

## AN ANALYSIS OF INDIAN NATURAL RUBBER MARKET

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Rubber (*Hevea brasiliensis*) is the most important commercial source of natural rubber (NR). The different commercial forms are Ribbed smoked sheets, technically specified rubbers and crepe rubber of which sheet rubber is the predominant form. Being a commercial crop, the market system will affect considerably the overall health of the plantation sector. The Small Holdings Economic Enquiry Committee of 1968 stressed the need for improvement of the rubber market. Unny and Haridasan (1979), Mani (1983) and Krishnankutty (1985) indicated the possibilities of imperfection in the NR market. So the present study attempts to analyse the structure, conduct and performance of the Indian rubber market.

The data published by the Rubber Board and that collected from a sample of rubber growers and dealers were used in this paper. Kottayam district was selected as the primary sampling unit. Three taluks viz., Meenachil, Kanhirappally and Kottayam were selected at the second stage. Two villages viz. Punjar and Baranaganam from the Meenachil taluk, Kanjirappally village from the Kanjirappally taluk and Anikkadu village from the Kottayam taluk were then selected. Data on marketing practices and prices received were collected randomly from 20 small growers from each of the four villages selected. Costs and margins data were collected from a sample of 30 dealers operating at the selected villages and the terminal markets at Kottayam, Kochi and Kanhirappally. The changes in market performance were compared over time by collecting data from growers and dealers first in 1985 and again 1989.

**Market structure :** The market intermediaries identified were petty merchants, primary and secondary dealers, brokers company agents, crepe millers and crepe dealers. Petty merchants are unlicensed dealers operating at the village level and collect both sheet and scrap rubber from producer houses, pool them and sell to the primary and secondary dealers. Primary dealers are licensed dealers operating at the village

level collecting both sheet and scrap rubber from producers. Secondary dealers operate in larger markets with larger volumes of business, purchasing rubber from primary dealers, large growers etc. Brokers are those intermediaries who bring together the primary and secondary dealers but do not take title to the product, receiving brokerage from both the parties.

Many secondary dealers are agents of one or another company. There are exclusive agents of big companies, who usually enter into forward trading with the tyre companies, agreeing to supply a fixed quantity of the produce at an agreed upon price before a future date.

Crepe millers mill the scrap into crepe rubber which is then sold to the industrial consumer/secondary dealers/crepe dealer. They may also perform the milling function at fixed rates. Crepe dealer owns crepe mills and do business of crepe rubber.

**Market concentration :** Market concentration refers to the proportion of industry sales or purchases made by the market participants. The increase in the number of dealers alone may not reflect the nature of competition; so the distribution of licensed dealers and manufacturers according to quantities handled and their shifts over time was analysed.

The distribution of licensed dealers according to their volumes of purchases shows that over the 22 year period from 1965 to 1987, the number of dealers with 100 tonnes or less per annum as their volume of trade increased from 454 to 4862 tonnes an increase of 970 per cent. Although there has been an increase in the number of dealers in all the categories over time, the proportion of small dealers declined. Thus the changes in the distribution of dealers point to the possibilities of decreasing competition over time among dealers with increasing volume of trade and increasing competition among small dealers suggesting the existence of market

concentration at higher levels of trade leading to imperfections possibly oligopsony.

The distribution of licensed manufacturers according to the total consumption shows that over the period 1961 to 1987, the number of manufacturers with 50 tonnes or less per annum as their consumption increased from 640 to 3815. The proportion of small manufacturers in the total declined while that of large manufacturers increased. When the volume consumed by the first category increased from 10.69 to 14.72 per cent, consumption by the highest category increased from 64.1 to 66.1 per cent. Thus the changes in the distribution of manufacturers point to the possibilities of increasing market concentration at market levels over time.

**Market conduct :** Market conduct in the Indian rubber market has resulted in deterioration of quality rather than its improvement. It is hypothesised that there is some amount of downgrading of small holders produce at the farm gate. In order to test the above hypothesis the grade wise purchase and sales of the secondary dealers were analysed. Out of their total purchases of grades RMA 3, 4 and 5, while RMA - 4 accounted for 16.56 per cent, the share of RMA 5 was 83.36 per cent. But out of their total sales, RMA - 4 and RMA - 5 accounted for 48.03 and 50.4 respectively. This is indicative of the downgrading traced in the producers market. Large growers with higher quality and superior quality of produce who generally to business with secondary dealers usually realise better prices.

A few producers were found to avail short-term loans from the dealers on condition that the future produce will be sold to them. The secondary dealers frequently do business with manufacturers through forward contracts with agreements to supply a fixed quantity within a stipulated date at an agreed upon price. Fluctuations in prices within the contract period results in profits or losses as the case may be. The manufacturers who are few in number may also temporarily withdraw from the market, thus creating an artificial fall in demand and thus prices. Secondary dealers in collusion also can reduce market prices

by a temporary removal from the buying market or induce price rise by withholding supplies. These are indicative of collusive market power enjoyed by the dealers and manufacturers.

**Market performance :** Market performance, the economic results that flow from the industry as an aggregate of firms in terms of efficiency, progressiveness and the like, was analysed by working out the costs and margins.

During 1985, the total costs incurred by the primary and secondary dealers were Rs. 11.04 and Rs. 23.22 per quintal respectively, which increased to Rs. 15.94 and Rs. 28.89 respectively in 1989. Although in absolute terms, the gross costs increased, relatively it was 2.05 and 2.25 per cent of the manufacturer's price in 1985 and 1989 respectively.

Price spreads in the sheet rubber market as in 1985 and 1989 show that they increased in absolute terms in the four-year-period. The producer's share in the manufacturer's rupee was 95.31 per cent in 1985 which marginally declined to 94.86 per cent in 1989. The gross margin, costs and net margin per quintal of sheet rubber were Rs. 78.23, 34.26 and 43.97 which increased to Rs. 102.22, 44.83 and 57.38 respectively in 1989. The marginal decline in producer's share in the manufacturer's rupee was due to the relative increase in costs and margins of primary and secondary dealers. Thus the analysis showed that over time relatively there were only marginal changes in costs, margins and producers' share.

Although under static conditions, the margins are low, traders can make additional profits from the fluctuating market through inventory adjustments and forward contracts. The huge turnover and the short working capital cycle are additional peculiarities of rubber trade. The step towards quality improvement may be through providing incentives to produce better quality sheets by way of pricing based on the grades. Construction of smoke houses and group processing centres to produce technically specified rubbers in the co-operative sector will improve the existing market structure.

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