Natural Rubber Trade in India: Emerging Trends in the Post-reforms Phase

S. Veeraputhran*

Introduction

The commercial cultivation of Natural Rubber (NR) in South-East Asian countries, which account for more than 90 per cent of the world production of the crop, had been developed by the erstwhile colonial powers during the last quarter of the nineteenth century. The main objective of the colonial initiative was to cater to the growing domestic industrial requirements of the West subsequent to the invention of the pneumatic tyres. The salient features of NR production sector evolved in the South-East Asian region, except Thailand, under the colonial patronage, had been an estate system of export-oriented cash crop production enabled by European capital, supplemented with the availability of abundant land and labour in the colonies. In its early phase, export of NR was primarily controlled by a few large trading houses based in London (Knorr, 1945; Bauer, 1948; McFadyean, 1944). During this period London had also been enjoying the unique status of an entrepot for NR as had been the case with other major plantation crops exported from erstwhile colonies. The control over NR production, processing and exports by the European companies entailed a vertically integrated production system with the primary motive of ensuring adequate supply of raw materials at buyers' price as exemplified by the two price stabilisation schemes implemented during the colonial phase. Although the Stevension Scheme (1922-28) and the International Rubber Regulation Agreement (IRRA) (1934-44) had important implications for the subsequent development of NR cultivation in South-East Asia, functionally, the schemes reflected the colonial interests to repatriate the surplus generated. To a large extent, the repatriation of surplus had been facilitated by the very system of NR trading, which was evolved to suit to the large scale estate system of production for exports. In fact, the harmonious relationship prevailed between the NR production sector and the export trade had been controlled by colonial control with negligible involvement of native capital in

* Rubber Research Institute of India, Kottayam, Kerala, India. e-mail- vputhras@yahoo.com

major NR producing countries. However, the prevailing equations in NR trading had undergone significant transformation in the post-colonial phase due to changes in the structure of production as reflected by the proliferation of the smallholdings in the production of NR in India. Consequently, the NR trading system had undergone concomitant changes in market orientation and control over trade. However, the trading arrangements thus evolved and prevailed during the past five decades have been on the verge of major shakeouts and restructuring consequent to the changes in external trade policies since 1991. The impact of the liberalised trade regime, manifested in the domestic NR trading sector have been posing serious challenges to the very sustainability of marginal and sub-marginal farmers contributing about 80 per cent of the total NR production.

Against this background, the paper attempts to examine the effects of trade policy reforms on the domestic NR trading system. To recapitulate, it is important to bring into focus the major milestones in the history of evolution of the trading system for NR in India under the protective trade regime existed until 1991. The study is based on a sample survey of 250 rubber smallholders, 114 rubber dealers and 16 brokers drawn from the three traditional rubber growing (south, central and north) regions[1] in Kerala and Kanyakumary district of Tamil Nadu. The analysis is confined to Ribbed Smoked Sheet (RSS) rubber as it accounts for 69 (2002-03) per cent of NR being produced and traded in the country. More than 80 per cent of the NR production is accounted for by the small growers (Rubber Board, 2002) and, therefore, the trading practices thereof and the newly devised sources of the trading capital to retain the magnitude of surplus extracted are crucial for the sustenance of the livelihood of vast chunk of marginal and sub- marginal farmers and labourers depending on the crop. Confining the focus of the present study to small growers is justified in this ground. The survey for the study was undertaken during the period from August 2002 to February 2003. The paper is organised into two parts. Part one discusses the evolution of trading system of NR since the beginning of the commercial cultivation of the crop. Part two delineates the major changes that have been

[1] Kerala and Kanyakumary district in Tamil Nadu constitute around 88 per cent of the total area under rubber cultivation in the country.

taking place in the trading practices since 1990s and their likely consequences followed by a conclusion.

Part 1

1.1 Evolution of the NR trading system (1902-1991)

The commercial cultivation of NR in India is reported to have begun on an organised scale only in 1902 (Sarma, 1947). Until late 1930s, the structure of production and marketing in India had closely resembled the pattern prevailed in other major NR producing countries in South-East Asia under the colonial patronage. The NR trading system existed during the colonial period was also more consistent with its structure of production. Accordingly, the Agency Firms, which owned and managed a major share in area under rubber cultivation on estate basis, had been marketing their produce directly to the consumers located mainly in metropolitan cities like Bombay and Calcutta. On the completion of sorting, grading and packing of rubber, these firms bring it to their godowns located at Cochin[2] from where it would be sold to the end users at FOB price of Cochin. Under such a system, the larger producers could fetch a fair price as they had the unique advantage of infrastructure for production, processing and trading backed up by sufficient storage facilities (Reddy, 1950). On the contrary, the small rubber growers sold their produce through a network of dealers/intermediaries operated at the village level. The small and petty dealers at the village level bought rubber from small growers at flat rates without grading (Reddy, 1950). On the purchase of required quantity, it would be sold again to the big /terminal market dealers located in important towns. The grading of rubber took place only at that stage and thereby the small dealers could realise grade-based price. After grading, it is repacked and sold to the consumers by delivering the rubber at the godowns of manufacturers located at Kochi. The terminal market dealers were too given the payment only after being graded by the manufacturers. The trading practice evolved under this system had not ensured a fair price to small farmers (Reddy, 1950).

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[2] Cochin had the port facilities. Hence the Agency Firms as well as the major consumers used to maintain their own godowns there. Therefore, prices were always based on FOB Cochin and later even the government also used to fix and announce the controlled prices based on the FOB price at Cochin.

Since the late 1930s, NR trade in India had been reoriented towards domestic market. The most discernible factor contributing to the observed shift had been an active involvement of native peasantry in NR cultivation, receiving impetus from the market trend, promoted by the growth of a domestic manufacturing industry capable of absorbing the domestic NR production. Subsequently, India has emerged as not only the largest consumer of NR among the major NR producing countries but also a net exporter of value added rubber products (Mohanakumar and George, 1999). The steady growth in domestic consumption coupled with the growing dominance of marginal and sub-marginal farmers in the cultivation of NR since the second half of 1940s had played a vital role in evolving an indigenous trading system for NR in India in contrast to the external market dependent cultivation of the crop in other major NR producing countries. The policy initiatives related to production and market support mechanisms, such as protected price regime, promotion of rubber marketing co-operative societies, involvement of State Trading Corporation (STC) of India and introduction of tariff and non-tariff barriers so as to ensure remunerative prices, adopted by the Government of India since 1947 have been crucial for the rapid growth of area under rubber cultivation especially in the by smallholding sector[3] (Mani, 1983; George *et al*, 1988; Sreekumar, 1990; Burger *et al*, 1995; George and Chandy, 1996; Veeraputhran, 1999). The salient features of the NR trading system evolved over time have been in tandem with the structural changes in the production sector as well as the specific characteristics of a large and wide rubber products manufacturing sector within the country.

1.2. Marketing Channels of NR

Conventional NR marketing system which was more cohesive during the pre-reforms period (1947-1991) is depicted in Chart-1. From the chart it is clear that growers sell their produce in the form of RSS grades, Field Latex and Field Coagulum (FC). The RSS

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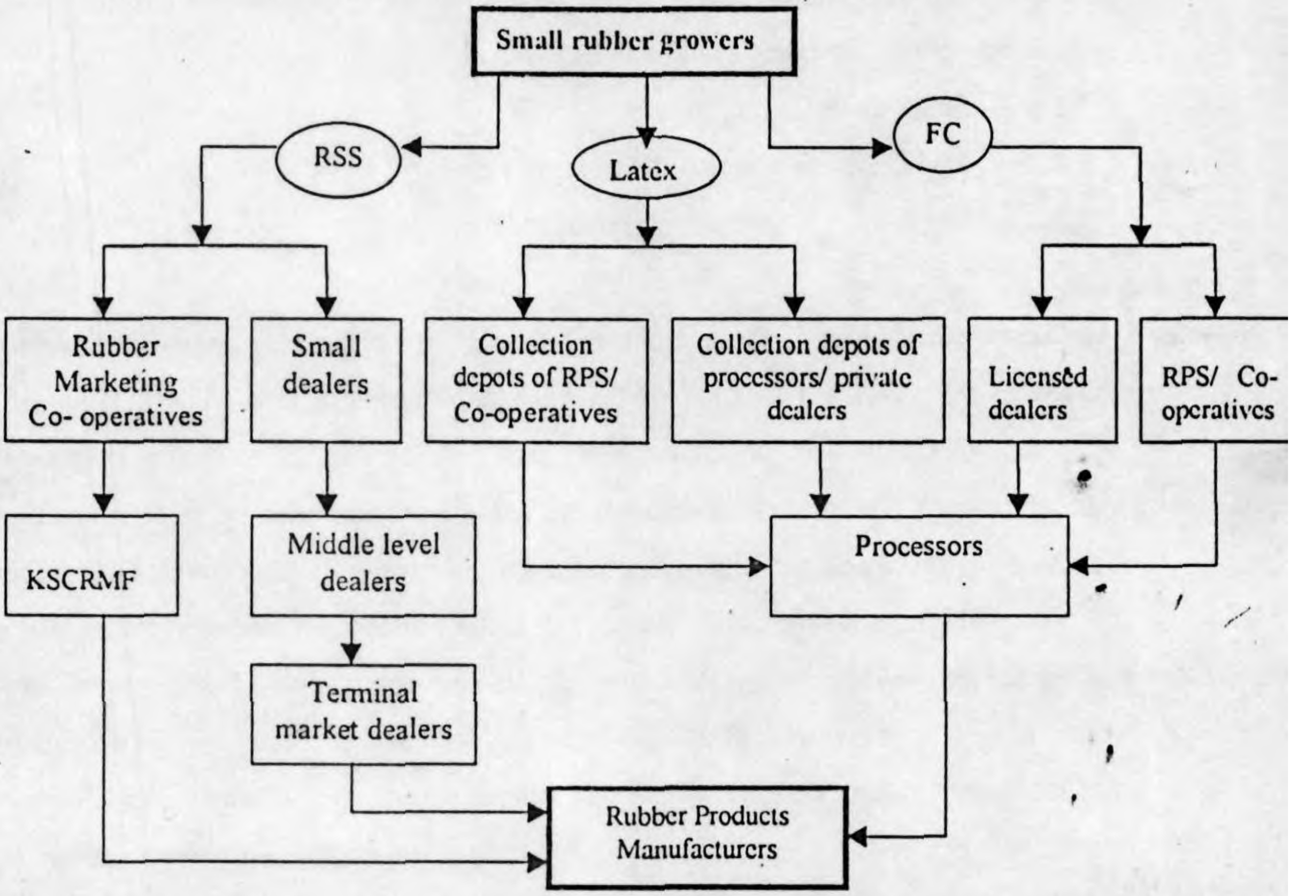
[3] In 1950 the estate and smallholding sectors accounted for 73 per cent and 27 per cent of the total area under rubber respectively in India. In 1957 the area under smallholdings surpassed the estate sector.

Chart 1. Marketing channels of rubber small growers



grades[4] processed by small growers reach the consumers through two channels: (a) private dealers, and (b) co-operative societies, which function under the Kerala State Co-operative Rubber Marketing Federation (KSCRMF). Since the late eighties the Rubber Producers' Societies (RPS)[5] have also been found involving, to a limited extent, in the trading of RSS grades at local market. The KSCRMF procures rubber through two sources: societies at village/local level and purchase depots located in 15 important towns. The rubber so bought is sold to the manufacturers through its headquarter godown at Kochi and purchase depots located in important towns in Kerala as well as sales depots

[4] As per the standard classification, RSS grades are classified as RSS 1X, RSS 1, RSS 2, RSS 3, RSS 4, & RSS 5. The first four grades are superior grades.

[5] The RSPs are the voluntary organisation of rubber growers at the grass-root level. They have been in operation since 1986 with a view to distributing subsidised inputs and disseminating the information on modern cultural practices among the member growers so as to enable them to achieve higher productivity and higher farm gate prices for their produces.

in major consuming states in the country. In the case of private dealers, the marketing system revealed a three-tier system as shown below:

1. Small dealers at village/local level[6]
2. Middle level dealers at town level[7], and
3. Big dealers at the terminal market level

As illustrated in chart 1, there are small dealers operating at village level, who make purchases directly from small growers with minimum grading. The system of Crop Advance[8], or Clientelisation (Olsen, 1993) and Late Settlement were also popular in NR trading during the pre-reforms period. Late settlement is an informal trading arrangement between a grower and a dealer. Accordingly, the grower, irrespective of the receipt or otherwise of crop advance, sells his produce to the dealer. But the price settlement would take place only when the prices become attractive for grower. This system had been found to be advantageous for both the grower as well as the dealer. For grower, he would not loose the price in case the quality of rubber deteriorates when stocked for a longer period at his disposal and also the grower further do not have to worry about storage facilities. The dealer is assured of a regular supply and seldom incur losses even if the grower settles the account at a higher price than that of the price prevailed at the time of selling.

The small dealer sells major part of the purchased rubber in ungraded form to the middle level dealer and the actual grading is performed by the middle level dealer who thereby makes the grade based payment to the small dealer. Middle level dealers, do further

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[6] Only licensed dealers can do rubber trade. But, in Kanyakumary district in Tamil Nadu the presence of unlicensed dealers in rubber trade is more prominent.

[7] The emergence of a new trading class, the dealers at town level, consequent to the shifting of terminal market dealers based at town level to Kottayam and Kochi was the notable feature during the post colonial period.

[8] Crop Advance was growers' incentive system. Under this system the growers were paid an advance amount at free of interest by the small dealers on the condition that the crop should be sold to the dealer. The same facility was also extended by the big dealers to the dealers operating at lower levels with same conditions (GOI, 1956).

sorting, grading and packing, before being sold to the dealer at terminal market functioning at Kottayam and Kochi[9]. The terminal market dealer, on further sorting, grading and packing, finally sells to the manufacturers by delivering the rubber at the godowns maintained by the manufacturers. An important feature of this trading system is that buyers at each level make purchases only from the dealers operating at their immediate lower levels. For instance, the consumers purchase only from terminal market dealers. The terminal market and middle level dealers also do follow the same pattern. The major impetus for the existence of such well defined trading network could be the higher marketing margins and farm gate price, which were reflective of the protective price policy regimes and the active market intervention by the co-operatives prevailed during the pre-reforms phase, resulting in reducing price discrimination to a considerable extent.

The structure of the demand derived for NR consists of tyre and non-tyre sectors. The manufacturers in the tyre sector purchase only through their approved terminal market dealers and brokers[10] while the consumers in non-tyre sector buy rubber from the terminal market dealers (i.e. no approved dealers as in the case of former) either through brokers or without the help of brokers operating at terminal markets on commission basis. The commission brokers, unlike the brokers of tyre manufacturers, are the major source of connecting buyers and sellers (except the tyre manufacturers) operating in different places. The commission brokers have thus come to assume an integral part in NR trading system. Besides, there are a few commission agents in Kochi who buy rubber from the market through commission brokers exclusively for the consumers of the non-tyre sector

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[9] On account of factors such as the presence of the head quarters of the Rubber Board at Kottayam as much of the rubber cultivation took place in Kottayam district, the expansion of infrastructure facilities like roads, communications and banking etc., and the establishment of godowns by major buyers, particularly the tyre manufacturers, who account for the major share in the total purchase, at Kottayam followed by labour problems at the port yard of Kochi, the former had also become the terminal market. Kochi is still a terminal market, but follows the Kottayam market for trading as the tyre sector purchases more from the later. Therefore, the prices in Kochi market are always comparable with that of Kottayam. Kottayam and Kochi are the only terminal markets for NR in India.

[10] There are only a few approved brokers who buy from the market exclusively for the tyre manufacturers. On an average 30 per cent of the annual requirements of these manufacturers is purchased through these brokers besides their direct purchase through limited approved terminal market dealers.

located in other states. As in the case of KSCRMF, most of the terminal market dealers had maintained sales depots in major commercial centres in other states. The tiny rubber based units with no direct access to the brokers, agents and dealers in the terminal markets were the major beneficiaries of such depots as the direct local purchases involved only relatively smaller quantities. The assured market and margin had been the prime driving force for the establishment of such depots by the dealers in other states.

Part II

Emerging trends in post-reforms phase

II.1 . Impact of the reforms

The phase beginning with 1991, in the context of the introduction of major trade policy reforms, has experienced major changes in the market intervention operations viz; (a) dilutions in both the tariff and non-tariff barriers on NR imports into the country (b) gradual withdrawal of the STC from market intervention operations, and (c) the withdrawal of Buffer Stock and Bench Mark Price mechanisms. The notable impact of such policy changes has been the convergence of domestic price with the international prices of NR (Veeraputhran, 1999). Consequently, the domestic NR price had registered continuous increase by 141 per cent in absolute terms between 1991-92 and 1995-96 followed by a consistent decline by 125 per cent between 1995-96 and 2001-02. During this period, very often, the market price prevailed was much lower than the statutorily fixed minimum price leading to an unprecedented market uncertainty in the history of NR after independence.

The price rise during the first half of the 1990s resulted in the entry of a large number of new dealers into the market (Rubber Board, 2002). The continuous fall in prices during the second half of 1990s led to a large scale exit of dealers from the market in the backdrop of huge business loss[11] due to consistent increase in transaction costs with no

[11] Before this uncertainty the dealers used to stock rubber as there had been guaranteed buyers at guaranteed prices. But followed by continuous decline in prices they were forced to sell at a price lower than what they had paid for it.

corresponding fall in transaction costs prevailed during the increasing price period. Table 1 explains the magnitude of exit of dealers at different stages between the period 1998-99 and 2002-03.

Table 1 Region-wise exit of dealers, 1998-99 to 2002-03 (percentage share)

Region	Small dealers	Middle level dealers	Terminal dealers
South	42.45	100.00	Nil
Central	34.30	100.00	Nil
North	33.00	37.50	Nil

Source: Survey data

It is clear from Table 1 that the market uncertainty has most seriously affected the small dealers, especially the medium level dealers when compared to terminal market dealers. The exit of small dealers was more pronounced in the southern region. Table 1 also indicates that no terminal market dealer did exit from the market substantiating further the argument that these dealers alone could withstand the volatile market behaviour as they are endowed with sound financial resource base and market intelligence as well as the ability to maintain profit margins by restructuring the raw material procurement strategies. The efforts of manufacturers and dealers to withstand the uncertainty in the market, stabilise the margin and ensure the regular availability of raw material have heralded a new era of NR trading system in the country replacing the one, which existed for more than five decades. The major strategies of such restructuring have been (1) internal restructuring in the mode of procurement and dealers' network, (ii) contractual trading, and (iii) new forms of discrimination.

II.2 Internal restructuring by manufacturers

As mentioned elsewhere, the first half of the 1990s experienced a consecutive increase in NR price resulting in escalation of transaction and other overhead costs adding further to the cost of input to the manufacturers. In order to optimise their purchase, the first stage of internal restructuring adopted by the consumers, especially the tyre manufacturers, was the closing down of their godowns maintained at Kottayam and Kochi. Instead, the terminal market dealers were asked to deliver the rubber at the factory sites of consumers or at the location preferred by the consumers[12]. However, the new arrangement of exclusive dependence on these dealers without godown facilities and the speculative behaviour of terminal market dealers in the context of continuous rise in price strengthened the bargaining power of terminal market dealers. Quite often, it so happened that the consumers had to confront the problem of irregular supply of raw materials coupled with consistent rise in price. In order to overcome this issue, the consumers resorted an alternative mechanism of diversification of dealers' network. Under this system, the consumers outstripped the dealers at terminal markets in Kottayam and Kochi and replaced them by dealers with sound resource base across traditional rubber growing regions and sought to procure NR from them. Accordingly, these dealers are expected to supply the raw materials either at the factory sites or at the location preferred by the manufacturers at a price mutually agreed upon. In case, if a dealer has got not less than five truck loads of rubber for supply at a time the manufacturer transports the rubber from the dealers' shop provided the quality of the rubber stocked is satisfactory to the grader of the manufacturer[13]. This diversified dealer network from Kottayam and Kochi to different regions is found to be more advantageous for the manufacturers on two grounds (i) it ensures prompt supply of raw materials. and (ii) strengthened the bargaining power of manufacturers. In effect, such changes in the dealers' network resulted in relegating the status of dealers at Kottayam and Kochi from terminal market dealers to mere commission agents of the manufacturers of non-tyre sector.

II.3 Internal restructuring by dealers

The consistent decline in price since mid 1996, while the transaction costs remained unchanged, left the dealers in total disarray. To overcome this stalemate, the dealers sought to close down the sales depots maintained in other states. For instance, 26 sales depots (including four depots of KSCRMF) maintained by 14 terminal market dealers in

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[12] The factories of major consumers are mainly located in others states due to region specific advantages.

[13] When the dealers deliver at the factory sites they have the risk of rejection while grading. When a truck load of rubber is rejected the dealers have to bring it back by incurring further transportation and other expenses. But when the dealers have bulk quantity, say five truck loads, the manufacturers have the advantage of assured supply while the dealers have the advantage of risk of avoiding rejection.

major marketing centres in other states have downed their shutters. Further, transaction costs were sought to be minimised by avoiding dealers operating at middle level (see Table 1). Instead, the terminal market dealers did purchase directly from the small dealers operating at village level by sending their grading experts and trucks to the shops of the latter, from where, depending upon the demand, rubber is either directly delivered at the location preferred by the consumer or is brought to the godowns of the former. Under the system of direct delivery of rubber from small dealers' shops the terminal market dealers have the advantage of reduced transaction costs such as transportation, loading and unloading, grading, storage etc. Therefore, in the emerging context, the village level dealers operating at the primary level have also been functionally decimated to the status of agents of the terminal market dealers.

II. 4 Contractual trading

An important issue confronted by the dealers in the context of consistent fall in price was delaying and defaulting payments by the manufacturers to the terminal market dealers. The crisis thus inflicted on these dealers was percolated down to the dealers operating at the lower levels. The dealers responded to the worsened situation by not supplying raw materials to the manufacturers. The defaulted and delayed payments by the manufacturers to the dealers forced them to evolve a mechanism to overcome the crisis. The crisis averting mechanism bore the following features.

1. Buying of rubber for manufacturers by the dealers do take place only after the execution of an agreement between the two parties, of which the primary condition is the delivery of rubber at mutually agreed price with a clearly stated period for payment within 7-10 days.

2. Risk from delayed and defaulted payments by dealers at higher levels to the lower levels sought to be resolved by reinvigorating the role of commission based brokers. In the changing scenario, buying and selling are made only through

these brokers (except the sales to the tyre manufacturers[14]) as they ensure the risk of payment and product delivery.

3. In the wake of the crisis, the dealers with sound financial backing sought value addition by upgrading through reprocessing the inferior quality of rubber supplied by the local level dealers. The wider margin accruing from reprocessed rubber tempted the dealers to opt for inferior quality rubber from growers, leaving profound impact on the primary market for graded sheet rubber. The major impact of such practice is that the purchase of graded rubber from growers has been on the decline.

4. Manufacturers too did undergo the crisis of falling price resulting in inadequate supply of rubber followed by delayed and defaulted payments. Manufacturers ensured the timely delivery of the input by the terminal market dealers by evolving a strategy of differentiating the graded rubber with the brand names of renowned manufacturers such as MRF grade, JK grade, Appollo grade[15] etc. For instance, the RSS 4 grade is the most widely consumed grade by the tyre manufacturers. The technical properties specified for this grade by each manufacturer differs by their brands. The newly evolved 'input branding strategy' precluded other brands and dealers from buying the input leading to the identity of a particular brand. Such a newly devised product differentiation assured sufficient supply of raw materials to the manufacturers through exclusionary principles.

As the availability of raw material is assured in the changing context, the informal arrangements existed between the growers and dealers, such as the Crop Advance and Late settlement, have become irrelevant from the part of dealers, thereby questioning the easier credit system available to the marginal and sub-marginal farmers.

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[14] The tyre manufacturers have also reduced,their purchase considerably through their approved brokers.

[15] MRF, JK and Appollo etc. are the major tyre manufacturers in the country.

II.5 Price discrimination under new trading system

Price discrimination is sought through downgrading the produce of growers by dealers to retain their margin in the context of continuous fall in price. Under the earlier trading system too dealers did practice downgrading, but the rubber so bought was sold only as ungraded rubber. On the contrary, in the newly evolved trading system, dealers buy rubber from growers as ungraded rubber, but sell it after further grading under new local names at differential prices (rather imposed)[16]. The newly devised strategy of selling ungraded rubber under different local names has intensified the degree of downgrading as well as price discrimination while purchasing from the growers. The impact of such downgrading practices is very clear from the sales pattern of growers across regions (Table 2).

Table 2. Regional sales pattern of growers (percentage share)

Region	2001-02			2002-03		
	RSS 4	RSS 5	Ungraded	RSS 4	RSS 5	Ungraded
South	nil	23.10	76.90	nil	18.35	81.65
Central	65.80	14.30	19.90	62.00	13.10	24.90
North	67.70	13.6	18.70	63.30	16.30	20.40

Source: Survey data

Table 2 reveals that downgrading is more prominent in southern region, where more than 80 per cent of the trade in rubber is accounted for by ungraded form compared to central and northern regions[17]. Moreover, a comparison of the share of different grades of rubber in the total commodity traded for the last two years is rather reflective of the declining share of graded rubber. The prominent status given to the private dealers since 1997 in the buffer stock operations by the government coupled with the gradual retreat of co-operatives[18] in the context of market uncertainty, perhaps, should have intensified the

[16] The ungraded rubber is further graded as *Pacha, Sukha, Thekkan, Vadakkan, Kottayam Condition, Edakochi Condition* etc.

[17] A higher percentage of sale of graded rubber like RSS4 in the central and northern regions than in the southern region is reflective of the offshoot of the active institutional involvement of the co-operatives and RPSs in the production, processing and marketing of the produce of small growers' in the pre-reforms phase.

possibility of downgrading and the prevalence of a highly discriminatory price system. The futility of co-operatives in the market intervention operations and the consequent increase in the degree of downgrading is evident from the marketing channels of growers across regions (Table 3).

Table 3. Marketing channels of growers across regions, 2002-03 (percentage share)

Region	Dealers	Co-op. societies	Smoke house	Vendors
South	80.00	nil	16.00	4.00
Central	100.00	nil	nil	nil
North	96.00	4.00	nil	nil

Source: Survey data

Table 3 indicates the relative prominence of private dealers in rubber trade in comparison to other marketing channels available to the small growers. Trading through smoke houses[19] and street vendors is found only in southern region manifesting the gradual marginalisation of co-operatives as a market intervening mechanism. Compared to south and north, the presence of other marketing channels is absolutely non-existent in central region, which in turn is explained by the monopoly of private dealers.

Conclusion

The trading system of NR evolved and existed in India until 1990 was characterised by active state intervention to regulate the free play of market forces in determining the price, which had been rather crucial in ensuring a remunerative farm gate price facilitating the expansion of NR cultivation dominated by marginal and sub-marginal growers. However, consequent to the introduction of trade reforms in 1991 the hitherto protected domestic market has been exposed to the vagaries of the price fluctuations in the international market and further integration of domestic market to the international market. Market integration had led to unprecedented prices fluctuations in the domestic

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[18] In the crisis ridden context, the co-operatives were not able to compete, depending upon the market forces, with the private dealers as they were always constrained by administrative and other functional rigidities.

[19] Smoke Houses(HS) are the infrastructure facility for smoking the sheet rubber. There are SH which take this rubber for smoking on rental basis. Some of the SH also purchase sheet rubber after smoking. The growers, considering the transportation and labour costs required to carry the sheet rubber from SH to market, sell rubber to these Smoke Houses.

market unleashing a crisis ridden market. Given the very structure of production and network of trading, fluctuations in price to either direction have left profound impact on market. Manufacturers withstood the hike in input price by minimising the transaction costs through restructuring the dealers' network and cutting down the infrastructure facilities. Further, as the crisis was prolonged, dealers sought to overcome the crisis by virtually eliminating the middle level dealers resulting in higher concentration of market by big resource based dealers thereby weakening the bargaining power of the farmers. Alongside, the erstwhile schemes of market interventions by the state and other farmer oriented institutions have been marginalised. The concentration in dealership and retreat of market intervening mechanism have thrown up ample scope for the trading capital to exploit the farmers by further squeezing the farm gate price through downgrading and discrimination. Under such a scenario, in the absence of a new market intervening mechanism, the very production structure of rubber cultivation looms large.

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