RECENT DEVELOPMENTS IN RUBBER GOODS MANUFACTURING INDUSTRY IN NATURAL RUBBER PRODUCING COUNTRIES*

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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 eightees. 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.

DEVELOPMENTS IN 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 eightees 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 per cent of that for natural rubber export. Malaysian experience shows that they could make almost 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 per cent per annum. The growth in latex goods industry during this period was at the rate of 39 per cent per year. Growth rate in different segments of Malaysian Industry during the period 1985-90 is given in Annexure I.

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

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From a study of value of rubber goods it is seen that gloves as a group accounts for 63.1 per cent of value of goods exported. Almost 79 per cent of earings in rubber goods units is through export of products. UA is the main market for Malaysian rubber products. Malaysia has set a target of 300,000 tonnes rubber consumption 1995. So far the targets set for the industry were surpassed. Malaysia is now concentrating on enhancing export tyres. The target set in this area is to triple the export earnings on tyres in the course of next three years. Annexure II shows the details of the growth of tyre and non-tyre sector in Malaysia.

The success of Malaysian 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.

DEVELOPMENTS IN INDONESIAN RUBBER INDUSTRY

Indonesia has shown remarkable growth in tyre industry and footwear manufacture. The export value of footwear from Indonesia has exceed that of the tyre sector.

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

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 Annexure IV. Growth in export of industrial and general rubber goods is given in Annexure 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 establish units for manufacture of these products also in Indonesia. Total natural rubber consumption in Indonesia i s 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. Annexure VI shows the consumption of rubber in different rubber products.

SRI LANKAN RUBBER INDUSTRY

Sri Lanka 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 five solid tyre manufacturing units and six glove units here. The country has ambitions programmes to enhance rubber consumption to 70,000 tonnes 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. Annexure VII shows the size distribution of manufacturing units in India.

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 Annexure VIII.

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 products manufactured are used for domestic consumption. Export value of rubber products from India is given in Annexure 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 & cycle tyres.

The other major rubber producing countries are China, Vietnam, Nigoria, 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 OF THE RUBBER MANUFACTURING INDUSTRY IN PRODUCING COUNTRIES

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).

STRICT 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 ISI 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 IS 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 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 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 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 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 manufacturers 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. Annexure X shows cost of tyre manufacture in USA.

From the Annexure 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.

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 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 troubles 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.

ANNEXURE I

Average Annual Growth Rate Between 1985-90 In Rubber Industry in Malaysia

ype of Industry	Annual growth rate Average percent
Latex Industry	39.0
Tyre	12.1
General Rubber goods	9.4
Industrial rubber goods	17.5
Footwear	8.5

ANNEXURE II

Growth of Tyre and Selected non Tyre Products

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

ANNEXURE III

Production & Export of Tyres from Indonesia

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

ANNEXURE V

Footwear Export

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

ANNEXURE V

Export of Industrial and general rubber goods

Product	Value in US $ '000
V Belts	2,666.0
Conveyor and Transmission Belts	114.1
Pipes & Hoses	977.6
Other Automotive goods	168.2
General Rubber Goods	5, 934,9

ANNEXURE VI

Consumption of Rubber (in 000 tonnes)

Product	Year 1989	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

ANNEXURE 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

ANNEXURE VIII

Consumption of Rubber

Products	Consumption in tonnes 1990-91	1991-92
1. Automotive Tyres & Tubes	222,120	226,207
2. Cycle Tyres & Tubes	77,453	81,059
3. Camel back	34,352	35,517
4. Footwears	63,654	67,204
5. Belts & Hoses	36,387	38,029
6. Latex Foam	19,598	20,750
7. Dipped Goods	15,578	17,067
8. Others	37,879	39,515

ANNEXURE IX

Export value of Rubber Products

Products	Export Value 1090-91 Rs. million
Automotive Tyres & Tubes	1795.0
Rubber Footwear	117.5
Belting	241.0
Cycle Tyres & Tubes	120.0
Hoses	77.0
Medical Products including Gloves	139.0
Cots and Aprons	11.0
Others	97.0
Total	2597.0

ANNEXURE X

Cost of tyre Manufacture in U. S. A (US $ per Tyre)

10 Item	Car Tyre	Truck Tyre
Natural rubber	0.9 (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
Total	26.4	155.0