward sale to dealers.

(c) Latex may be taken to a Group Processing Centre (private or grouped owned) and processed into sheet rubber by the individual smallholders or hired tappers and left for smoking or taken away for sale as unsmoked sheet.

(d) Latex taken to a collecting centre attached to a central factory where the dry rubber content is assessed, and the latex is weighed, and a price per kati is offered by the collecting centre agent. Examples of such institutions are those run by the Rubber Research Institute of Malaya which has its factories at Meru (Selangor) and Rantau (Negri Sembilan).

(e) Latex sold to commercial organizations for processing into block rubber or for concentrating prior to export.

Off all these systems, the most widely practised is the first mentioned. (Refer Table 1.1). In 1966, it was estimated that over 90% of the smallholders' rubber was processed by the smallholders themselves on their holdings or at their homes, and selling it as smoked or unsmoked sheet. Estimates for West Malaysia indicate that about 75% of the sheet rubber is sold to "first level dealers" in the form of unsmoked sheet. First-level dealers are dealers who purchase rubber directly from smallholders and then sell it, after "curing", to middle dealers. These "middle dealers" who are situated in big towns like Taiping, Seremban, Kluang, Kuantan, Telok Anson and Ipoh would pass the rubber to exporters. Exporters are situated mainly in or near the ports. After cutting the imperfections of the sheet, the exporters regrate and pack it into 250 lb bales for despatch to overseas destinations. The "clippings" also baled, some being exported and the balance utilised by local manufacturers. The remaining quarter of the smallholders' latex is made into smoked sheet (RSS) before it is sold. Between 80 to 85% of the smallholders' rubber is in the form of latex and almost all of which is eventually manufactured into ribbed smoked sheet (RSS). The remainder, cuplump and scrap, is made into various types of crepe. About 70 to 80 per cent of this rubber is turned by remillers into 2 X Thin Brown Crepe. The rest is manufactured into other grades of Thin Brown Crepe or Flat Bank Crepe. These crepes are also packed into bales, who sizes

vary according to grade.

The lated processed at Group Processing Centres - providing processing and sometimes smoking facilities for groups of 20 to 40 smallholders - amount to only 5%. Latex hendled at estates and central factories - mostly private - owned plants catering for hundreds of smallholdings - was only 1%. (Table I.1)

In the case of the first category of producers, of which smallholders under F.L.D.A. schemes forming the main bulk, rubber is collected and preserved or coagulated at the schemes collecting centres, and sold to commercial organisations to be processed. However, the Authority is building four processing factories, one of which is centred in the Bilut Valley Land Development Scheme. With the operation of these factories (central factories) the smallholders' rubber will be processed and marketed directly to the exporters. The Bilut Valley central factory will start operating in February, 1970 and would be serving two other schemes: Klau Valley and Kg. Sertik Land Development Schemes.

In addition to these main channels of marketing there exist unlicensed buyers at the first trade level only, who travel to the kampongs and are particularly active in areas not served by registered dealers. These buyers, in turn, sell the rubber to the local buyers or the licensed dealers.

Thus the smallholders under the second category market their rubber through one of the above channels and that producers under the first category currently market their rubber through commercial firms (estates) or other organisations which has processing facilities.

Objective of Study

The study examines the marketing of the smallholders' rubber under the Federal Land Development Authority[3] (F.L.D.A.) scheme of Bilut Valley. This study will seek to identify the factors which affect the way marketing is conducted. It has been reported that a considerable amount of rubber was delivered not to the scheme's collecting centre but sold outside the scheme. This study attempts to find the reason or reasons for this. The settlers under F.L.D.A. scheme's are required to deliver their rubber to the collecting centres.

Bilut Vallye Land Development Scheme[4] was the first scheme which was financed and directly managed by the Authority.[5] It ,

---

[3]Henceforth will be referred to as the Authority.

[4]Henceforth will be referred to as the Scheme.

[5]Federal Land Development Authority, Sixth Annual Report 1962, page 42.

TABLE I.1

SMALLHOLDERS' LATEX PRODUCTION IN 1966
(BY MODE OF PROCESSING AND STATE)

| State | Total latex,[a] (tons) | % of Latex processed at | | | |
|---|---|---|---|---|---|
| | | Home | GPC | Central[b] Factory | Estate[c] |
| Kedah/Perlis/ Penang | 61,810 | 99.3 | 0.5 | 0.2 | - |
| Perak | 58,730 | 88.4 | 10.9 | 0.6 | 0.1 |
| Kelantan | 19,950 | 97.9 | 1.3 | 0.7 | 0.1 |
| Trengganu | 11,010 | 97.5 | 1.8 | 0.7 | - |
| Pahang | 25,110 | 90.2 | 9.1 | 0.7 | - |
| Selangor | 24,430 | 77.6 | 18.6 | 2.4 | 1.1 |
| Negri Sembilan | 25,290 | 92.6 | 5.6 | 1.2 | 0.6 |
| Malacca | 22,770 | 99.4 | 0.2 | 0.4 | - |
| Johore | 79,340 | 97.9 | 1.1 | 0.4 | 0.6 |
| Total | 328,440 | 94.0 | 5.0 | 0.7 | 0.3 |

Source: Lim Sow Ching - Analysis of Smallholders' Rubber Marketing in West Malaysia.RRIM. Table 2, page 3. Natural Rubber Conference Kuala Lumpur 1968 Preprint.

[a]Estimated as 85 per cent of total smallholding production (Department of Statistics). The percentages of latex handled by group processing centres (GPC), central factories and estates were based on data in Report Rubber Research Institute of Malaya, 1966.

[b]Over two-thirds of the latex handled by privately-owned factories, and the rest co-operatives in Selangor, The RRIM - managed factory at Meru accounted for 64% of the total latex handled by central factories.

[c]Purchased by estates.

was established in 1958 and is under the main crop of rubber, which started production in August 1966. The scheme covers an area of 6,660 acres and supports a population of more than 4,000. Being a Federal Scheme, the settlers were drawn from all parts of Malaya and from amongst all races.[6] Of the 574 families, 374 are Malays, 153 Chinese and 46 Indians. Thus this study will view the marketing of these 574 smallholders' rubber and examine the problems encountered.

Collection of Data and Limitation of Study

Data on the amount of rubber delivered to the scheme's collecting centre were obtained from records of production and sales at the scheme's office. Other data such as the acreage and the number of settlers tapping were also obtained from the scheme's records.

However, with regards to the amount of rubber sold "illegally" outside the scheme by the settlers, two alternative methods could be used. One, by conducting a survey of all the settlers in the scheme and compiling the amount of rubber they sold outside the scheme during the two years (1967 - 68). Another method is by using the estimated yield per acre and multiplying it by the total acreage under production to obtain the estimated aggregate production. The total amount delivered to the collecting centre will then be deducted from this to get the estimated amount of rubber sold "illegally" outside the scheme.

Under the first method questionnaires could be sent out to all the settlers. However, to obtain such information means that one has to rely on the memory of the respondents. It is known that the settlers do not keep account of such sales and there might be the tendency for them to under or over state it. There is also the possibility of the settlers not giving co-operation. The same would be faced by conducting personal interviews and such interviews are hindered by the lack of manpower and resources and time. There would be also the problem of language barrier.

Thus, faced with the problems above, a logical method is by using estimates and this is easily calculated.

Personal interviews of the settlers were also carried out, with the following objectives:-

1. to find the reason/s for the settlers not sending all their rubber to scheme's collecting centre.

---

[6] Ibid

2. to find the settlers' views on the rate of loan repayment.

3. to find out through what media the settlers obtain information on rubber prices.

Twenty settlers were selected at random. As the settlers are considered to be living in a close knit society as under such settlement scheme, one could expect that the settlers' attitudes and actions are very much affected by his environment and thus they tend to have the same view as seen from these interviews. It may be that the small number of sample would not be representative and thus this contributes to a limitation of the study.

The short period under study is another limitation and this coupled with the fact that there would be a change in the present marketing structure. The Authority would take a significant role in the marketing of the smallholders' rubber beginning in early 1970 when the Authority would intergrate all the marketing functions under itself. There may be a greater problem faced then.

This study is mainly concerned with the marketing institutions at the first buyer level and the problems faced.

## CHAPTER II

## ACREAGE AND PRODUCTION OF RUBBER

### Total Acreage of Rubber

The scheme has a total acreage of 4,547 acres of rubber. Of these, 2,878 acres have been tapped in 1968. This meant that in that year there was about 20% of the total acreage planted consisting of immature trees.

The development of the scheme was carried out in three stages: Phase I, II and III. The planting of rubber thus followed the same pattern. The stage under Phase I was planted with rubber in 1959/60, under Phase II 1960/61, and under Phase III 1961/62. To facilitate supervision, the acreage under Phase I consisting of 2,955 acres, has been divided into four blocks of A, B, C, and D. Of the total acreage under Phase I, about 25% was still immature, under Phase II, out of the 712 acres planted 42% consisted of immature trees, and under Phase III about 84% of the 879 acres was still immature. Thus, in 1968, 79.5% of the total acreage planted in the scheme has been tapped and that 1,669 acres were still awaiting maturity. (Table II.1).

Table II.2 shows that the acreage under production varies from month to month. From 2,907 acres in January, 1967, the acreage tapped decreased to 2,020 acres, in April of the same year. In June 1967, the acreage tapped increased to 2,585 acres and from September to December it levelled to 2,528 acres. In 1968, too, the acreage tapped varied from month to month. This was partly because of the nature of development in the planting of rubber; as the trees matured more acreages came into production. There was also the possibility that some settlers did not turn up for tapping in a particular month due to illness. There were also cases where settlers left the scheme for reasons of their own. The varying acreage being tapped contributed towards the varying amount of rubber produced from month to month as evidenced from Table II.2. Table II.2 shows that there was an increase of 6% in the acreage tapped in 1968 over that of 1967.

### Rubber Holdings

From Table II.1, it is seen that for the whole scheme the average acreage of rubber per settler is about 7.7 acres. However, the average holding per settler differs from phase to phase. In

TABLE II.1

TOTAL ACREAGE UNDER PRODUCTION 1968

| Phase | Block | Total Acreage (ac) | No. of Acres Tapped | No of. Settlers | Average Acreage per settler | No. of Tapping | | | | No. of Tappers not yet Tapping |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Malay | Chinese | Indian | Total | |
| I | A | 769 | 539 | 98 | 7.6 | 50 | 23 | 4 | 77 | 21 |
| I | B | 929 | 742 | 124 | 7.5 | 79 | 20 | 7 | 106 | 18 |
| I | C | 714 | 486 | 95 | 7.6 | 55 | 16 | - | 71 | 24 |
| I | D | 543 | 298 | 74 | 7.5 | 30 | 10 | 3 | 43 | 21 |
| II | E | 712 | 672 | 90 | 7.9 | 33 | 5 | 5 | 90 | - |
| III | F | 879 | 141 | 93 | 8.4 | 14 | - | - | 24 | 69 |
| Total/Av. | | 4,547 | 2,878 | 574 | 7.7 | 261 | 126 | 19 | 411 | 163 |

Source: Bilut Valley Annual Report

Phase I, the average size of one holding is 7.5 acres, while in Phase II and III 7.9 acres and 8.4 acres respectively.

There is a total of 574 rubber holdings in the scheme: 391 holdings in Phase I, 90 holdings in Phase II and 93 in Phase III.

## Total Production[1] and Total Proceeds

There are two forms of rubber being produced in this scheme: first grade rubber (latex) and lower grade rubber (scrap and cuplump), of which the former is the main component.

In 1967, a total of 955,661 lbs of rubber was produced by the scheme fetching a value of $4,181,951; the first grade rubber contributed $431,871 of the total proceeds. In 1968, the scheme produced a total of 1,343,853 lbs of rubber - an increase of about 488,192 lbs over 1967, or an increase of $67,256 in gross proceeds.

In April 1967 and 1968 total production of both latex and the lower grades was 23,406 lbs and 55,992 lbs respectively. For 1967, this was the lowest but for 1968 the lowest was in March 55,113 lbs. Table II.2 shows that the period ranging from February to April, appeared to be the period of least production relatively. This was because the period coincided with the "wintering" season. Production in the two years, 1967 and 1968 was highest in December and September respectively. Of the total production of rubber of 115,524 lbs in December 1967 the lower grades accounted for about 16%. In September, 1968, the lower grades contributed about 8% to the total production of 146,712 lbs. This showed an increase of 41.9% over 1967. This increase was brought about mainly by the increase in the acreage under production, and the decreasing volume of rubber that was not delivered to the coagulating centre[2] in the scheme.[3] In 1967, there was an average increase of 2,537 acres of trees tapped, but in the following year, an increase in the average acreage of 156 acres was witnessed. The second main reason for this increase in total production was due

---

[1]The amount of rubber (latex and scrap) delivered to the scheme's collecting centre. This did not represent the true amount produced. There was some leakage of rubber out of the scheme.

[2]Since August 1966, latex was coagulated at the coagulating centre as from November 1968, latex has been preserved before sold to Harrisons and Crosfield, Petaling. The Centre is called the collecting centre.

[3]Discussion on this later in the chapter.

TABLE II.2

TOTAL ACREAGE AND TOTAL PRODUCTION

| Year | 1967 | | | | 1968 | | | |
|---|---|---|---|---|---|---|---|---|
| Month | Acreage Under Production | Actual Production | | | Acreage Under Production | Actual Production | | |
| | | Latex (lbs) | Scrap (lbs) | Total (lbs) | | Latex (lbs) | Scrap (lbs) | Total (lbs) |
| January | 2,907 | 63,616 | 23,148 | 86,764 | 2,528 | 92,411 | 24,609 | 117,620 |
| February | 2,869 | 26,642 | 11,229 | 37,871 | 2,528 | 94,174 | 22,911 | 117,085 |
| March | 2,669 | 56,054 | 13,380 | 69,434 | 2,353 | 41,144 | 13,969 | 55,113 |
| April | 2,020 | 16,238 | 7,168 | 23,406 | 2,283 | 43,404 | 12,588 | 55,992 |
| May | 2,760 | 48,998 | 9,336 | 58,334 | 2,436 | 85,288 | 17,441 | 102,382 |
| June | 2,585 | 78,356 | 7,315 | 85,671 | 2,878 | 106,437 | 12,475 | 118,912 |
| July | 2,577 | 83,562 | 7,204 | 90,766 | 2,878 | 127,137 | 11,854 | 138,991 |
| August | 2,549 | 90,147 | 7,392 | 97,539 | 2,878 | 125,887 | 10,243 | 131,130 |
| September | 2,528 | 88,766 | 10,458 | 99,224 | 2,878 | 134,641 | 12,071 | 146,712 |
| October | 2,528 | 87,184 | 9,684 | 96,868 | 2,878 | 115,086 | 8,784 | 123,870 |
| November | 2,528 | 73,935 | 20,325 | 94,260 | 2,878 | 120,227 | 9,816 | 130,043 |
| December | 2,528 | 90,441 | 25,083 | 115,524 | 2,921 | 95,724 | 10,359 | 136,083 |
| Total | 30,448 | 803,939 | 151,622 | 955,661 | 32,317 | 1,176,733 | 167,120 | 1,343,853 |
| Average monthly | 2,537 | 66,994 | 12,635 | 79,639 | 2,693 | 98,061 | 13,927 | 112,988 |

Source: Bilut Valley Monthly Records of Sales and Acreage of Rubber.

to the fact that the amount that was estimated to be sold outside the scheme, has declined from about 54% in 1967 to about 43% in 1968.[4] In other words, the average increase of 41.9% of total production in 1968 over that of 1967 was brought about by the average increase of 6% of acreage tapped, and by the average increase of 12% of rubber delivered to the coagulating centre. The age of the trees too played a role in this increase. The yield of rubber rises sharply a few years after commencement of production, then keeps a steady level from the eighth to the fifteenth year, after which it declines very gradually until it reaches the end of its economic life at the age of twenty-five to thirty-one.[5] For Bilut Valley, the yield for 1967 was 800 lbs per acre per year while that of 1968, 900 lbs.

The contribution of scrap to the average total production rose by 1,292 lbs in 1968 from 12,635 lbs in 1967, but its contribution to total production declined from 15.9% in 1967 to 12.4% in 1968. This fall was brought about by the increase in the contribution of latex total production. In 1968, there was an increase of 37,994 lbs of latex or 46.2% over that of 1967, while lower grades contributed 167,120 lbs to the total production of 1,343,853 lbs; whereas in 1967, out of the total production of 955,661 lbs, the latex's contribution was 151,622 lbs.

Table II.3 shows that the average gross proceeds for 1967 was $40,163 per month, while in 1968, it increased by $5,604. For latex, the average gross proceeds was $35,988 for 1967 and $41,184 for 1968 - an increase of $5,196. On the other hand, the average gross proceeds for lower grade rubber was $4,173 for 1967, while in 1968 it was $4,584 - a modest increase of $411. Consequently, the annual gross proceeds of 1968 was witnessed to be higher than that of 1967, by $67,256.

The monthly proceeds of rubber for the scheme, too, varied from month to month. This was primarily due to the varying amount of rubber sold through the scheme, which in turn depended upon the acreage tapped and the amount of rubber delivered to the scheme's coagulating centre. To a lesser extent, the fluctuation in the prices of rubber from month to month contributed towards the varying amount of total proceeds. For instance, with a total production of 85,671 lbs in June, 1967, the gross proceeds was $37,626, while in August for 97,531 lbs of rubber it was $36,915. The price of latex and scrap per lb for June were 44.73 cents and 18.68 cents respectively, while in August 38.38 cents and 17.41 cents respectively. This also reflected that if it were not for the increase in the volume of rubber sold, the decrease in the price of about 6.35 cents per lb of latex and 1.29 cents per lb of

---

[4] See Diagram II.1

[5] See Appendix I

TABLE II.3

MONTHLY PROCEEDS OF LATEX AND SCRAP

| Year | 1967 | | | 1968 | | |
|---|---|---|---|---|---|---|
| Month | Latex $ | Scrap $ | Total $ | Latex $ | Scrap $ | Total $ |
| January | 29,854 | 9,120 | 38,974 | 33,521 | 6,230 | 39,751 |
| February | 11,960 | 5,007 | 16,967 | 31,784 | 5,865 | 37,649 |
| March | 25,026 | 4,958 | 29,984 | 15,465 | 4,166 | 19,631 |
| April | 7,329 | 2,657 | 9,986 | 16,472 | 3,756 | 20,228 |
| May | 21,582 | 3,244 | 24,826 | 34,399 | 5,509 | 39,908 |
| June | 35,056 | 2,570 | 37,626 | 46,126 | 4,402 | 50,528 |
| July | 36,008 | 2,534 | 38,542 | 53,842 | 4,428 | 58,270 |
| August | 34,605 | 2,310 | 36,915 | 52,266 | 3,899 | 56,165 |
| September | 34,553 | 2,985 | 37,538 | 57,811 | 4,608 | 62,419 |
| October | 33,390 | 2,617 | 37,007 | 51,620 | 3,532 | 55,152 |
| November | 27,754 | 5,539 | 33,293 | 56,557 | 4,226 | 60,783 |
| December | 34,754 | 6,539 | 40,993 | 44,330 | 4,383 | 48,813 |
| Total | 431,871 | 50,080 | 481,951 | 494,203 | 55,004 | 549,207 |
| Av. Monthly | 35,988 | 4,173 | 40,163 | 41,184 | 4,584 | 45,767 |

Source: Bilut Valley Monthly Records of Sales of Rubber.

lower grades, the gross proceeds would not have narrowed the gap between the gross proceeds of the two months.

Estimated Production and Actual Production

By actual production is meant the amount of rubber that the settlers deliver to the coagulating centre. Estimated production, on the other hand, is the amount of rubber expected to be produced - that is, the capacity of the rubber trees. This expected production is based on the average production of the whole F.L.D.A. schemes that were under production in 1966, and the figure is projected until the twenty-fifth year of tapping. Any discrepancy between the estimated amount and the amount collected (delivered) to the centre is assumed to be illegally sold outside the scheme. Due to the lack of data on the actual amount that has been "illegally" sold, it is therefore imperative to rely on the estimated production to get an idea of the amount of rubber that was leaked out of the scheme. Although this estimated figure has taken into consideration the number of tapping days as affected by rain, this figure may be over-estimated because of the fact that some settlers did not turn out to tap even if there was no rain.

Table II.4 shows that of 54% or about 1,075,000 lbs of rubber were sold outside the scheme. In 1968, there was an increase of about 100,799 lbs but this represented about 43% of the estimated amount of rubber to be produced. Although there was an increase of rubber being sold outside the scheme from 1,075,399 lbs in 1967 to 1,176,168 lbs in 1968, the expected (estimated) total production was 2,393,106 lbs - an increase of 362,106 lbs over that of 1967. This partly explained the decline in the percentage. However, it could be argued that if the yield increased, more would have been sold outside the scheme. Thus the warning given to the settlers by the Authority that drastic action would be taken against defaulters has the effect on the fall of rubber being sold illegally. Consequently, there was the increase of 12% of rubber being delivered to the coagulating centre in 1968 compared to 1967.

Diagram II.2 indicates that in 1967 the estimated amount of rubber sold outside the scheme has declined from about 60% in January to 32% in December. For 1967, December showed the least amount of discrepancy. (Table II.4). However, the highest discrepancy was in April about 82%. As mentioned earlier, this month coincides with the "wintering" season. It might have over-estimated the estimation. This is evident from Table II.4 that in May, only about 60% of rubber was leaked out. The same was also seen in 1968 during the same month when there was a discrepancy of about 67%, but in the following months there were marked decrease in this amount. In 1968, except for March and April the discrepancies between the estimated and the actual amounts were not as high as in the previous year. The least discrepancy in 1968 was in June, 29.7%; while the highest was in December, 45.7%.

TABLE II.4

ESTIMATED[a] AND ACTUAL PRODUCTION[b]
OF RUBBER 1967 - 1968

| Year | 1967 | | | | 1968 | | | |
|---|---|---|---|---|---|---|---|---|
| Month | Estimated Production | Actual Production | Difference between Est. & Actual | % Difference between Est. & Actual | Estimated Production | Actual Production | Difference between Est. & Actual | % Difference between Est. & Actual |
| Jan. | 193,800 | 86,764 | 107,036 | 61.19 | 189,600 | 117,020 | 72,580 | 38.21 |
| Feb. | 191,200 | 37,871 | 153,329 | 80.14 | 189,600 | 117,085 | 72,515 | 38.22 |
| Mar. | 177,900 | 69,434 | 108,466 | 60.98 | 176,500 | 55,113 | 121,387 | 67.79 |
| Apr. | 134,700 | 23,406 | 111,294 | 82.43 | 171,200 | 55,992 | 115,208 | 67.28 |
| May | 144,400 | 58,334 | 86,066 | 59.61 | 182,700 | 102,882 | 79,817 | 43.68 |
| June | 172,400 | 85,671 | 86,729 | 50.31 | 214,701 | 118,912 | 63,788 | 29.71 |
| July | 171,800 | 90,766 | 81,034 | 47.18 | 214,701 | 138,991 | 75,710 | 35.27 |
| Aug. | 169,900 | 97,539 | 72,461 | 42.65 | 214,701 | 131,130 | 73,571 | 34.27 |
| Sept. | 168,700 | 99,224 | 69,539 | 41.22 | 214,701 | 146,712 | 67,989 | 31.66 |
| Oct. | 168,700 | 96,868 | 71,832 | 42.58 | 214,701 | 123,890 | 90,811 | 42.30 |
| Nov. | 168,700 | 94,260 | 74,440 | 44.13 | 214,701 | 130,043 | 84,658 | 38.54 |
| Dec. | 168,700 | 115,524 | 53,176 | 31.52 | 195,300 | 106,083 | 89,217 | 45.68 |
| Total | 2,030,900 | 955,561 | 1,065,399 | 53.67 | 2,393,106 | 1,343,853 | 1,176,108 | 43 |

Source: Bilut Valley Monthly Records.

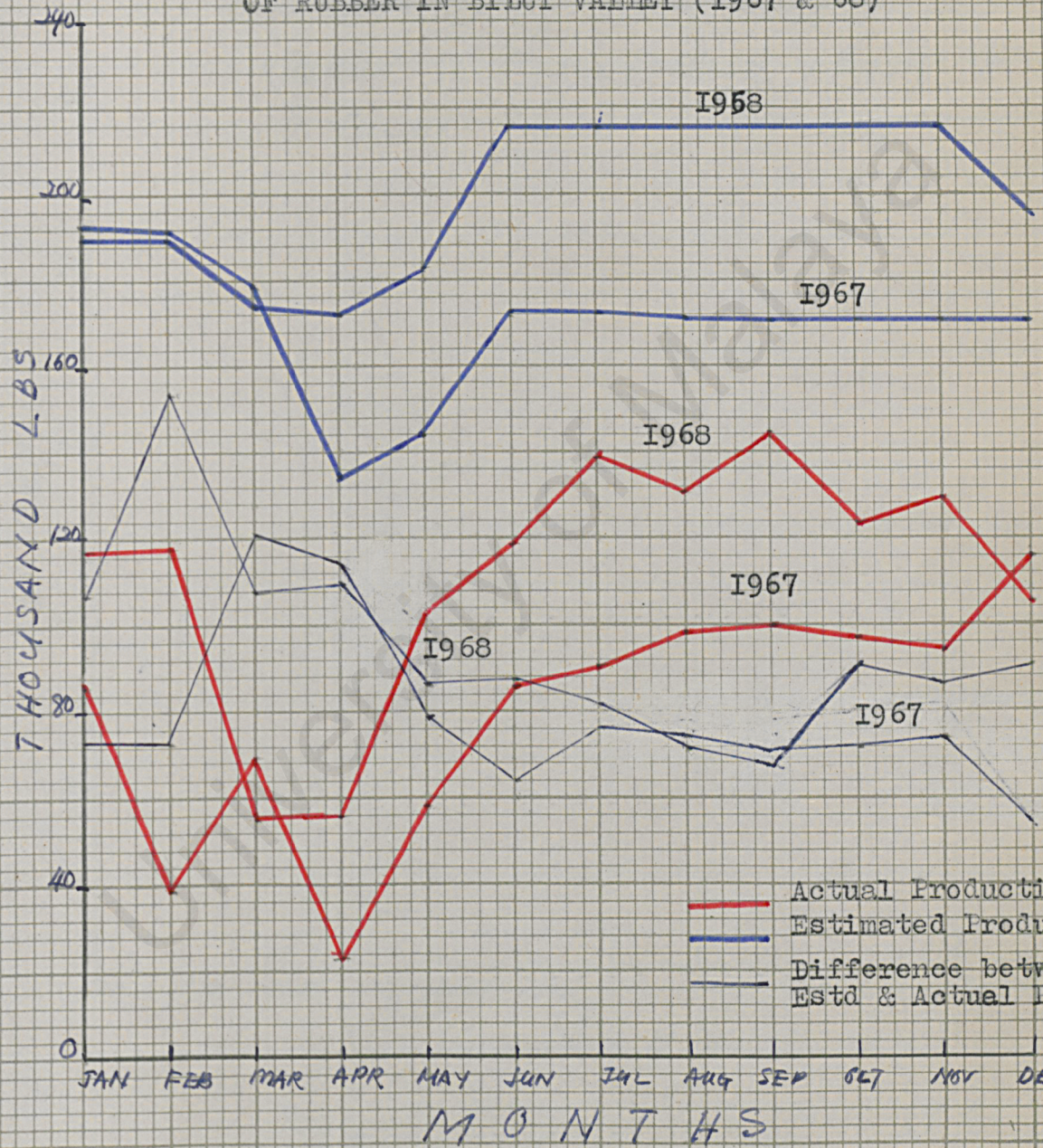
[a]Calculated by multiplying the yield per acre per month and the total acreage of rubber tapped for the month. The estimated yield per acre per year was 800 lbs for 1967 and 900 lbs for 1968 except for Block F, 800 lbs, 141 acres were only tapped.

[b]Amount delivered to the collecting centre.

DIAGRAM II.I

ESTIMATED AND ACTUAL PRODUCTION

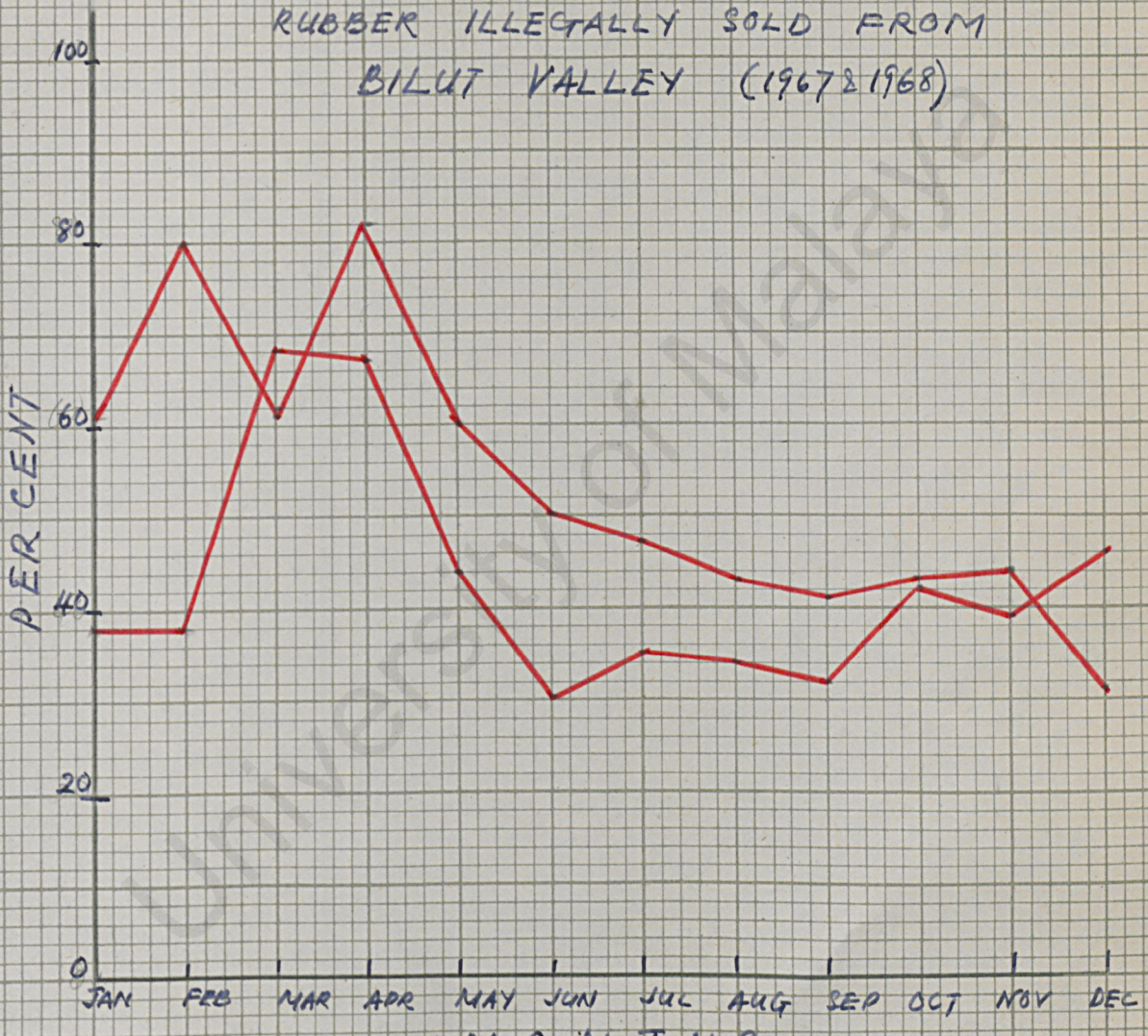
OF RUBBER IN BILUT VALLEY (1967 & 68)




Source: Computed from Table II.4

# DIAGRAM II·2

## ESTIMATED PERCENTAGE OF RUBBER ILLEGALLY SOLD FROM BILUT VALLEY (1967 & 1968)




Source: Computed from Table II·4

Thus, for 1968 as a whole there was about 43% of rubber being leaked out as compared to 1967 about 54%. It could not, however, be said that there would be a further decline in the amount of rubber that by-passed the collecting centre in the future, judging from the observations in these two years.

Comparison of Estimated and the Actual Yield between schemes

For this purpose the actual and the estimated yield of Bilut Valley and eight other land development schemes are considered. Tha aim of this comparison is to examine whether there is any "illegal" selling of rubber in these schemes occurred, and to what extent. Again, the estimated figure is used to get the amount of rubber that was illegally sold. This is because of the lack of data on such item. To facilitate comparison, Phase I is only considered because all the nine schemes under this phase had been under production by 1966. Some schemes under Phase II and III were not productive by this time. The year 1966 is taken because Bilut Valley started production in that year. Five of the nine schemes, however, were producing rubber earlier than 1966. These schemes were Guar Napai, which started tapping in July 1963; Bukit Tembaga in May 1964, Batu Lapan in June 1964; Kemendore in July 1965. The other four schemes Bilut Valley, Chalok, Endau except for Machap started production in August 1966. For Machap tapping started in October of the same year.

Actual yield is the total amount of rubber that was delivered to the collecting centre for the year divided by the total acreage under tapping for the year. Hence it is the average production per acre per year that was delivered to the centre. On the other hand, estimated yield is the expected crop (yield) per acre per year. In 1966, Kg. Bharu Menggong's actual yield was about 31% of the expected yield. This meant that an estimate of 69% of the expected rubber yield was not delivered to the centre. Compared to the other schemes Kg. Bharu Menggong's actual yield for 1966 was the least. On the other hand, Chalok's actual yield in the same year was 123% above the expected yield. Basing on this, it appeared that there was no illegal selling of rubber in that year. However, this phenomenon could be attributed to the spring bolt effect, whereby there was a sudden shot above the expected yield. The "spring bolt" effect takes place when the trees which had reached maturity, but had not been tapped, come into production. Thus the yield would shoot up above the estimated yield. But in the following year the yield becomes normal. This could be seen as Chalok came into production only in August. The trees may have reached maturity long before this. In 1967, there was a drastic decline in the actual yield from 721 lbs in 1966 to 249 lbs or 31% of the expected yield. Again in 1968, the actual yield was about 54.8% below the estimated yield. This indicated that there was "illegal selling" of rubber from this scheme. In the case of Bilut Valley, the actual yield rose from 41% in 1966 to 47% in 1967 and 48% in 1968. Kg. Bharu Menggong, too showed

TABLE II.5

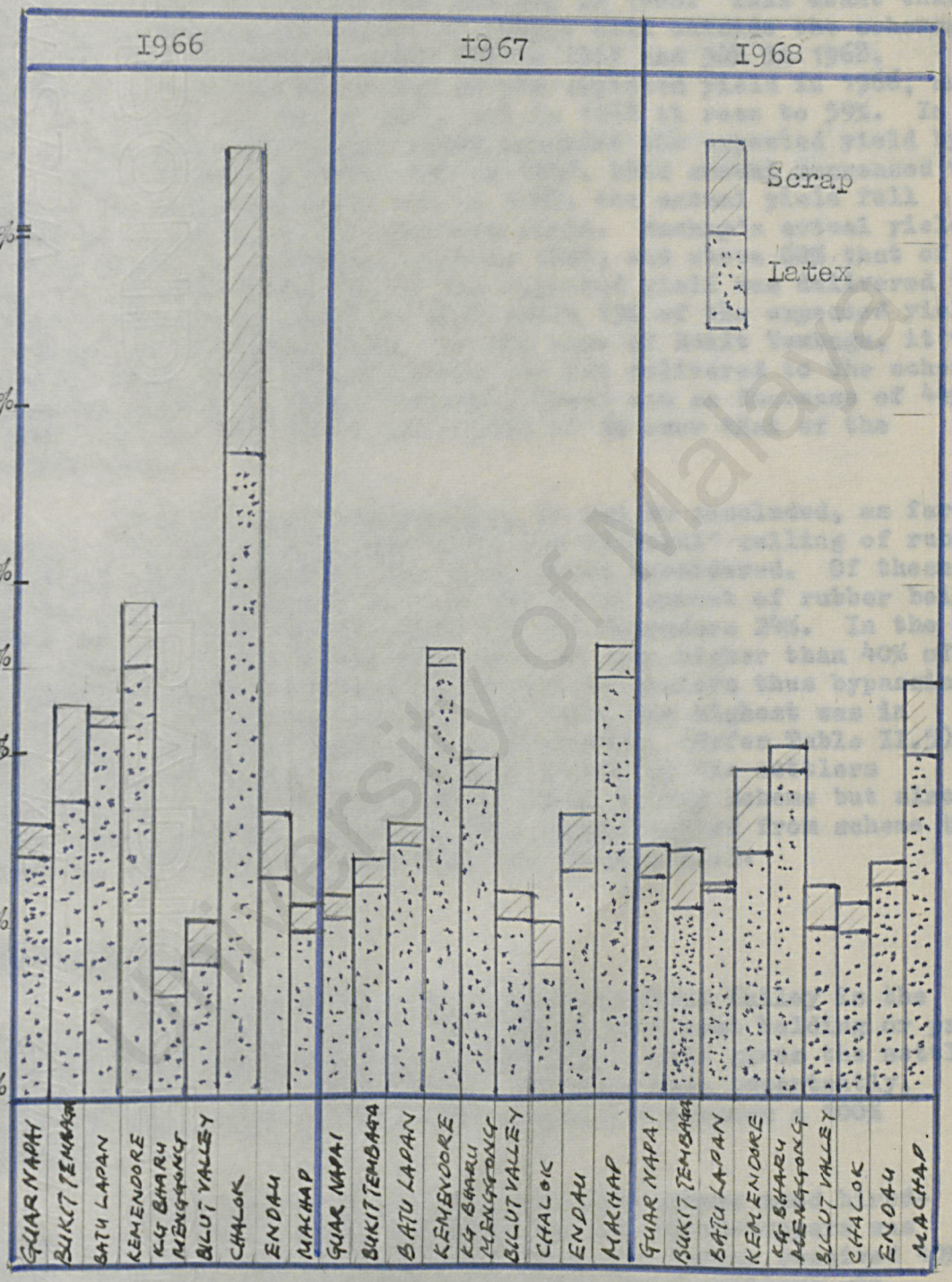
COMPARISON OF ACTUAL AND ESTIMATED YIELD BETWEEN 9 FLDA SCHEMES UNDER PHASE I (1966-1968)

| Year | 1966 | | | 1967 | | | 1968 | | |
|---|---|---|---|---|---|---|---|---|---|
| Schemes | Estimated Yield | Actual Yield | % of Actual to Est. Yield | Estimated Yield | Actual Yield | % of Actual to Est. Yield | Estimated Yield | Actual Yield | % of Actual to Est. Yield |
| Guar Napai | 1,294 | 846 | 63.89 | 1,471 | 666 | 45.28 | 1,559 | 927 | 59.47 |
| Bukit Tembaga | 1,058½ | 924 | 91.61 | 1,294 | 725 | 56.01 | 1,471 | 850 | 57.78 |
| Batu Lapan | 1,058½ | 908 | 90.01 | 1,294 | 818.2 | 63.23 | 1.471 | 730 | 49.63 |
| Kemendore | 794 | 922 | 116.20 | 1,058½ | 1,118 | 105.50 | 1,294 | 987 | 76.26 |
| Kg. Bharu Menggong | 794 | 246 | 30.90 | 1,058½ | 835 | 78.91 | 1,294 | 1,044 | 81.43 |
| Bilut Valley | 323½ | 131 | 40.61 | 794 | 376 | 47.36 | 1,058½ | 507 | 47.88 |
| Chalok | 323½ | 721 | 223 | 794 | 249 | 31.36 | 1,058½ | 476 | 45.16 |
| Endau | 323½ | 215 | 66.49 | 794 | 527 | 66.37 | 1,058½ | 578 | 54.84 |
| Machap | 323½ | 144.6 | 44.54 | 794 | 812 | 104.7 | 1,058½ | 915 | 86.82 |

Source: F.L.D.A.

DIAGRAM II.3

COMPARISON OF ESTIMATED AND ACTUAL YIELD IN PERCENTAGE BETWEEN 9-FIDA SCHEMES UNDER PHASE ONE (1966-1968)




Source: Computed from Table II.3

the same pattern of increase; from 31% in 1966 it rose to 79% in 1967 and 81% in 1968. This showed that illegal selling of rubber was greater in Bilut Valley than in Kg. Bharu Menggong. Batu Lapan showed a decline in the percentage of the actual yield: from 90% in 1966 to 63% in 1967 and 50% in 1968. This meant that there was an increasing amount of rubber sold outside the scheme; from about 10% in 1966 to about 37% in 1967 and 50% in 1968. Guar Napai actual yield was 64% of the expected yield in 1966, and there was a fall of 19% in 1967, but in 1968 it rose to 59%. In case of Kemendore the actual yield exceeded the expected yield by 16%. This occurred in 1966, but in 1967, this amount decreased to 5% above the expected yield and in 1968, the actual yield fell further by 23.7% below the expected yield. Machap's actual yield was 4.7% above the expected yield in 1967, and above 60% that of 1966, but in 1968 about 87% of the expected yield was delivered to scheme's collecting centre or that about 13% of the expected yield of rubber was illegally sold. In the case of Bukit Tembaga, it was estimated that about 18% of rubber was not delivered to the scheme's collecting centre in 1966. However, there was an increase of 44% in 1967, but in 1968 there was a fall of 2% over that of the previous year.

From the above discussion, it can be concluded, as far as Phase I is concerned, that there was "illegal" selling of rubber from these nine schemes in the three years considered. Of these, only two schemes appeared to have the least amount of rubber being leaked out in 1968: Machap about 13% and Kemendore 24%. In the other schemes, there was as much as , or even higher than 40% of the expected yield of rubber being sold to dealers thus bypassing the scheme's collecting centres. In 1967, the highest was in Chalok 68%, while the least was in Kemendore. (Refer Table II.5) This problem of "illegal" selling of rubber by the settlers therefore was not only prevalent in Bilut Valley Scheme but also in the other schemes. However, this amount varied from scheme to scheme as indicated by Table II.5 and diagram II.3.

## System of Tapping

The system of tapping adopted in Bilut Valley is the half-spiral alternate daily. This means that each holding or part of the holding is tapped once in two days. This gives the settlers time to perform other activities. It also, more importantly, preserves the health of the rubber trees and ensures a 100% tapping.

About 10% of the settlers in this scheme used hired-tappers. The basis of remuneration for the hired-tappers was "share cropping" arrangement under which the tapper received 40% of the crop produced. It was found that those settlers who employed hired-tappers had other sources of income other than rubber or that they do not depend on rubber as the main source of income.

It seems doubtful whether a single settler can tap all his trees on his holding, unless he is assisted by his family. The daily tapping task in Malaya is about 3 acres of mature trees.[6] Thus with an average acreage of 7.7 acres, would, when mature take about 2.6 days to tap completely, a frequency of 11.6 times a month. It was observed that some settlers were helped by members of their families in tapping their trees.

In 1968, only 411 settlers were tapping their trees. Of the 163 who had not begun tapping 69 were under Phase III. (Table II.1).

---

[6] Greenwood, 1964, page 90.

## CHAPTER III

## MARKETING STRUCTURE

### F.L.D.A. Marketing Policy

With the need to ensure that the settlers would get a fair return for their produce commensurate with labour put in, the authority has incorporated as one of its functions the marketing of its settlers' rubber. It is the aim of the authority to conduct the marketing of its smallholders' rubber from the producer level to the consumer level directly with the establishment of its own processing factories and the setting up of its own marketing organization. These would involve many problems which the authority hopes to overcome in the future. The marketing division at the F.L.D.A. Head Office in Kuala Lumpur is still in its infancy stage, established only this year (1969).

Currently, however, the authority is processing its rubber outside the schemes using established processing facilities provided by commercial estates that have surplus capacity and or rubber processing facilities or those factories operated by the Rubber Research Institute of Malaya or MARA.[1] This is because when opening up areas for production, it is the eventual production expectation that becomes the basis in planning factory capacity. In the early stages of production of rubber the yield may not be sufficient for an efficient running of a factory. At this stage it seems not practical to consider setting up large factories capable of handling the long term production potentials of the schemes' rubber[2]. These is also the need to decide on the form of rubber to be produced and the factories designed accordingly, to combat synthetic rubber and ensuring greater returns to the smallholders. This depends on the form of rubber to be exported from Malaysia in the future. However, the introduction

---

[1]MARA is serving Chalok Scheme and RRIM marketing scheme at Rantau is serving Sendayan and Kampong LBJ Schemes. See Appendix V.

[2]See Appendix I.

of the SMR Scheme[3] and the 'Heveacrumb'[4] provides the Authority a rational approach in designing its factories.[5] The Authority also needs time to establish its marketing organization and to recruit and train its staff to man it.

Thus, until such time the Authority is selling its rubber to existing commercial organization at agreed discount rates. This approach offers several advantages. Firstly, it allows the Authority more time in which to assess the type of factory required in the future. It has to decide on the capacity of the factory to be built and what type of rubber to be produced. For instance, it may set up a factory producing Heveacrumbs rubber, or 'concentrated' latex or a factory producing sheet rubber.

Secondly, it avoids, at this stage, committing Capital to a factory system that may be obsolete in two to three years time. If the Authority were to build a factory producing sheet rubber it would have become obsolete by now as 'new' type of rubber is being produced which commands a better position to combat synthetic rubber. Heveacrumb, for example, commands a premium of about 5 to 7 cents over sheet rubber.

---

[3]SMR (standard Malaysian Rubber) Scheme was launched in 1965, under which solid natural rubber is marketed to guranteed technical specification, and is available in three grades. The top grade - SMR - is also available in light-coloured formed designated as SMR 5L - and all the grades are packed in plastic-wrapped bales not exceeding 112 lb. The scheme represents a new approach in the marketing of solid natural rubber on an industry basis, in that both the size and the properties of its contents are specified. Most of the traditional types of solid natural rubber can be marketed as SMR, and the scheme also caters for new forms of presentation. The introduction of the scheme has been generally welcomed by consumers as a move in the right direction towards simplyfying the wide variety of types of natural rubber, providing greater uniformity and in improving packaging.

[4]A new presentation of natural rubber which was developed by the RRIM. In this process, raw latex coagulum or cuplump crepe is crumbled by a mechano - chemical granulation process, and after drying, the crumb is compressed into bales wrapped in polythene film and marketed to SMR specifications.

[5]The Authority is building four factories processing block rubber. The factory now being built in Bilut Valley Land Development Scheme will be in operation by February 1970 and will cater for two other schemes Klau Valley and Kg. Sertik Schemes.

Thirdly, the Authority's supervisory staff and the settlers will be in a position to concentrate on developing a latex collection system (using collecting centres) which should be established and operating efficiently by the time any central factories are built.

Fourthly, by using outside processing facilities in the early stages of production the change - over to processing at F.L.D.A. factoriem would be phased out so that it coincides with the time when production from rubber areas has reached a level that facilitatesefficient operation.

Under this system, all selling arrangements are made through well established commercial channels. This has the advantage of giving the Authority more time to build its own marketing network.

Marketing Channels

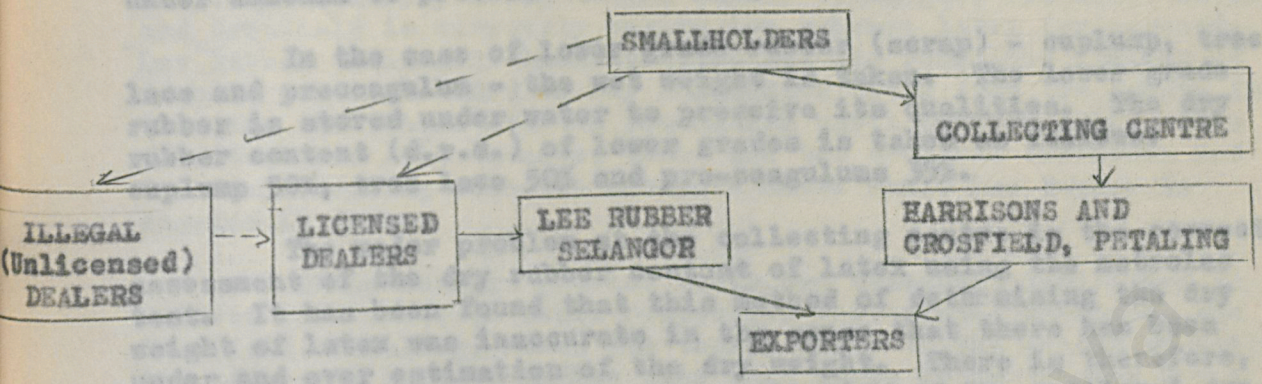
The smallholders on F.L.D.A. schemes at present market their rubber through the collecting centres which in turn sell it to processors or remillers. These collecting are established and managed by the schemes. The processors and remillers in turn export the rubber to oversea consumers.

Bilut Valley scheme produces two types of rubber, namely latex (first grade rubber) and scrap and cuplump (lower grade rubber). Since November 1968, preserved latex is being sold to Harrisons and Crosfield, Petaling, who exports latex concentrates overseas. Lee Rubber, Selangor, Limited has been buying the scheme's lower grade rubber since August 1966, and the company was contracted to buy latex coagulum since the scheme started production until October, 1968, when the contract expired. Harrison and Crosfield was not engaged in the beginning of the scheme's production because the company had not extended its area of operation to Pahang.

A large percentage of the rubber produced in the scheme, estimated at 54% in 1967 and 43% in 1968 found its way to 'illegal' dealers or directly to licensed dealers. These illegal dealers who are not licensed to buy rubber operate in the scheme and they in turn sell the rubber to licensed dealers in Bentong. (The licensed dealers obtained their licenses from the District Licensing Board and they form the local rubber dealers for the town.) Some settlers sell their rubber directly to these rubber dealers. These licensed dealers in turn sell the rubber to Lee Rubber, Selangor, Limited, to be remilled and then exported. Rubber sold illegally from the scheme?is in the form of lower grades (scrap and cuplump and treelace) which is manufactured by the remiller into crepe rubber.

DIAGRAM III.1

FLOW OF BILUT VALLEY SMALLHOLDER'S RUBBER




Collecting Centre

Under F.L.D.A. schemes, the scheme's collecting centres are given the exclusive right of marketing the smallholders rubber. The settlers are required to deliver their rubber to the collecting centre in the scheme. Failure to do so is considered to be a breech of the agreement signed by the settlers on joining the scheme. Within the loan repayment period the settlers are to observe this requirement. However, when they have paid up their loans, they are free to sell their rubber to any dealers. Under the present system of loan repayment, the period of repayment extends from 12 to 15 years. Thus within this period, the scheme is in a monopsoristic position in dealing with the smallholders' rubber. In order to facilitate the effective operation of a loan repayment scheme, the Authority (scheme) must be in a position to retain financial control of the rubber at the first buyer level. It is, with this power also able to have a better bargaining position in the marketing of the settlers rubber. This is possible as the rubber is sold in bulk. In this way the settlers are ensured of a better price.

The scheme does not provide transport facilities to the settlers. The settlers have to provide their own transport to deliver their rubber to the collecting centre. In Bilut Valley scheme the settlers use motocycles, scooters and bicycles to transport their rubber to the centre.

At the collecting centre the settlers latex is weighed and a 'metrolac'[6] test is taken to determine the dry rubber content of the latex.

---

[6] in which a hydrometer is floated in the latex to measure its specific gravity. The reading taken is in percentage.

Normally, the d.r.c. is within the range of 27% to 33% of the weight of latex. If, for instance, the latex weighs 100 lbs and the d.r.c. is 30%, the dry weight of the latex is estimated to be 30 lbs. After weighing, the latex is bulked in storage tanks and preserved under ammonia to prevent it from coagulating.

In the case of lower grade rubber (scrap) - cuplump, tree lace and precoagulum - the wet weight is taken. The lower grade rubber is stored under water to preserve its qualities. The dry rubber content (d.r.c.) of lower grades is taken as follows: cuplump 50%, tree lace 50% and pre-coagulums 35%.

The major problem at the collecting centre is the correct assessment of the dry rubber content of latex using the metrolac test. It has been found that this method of determining the dry weight of latex was inaccurate in the sense that there has been under and over estimation of the dry weight. There is therefore, the need for adjustment. An over estimation of the settlers' dry weight will affect the price of rubber that would be paid to them[7].

Another problem which arises is that some settlers deliver latex of low dry rubber content. Since the latex is bulked in storage tanks, low d.r.c. latex would lower the bulked latex d.r.c. It seems fortunate that this effect is not great and that the discount rates for low d.r.c. do not differ very much from high d.r.c. discount rates.[8]

It has been found also that some settlers added 'impurities' such as flour and washing soda, to their latex, in order to increase the d.r.c. Thus, when the metrolac test is taken, a higher reading would be registered. It has been found that some settlers latex d.r.c. was as high as 48% a difference of about 15% of the normal d.r.c. To overcome this 'cheating' practice, a sample of the latex is taken and the 'chee' system ( a chemical determination of the dry rubber content) when the settlers latex registers a reading of 37% and above on the 'metrolac' reading. Subsequently, the settler would be given the dry weight as determined by the 'chee' method.

Contract Dealer

The 'contract' dealer is the firm or the organization which buys and processes the rubber. An agreement is made between the Authority, on behalf of the scheme, and the dealer. This contract is for the duration of two years or three years depending on the scheme (most schemes the contract is for two years). The Authority, however, is estitled to terminate the contract, before the agreed period expires, at any time by giving three months notice to the dealer, should the rubber be required for processing by the Authority's

---

[7]Refer Chapter IV.

[8]See Appendix II.

own factory. The Authority however, cannot terminate the agreement if it wishes to engage another dealer.

From August 1966 onwards, Bilut Valley has been under contract to supply scrap to Lee Rubber (Selangor) Limited. Harrisons and Crosfield is currently buying the schemes latex (preserved). Lee Rubber (Selangor) Limited which has its remilling factory at Gombak, was contracted to buy coagulated latex from the scheme from the time the scheme started production until October 1968. Thus from November 1968 onwards, there are two dealers: Harrisons and Crosfield dealing with the scheme's latex while Lee Rubber is engagad in scrap.

These dealers provide their own transport facilities to deliver the rubber to their respective factories. Harrisons and Crosfield, Petaling, sends its tanker daily to the scheme to collect the preserved latex. In the case that there is no tapping for a particular day or that the amount of latex delivered by the settlers is insufficient to justify delivery the dealer would be informed. The dealers would, in turn, inform the scheme if they are not able to collect the rubber.

Three samples of the bulked latex is taken for each collection of latex by the dealer. One sample is sent to the Rubber Research Institute, Malaya, for d.r.c. determination in the event of there being any major discrepancy between the scheme's and the purchasing company d.r.c. estimates. Of the other two samples one one is kept by the scheme for d.r.c. determination and the other is retained by the purchasing Company for d.r.c. determination. The method of d.r.c. determination adopted by the scheme and the purchasing company is that specified by the R.R.I.M., that is, using chemical determination. The scheme is using the dee method to determine the bulked weight of the latex. Each day's estimated weight is added up for the whole month.

Lee Rubber collects the scrap bi-monthly, the first collecting being the middle of the month and the second at the end of the month. This means that the scheme's collecting centre stores the scrap under water for about 15 days before being collected by the buyer. This is because scrap forms about 15% of rubber produced and the amount is insufficient to justify daily collection by the dealer.

In 1967, the amount of rubber handled by Lee Rubber (Lee Rubber was then under contract to purchase the scheme's rubber) was 955,661 lbs or about 46% of the expected amount of rubber produced. In 1968, both Lee Rubber and Harrisons and Crossfield purchased a total of 1,343,853 lbs of the scheme's rubber. Of these the latter handled only 215,951 lbs, since it started purchasing the scheme's latex in November 1968. In 1967, Lee Rubber purchased a total of 151,622 lbs of scrap and 803,939 lbs of latex while in 1968, it handled 167,120 lbs of scrap, an increase of more than 15,000 lbs over that of 1967 and that of latex rose to 960,782 lbs - an increase of 158,743 lbs over 1967. (See Table II.2)

Unlicensed and Licensed Dealers

Unlicensed dealers are those rubber dealers who are not issued with licensed to buy rubber. (They are sometimes referred to as illegal dealers). In F.L.D.A. Schemes, no other persons or bodies other than the collecting contress which are managed by the respective schemes, are authorised to deal with the small-holders' rubber. Any selling of rubber to other than the schemes' collecting centres is considered as illegal.

In Bilut Valley these Unlicensed dealers are the settlers themselves and it has been estimated that they are about fifteen to twenty of them. The actual number of these unlicenced dealers is not available since they operate 'secretly' and that if they are known to be operating as unlicenced dealers of rubber and apprehended they would face a severe punishment. They may be evicted from the scheme and thus would loose the right to their land. (holdings)9. Some of these unlicenced dealers are beleived to be the agents of the rubber dealers (licenced) in Bentong. Others are 'independent' operators. One of these unlicenced dealers (independent) who was interviewed confided that he had a working capital of abput $500/-. Most of these illegal operator's are known to have cars which they used to transport the rubber to the rubber dealers in Bentong. Others who have no such facility used hired vehicles.

Licenced dealers are those dealers who are operating in the town of Bentong. They are five of these dealers. It was found that the settlers patronised both dealers. The number of settlers selling to these dealers and that actual amount they handled are not available due to the nature of the practice. Illegal selling of rubber during the two years, 1967 and 1968, was estimated to be about 54% and 43% respectively. (Table II[4]).

In the case of the unlicenced dealers, the settlers either deliver their rubber to the illegal dealers, or the latter may buy the settlers' rubber at their houses depending upon the arrangement agreed upon by both parties. In the case of the licenced dealers, the settlers provide their own transport - hired private cars, bus or motorcycles. Usually the settlers do not deliver the rubber directly to the premises of the dealer's shop but send it ti a prearranged spot where the dealer would send his transport to collect it. If the settlers deliver the rubber by bus, the dealers would fetch it from the bus terminus. The settler would then collect his payment from the dealer at his shop.

---

9Federation of Malaya Act of Parliament No. 13 of 1966, Land (Group Settlement Areas) Act 1960, as amended by the land (Group Settlement Areas) (Amendment) Act, 1965, Sect. 22(i).

The form of rubber sold in this manner is in the form of scrap (cuplump, tree lace and precoagulums). Since scrap forms about 15% of the expected amount of rubber produced and that the amount sold illegally is about three times this amount, the rest must have come from latex deliberately coagulated. It was found that some settlers who are supposed to tap on alternate days tapped their trees daily, and that they alternately delivered their rubber to the scheme's collecting and selling it 'illegally'.

From the above discussion, it could be seen that there are three dealers at the first buyer level: scheme's collecting centre, unlicenced dealers and licenced dealers. Judging from the amount of rubber estimated to be handled by these 'illegal' dealers it can be said that they play a significant role in providing a market outlet for the settlers' rubber. This proved to be one of the main problems faced by the Authority in the marketing of the smallholders' rubber.

## CHAPTER IV

## SYSTEM OF PAYMENT OF SETTLERS' RUBBER

### Price of Latex

The price of latex (dry weight) is based on a monthly average of the mean of 'buyers' and 'sellers' noon daily prices of the Int. RSS1 f.o.b. in bales, as quoted jointly by the Malaysian Rubber Exchange (M.R.E.) at Kuala Lumpur.

The buyer charges a discount rate which is intended to cover his transport, handling, processing, storing, insurance and other marketing costs. This discount rate varies from scheme to scheme and from buyer to buyer, depending, among other things, on the distance of the scheme from the buyer's factory. It can be reviewed from time to time by the Authority (on behalf of the respective scheme) and the respective buyer, taking into consideration the vicissitude of the rubber market. Lee Rubber (Selangor) Limited which was contracted to buy the Bilut Valley Scheme's latex charged initially a discount of 7 cents a lb (dry) for the first three months of operation (production of rubber started in August 1966) - August, September and October of 1966. The discount rate was later reviewed and from November 1966 onwards till the contract expired in October, 1968, the discount rate for latex was 4¼ cents per lb (dry). Harrisons and Crosfield, Petaling which has been engaged since November 1968, charges a discount of 3¾ cents per lb of latex (dry weight) when the price of rubber (Int. RSS1 f.o.b. in bales average monthly) is within the range of 55 cents a lb and below 70 cents a lb. Harrisons and Crosfield discount rate varies with the price of rubber. The higher the price, more will be discounted. Thus when the price is below 55 cents a lb the discount is 3½ cents a lb and when it is above 120 cents a lb the discount rate is 6 cents a lb.[1]

The difference in the discount rate of the two dealers may be also explained by the form of latex being sold: Lee Rubber (Selangor) Limited dealt with latex coagulum while Harrisons and Crosfield, Petaling is currently buying preserved latex which the agency exports as latex concentrates.

---

[1] See Appendix II.

The Scheme's collecting centre charges a discount of not more than 2 cents a lb (dry weight) on latex to cover its running expenses. This amount varies from month to month depending, among other things, on the amount of rubber handled.[2] As evident from Table IV.1 the Scheme's collecting centre discount on latex varied from as low as 0.13 cents per lb (dry weight) to as high as 1.83 cents a lb (dry weight) during the two years of operation 1967 - 1968. The average discount per lb on latex (dry weight) for the two years, however, was 0.89 cents per lb. (This included the two months of November and December, 1968 when the latex was preserved. The cost incurred in preserving the latex seemed to be lower than coagulating it.) It should be noted that the discount does not include the element of profit, as the centre is not a profit making institution.

The net price of latex per lb received by the settlers will be the price of the Int. RSS1 f.o.b. in bales, as stated above, less duty and cesses on rubber, the buyer's discount and the collecting centre's discount.

However, adjustments may have to be made on this price because of the differences between the buyer's and the aggregate of the individual settlers estimated dry weight of latex. This difference in weight is caused by the inaccuracy of the estimation of the dry weight of latex at the collecting centre.[3] Prior to the period when latex is preserved before sale, this inaccuracy in estimation was coupled with the impurities in the latex coagulum which had to be cut out. This reduced the settlers' dry weight of latex. However, this 'clippings' were considered as lower grades. Thus the buyer's dry weight of latex differed from the aggregate settlers' dry weight. This adjustment is necessary since the buyer pays the Scheme according to its measurement[4] and that the Scheme's pays the settlers according to their aggregate weight (dry) of latex as measured at the collecting centre. In such a case, the total proceeds from the sale of latex is divided by the aggregate dry weight of latex of the individual settlers. This then will be the price of latex to be paid to the settlers. From this price the collecting centre discount will be deducted accordingly.

---

[2] See Appendix VII.

[3] See pages 22 - 23.

[4] The buyer determines the bulked weight of the latex (coagulated or preserved) by chemical means as specified by the RRIM (Rubber Research Institute of Malaya).

As evident from Table IV.1, the settlers' dry weight may be either over-estimated, which often was the case, or under-estimated. This explains the reason for the difference in the price paid by the buyer to the Scheme (i.e. less duty and cesses and its discount) and the price which the Scheme paid to the settlers (i.e. before deducting its discount). For example, in the case of under-estimation in January, 1967 the price paid to the scheme by the buyer for latex was 46.92 cents per lb (dry) while the Scheme paid the settlers before deducting the collecting centre's discount 47.54 cents per lb.

Price of Lower Grades

The price of lower grades of the Scheme is based on a monthly average of the mean of 'buyers' and 'sellers' noon daily prices of 1X Thin Brown Crepe (UK/C) as quoted on the Malaysian Rubber Exchange, less duty and cesses on rubber. In other schemes the price of lower grades is based either on the monthly average of 1X Thin Brown Crepe and 2X Thin Brown Crepe noon daily prices or based on the average of 1X and 2X Thin Brown Crepe of the mean of 'buyers' and 'sellers' noon prices on the day the lower grade is sold to the buyer.[5]

The discount rate charged by Lee Rubber (Selangor) Limited, which has been under contract to buy the Scheme's lower grades is 5½ cents per lb (dry weight). The discount rate charged by buyers varies from scheme to scheme and from buyer to buyer, depending, among other things, on the distance of the scheme from the buyer's factory and also the quality of the lower grades - the further the factory from the scheme, the greater will be the discount, and the better the quality the lower the discount. Thus with a better quality of lower grades, even though the scheme is far from the buyer's factory, the discount may not be as high as it would be the case with 'lower' quality of lower grades.

The Scheme's collecting centre's discount is not more than 2 cents per lb of the lower grades. It varies from month to month[6], depending mainly on the amount handled, from as low as 0.01 cents a lb to as high as 2 cents a lb. On the average, however, the discount, which is to cover the expenses incurred by the collecting centre in handling the lower grades was 0.82 cents a lb for the two years, 1967 and 1968.

The lower grade rubber is sold as 'wet' to the buyer.

---

[5] See Appendix V.

[6] See Appendix VII.

TABLE IV.1

LATEX WEIGHTS AND PRICES: THE BUYER, THE SCHEME AND THE SETTLERS, 1967 - 1968

| Year | 1967 | | | | | | 1968 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Month | Buyer's Weight (lbs) | Settlers Weight (lbs) | Difference bet. Buyers & Settlers (lbs) | Average Price of Buyers[a] ¢ | Average Price of Scheme[b] ¢ | Average Price of Settlers[c] ¢ | Buyer's Weight (lbs) | Settlers Weight (lbs) | Difference bet. Buyers & Settlers (lbs) | Average Price of Buyers[a] ¢ | Average Price of Scheme[b] ¢ | Average Price of Settlers[c] ¢ |
| Jan. | 63,616 | 62,796 | +820 | 46.92 | 47.54 | 46.01 | 92,411 | 81,041 | +11,370 | 36.27 | 41.36 | 40.00 |
| Feb. | 26,642 | 28,644 | -2,002 | 44.89 | 42.41 | 42.01 | 94,174 | 89,664 | +4,510 | 33.75 | 35.44 | 35.24 |
| March | 56,054 | 60,631 | -4,587 | 44.04 | 41.27 | 40.27 | 41,144 | 37,788 | +3,356 | 37.58 | 39.87 | 38.50 |
| April | 16,238 | 18,459 | -2,221 | 45.13 | 39.70 | 38.20 | 43,404 | 45,587 | -1,183 | 37.95 | 36.13 | 36.00 |
| May | 48,998 | 53,254 | -4,256 | 44.04 | 40.52 | 39.50 | 85,288 | 92,641 | -7,353 | 40.33 | 37.13 | 37.00 |
| June | 78,356 | 80,667 | -2,311 | 44.73 | 43.15 | 42.01 | 106,437 | 113,893 | -7,456 | 43.33 | 40.49 | 40.00 |
| July | 83,562 | 86,415 | -2,853 | 43.09 | 41.66 | 40.16 | 127,137 | 125,701 | +1,436 | 42.34 | 42.83 | 41.00 |
| Aug. | 90,147 | 91,740 | -1,593 | 38.38 | 37.72 | 36.60 | 120,887 | 124,549 | -3,652 | 43.23 | 41.96 | 41.15 |
| Sept. | 88,766 | 92,760 | -3,994 | 38.92 | 37.24 | 36.24 | 134,641 | 137,858 | -3,215 | 42.93 | 41.93 | 41.30 |
| Oct. | 87,184 | 96,209 | -9,025 | 38.29 | 37.01 | 36.01 | 115,086 | 117,689 | -2,603 | 44.85 | 43.86 | 43.00 |
| Nov. | 73,935 | 78,536 | -4,401 | 37.53 | 35.33 | 35.20 | 120,227 | 121,543 | -1,314 | 46.29 | 45.77 | 45.30 |
| Dec. | 90,441 | 82,929 | +7,512 | 37.85 | 41.28 | 40.00 | 95,724 | 98,410 | -2,686 | 45.56 | 44.31 | 44.00 |

Source: Bilut Valley Scheme Monthly Record of Sales and Record of Settlers Rubber Delivery.

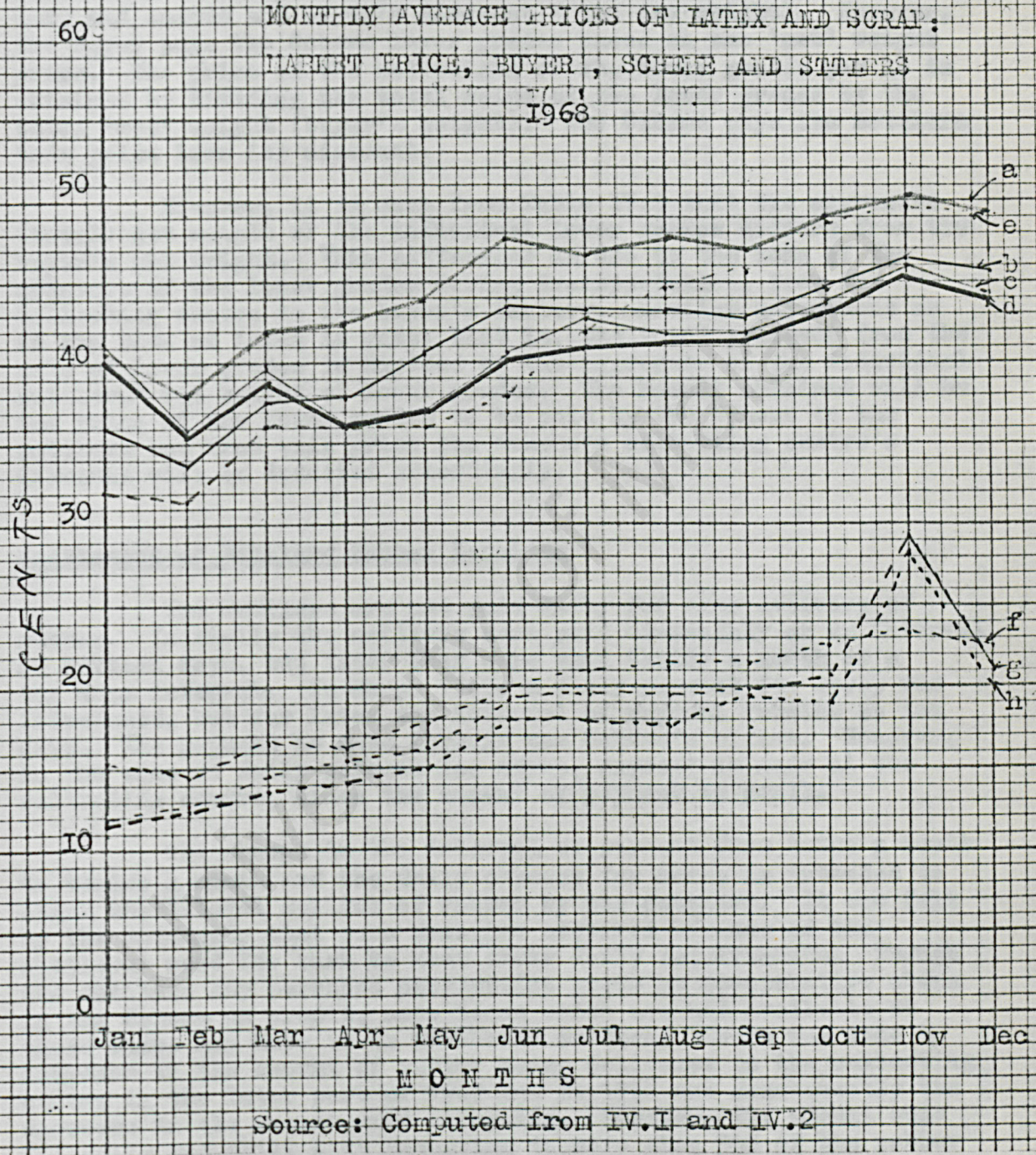
[a]Average price per month paid by the buyer to the scheme i.e. the average price less duty and cesses and buyer's discount.

[b]Average price per month after adjusting differences between settlers' and buyer's weight.

[c]Average price paid by scheme to settlers after deducting the collecting centre's discount.

DIAGRAM IV.I

MONTHLY AVERAGE PRICES OF LATEX AND SCRAP:
MARKET PRICE, BUYER, SCHEME AND SETTLERS
1968




Source: Computed from IV.I and IV.2

a. Market price less duty and cesses (latex)
b Price paid by buyer to Scheme less discount (latex
c Price paid by Scheme to Settlers (latex)
d Price Received by Settlers (latex)
e, f, g, h - Same as above but for scrap.

It is weight at the Scheme's collecting centre, at the point of sale, and again at the buyer's factory. The buyer will measure the dry rubber content of the lower grades. The total value is then calculated (monthly average price of 1X Thin Brown Crepe UK/C less duty and cesses and buyer's discount X the dry weight). However, the buyer pays the Scheme lower grades based on the 'wet' weight price. The price of the wet weight of the lower grades per lb is obtained by dividing the total value of the lower grades by the total 'wet' weight (buyer's weight). The Scheme pays its settlers this price less its discount.

However, it is seen from Table IV.2 that the aggregate (total) wet weight of the individual lower grades differs from the buyer's wet weight. This difference is due to the loss of the moisture of the lower grades during transportation, from the collecting centre to the buyer's factory. Similar adjustment as in the case of latex is made; that is, the total proceeds from the sale of lower grades is divided by the aggregate of the individual settlers' wet weight of lower grades. The result obtained will be the price of the lower grades to be paid by the Scheme to the settlers and from this price the Scheme's collecting centre's discount will be deducted accordingly.

Settlement of Settlers Rubber Earnings

The settlers are not paid daily for each delivery of rubber. Initially the settlers were paid bi-monthly or an interval of fifteen days, but later they were paid thrice a month or a ten days interval. In March 1969, a daily payment for scrap was introduced, but for latex the interval of payment remains at ten days. The payment is made through the Scheme's office. However, in the case of daily payment for scrap, payment is made at the collecting centre, since the amount of payment is small.

The change in the interval of payment from twice a month to thrice a month and the daily payment for scrap is intended to check the illegal selling of rubber by the settlers. It was felt by the Authority that such practice occurred because of the settlers' need for cash to meet their daily requirements. Though the settlers may purchase consumption goods at co-operative shops in the Scheme on credit, some items which are not available at these shops may have to be purchased on cash. There was some increase in the amount of rubber being delivered to the collecting centre in the later part of 1967 and in 1968 and consequently the decrease in the amount sold illegally. However, the amount sold illegally was still high amounting to more than 30% of the rubber produced. The decline in the amount sold illegally may not be attributed to the change in the interval of payment. There was the warning given by the Authority to settlers that drastic measures

TABLE IV.2

LOWER GRADES (SCRAP) WEIGHTS AND PRICES: THE BUYER'S, THE SCHEME AND THE SETTLER 1967 - 1968

| | 1967 | | | | | | 1968 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Month | Buyer's Dry Weight (lbs) | Buyer's Wet Weight[a] (lbs) | Settler's Wet Weight[b] (lbs) | Buyer's Wet Price[c] ¢ | Scheme's Wet Price[d] ¢ | Settler's Wet Price[e] ¢ | Buyer's Dry Weight (lbs) | Buyer's Wet Weight[a] (lbs) | Settler's Wet Weight[b] (lbs) | Buyer's Wet Price[c] ¢ | Scheme's Wet Price[d] ¢ | Settler's Wet Price[e] ¢ |
| Jan. | 23,148 | | 60,486 | 20.82 | 15.07 | 15.02 | 24,609 | 43,282 | 53,356 | 14.39 | 11.67 | 11.50 |
| Feb. | 11,229 | 22,727 | 26,391 | 19.07 | 18.97 | 18.97 | 22,911 | 40,362 | 46,255 | 14.53 | 12.68 | 12.30 |
| Mar. | 13,380 | 26,813 | 28,184 | 18.49 | 17.59 | 16.19 | 13,969 | 24,664 | 28,428 | 16.89 | 14.65 | 13.50 |
| April | 7,168 | 14,399 | 15,815 | 18.45 | 16.80 | 15.30 | 12,588 | 22,340 | 24,399 | 16.39 | 15.39 | 14.00 |
| May | 9,336 | 18,693 | 21,247 | 17.35 | 15.26 | 14.03 | 17,441 | 30,782 | 33,610 | 17.89 | 16.39 | 15.00 |
| June | 7,315 | 13,752 | 16,486 | 18.68 | 15.58 | 15.02 | 12,475 | 22,053 | 22,768 | 19.95 | 19.33 | 18.00 |
| July | 7,204 | 13,147 | 15,164 | 19.27 | 16.71 | 15.17 | 11,854 | 21,020 | 22,525 | 21.06 | 19.65 | 18.00 |
| Aug. | 7,392 | 13,265 | 16,546 | 17.41 | 13.96 | 13.40 | 10,243 | 18,160 | 19,854 | 21.47 | 19.63 | 17.65 |
| Sept. | 10,458 | 18,745 | 22,790 | 15.92 | 13.10 | 13.05 | 12,071 | 21,477 | 23,257 | 21.45 | 19.81 | 19.50 |
| Oct. | 9,684 | | 21,601 | 15.06 | 12.11 | 12.10 | 8,784 | 15,608 | 16,913 | 22.63 | 20.88 | 19.00 |
| Nov. | 20,325 | 35,792 | 42,806 | 15.47 | 12.93 | 12.60 | 9,816 | 18,072 | 14,496 | 23.38 | 29.15 | 28.00 |
| Dec. | 25,083 | 44,665 | 53,756 | 15.09 | 12.49 | 12.30 | 10,359 | 20,808 | 19,318 | 22.68 | 21.06 | 20.06 |

Source: Bilut Valley Scheme Monthly Record of Sales and Record of Settlers Rubber Delivery.

[a]Buyer's wet weight of scrap at its factory. The difference between the two due to loss of moisture.

[b]Aggregate of settlers' wet weight of scrap.

[c]Average wet price paid by buyer less discount.

[d]Average price paid by Scheme to settler after adjustment and discount.

[e]Average price received by settlers (net price).

would be taken against defaulters. There was also closer supervision by the Scheme's administrative staffs to check illegal selling of rubber. Settlers who deliver low amount of rubber to the centre relative to expected yield will be asked to explain the reason for this. The daily payment for scrap seemed not have much response from the settlers since the amount of scrap was little.

The settlers who are paid at intervals for their rubber do not receive the 'full' net price of the rubber. The practice in this Scheme has been to pay the settlers a flat rate of 30 cents a lb for latex. (The price of latex is more than this). However, the full price will be given to settlers when accounting for the whole month's delivery. This is because the loan repayment is based on the total earnings of the settlers per month. If the settlers are given the full price, and as deduction for loan repayment is made at the end of the month, it may be that very little is left for deduction of the loan. To make deduction at these interval of payment would be a tedious job. Another reason is that the cost incurred for assembling the rubber at the centre varies from month to month depending upon the amount of rubber handles. Thus it would be difficult to give a full net price of rubber since the cost per unit of rubber is known only at the end of the month. This problem may perhaps be solved by having a static amount of discount to account for the running charges of the collecting centre. This is also because of the fact that monthly average price is adopted which may be higher or lower than the daily price and thus the problem of what price to pay. It would therefore be feasible to pay the settlers a 'full' price when the loan has been fully repaid and that no adjustments to be made to the net price of rubber paid to the settlers and that the daily prices of rubber is paid to the scheme. In the marketing schemes at Rantau and Meru (RRI managed factories) the smallholders are paid for their latex on the previous day RSS1 price. This is possible because these marketing schemes directly export the rubber. However, in F.L.D.A. rubber is not processed at the Authority's central factories but sold and then processed by commercial estates factories, or other commercial organizations factories.

As seen above, the settlers are paid the average price of rubber not the daily prices. The reason for adopting this may be because the Authority wants to be fair to all settlers. This can be seen in the fact that a settler is not able to tap his rubber daily but on alternate days and that the price of rubber fluctuates from day to day. It may be that on the day a settler delivers his rubber the price of rubber may be lower than the previous day when he did not tap his rubber. Thus another settler who tapped on the previous day may obtain a higher price than this settler. Thus to be fair an average price is paid to all settlers.

## CHAPTER V

## PROBLEMS

This chapter is concerned with examining the problems encountered in the marketing of the Bilut Valley settlers' rubber. Since this study is focussed on the 'first buyer' level or the Scheme's level, the problems discussed are essentially those that are faced at this level. These problems may persist in other F.L.D.A. schemes but their extent or importance may differ.

### Illegal Selling of Rubber

Despite the monopsonistic position of the Scheme's collecting centre, there has been large amount of the rubber produced being sold outside the Scheme. This means that the supply of rubber to the collecting centre is affected.

As the rubber that is being sold outside the Scheme is in the form of lower grades which mainly consist of deliberately coagulated latex it means that the returns to the producer (settlers) is lesser relative to the amount they could have obtained by delivering the latex to the collecting centre. This is because the price of lower grades, which is based on the price of 1X or 2X Thin Brown Crepe (depending on quality of lower grades) is lower than the price which the settlers' could have obtained for the latex. For example, the average price (before deducting duty and cess) of RSS1 (on which the price of latex is based) for April 1967 was 57.1 cents a lb and that of 1X Thin Brown Crepe was 50.7 cents a lb - a difference of about 6.4 cents.

Not only that the settlers will lose because of the differential in price between the two forms of rubber, but also they may be subjected to the terms of the rubber dealers to whom they sell their rubber with regard to moisture content deduction, weighing and grading. These terms depend on the relative bargaining power of the rubber dealers and the smallholders (settlers). As the selling of rubber outside the scheme is considered to be a breach of the obligation of the settlers towards the Scheme (Authority), it (Authority) has the power to apprehend such settlers if they are caught in the act. Thus these settlers are under a risk when they sell their rubber to these dealers. Under such circumstances the settlers would therefore accept the terms of the dealers and that they would not have much

choice. The settlers, however, may turn to other dealers who can offer a better price. But in most cases, they do not simply because they (these settlers) have established a relationship with these dealers in that these dealers provide an outlet for the settlers rubber. This is evident from the fact that the settlers make prior arrangement with the dealers before the sale of rubber particular with regard to determining the place where the dealers could collect the rubber.

However, in the case where these settlers deal with the unlicensed dealers, who are made up of the settlers themselves, both parties face the same risk. The price offered by these unlicensed dealers is obviously lower than that offered by the rubber dealers in Bentong. The price differential between the unlicensed and licensed dealers is due to the transport cost incurred by the unlicensed dealers in transporting the rubber to these licensed dealers.

By selling rubber outside the scheme, the settlers has to pay for the cost of transport. If the settlers are to deliver their rubber to the collecting centre, the cost of transport would not be as much as they would have to pay to transport their rubber to the rubber dealers in Bentong.

(Illegal selling of rubber has another effect in that it lowers the amount of the cash residual income of the settlers on which loan repayment is based.) The loan is part of the cost of financing the scheme, categorised as the Loan Account is made up of development (capital) expenditure and recurrent expenditure. Expenditure incurred under this is recovered through monthly instalments from the time the main crop (rubber) comes into production. The residual cash income is the total proceeds of rubber delivered by the settlers less a minimum subsistence allowance. This subsistence allowance of a minimum level of $100 per month rises over a period to $175. This total proceeds in turn depends on the amount of rubber delivered to the collecting centre and the net price of rubber. Thus the less the amount of rubber being delivered to the collecting centre, the less would be the cash residual income. It is estimated that each settler's initial loan is about $13,000. With a rate of repayment of two-thirds of the cash residual income it is expected that the loan will be fully repaid within a period of 12 to 15 years. However, this is based on the expectation that there will be no 'leakage' of rubber outside the scheme. As was seen in Chapter II there was large amount of rubber not delivered to the Scheme's collecting centre. The total amount of loan paid by the settlers in 1967 and 1968 can be witnessed in Table V.1. If this situation prevails in later years, the loan repayment period during which the loan is expected to be repaid would be extended to more than fifteen years. As the settlers would not be given title to their holdings before the period of loan repayment is over, they therefore would have to wait for a longer period before they are able to hold title to their

holdings. The Authority, also would not be able to recover its expenditure incurred as early as possible, and channel the recovered loan to finance other projects.

TABLE V.1

BILUT VALLEY LOAN REPAYMENT

1967 - 1968

| Month/Year | 1967 | 1968 |
|---|---|---|
| January | $ 5,639 | $ 4,147 |
| February | 472 | 3,147 |
| March | 1,742 | 366 |
| April | 19 | 319 |
| May | 836 | 5,051 |
| June | 3,286 | 8,841 |
| July | 3,268 | 10,150 |
| August | 2,572 | 9,871 |
| September | 3,093 | 13,298 |
| October | 2,652 | 9,257 |
| November | 2,510 | 11,724 |
| December | 4,981 | 5,765 |
| Total | 31,070 | 81,936 |

Source: Bilut Valley Loan Repayment Records.

With these drawbacks it would be imperative to find the cause or causes for the settlers resorting to illegal selling. It was found that the settlers felt that the rate of the loan repayment was high. From the standpoint of the settlers the loan repayment leave them with little income to meet their varied commitments. Although the settlers are expected to supplement their income by producing cash crops, the settlers are largely dependent upon the income from rubber. In order to avoid paying a larger loan repayment thus obtaining a higher net income the settlers do not deliver all the rubber they produce. In such a way they are able to fulfill their obligations towards the Scheme

and at the same time would be left with a higher income. For example, if a settler is to sell all his latex to the collecting centre, say 350 lbs (dry weight) for the month at an average net price of 50 cents per lb, his gross income will be $175. However, his net income will be $125, that is, after deducting loan repayment of $50. (Subsistence allowance $100 and the cash residual income $75 is subjected to loan deduction at rate of two-thirds of the cash residual income). On the other hand, if the settler sells part of this 350 lbs of latex outside the scheme, say 100 lbs, that is as lower grades, at a price of 40 cents a lb, he will get $40. This $40 is not subjected to loan repayment deductions. From the 250 lbs which he sells to the collecting centre, he will get a net income of $125. Hence his total net income will be $165 ($125 + $40). Thus the settler has a higher net income than what he would get if he delivers all his latex to the collecting centre. However, he has to face all the disadvantages mentioned above.

The settlers monthly income from rubber would vary depending upon (a) the year of tapping (b) the market price of rubber (c) maintenance and productions. However, it would largely depend on the yield of rubber, which steadily increases over the years until the fifteenth to seventeenth year when the yield would begin to decline. The aims of the loan repayment scheme is to complete the loan repayment over a short period as is practical, avoid the loan repayments over burdening the settler and thus creating financial difficulties with regard to consumption expenditure and working capital requirements and to encourage the use of sound agricultural practices. Perhaps as the yield of rubber increases, which means a higher income (provided that the present trend of rubber prices is maintained) the need for a 'higher' income would be met. Hence the settlers may not resort to illegal selling of rubber in order to have a 'higher' income.

It was thought by the Authority that the settlers resort to illegal selling of rubber because of the need for cash to meet the daily requirements. Thus the interval of payment of the settlers' rubber was later reduced from bi-monthly to a ten-day intervals. However, this met with some success, but there was still large amount of rubber being sold outside the scheme.

To deter the settlers from selling outside the scheme surprise roadblocks with the help of the police, were mounted along the route leading to Bentong. A few settlers were apprehended and their rubber confiscated. Recently, the manager of the scheme, with the co-operation of the District Officer of Bentong, who is incidently the Chairman of the District Rubber Licensing Board, convened a meeting with the Bentong rubber dealers. It was agreed by the dealers that if evidence was found that they purchased rubber from the scheme's settlers they would be prosecuted and their licence be withdrawn. So far the result remains to be seen. However, it is felt that much action is difficult to exercise since

evidence cannot be easily obtained. This is because of the lack of manpower and that the settlers have established an arrangement with the dealers as such that it is not easily to detect. Rubber may be 'taken' out of the scheme at odd hours of the night. Perhaps a twenty-four hours roadblock to check outgoing vehicles from transporting rubber out of the scheme could meet with more success. But the cost of implementations, coupled with the lack of manpower, seems to make this not feasible.

It is felt that the root of the problem should be tackled, and that is the system of the loan repayment. It should be in line with the ability of the settlers to pay. However, it should be remembered that if the loan is not fully repaid by the end of the twenty-fifth year when the yield of rubber is falling and that replanting has to take place, would involve a greater difficulty. The settler would need a 'fresh' loan in order to be able to replant their rubber.

Price of Lower Grades

Some settlers felt that the Scheme offered a lower price than the rubber dealers. This may arise from the fact that the price the scheme offers is 'wet' price, which is approximately half of the 'dry' price of lower grades (cuplump, tree lace, precoagulum's d.r.c. approximately taken as 50%). As the settlers may have 'dried' the lower grades (there is no moisture in the lower grades) they therefore obtains a higher price. There is no apparent cost to the settler to dry his cuplump, tree lace and precoagulums out in the sun. The aim of the collecting centre in collecting 'wet' lower grades and storing them under water is to preserve the qualities of the lower grades. For this reason the settlers are required to deliver 'wet' lower grades. By sending 'wet' lower grades does not mean that the settlers get a lower price as they are paid based on the estimated dry rubber content[1].

Thus this constitutes another problem in the marketing of the settlers' rubber and a possible reason for illegal selling of rubber. Therefore there is the need to explain to the settlers the reason for paying the 'wet' price. However, if the settlers are to send 'dry' lower grades they are paid accordingly and not price as 'wet'.

Dry Rubber Content Assessment

As seen in Chapter III the assessment of the rubber content of latex by using the metrolac test is rather inaccurate causing an under-estimation or over-estimation of the settlers' 'dry' weight of latex. For this reason there has been differences between

---

[1]Refer Chapter III.

the settlers' and buyer's estimated dry weight of latex. Thus the price per unit has to be adjusted in order that the scheme does not make a loss.[2]

Some settlers deliver adulterated latex to the collecting centre with the aim of getting a 'higher' reading on the 'metrolac test', by which the rubber content is estimated. In actual fact the latex has a lower dry rubber content. Although this increases the aggregate of the individual settlers weight of latex (dry), it does not increase the buyer's estimated weight of the latex (the buyer determined the dry weight of the latex from the sample taken from the bulked latex). The buyer pays the Scheme (Authority) according to this bulked weight. As the buyer's weight of latex (dry) is lower than the aggregate of the individual settler's weight of latex (dry) there is the need for adjustment. In this case of 'over-estimation', as seen in Chapter IV, it has the effect of lowering the price paid to the settlers. However, these settlers may gain because their weight of latex (dry) is higher than what it should although the price they receive would be a little lower. On the other hand, those settlers who do not 'cheat' would lose as the adjustment with the effect of lowering the price would affect everyone.

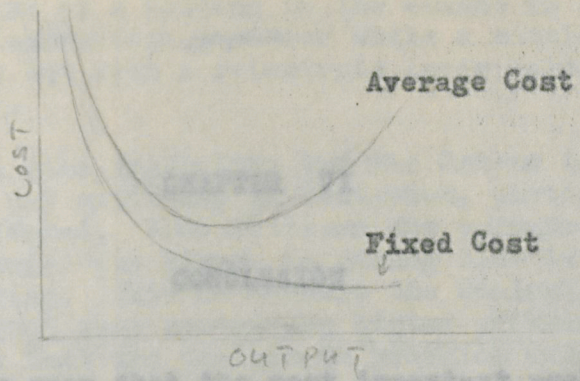
To combat this 'cheating' by the settlers if the 'metrolac test' reading registers more 37%, a sample of their latex will be taken and the 'chee method' is used and the settlers' dry weight will be recorded accordingly. But to use this 'chee' method of determining the dry rubber content of every settler's latex is difficult because of the large number of settlers involved in the Scheme and the small number of staff available at the collecting centre. Thus it would be easier to use this method when necessary only and that the number of settlers 'found' cheating was small.

Rubber Production

As seen in Chapter II, the amount of rubber produced is dependent, among other things on the turn out of tappers. Some settlers may not tap for reasons of their own. This affects the production of rubber. As the factory running charges depend on the amount of rubber produce, the discount charged by the collecting centre per lb of rubber would be higher. This is because the collecting centre is built to cope up with a certain amount of production of rubber. This discount is in fact the average total cost per unit of rubber. Since the fixed cost remains constant whatever the output, it would mean that the average total cost would be lower as more rubber is handled, up to a certain point.

---

[2]Refer pages 27 - 29.




Therefore it would be necessary to encourage the settlers to tap their rubber regularly. As the mount of loan also depends on the amount of rubber delivered to collecting centre, the less the amount being delivered, the less would be the amount of loan to be deducted, which means that the period of loan repayment would be extended to more than the expected period.

Competition with Rubber Dealers

It appears that the collecting centre has to compete with the licensed and unlicensed dealers. However, this apparent competition emerged not due to that these dealers are able to offer better services but mainly because of the loan deduction which the settlers attempt to evade in order to have a higher net income. These settlers thus offer an outlet for the settlers to sell their rubber. However, the apparent competition is only in dealing with lower grades. though much of the lower grades consisted of deliberately coagulated latex (cuplumps). Some settlers claimed that the price offered by these dealers is higher than the price of the Scheme. It may be true because in order to ensure the supply of rubber some dealers may pay a higher price mainly to attract these settlers. It may be because of 'wet' price being paid to the settler which is certainly lower than the 'dry' price. As said earlier, there is no apparent cost to the settler to dry his lower grades before selling to the dealers. In this way he may obtain a higher price. Thus there is the need to explain to these settlers the advantage of selling 'wet' to the collecting centre. If, however, the settlers are to sell their lower grades 'wet' to these dealers, they would be subjected to moisture deduction, amount which would be in favour of the dealers. The collecting centre deduction is based on the estimated of the dry rubber content, but such estimation is chemically determined which is more accurate than the dealers.

## CHAPTER VI

## CONCLUSION

It is seen that the most important problem encountered in the marketing of the smallholders' (settlers') rubber is the large amount of rubber being sold illegally outside the Scheme. This has been seen as not only a loss to the settler himself (since he obtains a lower price as rubber sold illegally is in the form of lower grades) but also to the Authority in that the amount of loan which the Authority is supposed to recover has not been recovered. It is the aim of the Authority to arrange the marketing of its smallholders' rubber in such a way that the settlers would be in a position to enjoy a better price. However, with this practice of illegal selling of rubber the aim of the Authority may not be fully realised.

It was found that the reason for the settlers not delivering all their rubber to the collecting centre was because of the high rate of loan repayment deduction which acted as a disincentive for the settlers to get the advantage of the marketing facilities as provided by the Authority. This high rate of loan repayment deduction has the effect of lowering the cash income of the settlers. If they sell part of their rubber outside the scheme all the proceeds would accrue to them. On the other hand, if they deliver their rubber to the centre, their proceeds would be subjected to loan deduction thus reducing their income. It is felt that the rate of the loan repayment should be reviewed so as it would not be a burden to the settlers and thus create a disincentive for the settlers to utilise the marketing facilities fully. The reason for the settlers not delivering their latex is not because they want to evade totally from paying their loan but because the rate is, to them, very high. The rate should be in line with the capability of the settlers to pay the loan considering the size of his family. The present rate of payment does not consider the size of the settler's family. A settler with a relatively large family needs more for subsistence than a settler with a relatively small family.

As the holdings in the Scheme are of unequal size, there are some settlers who have a smaller holdings while others have a bigger holdings. The larger the holding the more can a settler produce thus, the larger will be his income. Thus a settler with a relatively large family but with a relatively small holding

(the average size of a holding in the Scheme is about 7.7 acres) will be in a disadvantage position while a settler with a relatively small family but with a relatively large holding will be in a better position.

It is also imperative for the Scheme to make the settlers understand the way marketing is conducted, particular with regard to the price offered. Some settlers due perhaps to their illiteracy feel that the price the Scheme is giving them is lower than what the dealers are paying. This is because the dealers may be able to convince them that they are giving higher prices. It may be true but it is known that the dealers do practice under-weighting and under-estimating the quality of the smallholders rubber. Therefore there is the need for information regarding the system of pricing adopted by the Scheme.

The efficiency of a marketing organization in providing services and affecting smallholders may be judged by two methods. The first is to assess the extent to which prices for smallholders differ (a) as between one form or quality and another by more than they should considering the costs of processing or of greater care in production and processing (b) as between one time and another considering the costs of storage, finance and risk bearing; (c) as between one place and another considering transport and handling costs. As the information, with regard to this criterion, is not available it is difficult to say whether the marketing system which operates in the Scheme is efficient or inefficient. However, the discount rate charged by different buyers may serve as an indicator. It could be seen that at the initial stage when the Scheme contracted Lee Rubber, Selangor, Limited, to buy the Scheme's rubber, the discount rate charged by the company for latex, was higher than the discount charged by the Harrisons and Crosfield, Petaling. However, it should be remembered that the former handled latex coagulum while the latter is dealing in preserved latex. Thus it cannot be rightly said whether the discount charged by the former is higher than the later as different processes are involved.

Another criterion is to determine how far competition between the various middlemen and processors is in any way restricted or imperfect. However, there is only the collecting centre which has the right of purchasing the smallholders' rubber. Thus there is technically no competition by other dealers. In this case the efficiency of the marketing system could be judged by the efficiency of the services it provides to the settlers. Thus in this context the technical and economic efficiencies would serve as the criteria. The aim of the Authority is to produce good quality rubber, and establish a system of marketing which is economically viable. The first aim of producing good quality rubber is achieved in that the rubber produced is classed as first grade rubber whose price is based on the RSS1. The buyer also pays the Authority d.r.c. allowance and quality bonus. Thus the price which the settler receives will be higher than the RSS1 less

duty and cesses and buyer's discount.

However, the premia which is obtained for producing good quality rubber should be carefully fore-sightedly assessed in relation to costs of producing higher quality. With the establishment of the central factory which is being built and ready for operation in early 1970, there is the need to analyse this factor carefully. The Authority also hopes, and in line of the Government's policy to raise the quality of rubber of smallholders', to not only cater for the three F.L.D.A. schemes of Bilut Valley, Klau Valley, and Kg. Sertik, but also the smallholders near to the Bilut Valley Scheme. However, the Authority feels that it should not be too ambitious. It should first provide an efficient marketing services to its own settlers. When the central factory is able to cope up with non-settlers rubber, its action may be opposed by rubber dealers (local) whose business may be affected.

University of Malaya

# APPENDICES

University of Malaya

## APPENDIX I

### RUBBER YIELD ASSUMPTIONS

### FLDA SCHEMES

| Year of Tapping | Latex (D.R.C.) | Scrap * 1966 | | Total | |
|---|---|---|---|---|---|
| 1st Year | 550 | 275 | 97 | 48½ | 647 | 323½ |
| 2nd Year | 800 | 675 | 141 | 119 | 941 | 794 |
| 3rd Year | 1,000 | 900 | 176 | 158½ | 1,176 | 1,058½ |
| 4th Year | 1,200 | 1,100 | 212 | 194 | 1,412 | 1,294 |
| 5th Year | 1,300 | 1,250 | 230 | 221 | 1,530 | 1,471 |
| 6th Year | 1,350 | 1,325 | 238 | 234 | 1,588 | 1,559 |
| 7th Year | 1,400 | 1,375 | 247 | 242½ | 1,647 | 1,617½ |
| 8th Year | 1,400 | 1,400 | 247 | 247 | 1,647 | 1,647 |
| 9th Year | 1,400 | 1,400 | 247 | 247 | 1,647 | 1,647 |
| 10th Year | 1,400 | 1,400 | 247 | 247 | 1,647 | 1,647 |
| 11th Year | 1,400 | 1,400 | 247 | 247 | 1,647 | 1,647 |
| 12th Year | 1,400 | 1,400 | 247 | 247 | 1,647 | 1,647 |
| 13th Year | 1,400 | 1,400 | 247 | 247 | 1,647 | 1,647 |
| 14th Year | 1,400 | 1,400 | 247 | 247 | 1,647 | 1,647 |
| 15th Year | 1,375 | 1,387½ | 243 | 245 | 1,618 | 1,632½ |
| 16th Year | 1,350 | 1,362½ | 240 | 241½ | 1,590 | 1,604 |
| 17th Year | 1,325 | 1,337½ | 234 | 237 | 1,559 | 1,574½ |
| 18th Year | 1,300 | 1,312½ | 230 | 232 | 1,530 | 1,544½ |



University of Malaya

| Year of Tapping | Latex (D.R.C.) | | Scrap * 1966 | | Total | |
|---|---|---|---|---|---|---|
| 19th Year | 1,275 | 1,287½ | 225 | 227½ | 1,500 | 1,515 |
| 20th Year | 1,250 | 1,262½ | 221 | 223 | 1,471 | 1,485½ |
| 21st Year | 1,200 | 1,225 | 212 | 216½ | 1,412 | 1,441½ |
| 22nd Year | 1,150 | 1,175 | 203 | 207½ | 1,353 | 1,382½ |
| 23rd Year | 1,100 | 1,125 | 194 | 198½ | 1,294 | 1,323½ |
| 24th Year | 1,050 | 1,075 | 185 | 189½ | 1,235 | 1,264½ |
| 25th Year | 1,000 | 1,025 | 176 | 180½ | 1,176 | 1,205½ |

Source: FLDA Planting Division

* Scrap is estimated as equivalent to 15% of total crop (D.R.C.)

## APPENDIX II

### HARRISONS AND CROSFIELD STANDARD TERMS

Price: Average for the first quoted month of the mean of the daily non buyers and sellers F.O.B. for Int. IRSS.

| Price | Discount |
|---|---|
| Below 55 cents | 3½ cents per lb. |
| 55 cents & below 70 cents | 3¾ cents " " |
| 70 cents " " 80 cents | 4 cents " " |
| 80 cents " " 90 cents | 4¼ cents " " |
| 90 cents " " 100 cents | 4½ cents " " |
| 100 cents " " 110 cents | 5 cents " " |
| 110 cents " " 120 cents | 5½ cents " " |
| Over 120 cents | 6 cents " " |

Quality: VFA should not exceed 0.075.

Quality Premium:

a) ½ cent per lb on the price computed as above on all latex which at no time contains a VFA content in excess of 0.15 units.

b) on the latex throughput per month where the average DRC exceeds 28%.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| D.R.C. average exceeding | 32% | - premium of | 0.5 | cents | per | lb. |
| " " " | 31% | " " | 0.4 | " | " | " |
| " " " | 30% | " " | 0.3 | " | " | " |
| " " " | 29% | " " | 0.2 | " | " | " |
| " " " | 28% | " " | 0.1 | " | " | " |
| " " " | 27% | - standard payment terms. | | | | |

On the latex throughput per month where average D.R.C. is less than 27% the price is subject to an additional discount calculated as follows:-

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| D.R.C. | average | exceeding | 26% | an | additional | discount | of | 1/8 | cent | per lb |
| D.R.C. | average | exceeding | 25% | an | additional | discount | of | 1/4 | cent | per lb |
| " | " | " | 24% | " | " | " | " | 3/8 | cent | per lb |
| " | " | " | 23% | " | " | " | " | 1/2 | " | " " |
| " | " | " | 22% | " | " | " | " | 5/8 | " | " " |
| " | " | " | 21% | " | " | " | " | 1 | " | " " |
| " | " | " | 20% | " | " | " | " | 1 1/4 | " | " " |
| D.R.C. | average | below | 20% | " | " | " | " | 1 3/4 | " | " " |

Source: F.L.D.A. Marketing Division

University of Malaya

## APPENDIX III

### REVERTEX LTD. AYER HITAM : DISCOUNT TERMS[a]

Discount

| Monthly average D.R.C. % | | | | Discount | | | |
|---|---|---|---|---|---|---|---|
| 25.99% or below | | | - | 4.0 | cents | per | lb |
| 26.00% | to | 29.99% | - | 3.9 | " | " | " |
| 27.00% | " | 27.99% | - | 3.8 | " | " | " |
| 28.00% | " | 28.99% | - | 3.7 | " | " | " |
| 29.00% | " | 29.99% | - | 3.6 | " | " | " |
| 30.00% | " | 30.99% | - | 3.5 | " | " | " |
| 31.00% | " | 31.99% | - | 3.4 | " | " | " |
| 32.00% | " | 32.99% | - | 3.3 | " | " | " |
| 33.00% | " | 33.99% | - | 3.2 | " | " | " |
| 34.00% | " | 34.99% | - | 3.1 | " | " | " |
| 35.00% | " | 35.99% | - | 3.0 | " | " | " |
| 36.00% | " | 36.19% | - | 2.9 | " | " | " |

Quality: a) VFA not exceeding 0.03 upon arrival at manufacturer's factory.

b) R.R.C. percentage not less than 25%.

c) Bonus of 0.6 cents per lb from 1st January 1969 - 30th September 1969 after which the terms would be reviewed with respect to the vicissitude of the rubber market.

[a]Source: F.L.D.A. Marketing Division

## APPENDIX IV

### F.L.D.A. SCHEMES: ACREAGE PLANTED AND UNDER TAPPING AND NUMBER OF SETTLER FAMILIES, 1969

| State | | Schemes | Acreage Planted | Acreage Tapped | No. of families (31.12.68) |
|---|---|---|---|---|---|
| KEDAH | | | | | |
| | 1. | Guar Napai | 984 | 500 | 143 |
| | 2. | Bukit Tembaga | 1,046 | 776 | 152 |
| | 3. | Batu Lapan | 560 | 433 | 86 |
| | 4. | Sg. Tiang | 3,414 | 3,136 | 517 |
| PERAK | | | | | |
| | 5. | Ijok | 904 | 509 | 301 |
| | 6. | Sg. Kelah | 992 | 992 | 300 |
| SELANGOR | | | | | |
| | 7. | Gedangsa | 1,739 | 1,739 | 385 |
| N.SEMBILAN | | | | | |
| | 8. | Sendayan | 891 | 891 | 428 |
| | 9. | Kg. LBJ | 3,148 | 789 | 385 |
| | 10. | Sg. Lui | 789 | 789 | 125 |
| | 11. | Bukit Rokan | 4,277 | 982 | 326 |
| MELAKA | | | | | |
| | 12. | Kemendore | 2,909 | 2,618 | 379 |
| | 13. | Kg. Bharu Menggong | 595 | 584 | 97 |
| | 14. | Machap | 738 | 738 | 120 |
| | 15. | Hutan Percha | 2,374 | 831 | 281 |
| JOHORE | | | | | |
| | 16. | Endau | 1,645 | 1,403 | 248 |
| | 17. | Bukit Serampang | 944 | 620 | 366 |
| | 18. | Tenang | 976 | 976 | 359 |
| | 19. | Ayer Hitam | 977 | 670 | 323 |
| | 20. | Kong Kong | 1,777 | 1,666 | 421 |
| | 21. | Lenga | 1,093 | 1,086 | 212 |
| | 22. | Parit Hj. Idris | 253 | - | 54 |



University of Malaya

| State | Schemes | Acreage Planted | Acreage Tapped | No. of families (31.12.68) |
|---|---|---|---|---|
| PAHANG | | | | |
| 23. | Kg. Awah | 953 | 953 | 329 |
| 24. | Kg. New Zealand | 1,024 | 1,024 | 215 |
| 25. | Bilut Valley | 4,791 | 3,215 | 574 |
| 26. | Sg. Tekam | 1,046 | 1,046 | 219 |
| 27. | (Lurah Klau | 3,832 | - | 233) |
| 28. | (Kg. Sertik | 3,342 | - | 169) |
| TRENGGANU | | | | |
| 29. | Chalok | 1,218 | 1,010 | 388 |

Total acreage planted: 35,778 - (excluding Lurah Kalu and Kg. Sertik).

Source: F.L.D.A.

APPENDIX V

F.L.D.A. SCHEMES: BUYER AND TERMS AND DISCOUNT RATES OF LATEX AND SCRAP

| Scheme | Latex Discount per lb. dry (Feb/March/April) | Buyer and Terms | Lower Grades Discount per lb. dry | Buyer and Terms |
|---|---|---|---|---|
| A. KEDAH | | | | |
| 1. Guar Napai | 3 cts. (3½) | Lee Rubber, Bedong | 5½ cts. | Lee Rubber, Bedong |
| 2. Bkt. Tembaga | 2½ cts.(3) | International RSS1 taking average of Buyers and Sellers price for the month (1st shipment) on duty and cesses based on the date of collection by the buyer. | | Mean of 1X/2XTBC UK/C Buyers price for the day or on the day of collection less export duty and cesses. |
| 3. Batu Lapan | 3 cts. (3½) | | | |
| 4. Sg. Tiang | 1½ cts. | Term of noon day price: from 1st - 12th of each month, to cover the month's price from 13th to 31st (last day) of each month the following month's price, less duty and cesses and export certificate. | | D.R.C. of cuplump free lace 48% bucket wash 39% |



University of Malaya

| Scheme | Latex Discount per lb. dry (Feb/March/April) | Buyer and Terms | Lower Grades Discount per lb. dry | Buyer and Terms |
|---|---|---|---|---|
| B. PERAK | | | | |
| 5. Ijok | 4½ cts. | Tropical Produce Taiping Average daily noon Malaysia buyers f.o.b. price for No. IRSS for 1st shipment period.<br><br>Should sellers' crop be lower than 23,000 lbs per month, the sellers shall pay the buyer the sum of $10/- for every load of latex conveyed during the month. | No fixed buyer as yet. | |
| 6. Sg. Kelah | | Harrisons and Crosfield Latex Standard Terms (Appendix III) | 4½ cts. | Lam Seng, Seremban |
| C. SELANGOR | | | | |
| 7. Gedangsa | 3½ cts. | Harrisons and Crosfield, Petaling average for 1st quoted month of the mean daily noon buyers and sellers for Int. No. IRSS issued by MRE less av. duty and cesses for the month. | 5½ cts.<br><br>4½ cts. | Lee Rubber Selangor Gombak.<br><br>(Now Lam Seng 1XTBC UK/C Buyer) |
| D. N.SEMBILAN | | | | |
| 8. Sendayan | 5 cts | RRI Rantau | 5 cts. | RRI Rantau |

| Scheme | Latex Discount per lb. dry (Feb/March/April) | Buyer and Terms | Lower Grades Discount per lb. dry | Buyer and Terms |
|---|---|---|---|---|
| 9. Kg. LBJ | 5½ cts. | R.R.I. Rantau<br>R.R.I. - coagulum: Price based on RSS No.1 prompt buyers, preceeding each delivery less duty and cesses. | 5 cts | R.R.I. Rantau<br>R.R.I. - Average of No. 1X/2X TBC UK/C Buyers less duty and cesses. |
| 10. Sg. Lui | 6¾ cts. (less ¾ cts for coagulating costs) | Lam Seng, Seremban<br>RSSI 1st shipment position, noon buyers price less duty and cesses on the day of delivery | 4 cts | Lam Seng, Seremban<br>1XTBC open port buyer price issued by MRE less average duty and cesses on the preeceeding 7 weekdays. |
| 11. Bkt. Rokan | | K.G.S.B. | 4 cts | Lam Seng, Seremban 1XTBC UK/C Buyers. |
| E. MELAKA | | | | |
| 12. Kemendore | 4¼ cts. | Kota Trading, Seremban | 6½ cts. | Lam Seng, Seremban |
| 13. Kg. Bharu Menggong | " | " | " | " |
| 14. Machap | " | " | " | " |
| 15. Hutan Percha | " | " | " | " |

University of Malaya

| Scheme | Latex Discount per lb. dry (Feb/March/April) | Buyer and Terms | Lower Grades Discount per lb. dry | Buyer and Terms |
|---|---|---|---|---|
| | | Price is based on the quotation of MRE buyer price f.o.b. noon day for Int. No.1RSS in bales for the month preceeding each delivery, less duty and cesses for the day preceeding each delivery. | | Int. 1XTBC Open Port buyer less average duty and cesses on day preceeding 7 week days. Price of 1XTBC Open Port buyer calculated on the average noon price for the preceeding 7 week days. |
| F. JOHORE | | | | |
| 16. Endau | 5¼ cts. | Tropical Produce - Price based on the MRE average for 1st quoted month buyers noon day prices for Int. No. 1RSS less duty and cesses as well as any other cess, tax or duty. | 7 cts. | (Lee Johore Bharu 1XTBC UK/C buyers less duty and cesses) At present scrap are sold to Mersing Estate. |
| 17. Bkt. Serampang | 4 cts. | Harrisons and Crosfield Batu 6 - Average for the 1st quoted month of the mean daily noon buyers and sellers for Int. No. 1RSS issued by MRE less average duty and cesses for the month. | 6½ cts. | Lam Seng Seremban (same as in M'ka scheme). |

University of Malaya

| Scheme | Latex Discount per lb. dry (Feb/March/April) | Buyers and Terms | Lower Grades Discount per lb. dry | Buyer and Terms |
|---|---|---|---|---|
| 18. Tenang | 4 cts. | Harrisons and Crosfield Batu 6 | 6 cts. | Lee Segamat - 1XTBC UK/C Buyers less duty and cesses, on day of collections. Collections is on 15th and at the end of the month. |
| 19. Ayer Hitam | 3½ cts. | Revertex Limited, Kluang - average of the mean of Buyer and Sellers price for RSS No.1 for the 1st quoted month less duty and cesses. | 6 cts. | Kota Trading, Batu Pahat - 1XTBC, average price buyers UK/C less duty and cesses on day of collection. |
| 20. Kong Kong | 4 cts. | Ulu Tiram Manufacturing Co. - MRE noon day price of Int. RSS No.1 taking the average of buyers and sellers for the month less duty and export tax. | 6 cts. | Ulu Tiram 1X12XTBC now UK/C Buyers less duty and cesses. |
| 21. Lenga | 2 cts. | Kian Lee, Segamat - on day of collection | 4½ cts. | Kian Lee 1XTBC UK/C Buyers less duty and cesses on day of collection. |
| 22. Parit Hj. Idris | 6 cts. | R.R.I. - | 4 cts. | Chop Eng Joo, Muar 2XTBC UK/C Buyers less duty and cesses on day of collection. |



Universiti Malaya

| Scheme | Latex Discount per lb. dry (Feb/March/April) | Buyers and Terms | Lower Grades Discount per lb. dry | Buyer and Terms |
|---|---|---|---|---|
| G. PAHANG | | | | |
| 23. Kg. Awah | 6 cts. | R.R.I. same term as Sendayan | 6 cts. | R.R.I.) DRC 55% ) weekly |
| 24. Kg. New Zealand | 6 cts. | R.R.I. same term | 6 cts. | R.R.I.) collection. - mean of average UK/C 1X and 2XTBC less duty and cesses. |
| 25. Bilut Valley | 3¾ cts. | Lee Rubber Gombak (Aug. 66 to Oct. 1968) H & C, Latex, Petaling (Nov. 68 - ) H & C - coagulum - average price, same as Gedangsa | 5½ cts. | Lee Rubber Gombak Mean of buyer and sellers for 1XTBC UK/C for the month less duty and cesses. |
| 26. Sg. Tekam | 6¼ cts. | Chop Soon Guan - RSS No.1 1st shipment on day of collection. | 5½ cts. | Chop Soon Guan - on average 1X&2XTBC buyers for the period of collection. |
| H. TRENGGANU | | | | |
| 27. Chalok | 9½ cts. | Lee Rubber Co. Kota Bharu - Coagulum - average of monthly price (mean of buyers & sellers) for Int. day prices quoted by MRE less duty and cesses. | 7 cts. | Lee Rubber Co. K.Bharu Average of mean of buyers & sellers for 1XTBC UK/C for month less duty and cesses. |

Source: F.E.D.A.



University of Malaya

APPENDIX VI

BILUT VALLEY TAPPING REPORT
FOR 1968

| | Phase I | Phase II | Phase III |
|---|---|---|---|
| Trees in Tapping | 203,450 | 63,000 | 13,200 |
| Estimated Crop | 182,000 per month | 53,400 p.m. | 14,580 p.m. |
| | 2,190,000 per annum | 640,800 p.a. | 174,000 p.a. |
| Total Tappers in service for the year | 122,496 | 37,410 | 5,104 |
| Total Daily Percentages of Tapping for the year | 34.60% | 27.10% | 30.80% |
| Total Yield of Latex | 26,396,232 lbs | 1,013,402 lbs | 87,191 lbs. |
| Estimated Dry Weight | | | |
| (a) Latex | 994,141 lbs | 245,425 lbs | 27,661 lbs |
| (b) Lower Grades (Tree Lace, cuplump) @ 50% | 120,084 lbs | 423,360 lbs | 9,631 lbs |
| Total | 1,114,225 lbs | 287,785 lbs | 37,292 lbs |
| (c) Percentage of Latex to total | 89.10% | 25% | 74% |

| | Phase I | Phase II | Phase III |
|---|---|---|---|
| Yield per Tapper Per Day | 26.26 lbs | 28.33 lbs | 23.67 lbs. |

Average Yield per Tapper per day for whole scheme — 26.09 lbs

University of Malaya

APPENDIX VII

BILUT VALLEY COLLECTING CENTRE OPERATING EXPENDITURE STATEMENT
FOR 1968

| | January | February | March | April | May | June |
|---|---|---|---|---|---|---|
| **Production** | | | | | | |
| a) Latex | 92,411 lbs | 94,174 lbs | 41,144 lbs | 43,402 lbs | 85,288 lbs | 106,436 lbs |
| b) Lower Grades | 24,600 lbs | 22,911 lbs | 13,969 lbs | 12,042 lbs | 17,440 lbs | 12,474 lbs |
| Total Crop | 117,011 lbs | 117,085 lbs | 55,113 lbs | 55,444 lbs | 102,728 lbs | 118,910 lbs |
| **Number of Days Operating** | 23 days | 29 days | 30 days | 30 days | 31 days | 30 days |
| **Total Operating Hours** | 224 hours | 232 hours | 240 hours | 240 hours | 248 hours | 240 hours |
| **Processing Costs:** | | | | | | |
| a) Casual Labour | $ 628.70 | $ 559.90 | $ 644.80 | $ 609.20 | $ 732.65 | $ 742.10 |
| b) Maintenance - Building - Equipment | $ 16.30 | $ 31.20 | $ 37.30 | $ 32.20 | $ 48.00 | $ 35.20 |
| c) Water | $ 121.60 | $ 140.80 | $ 96.00 | $ 99.20 | $ 115.20 | $ 152.00 |
| Total | $ 763.60 | $ 731.90 | $ 778.10 | $ 740.60 | $ 895.85 | $ 929.30 |
| **Unit Processing Cost** (per lb of dry rubber) | 0.65 cents | 0.62 cents | 1.41 cents | 1.33 cents | 0.87 cents | 0.78 cents |

University of Malaya

# BILUT VALLEY COLLECTING CENTRE OPERATING EXPENDITURE STATEMENT FOR 1968

| | July | August | September | October | November* | December* |
|---|---|---|---|---|---|---|
| **Production** | | | | | | |
| a) Latex | 127,136 lbs | 120,887 lbs | 134,641 lbs | 115,086 lbs | 120,227 lbs | 95,724 lbs |
| b) Lower Grades | 11,853 lbs | 10,325 lbs | 12,070 lbs | 8,773 lbs | 9,815 lbs | 10,359 lbs |
| Total Crop | 138,989 lbs | 131,112 lbs | 146,711 lbs | 123,859 lbs | 130,042 lbs | 106,083 lbs |
| Number of Days Operating | 31 days | 31 days | 30 days | 31 days | 30 days | 29 days |
| Total Operating Hours | 248 hours | 248 hours | 240 hours | 248 hours | 240 hours | 232 hours |
| Processing Costs: | | | | | | |
| a) Casual Labour | $ 772.60 | $ 836.85 | $ 837.80 | $ 992.55 | $ 686.95 | $ 431.10 |
| b) Maintenance - Building - Equipment | $ 11.90 | $ 44.20 | $ 46.80 | $! 22.10 | $ 37.70 | $ 41.70 |
| c) Water | $ 136.00 | $ 147.20 | $ 185.60 | $ 160.00 | $ 38.40 | $ 70.00 |
| Total | $ 920.00 | $ 1,028.25 | $ 1,070.20 | $ 1,174.65 | $ 763.05 | $ 542.00 |
| Unit Processing Cost (per lb of dry rubber) | 0.66 cents | 0.78 cents | 0.73 cents | 0.95 cents | 0.58 cents | 0.51 cents |

*During these months Latex was preserved and sold to Harrisons & Crosfield, Petaling . In the other months, latex was coagulated and sold to Lee Rubber (Selangor) Ltd.



University of Malaya

## BIBLIOGRAPHY


1. Bakken, H.H. and Shaars, M.A. - Economics of Co-operative Marketing, New York, 1937.

2. Barlow, C. Lim, P.L. and Ong, V (1968) - An Assessment of Smallholders' Central Processing and Marketing Schemes. Natural Rubber Conference, Kuala Lumpur, 1968, Preprint.

3. Barlow, C and Chan, C.K. (1968) - Towards an Optimum Size of Holding. Natural Rubber Conference, Kuala Lumpur 1968, Preprint.

4. Barlow, C - "Smallholders' Latex Marketing Schemes" Review of Agricultural Economics Malaysia, FAMA, Ministry of Agriculture and Co-operatives, Vol. 1, No.1, June 1967.

5. Bevan, J.W.L. - "Future Developments in The Processing and Marketing of Smallholders' Rubber, MANUAL, 1966.

6. Federal Agricultural Marketing Authority - Review of Agricultural Economics Malaysia, Vol.1 No.2 Dec. 1967, Vol.2 No.1 June 1968.

7. A Policy Statement, 1956.

8. Federal Land Development Authority - Annual Report, 1962.

9. Greenwood, J.M.F. - "Rubber Smallholdings in the Federation of Malaya" Journal of Tropical Geography, Aug. 1964

10. Ho, R. - "Land Settlement Projects. An assessment of the Role of the Federal Land Development Authority". The Journal of Tropical Geography, Vol.20, June 1965 - Dept. of Geography, University of Malaya and University of Singapore.

11. Lim, S.C. (1968) - Analysis of Smallholders' Rubber Marketing in West Malaysia, Natural Rubber Conference, Kuala Lumpur, 1968 Preprint.

12. Malaysia - Report on First Seminar on Development, 1966, Kuala Lumpur, 1967.

13. Shepherd, G.S. Marketing Farm Products - Economic Analysis, 3 ed. Iowa, 1955.