

## REASONS FOR REPLANTING.

Rubber is the most important product of the Federation of Malaya, giving employment to about 300,000 people or 55% of Malaya's gainfully employed population and accounting for about \$92,807,935.00 in revenue from an export of 721,047 tons in 1962. In 1961 the net value of rubber export totalled \$1,475,000.00 compared with \$437,000.00 from tin metal and concentrates, the second highest value of our export. The figure for tin and concentrates is less than one-third of the value of rubber. Thus rubber is of overwhelming importance to the Malayan economy.

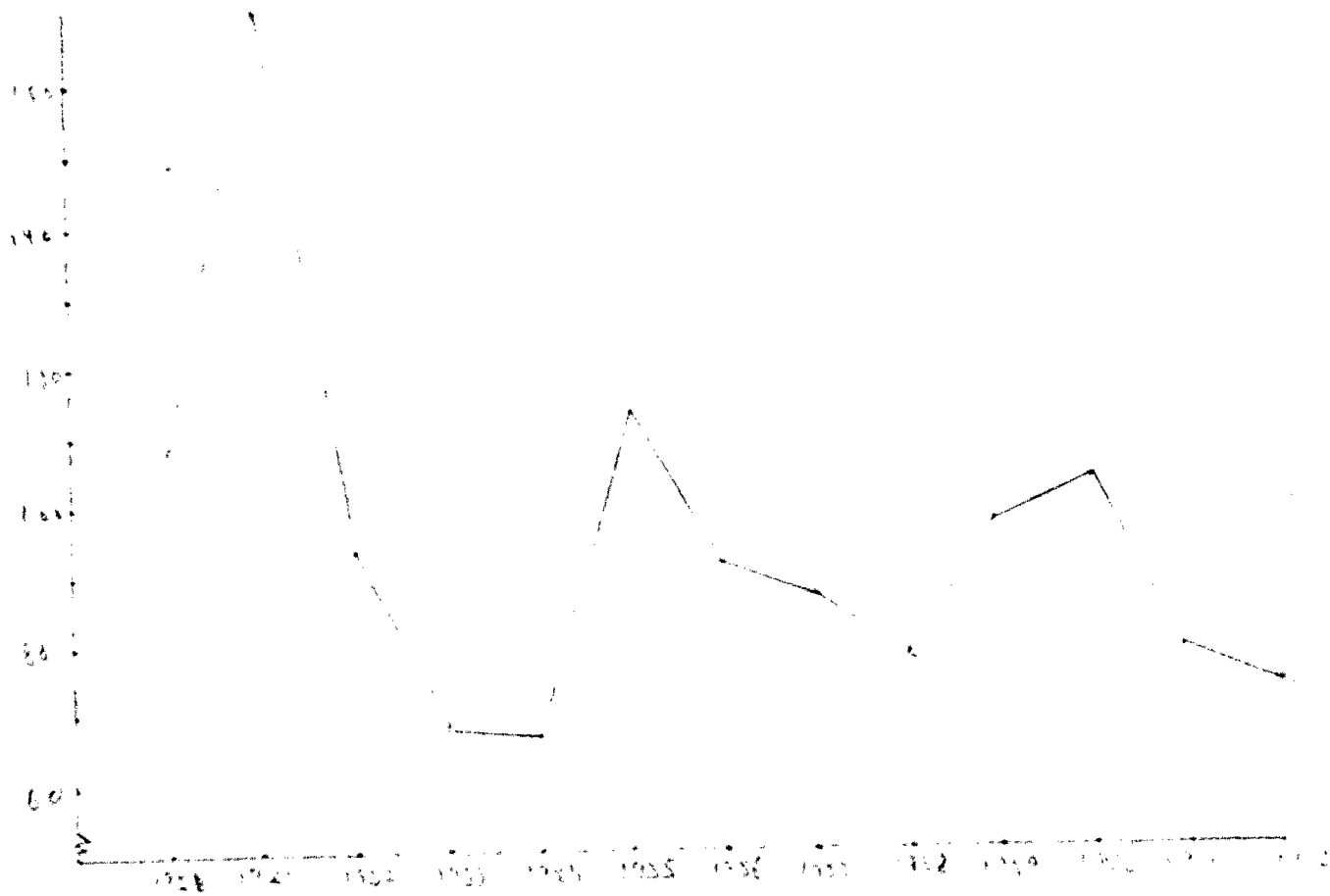
Since rubber is our greatest revenue earner we are very much concerned with its price. If there is a fall of half a cent in the price of rubber we will lose about \$322,381.00 in revenue and if the fall is ten cents the revenue lost will amount to more than \$7,000,000.00. The fall in the price of rubber will also have an effect on our external trade. Our balance-of-payment may turn against us and we may have to pay more in order to maintain our normal imports. Besides, the effects of a fall in the price of rubber is also felt in the economy. This was so in 1956 when the price of rubber fell to 60 cents a lb. for a number of months. As a result many of the estates stopped

work because it was uneconomical to tap rubber when the price was below the cost of production. Following upon this unemployment resulted in the rubber industry.

Our dependence upon rubber would be a good thing if the price of rubber is high and stable. In such circumstances no problem regarding rubber would be met. But, in actual practice rubber, like any other primary commodities, is susceptible to price fluctuation. In the past the price of rubber has been very uncompromising. It has been subjected to violent fluctuations, as can be seen in the graph shown in table 1.

TABLE I

AVERAGE PRICES FOR R.S.S. IN SINGAPORE 1950-1962

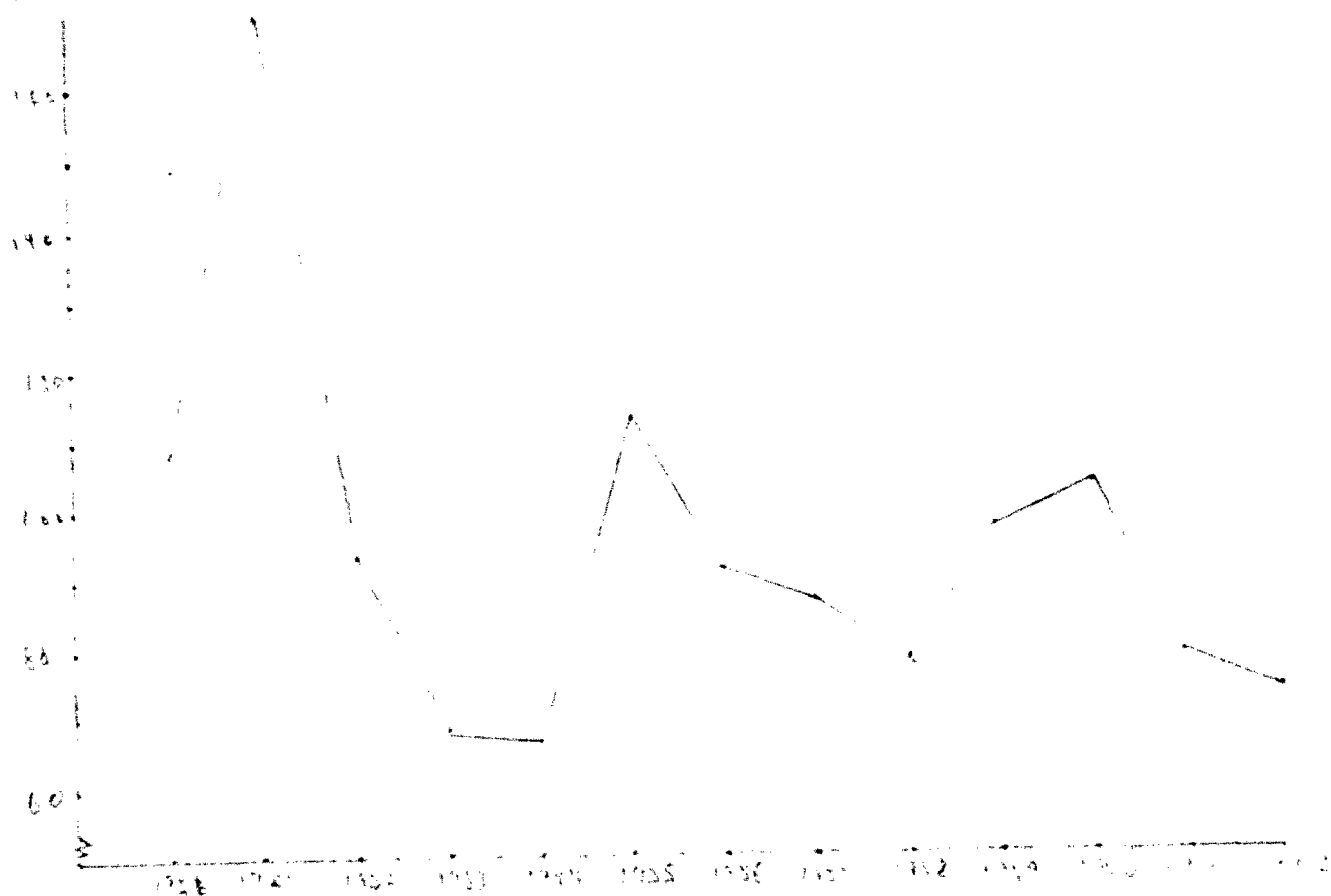


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Source: Rubber Statistic Handbook, 1962.

From the graph we see that over a period of thirteen years the price of rubber has ranged from as low as 67.3 cents a lb. in 1954 to as high as 169.55 cents a lb in 1951. This high price of 169.55 a lb. was due to the Korean War which had pushed up the price of rubber because of a sudden increase in demand. From then it began to fall from 96.07 cents a lb. in 1952 to 67.3 cents a lb. in 1954. However, in the next year it rose to 114.16 cents a lb. This was the time of the Suez Crisis which also had caused the price of rubber to rise. These fluctuations in the price of rubber shows that it is affected by the major world events which can force up the price of rubber owing to a sudden increase in demand. Similarly, when the United States decided to dispose off her excess stockpiled rubber the price was forced downwards. These fluctuations in the price of rubber are no good for an economy which depends so largely on rubber because any development plan is directly or indirectly affected by the movement of prices.

However, this problem of fluctuation in the price of natural rubber is not so serious in recent years as the downward trend of the price. Experts have forecast that with the increasing importance of synthetic rubber it is possible that the price of natural rubber will assume a downward trend. Even the Second Five-Year Plan of the Federation was formulated on the assumption that the

average rubber price during the five year period would be 25% lower than that of 1960. This means that it was based on 81 cents a lb. But up to date the price of rubber has fallen to about 70 cents a lb. Thus the downward swing of the price of natural rubber prices is a serious problem to us. The only way to overcome the effects of this problem and to adjust our economy to it is to replant our rubber trees with high-yielding rubber. This will ensure that for the same acreage a larger output can be obtained. With the larger output the fall in revenue owing to a fall in the price will not be so great. Furthermore, from an individual planter's point of view replanting with high-yielding rubber will ensure that it is still profitable to tap rubber even if the price falls about 50 cents a lb.

Another problem calling for replanting in the rubber industry is that a large percentage of Malaya's rubber was becoming old. In the nineteen-twenties Malaya supplied about 40% of the world's demand for natural rubber but in the nineteen-fifties this has dropped to about 22%. This was partly due to competition from synthetic rubber but chiefly due to the fact that production in the Malayan rubber industry has fallen owing to old age of the trees. Besides, new planting has increased less proportionately since the nineteen-twenties. The decline in Malaya's output of rubber was a cause for concern. Yearly production fell from 670,000 tons in 1949 to 573,000 tons in 1953.

For that period estate production fell from 400,000 tons in 1949 to 341,000 tons in 1953 ( 15% fall in production) while the small-holding fall in production was from 270,000 tons to 231,700 tons (14%)\*. Similarly, the yield per acre for both sectors also fell. The yield from the estates fell from 541 lb. per acre to 473 lb. per acre (13%). This fall in yield chiefly came from the old seedling trees which were much older than the high-yielding materials. Likewise, for the same period the area of mature trees that could be tapped fell by about 4%. Thus the main cause for the fall in estate production was due to old age of the trees. This was also the cause of the fall in the yield of the small-holdings. The total fall in the production of rubber for both the estate and small-holding sector totalled 97,500 tons for the period. Based on the 1953 price of 67 cents a lb. it is estimated that we have lost about \$146,328,000.00 which would otherwise be obtained from the sale of that amount of rubber.

Since the rubber industry is so important for our survival, it is inevitable that we should replant with high-yielding rubber. In the words of the Mudie Mission,

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\* See Rubber Statistic Handbook 1962

"It is no exaggeration to say that if the rubber industry were to be allowed to fall into irretrievable senility Malaya's present type of developing economy would collapse" .<sup>+</sup>

Another and vital factor which has necessitated the replanting with high-yielding materials is the challenge of synthetic rubber. The development of synthetic rubber during the century has caused evil effects on the price of natural rubber and it has changed the prospects of natural rubber in the world market. Since 1960 the competition between natural and synthetic rubbers has become acute when the first commercial quantities of synthetic polyisoprene and polybutadiene became available. Hitherto, natural rubber had a virtual monopoly of the heavy tyre tread sector of the rubber market, based on its technical properties. But with the production of polyisoprene and polybutadiene this monopoly was challenged, since they are also being used in heavy duty tyres.

In 1958, natural rubber accounted for 80,000 tons out of a total of 127,000 tons of rubber consumed in the tyre manufacturing industry in the United Kingdom. But, since then the use of synthetic rubber has increased so rapidly that in 1962 it accounted for 80,000 tons, surpassing

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<sup>+</sup> Report of The Mission of Enquiry into The Rubber Industry of Malaya, page 6.

for the first time the amount of natural rubber used in this industry. With this trend of usage it is feared that the proportion of synthetic rubber to natural rubber used in the tyre manufacturing in the United Kingdom will continue to grow, eventually approaching that of the United States where in 1962 about 25% more synthetic rubber than natural rubber was used in tyre manufacture.

On an international level the consumption of synthetic rubber has increased considerably in relation to natural rubber as shown in table 2.

TABLE 2  
COMPARISON OF CONSUMPTION OF NATURAL AND  
SYNTHETIC RUBBERS, 1961-1964

Consumption(ions)	1961	1962	1963	1964(estimated)
Natural Rubber	2,132,500	2,187,500	2,195,000	2,050,000
% Change	+3.4	+2.6	+0.3	-7.6
Synthetic Rubber	1,920,000	2,170,000	2,325,000	2,609,000
% Change	+6.8	+13.0	+7.1	+16.7
Natural Rubber % of Total	52.6	50.2	48.4	44.0
Synthetic Rubber % of Total	47.4	49.8	51.6	56.0

Source: Rubber Trends 1964, page 2.



The table shows that the consumption of synthetic rubber is increasing at a greater rate than natural rubber and since 1963 the consumption of synthetic rubber for the first time exceeds that of natural rubber. This poses a problem for us because Malaya is the world's largest single of natural rubber and any decrease in demand for natural rubber will affect us. However, in the competition between natural and synthetic rubbers the crucial point is the question of price. Therefore this calls for replanting of natural rubber with high-yielding materials so that the yields per acre can be increased, thus decreasing the cost of production per lb. of rubber.

The cost of producing rubber falls with the increase in yield per acre. This can be easily explained. On an estate planted with old rubber trees giving a low yield per acre, tapping charges account for about 40% of the total expenditure and general charges, depreciation and maintenance of the plant account for about 30%. About 12% is taken up by cultivation and processing, and packing and despatching about 8%. But in the case of those with high yields per acre, processing, packing and despatching costs increase proportionately with the yield. On the other hand, the total expense on general charges is not much greater at a higher level of yield under more modern system of management. Thus the incidence per lb. of rubber will fall. Furthermore,

the cost of cultivation does not increase in proportion to yield, therefore the cost per lb. of rubber is considerably less. Though wage rates, being fixed on the basis of the number of trees tapped, is higher per acre owing to the closer planting of the new trees, yet it is greatly reduced per lb. of rubber as a result of greater yield per tree. With these differences in cost allocation we find that the difference in cost per lb. is great between a low-yielding estate and a high-yielding one. Thus it is doubtless that the cost will fall relative to the yield per acre. This view is shared by the Mudie Mission which concluded that "The substitution of modern high-yielding for old rubber would eventually result in the reduction of cost per lb. of output by as much as 30% in tapping charges, 60% in general charges and 65% in cultivation costs<sup>\*</sup>!"

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\* Report of The Mission of Enquiry into The Rubber Industry of Malaya, page 9.