

# Developments in Rubber Goods Industry in Rubber Producing Countries\*

MS. J. LALITHAMBIKA  
Chairperson, Rubber Board, India

Natural rubber accounts for almost thirty percent of elastomers used in the world rubber industry to-day. Production of natural rubber is concentrated in three or four South East Asian countries. Till recently these countries concentrated only on producing more natural rubber as per the demands in world rubber industry. But the position changed in the eighties. Some of the rubber producing countries found it essential to convert their raw materials to value added products and export to consuming centres. The manufacturers in developing countries also found it advantageous to tap the cheap labour and abundant availability of raw materials in rubber producing countries. Coupled with this favourable environment came the massive demand for latex based examination gloves in developed countries. The result was a remarkable growth in rubber goods manufacturing industry in NR producing countries. In this paper the achievements in prominent rubber producing countries in this area and the challenges ahead of them are examined.

## RUBBER INDUSTRY OF MALAYSIA

Malaysia has played a key role in the impressive growth of the world's rubber manufacturing industry by being a major supplier of quality natural rubber to the consuming industries. Rubber manufacturing activities started in Malaysia around 1932. There was no noticeable growth in rubber goods manufacturing activities in this country till 1970. Till then the objective of the manufacturing industry was only to produce essential products like tyres needed for local consumption. This position changed by the eighties and Malaysia is to-day world's largest producer of examination gloves, latex thread and catheters. In 1985 the export earnings from rubber products in Malaysia was as low as 11 percent of that from raw natural rubber export. But by 1990 the value of product export rose to 55 percent of that for natural rubber export. Malaysian experience shows that they could make almost four times value addition on their primary produce by resorting to manufacturing activities.

The growth in rubber consumption in Malaysia between 1985 and 1990 was at an astonishingly high rate of 21.6 percent per annum. The growth in latex

goods industry during this period was at the rate of 39 percent per year. Growth rate in different segments of Malaysian industry during the period 1985-90 is given in Table I.

**Table I: AVERAGE ANNUAL GROWTH RATE BETWEEN 1985-90**

Type of Industry	Annual growth rate Average percent
Latex Industry	39.0
Tyre	12.1
General Rubber goods	9.4
Industrial rubber goods	17.5
Foot wear	8.5

Malaysia is now world's largest user of natural rubber latex and accounts for 18.7 percent of world NR latex consumption.

From a study of value of rubber goods it is seen that gloves as a group accounts for 63.3 percent of value of goods exported. Almost 79 percent of earnings in rubber goods units is through export of products. USA is the main market for Malaysian rubber products. Malaysia has set a target of 300,000 tonnes rubber consumption by 1995. So far the targets set for the industry were surpassed. Malaysia is now concentrating on enhancing export of tyres. The target set in this area is to triple the export earnings on tyres in the course of next three years. Table II shows the details.

The success of Malaysia rubber goods manufacturing industry is due to the sound government policies, effective technology supporting facilities and the full participation of various sectors of the industry.

## INDONESIAN RUBBER INDUSTRY

Indonesia has shown remarkable growth in tyre and footwear manufactures. The export value of footwear from Indonesia has exceeded that of the tyre sector.

Indonesia motor vehicle tyre industry consists of 13 separate enterprises with a total installed capacity of 11.8 million tyres for four wheeled vehicles and 10.1 million tyres for two wheelers per year. Export of motor vehicle tyres from Indonesia recorded a growth rate of 99.4 per cent per year between 1986 and 1989. Cycle

\* Invited paper at the Rubbercon - '93 held at New Delhi in Feb. 1993.

**Table II: GROWTH OF TYRE AND SELECTED NON TYRE PRODUCTS**

Product	1985	1990	Change %
1. Tyres ('000 tonnes)	3662	6764	86.7
2. Inner Tubes ('000 tonnes)	5948	12224	105.5
3. Gloves (1000 pairs)	255450	1796112	603.1
4. Catheters (1000 Nos)	14242	50623	255.4
5. Rubber Footwear ('000 pairs)	19766	21632	9.4

tyres also recorded an impressive growth during the period and in 1989-90 the growth rate in export value of cycle tyres was 31 percent. Production and export of different types of tyres from Indonesia is given in Table III.

**Table III: PRODUCTION & EXPORT OF TYRES**

Tyre Type	Production ('000 units)	Export Value (US \$ '000)
Four wheelers	8204	10,288
Two wheelers	6052	64,367
Bicycle tyres	-	12,955
Inner tubes	-	2,656

Footwear industry in Indonesia has shown maximum growth during the last 5 years. There are 270 companies in Indonesia engaged in footwear manufacture. The total installed capacity is 311 million pairs. The growth of footwear export was at an astonishing rate of 285 percent. Position of footwear export for two years is shown in Table IV. Growth in export of industrial and general rubber is given in Table V.

The important latex products exported from Indonesia are examination gloves and surgical gloves. This country is importing both condoms and latex thread. Some companies are trying to stabilish units for manufacture of these production also in Indonesia. Total natural rubber consumption in Indonesia is only around 12 percent of their production.

#### DEVELOPMENT IN THAI RUBBER INDUSTRY

There are over 300 rubber goods manufacturing units in Thailand including four big tyre factories. These tyre factories produce a variety of tyres required both for domestic consumption and for the international market. Thailand has shown remarkable growth in rubber manufacturing activities during the last two years. Table VI shows the consumption of rubber in rubber products.

**Table IV: FOOTWEAR EXPORT**

Year	Export Value (US \$ '000)
1989	58,437
1990	225,483

**Table V: EXPORT OF RUBBER GOODS**

Product	Value In (US \$ '000)
V Belts	2,666.0
Conveyor and Trans Belts	114.1
Pipes & Houses	977.6
Other Automotive goods	168.2
General Rubber Goods	5,934.9

**Table VI: CONSUMPTION OF RUBBER**

(in '000 tonnes)

Product	Year	1980	1990
Tyres		37.1	45.0
Tread Rubber		1.2	1.2
Vehicle Parts		2.3	3.3
Rubber Band		10.1	11.4
Shoe and Parts		7.0	9.5
Tube & Hose		0.6	5.2
Battery Box		0.6	0.5
Elastic Thread		4.0	4.8
Gloves		11.8	14.0
Foam Products		0.8	1.3
General Rubber Products		2.1	3.1

#### SRI LANKAN RUBBER INDUSTRY

Sri Lankan is consuming around 23,600 tonnes of rubber annually for product manufacturing in the country. Most of the industrial units in the country are very small. There is only one tyre factory in Sri Lanka. There are solid tyre manufacturing units and six glove units here. The country has ambitious programme to enhance rubber consumption to 70,000 tonne by 2000 AD.

#### RUBBER INDUSTRY IN INDIA

Indian Rubber industry has a history of over seven decades. There are over 5000 rubber goods manufacturing units in the country consuming over 500,000 tonnes of rubber per year. Among rubber producing countries, India has the distinction of being the only country which consumes all the rubber produced by it. Table VII shows the size distribution of manufacturing units in India.



**Table VII: SIZE DISTRIBUTION OF MANUFACTURING UNITS IN INDIA**

Consumption in Tonnes/annum	No. of units
10 tonnes and below	2568
Between 10 and 50 tonnes	1614
Between 50 and 100 tonnes	349
Between 100 and 500 tonnes	269
Between 500 and 1000 tonnes	36
Above 1000 tonnes	45

Although there are 5000 units in the country nearly 45 percent of rubber consumed in the country is through the thirty tyre factories. Most of the non-tyre units are small scale manufacturers. The industrial growth in the country was around 8 percent during the past few years although the position changed in 1991-92. Consumption of rubber in the country in different products is given in Table VIII.

**Table VIII: CONSUMPTION OF RUBBER**

Products	Consumption in tonnes	
	1990-91	1991-92
1. Automotive Tyres&Tubes	222,120	226,207
2. Cycle Tyres & Tubes	77,435	81,059
3. Camel back	34,352	35,517
4. Footwears	63,654	67,204
5. Belts & Houses	36,387	38,029
6. Latex Foam	19,598	20,750
7. Dipped Goods	15,578	17,067
8. Others	37,879	39,515

Almost 45 percent of the rubber consumed in Indian rubber industry is in tyre sector. Cycle tyres is the next important product. Export of cycle tyres from India is fast picking up. Most of the other non-tyre produce manufactured are used for domestic consumption. Export value of rubber products from India is give in Table IX.

Value of tyres exported from India has almost doubled by 1991-92 thereby indicating almost hundred percent growth. Similar results are shown by some latex products and cycle tyres.

The other major rubber producing countries are China, Vietnam, Nigeria, Ivory Coast and Liberia. China has a well developed rubber goods manufacturing industry and is an important exporter of examination gloves. Vietnam is slowly developing its vast damaged plantations and the manufacturing industry in that country is yet to make its impact in the international market.

## CHALLENGES AHEAD

### *Unhealthy Competitions*

All NR producing countries are now manufacturers of rubber products required in the international market. These are being sold to more or less the same users by different producers. This situation has resulted in unhealthy competition and the price realised for some products had become unremunerative. Examination glove manufacturing units in some countries had to be closed down because of this situation. The position can improve only if the producers in different countries enter into some kind of agreement in capacity utilisation and market exploitation. Some efforts in these lines are being taken by the Association of Natural Rubber Producing Countries (ANRPC).

### QUALITY REQUIREMENTS OF CONSUMERS

Importing countries in the West have become highly quality conscious and some of the measures appear to be protectionist in nature. Products exported to USA should meet FDA regulations - and those exported to Europe should conform to ISO 9000 systems of certification. Manufacturers in some of the producing countries have already risen to the occasion and strengthened their quality certification base. India has evolved the ISO 14000 series of standards, which is in line with ISO 9000 series of standards. The Bureau of Indian Standards is also helping manufacturers in getting certification under ISO 14000/ISO 9000. The expertise available in this area with BIS can be shared by other rubber producing countries also. Very recently some reports of allergic effects of proteins present in natural rubber based products are finding place in specifications drafted by some countries. It is surprising to note that products which were successfully used for several decades with the proteins in them are suddenly becoming source for allergic reactions. But producers

**Table IX: EXPORT VALUE OF RUBBER PRODUCTS**

Products	Rs.	Export value 1990-91 million
Automotive Tyres & Tubes		1795.0
Rubber Footwear		117.5
Belting		241.0
Cycle Tyres & Tubes		120.0
Houses		77.0
Medical Products including Gloves		11.0
Cots and Aprons		11.0
Others		97.0
<b>Total</b>		<b>2597.0</b>

have to make every effort to supply products as per consumer expectations. When International Standards are evolved, the producing countries have to adhere to them. They should impress upon the standards body the producer capability. Thus the standards evolved should be a compromise of consumer requirement and producer capability. Very often these are finalised for ideal conditions of consumer requirements.

#### NEED FOR SCIENTIFIC MARKET ASSESSMENT

Rubber goods manufacturing industry is comparatively a new activity in many NR producing countries. A study was recently conducted by the ANRPC to evolve strategies for modernising rubber based manufacturing industries in these countries. From the study it became clear that all rubber producing countries together account for only 12 percent of world NR consumption although 85 percent of NR is produced in their territory. So the manufacturers in these countries will have to compete with their counterparts in other areas for successful marketing operations. So successful producing countries are always associating their manufacturing activities with major multinational product manufacturers. Such collaborations will ensure not only production of articles as per needs of users but also guaranteed market. Producing countries also will have to assess market requirements and changes occurring in markets at various intervals for making modifications in their production operations. NR producing countries other than India have no good market within their territory for the rubber products. Although free market economy will help all countries to produce goods and market any where, tariff protection and other trade barriers will exist at various consuming points in different countries. There should be data bank giving details of trade regulations in different consuming countries.

Rubber industry in NR producing countries has very bright future. Some of the industries in Taiwan and Korea are getting relocated to countries like Thailand, Indonesia and Malaysia. But these small countries were only exporters and had no good market for the products within their territory. But the position is different for the major rubber product manufactures in USA, Europe and Japan. For them rubber product from other countries are not welcome materials. They cannot also stop their business as is being done by manufacturers in Taiwan or Korea. But cost of manufacture of products in developed countries is becoming prohibitively high. Table X shows cost of tyre manufacture in USA.

From the Table X it is clear that the labour component in cost of production of a tyre in developed countries is several times the cost of rubber used in it. So the manufacturers in these countries are eager to shift their factories to low wage countries. This will be a slow process and the countries who move fast in accepting industries thus getting shifted will be benefited. All the rubber producing countries in South East Asia are eager to welcome industries from the developed world and in that process the multinational companies are able to extract attractive terms from the host countries. There are several areas where the rubber producing countries should evolve common strategies for the healthy and viable growth of rubber industry in their area.

**Table X: COST OF TYRE MANUFACTURE IN U.S.A.**

(US \$ per tyre)

Item	Car Tyre	Truck Tyre
Natural rubber	0.0 (3.4%)	9.5 (6.1%)
Other inputs	9.3	43.4
Energy	1.0	3.7
Labour	8.4	57.1
Capital Charges	6.9	41.4
<b>Total</b>	<b>26.4</b>	<b>155.0</b>

Before concluding I would like to emphasise again the need on the part of natural rubber producing countries to accelerate the pace of utilising their wonder raw material namely natural rubber for the manufacture of value added rubber products for their internal consumption as well as for exports. While aiming for exports it has to be well understood that goods for export must be produced with consistency in quality and in conformity with the international standards and specifications. It has to be borne in mind that exporting is not a casual business and that international markets are not places to get rid of occasional surplus. The enormous wealth of information available on rubber goods manufacture and marketing in different Natural Rubber Producing countries can be pooled for their mutual gains. The NR industry had passed through trouble and struggles in the past but had always emerged successful and it will continue to overcome any challenge it may have to encounter through co-operation among the NR producing countries. I do hope that the end of the three day deliberations, the Scientists and Technologists who have assembled here, will be able find ways and means for taking the rubber industry to greater heights.