KERALA GOOD FOR RUBBER GOODS INDUSTRY

Kerala's absolute advantage in natural rubber production can surely be put to better, wider industrial use in the State itself. The following study says why and how

S. Mohankumar & K. S. Gopalakrishnan

Rubber goods industry in India is now seven decades old and has become the third largest contributor to the national exchequer after steel and textile industries.

The industry is spread throughout the country and comprises 30 automobile tyre units, , about 300 medium-scale units and over 4,300 small-scale units producing a wide range of over 35,000 different rubber products.

Studies reveal that the rubber industry has an annual turn-over of over Rs. 5,000 crore, has an estimated capital investment of Rs. 2,000 crore and provides employment to over 2,75,000 persons. The industry also exports annually rubber goods worth over Rs. 2,150 crore.

The annual growth rate of the industry for the last four years (1985-89) has averaged 8.9% which is slightly higher than the national industrial growth rate of 8.5%. But the per capita consumption of rubber in the country is very low when compared to that in developed countries. The per capita consumption of rubber is just 0.60 kg in India as against 12 kg. in the US and 11 kg. in Japan, which points to the scope for the development of rubber based manufacturing industry in the country.

It should be noted that the progress achieved in the number of units, consumption of rubber and range of products manufactured concerns only a few states like Maharashtra, Kerala, Haryana, Punjab, Tamil Nadu, Uttar Pradesh and West Bengal. However, looking at the growth of rubber-based manufacturing industry in Kerala, it is still considered low as compared to other States though Kerala has an absolute advantage in the production of rubber accounting for 92% of the total natural rubber produced in the country.

This paper analyses the progress

Table 1

gives the progress achieved by the main rubber consuming States,

State	1970-71 No. of units	1970-71 Consumption of rubber (MT)	1980-81 No.of units	1980-81 Consumption of rubber (MT)	1988-89 No. of units	1988-89 Consumption of rubber (MT)
Kerala	119 (9.29)	8917 (6.62)	391 (13.84)	26249 (10.60)	742 (15.82)	57925 (13.19)
Maharashtra	230 (17.95)	32824 (24.36)	373 (13.20)	50545 (20.42)	551 (11.75)	67296 (15.32)
Punjab	201 (15.69)	2752 (2.04)	339 (12.0)	17260 (6.97)	496 (10.58)	49206 (11.20)
Uttar Pradesh	103 (8.04)	1372 (1.02)	249 (8.81)	29236 (11.81)	442 (9.43)	57010 (12.98)
West Bengal	198 (15.46)	49637 (36.84)	351 (12.42)	42756 (17.27)	482 (10.28)	48135 (10.96)
Tamil Nadu	64 (5.00)	26142 (19.40)	212 (7.50)	24483 (9.89)	433 (9.23)	33877 (7.71)
Others	366 (28.57)	13101 (9.72)	911 (32.24)	57001 (23.03)	1543 (32.91)	125731 (28.63)
Total	1281 (100.0)	134745 (100.0)	2826 (100.0)	247530 (100.0)	4689 (100.0)	439180 (100.0)

achieved by the existing rubber-based manufacturing industry in Kerala, identifies the products that can be profitably produced in the State, highlights the availability of important resources needed for the development of rubber industry, discusses the constraints and suggests appropriate remedial measures. Some of the main features of the rubber industry in Kerala have been outlined first.

Main Features

Rubber has become Kerala's primary and prestigious crop. It is cultivated in about 3,76,000 hectares in the State and accounts for nearly 67% of the total area under major plantation crops and about 13% of the land used for agricultural purposes in Kerala. Every year the State produces over 90% of the total natural rubber produced in the country. In 1989-90, production of natural rubber in Kerala was 2,75,397 MT, accounting for 92.63% of the country's total production. Besides, the State also produces reclaimed rubber.

A major share of rubber produced in the State is consumed by Maharashtra, Uttar Pradesh, Punjab and West Bengal which are among the highest in industrial performance. In fact these four States together account for 50% of the total rubber consumption. Kerala's consumption is not encouraging (only 13.19% in 1988-89) in spite of having the largest number of manufacturers and the highest quantum of natural rubber production. This shows the existence of a weak rubber-based manufacturing sector in the State.

Origin and Growth

The first rubber product manufacturing unit in Kerala was set up in 1935 in Trivandrum by the Government of Travancore. Later, after Independence, the industry made rapid strides especially during the last two decades and now occupies a coveted position in the economy. The number of rubber goods manufacturers in Kerala has grown from 54 in 1965-66 to 767 in 1989-90 accounting for 15.71% of the total number of manufacturers. Consumption of rubber has also

Table 2

Main product groups 1988-89

On the basis of No. of units			On the basis of consumption of rubber		
	Product group	No. of units		Product group	Consumption (MT)
1.	Rubber Bands	185	1.	Tyre, Tube & Flaps	41710
2.	Tread rubber	183	2.	Tread rubber	4755
3.	Footwear	173	3.	Footwear	5025
4.	Latex Foam	57	4.	Foam products	1375
5.	Moulded goods	41	5.	Rubberised coir	1025
6.	Rubberised coir	31	6.	Rubber Bands	625
7.	Gloves	24	7.	Moulded goods	615
8.	Latex thread	23	8.	Hoses	292
9.	Dipped Goods	23	9.	Rubber rollers	225
10.	Tyre, Tube & Flaps	14	10.	Latex thread	192
11.	Adhesives	7	11.	Rubber lining	113
12.	Rubber linings	6	12.	Adhesives	95
13.	Rubber Rollers	6	13.	Gloves	75
14.	Sports goods	6	14.	Dipped goods	56
15.	Hoses	3	15.	Sports goods	55
16.	Miscellaneous	28	16.	Miscellaneous	890

increased many times, but Kerala is still lagging behind when compared to industrially advanced states. In 1988-89, Kerala having 742 units, consumed 57,925 MT of rubber (13.19%) whereas Maharashtra, having 551 units, consumed 67296 MT (15.32%). This is followed by U. P. 442 units, consuming 57010 MT (12.98%) and Punjab, 496 units, consuming 49206 MT (11.20%). The mushrooming of small-scale manufacturers in Kerala is mainly propelled by the relatively easy availability of the raw material.

Table 3

Percentage consumption of different kinds of rubber in Kerala

Year	Natural rubber	Synthetic rubber	Reclaimed rubber
1970-71	75.57	20.16	4.26
1980-81	73.46	17.80	8.74
1985-86	75.35	15.86	8.97
1988-89	74.62	18.76	6.62

Table 4

Distribution of manufacturers according to their total consumption (1988-89)

	KERALA		INDIA	
Consumption (MT)	No. of units	Percentage	No. of units	Percentage
[illegible] & below	480	64.69	2410	51.41
above 10& upto and including 50	205	27.63	1633	34.83
above 50 & upto and including 100	31	4.18	316	6.74
above 100 and upto and including 500	21	2.83	252	5.38
above 500 & upto and including 1000	2	0.27	35	0.75
above 1000	3	00.40	42	0.90
Total	742	100.00	4688	100.00

Range of products

The industry in Kerala produces a wide range of products from tiny bushes to vehicle tyres. However, it is significant that the State is concentrating more on "other rubber products" characterised by the dominance of latex-based items, which has made a steady increase in terms of number of units, the quantity of production and the labour employed. Since there are so many rubber products manufactured in Kerala, there is difficulty in classifying all the units accordingly. Moreover, a majority of the units turn out more than one product and thus feature in the different product groups. In spite of these limitations an attempt has been made to classify the units under main product groups as given in Table 2.

Table 2 shows that the maximum number of units in Kerala are producing rubber bands (185 units) followed by tread rubber (183 units), footwear, (173 units), latex foam (57 units) and moulded goods (41 units). Rubberised coir, latex thread, dipped goods and gloves are the other latex-based items.

On the basis of consumption, tyre and tube occupies the first place followed by tread rubber, footwear, foam products, and rubberised coir. Conveyor belt, transmission rubber belt, fan belt, auto/cycle rubber parts, cables, wires, industrial footwear, leather boards, rubber tubings, adhesive tapes, textile fabrics, toys, catheter, hot water bags, surgical tubes and pharmaceutical items are items yet to be produced in Kerala.

Consumption

All kinds of rubber, natural, synthetic and reclaimed rubber, are consumed in Kerala. The ratio of consumption is given in Table 3.

Consumption pattern: The small-scale sector plays a major role in Kerala and accounts for nearly 90% of the total number of units. When we analyse the distribution of manufacturers according to their total consumption, we can see that a majority of the units are consuming below 10 tonnes of rubber in a year.

Table 5

Consumption of rubber according to end products (1988-89)

	KERALA		INDIA	
Product	Consumption (MT)	percentage	Consumption (MT)	Percentage
Automobile Tyres & Tubes	40899	70.61	199860	45.51
Cycle Tyres and tubes	734	1.27	59082	13.45
Footwear	5025	8.68	51796	11.79
Camel back	4755	8.21	29106	6.63
Belt & hoses	292	0.50	30885	7.03
Latex Foam	1375	2.37	15230	3.47
Cables & wires	nil	-	2675	0.61
Battery boxes	432	0.75	9314	2.12
Dipped goods	46	0.08	12236	2.79
Others	4367	7.54	28996	6.60
Total	57925	100.00	439180	100.00

Table 6

Value of rubber goods exported from India and through the ports of Kerala.

Value in million rupees

Year	India	Through the ports of Kerala	Percentage
1983-84	608	17	2.80
1984-85	881	22	2.50
1985-86	1070	14	1.31
1986-87	970	16	1.65
1987-88	936	NA	-
1988-89	1290	NA	-
1989-90	2150	NA	-

Source: 1. *CAPEXIL*

2. Statistics for Planning, Department of Economics & Statistics, Thiruvananthapuram.

Table 7

Year	NR	RR	Total
1987-88	216562	2165	218727
1988-89	238414	3419	241833
1989-90	275397	3733	279130

During 1988-89, 64.69% of the total number of manufacturers in Kerala came under the category of consuming 10 MT and below whereas the corresponding figure in the country as a whole is 51.41%. Table 4 explains this.

Product-wise consumption

Tyres and tubes are by far the biggest single outlet for rubber in Kerala, accounting for over 70% of the total consumption. In the country as a whole tyres and tubes account for only 45% of the total consumption. Table 5 shows the comparative analysis of rubber consumption by different product groups.

Table 5 indicates that in 1988-89 a lions share of rubber in the State (40,899MT) was used for tyres and tubes by three main tyre units, Premier, Apollo and MRF. Footwear sector consumed 8.68%, followed by tread rubber 8.21%.

Production and export

Production in all segments of the industry is growing rapidly. Output of tyres and tubes, footwear and camelback has increased many fold. Production of foam, thread and rubber bands has also gone up. Rubber contraceptives too are produced in huge quantities by the State-owned Hindustan Latex.

The State is also exporting rubber goods, but its share is nominal as evident from Table 6. The value of rubber goods exported from India increased from Rs.608 million in 1983-84 to Rs.2150 million in 1989-90. Tyres, footwear and different types of condoms were the major items exported from Kerala to the Soviet Union, Europe and the US.

Table 6 clearly establishes the fact that the rubber based manufacturing industry in Kerala has not developed to the desired level. Though the prospects of the rubber based manufacturing industry is widely considered as bright and lucrative, most entrepreneurs are still pessimistic and have misconceptions about the worth of the industry. There is no place for fear when one considers the availability of the various resources and facilities. But most entrepreneurs in Kerala are not aware of the facilities. The state is rich in all raw materials, basic infrastructural facilities and skilled manpower essential for rubber-based manufacturing industry.

Resources available in Kerala are mentioned below:

Raw materials: The major raw material used is natural rubber which is largely produced in the State. The production and productivity of natural rubber has been outstanding. The growth rate of NR production is increasing rapidly by over 10% as a result of the various schemes implemented by the Rubber Board. It is roughly estimated that, of the total NR produced in the State, 70 % is converted into RMA sheet rubber, 12% converted into concentrated latex, 6% into crumb rubber, 1% in the form of PLC and the remaining 11% is converted into EBC and other forms of rubber.

Besides NR, the State also produces reclaimed rubber. There are at present 3 factories in the State producing 3733 MT of reclaimed rubber which accounts for 8.39% of the total reclaimed rubber produced in the country. The raw material position in Kerala can be understood from Table 7.

Though the State is not producing any synthetic rubber, lack of its availability has not been found to be a limiting factor for the development of the rubber goods industry.

Other raw materials required for making rubber-based products include carbon black, fillers, processing aids and rubber chemicals, the most important of them being carbon black which is produced in different grades by 3 units in the country with a licensed capacity of 1,54,700 MT a year. This almost meets the entire requirements of the industry.

Accelerators, antioxidants, peptisers and retarders are the important chemicals used. Most of these chemicals are produced in the country. We are also producing zinc oxide and stearic acid. Processing aids are also available sufficiently.

The demand for fibres and fabrics, important raw materials for manufacturing automobile tyres, beltings, footwear, hoses, proofed fabrics and moulded items, is on the rise, but with the commencement of production by

the newly started units there should not be any scarcity.

Machinery and equipment: A large number of machinery, equipment, moulds, formers and dyes are essential for producing rubber goods. Most of the important machinery and equipment and almost all types of moulds, formers and dyes are produced domestically. Mixing mills, internal mixers, calenders, extruders and presses are also available. About 90% of the machinery needed for the industry is available in the country.

Qualified hands: The number of technically qualified persons is growing fast in Kerala. There are at present 7 engineering colleges, 25 polytechnical institutions and 47 technical high schools in the State that offer technical courses in different fields. Besides, a number of institutions and universities throughout the country offer diploma and degree courses in polymer science and rubber technology. Cochin University of Science and Technology offers degree, masters degree and also Ph. D. programme in various subjects connected with the manufacture of rubber products. The Government Polytechnic at Kottayam offers a 3 year diploma course in Polymer Science and Rubber Technology.

Training facilities: For ensuring an orderly growth of the industry, the Rubber Board has established a Training Department for imparting training to persons connected with the rubber industry. The department offers short-term training programmes in the manufacture of rubber products both for entrepreneurs to set up rubber based industries and for those who are already in the field. Besides, Indian Rubber Institutes in Madras, Calcutta, Bombay and Delhi provide training to candidates and produce chartered Rubber Technologists.

R & D facilities: Research and Development in the rubber goods manufacturing industry is improving fast. Concerted efforts are being made by institutions like RRII at Kottayam, the Department of Polymer Science and Rubber Technology of Cochin University, Regional Research Laboratory, Vikram Sarabhai Space Centre, Indian Space Research Organisation, all in Trivandrum, for conducting applied and adaptive research for product development and improvement. Besides, certain Universities, IITs and research laboratories are also conducting research.

In the tyre sector, most units have their own research laboratories. Besides, a National Research and Development Centre is being set up in Karnataka for the benefit of the tyre sector.

Testing, quality control: Standardisation and quality control of rubber products are essential. To ensure quality the Bureau of Indian Standards have formulated standards for a wide range of rubber products, but only a few units in Kerala are marketing their products with the ISI mark. To help the manufacturers make rubber products in conformity with BIS standards, a number of research laboratories are providing analytical, testing and quality control services. The Technical Consultancy Division of the Rubber Board plays a major role in this regard. The Division also offers a package of services, including issue of project profiles, preparation of detailed project reports, issue of technical bulletins, import substitution/product development, training and advisory work, and factory visits for trouble-shooting.

Institutional aid, guidance: To create conditions favourable for the development of rubber based industries in the small-scale sector, the Government has formulated a number of schemes like:

- State Investment Subsidy for obtaining knowhow in the small scale sector.
- Central Investment Subsidy of 25% to the units started in backward districts.
- Special assistance to women industrialists.
- Loans and grants to industries promoted by scheduled castes.
- Allotment of factory sheds in Industrial Estates.
- Provision of technical and managerial service by the Small Industries Service Institute (SISI)
- Construction, management, and administration of industrial estates by the Small Industries Development Organisation (SIDO)
- Long-term loans to small and medium scale industries by KFC.
- Total consultancy to small-scale entrepreneurs by the Kerala Industrial and Technical Consultancy Organisation (KITCO), and
- Reservation of items for exclusive purchase from SSI.

In addition, for setting up more rubber-based manufacturing industries in Kerala, the Government has decided to extend the following special incentives:

- Rubber to be used for new industries in Kerala will be exempted from levy of purchase tax.
- An additional capital subsidy of 5% will be given to new rubber industries to be set up in Kerala and this subsidy will be in addition to the Central/State subsidy now available to the industry.
- Sales tax on finished rubber goods produced in Kerala will be reduced from 10% to 3%

Export facilities: For boosting export of rubber products, a few attractive schemes have been formulated.

- *Natural Rubber Subsidy Scheme*: Under this scheme, exporters are eligible for subsidy to offset their losses suffered by incompetitiveness on account of higher indigenous prices of raw rubber as compared to the international price of equivalent grade of raw rubber.
- *Duty drawback:* Providing refund of import and excise duty paid on raw material, components, parts, packing material on export production.
- *Export Finance/Credit*: Providing pre and post shipment credit at lower rates of interest.
- Setting up 100% export-oriented units in export processing zones at Cochin, Madras, Bombay, Calcutta and Delhi which enable the

manufacturers to import raw materials and machinery used for export production at international prices without duty payment.

Exporters are also allowed to import raw materials under Open General Licence (OGL), Advance Licence and Replenishment Licence.

Fresh incentives

This year's Kerala Budget has provided relief to the rubber trade and industry sectors by abolishing sales tax on natural rubber and by considerably reducing tax on foam rubber goods.

Earlier, traders with annual sales of over Rs. 50 lakh had to pay a 0.5% sales tax. A majority of the total number of about 6,000 traders in the State, operating at the panchayat and taluk levels, did not come under the purview of this tax. Only dealers in the main trading centres of Kottayam, Kochi and Kozhikode who deal in quantities above 250 tonnes had to pay this tax.

In the Budget, purchase tax on rubber has been raised from 6 to 7% . Purchase tax has to be paid at the last point of purchase in the State. This increase will get the State an additional revenue of Rs. 2 crore. The Budget, however, does not explain whether this amount takes into consideration the relief given to small scale industrialists. But, small-scale units buying products with either sales tax or inter-state sales tax levied on them have been fully exempted from purchase tax on rubber.

A dose of relief has been announced for newly started small units. To facilitate repay of their long-term loans, the Government will form a sales tax development fund from revenues derived from sales tax, central sales tax and purchase tax.

Kerala's small sector will benefit from the slashing of tax from 17% to 8% on foam rubber sheets, cushions, pillows, and other goods made of foam rubber. This will make less attractive shopping for these goods in neighbouring states, thereby boosting the state's foam rubber industry.

Constraints, too

Despite the availability of all these facilities, there remains certain constraints. An attempt shall be made to point out a few of them that could be removed through appropriate strategies.

A number of products having the scope and potential for being manufactured in the small-scale sector are not produced in Kerala because of lack of information on the prospects of these products. Therefore, it is most essential to develop a data base on rubber goods that can be produced in the State as a pre-requisite for giving proper advice to entrepreneurs. This can be done only by conducting market surveys of products which are understood to hold good prospects.

Lack of market information is a serious problem for small-scale units. To overcome this, organised marketing must be developed.

Shortage of certain raw materials is another limitation. To overcome this investment should be made as far as possible on such products using the available resources. Also, the Government should ensure continuous availability of such raw materials. Entrepreneurs' ignorance about the activities of assisting agencies is another limitation. The entrepreneur should be informed of the functions of these agencies.

Steps should also be taken to ensure the availability of good machinery and equipment with after-sales service.

Market information

Lack of market information is a serious problem for small-scale units. To overcome this, organised marketing must be developed. It is suggested to introduce the concept of production of quality goods through a network of home units linked to a mother unit and marketing of items by the mother unit. For better marketing, the existing manufacturers should consider the following measures:

- Provision of after-sales service to the consumers
- Ensuring consistency in quality of products and their reliability in use.
- Timely delivery and fixation of reasonable selling price.
- Arranging face-to-face relations with customers.
- Visits of representatives to the customer's plant.

Visits of technical personnel to the customer's plant so as to provide feedback on the quality of the product supplied.

Distribution

Like marketing, distribution also plays a pivotal role though the latter is complementary to the former. Intelligent exploitation of the wholesale and retail outlet is the cornerstone of distribution. To create a powerful platform for corporate image-building and product promotion, the manufacturer should give wide publicity of the distribution system comprising certain attractive measures like,

- provision of differential rate of discount after assessing the purchase
- provision of credit facilities
- delivery of goods through bank payment
- provision of attractive gifts to bulk purchase, and
- providing seasonal discount.

Export efforts

To encourage export of rubber products from Kerala, co-ordinated efforts should be made to identify units which are capable of producing exportable items and to give required services on technical knowhow, standardisation and quality control, analytical/testing facilities and all other advisory work with special incentives and subsidies. It is also important to encourage the entrepreneur to set up more export-oriented units in Export Processing Zones. Recommendations may also be made to include more latex-based products in the eligible list to obtain subsidy under the NR subsidy scheme. □