

1065

## NATURAL RUBBER IN THE NEW MILLENNIUM

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### INTRODUCTION

The global economy is on the verge of a new millennium. The emerging trends on the eve of the next millennium are saddled with a number of economic, social and political issues and changes which may usher in the emergence of a new world economic order. Though the issues and changes were evident since the early 1990's it became rampant with the signing up of the General Agreement on Tariffs and Trade (GATT) in April, 1994 and the subsequent emergence of the World Trade Organisation (WTO) to implement and monitor the objectives of the treaty. One of the main objectives of the treaty has been to reform a highly distorted world trade characterised by direct and indirect subsidies resulting in a deceptive comparative advantage and inefficient use of world resources. The resultant policy change in the global economic climate cutting across national and ideological frontiers consisted of decontrol, deregulation and liberalisation. These three policy inputs have been the harbingers of the ongoing process of market integration and globalisation of economic activities. The increasing integration of the international economy can be witnessed in the growth of products ranging from fast foods to financial services, which are marketed in a standardised and structured format around the world, and which compete primarily with similar global products. Organisations will have to master new competencies and the managers and workers will require new skills in the context of a global conglomerate. The steady increases in the number of mergers and acquisitions among national and multinational companies since mid 1990's are broad indicators of the basic tenets of the emerging structure of global economic scenario in the next millennium. The mantra and the motto for success for an entrepreneur or a firm in the 21st century is "globalise or

perish". It is in this backdrop that the emerging issues confronting world natural rubber (NR) sector are analysed and the policy perspectives on Indian rubber sector are underlined.

#### **World NR scenario ; Major structural characteristics**

Any serious attempt to delineate the potential implications of the emerging trends in the global economy on the world NR sector has to primarily focus on the production sector. Logically the major impact of the structural adjustments consequent to the challenges arising from the new economic order is expected to take place in this sector. The three cardinal features of world NR production sector are a very high degree of geographical and sectoral concentration of production and the export orientation. Table 1 illustrates the major characteristics of the world NR production sector.

**Table 1: Major characteristics of the World NR production sector (1997)**

Region	NR production (000'tonnes)	Relative share in World NR production (%)	Relative share of smallholdings in NR production (%)	Domestic consumption of NR as a percentage of production
Asia	5955.3	92.8	NA	38.1
Others	464.7	7.2	NA	65.1
World Total	6420.0	100.0	72.6	40.0

Source : International Rubber Study Group (1998), Rubber Statistical Bulletin, Vol-53, No.3, December.

As evident from Table 1, world NR production is geographically concentrated in Asia which accounts for about 92.8 per cent of the total production. In fact, the four largest producers, viz; Thailand, Indonesia, Malaysia and India control more than 79 per cent of the world NR production. The sectoral concentration of production shows that 72.6 per cent of the total

production is from the dominant smallholdings sector although there are significant variations across the major producing countries in the relative share of this sector. The domestic consumption of NR is a crude indicator of the extent of rubber based industrialisation and value addition in the producing countries. The share of domestic consumption of NR (40%) in the producing countries indicate that even after a century, the crop is basically dependent on export average. However, there are substantial deference in the extent of absorption of NR in the major producing countries. Table-2 shows the extent of domestic consumption in the six major NR producing countries.

**Table 2: Domestic consumption of NR in the major producing countries (1997)**

Country	Domestic consumption of NR (000'tonnes) of production	Domestic consumption of NR as a percentage
Thailand	182.0	9.0
Indonesia	141.0	9.4
India	326.9	33.7
China	571.7	98.5
Vietnam	48.0	23.9
Total	2169.6	37.8

Source : Same as Table-1

Table-2 shows the extent of variation in domestic consumption of NR among the major NR producing countries and it varies from 9 per cent in the largest producing country (Thailand) to more than 202 per cent in the fifth largest producer (China). Even though Table-2 is illustrative of the difference in the extent of rubber based industrialisation in relation to the raw material base in the major NR producing countries, it is obvious that these countries have well defined limits in absorbing the shocks and responding to the challenges in the emerging global economic scenario. This is primarily due to three factors, viz; (1) a high degree of dependence on the export markets and the resultant vulnerability to economic changes in the major NR consuming countries, (2) negligible value addition in the NR producing countries and (3) inherent constraints of the dominant smallholdings sector

in adapting and adjusting to the changes.

An important feature of world NR consumption is that not only the developed industrialised countries are consuming a major share (60%) but also it has been concentrated in the tyre and tyre products manufacturing sector over time. Table-3 show the relative share of the tyre and tyre products sector in total NR consumption among the major non-NR producing countries.

**Table 3: Relative share of tyre and tyre products sector in total NR consumption (1997)**

Country	Domestic consumption of NR (000'tonnes) of production	Domestic consumption of NR as a percentage
USA	1044.1	76.9
Japan	713.0	86.0
Germany	212.0	81.5
France	192.3	91.9
UK	121.0	82.1
Italy	117.0	75.2
Total	2399.4	81.4

Source : Same as Table 1

Table 3 highlights a very high dependence of NR on the dominant tyre products manufacturing sector in the major non-NR producing countries. Even in the major-NR producing-cum-consuming countries such as China (the 2nd largest consumer) and India (the 4th largest consumer), the tyre sector is the single largest consuming industry. Therefore, to a large extent, the prospects of the tyre and tyre products sector are controlled by a handful of multinational companies. The mergers and acquisitions among the tyre companies since the mid 1980's have only increased the concentration of global tyre production.

#### **Emerging trends**

The potential implications of the emerging trends have to be assessed

in the context of the major structural characteristics of the NR production and consumption sectors outlined in the previous section. NR is one among the ten core commodities covered by the Integrated Programme for Commodities (IPC) under the auspices of UNCTAD for assistance. However, its case is a clear example illustrating the vulnerability of the developing countries to price fluctuations in the world market inspite of the market interventions by the International Natural Rubber Organisation (INRO) since the 1980's to stabilise the NR price. Although volatility of prices of the major agro-based products exported from the developing countries has been a common feature during the post-colonial area, the extent of fluctuations and uncertainty assumed serious proportions since the 1980's. The free market price indices of NR declined to the extent of 40 percentage points in 1990 from its 1980 level (George and Sethuraj, 1996). During the 19 year period from 1980-98, the trend growth rate of world NR price has been only 0.17 per cent in nominal terms. However, the most important issue seriously debated on world NR market has been the steep fall in the prices (in dollar terms) since 1996 after achieving a record peak level in 1995 during the 19 year period. The negative annual growth rates recorded in 1996 (-12.5%), 1997(-28.4%) and 1998(28.4%) are confounded by the Asian financial crisis. The recent fall in world petroleum prices may further worsen the situation with commensurate decline in synthetic rubber (SR) prices. Though the net impact of the price fall vary across the major NR producing countries, the gravity of the crisis is evident from the estimated loss of US\$ 115 million in the case of Thailand during the period between 1997-98 (World Bank, 1998). The INRO has in-built constraints to intervene in the market as the benchmark price (denominated by the Singapore dollar and Malaysian ringgit) is above the intervention level due to devaluation. The available forecasts on NR prices are revolving around the perception that recovery from the ongoing crisis is possible only with sustained economic growth in the South-Est Asian region and the industrialised contries in Europe, USA and Japan. In this context, there are well defined limits to inter and intra-sectoral adjustments in the world NR economy to offset the negative impact of the crisis. Nevertheless, future NR scenario is likely to be dictated by the comparative competitiveness in cost of production quality and value addition.

#### **Indian NR scenario**

The performance of the rubber plantation Industry in India since independence has been impressive. The country has achieved excellent

progress in area, production and productivity of rubber. Currently, India is the fourth largest producer, next to Thailand, Indonesia, and Malaysia, sharing about nine per cent of world's NR output. Table 4 depicts the trends in area, production and yield per ha of NR in India.

**Table 4: Trends in area, yield and production of NR**

Year	Area ('000 ha)	Yield (kg/ha)	Production in production (tonnes)	Annual growth (%)
1950-51	75	284	15,830	
1960-61	244	365	25,697	
1970-71	217	653	92,171	
1980-81	284	788	153,100	
1990-91	475	1076	329,615	
1991-92	489	1130	366,745	11.3
1992-93	499	1191	393,490	7.3
1993-94	508	1285	435,160	10.6
1994-95	516	1362	471,815	8.4
1995-96	524	1422	506,910	7.4
1996-97	533	1503	549,425	8.4
1997-98	545	1549	583,830	6.3
1998-99(E)	557	1550	605,000	3.6

E Estimate

Source: Rubber Board, Statistics and Planning department, Kottayam

The factors contributed to such an impressive achievement are the research and development (R&D) programmes, a well co-ordinated extension network initiated by the Rubber Board, the positive price policy followed by the Government and a high degree of receptiveness of the growers.

During the period 1992-93 to 1996-97 (VIII th Plan) the average annual progress in production was 8.4 per cent. Despite this higher growth

rate, the overall production was short of consumption. But during 1997-98 the country's consumption of NR registered only 1.8% increase as against 8.5% increase anticipated. The lower demand growth was due to the impact of the all pervasive recession in the industrial sector, particularly in the automobile tyre & tube sector, which is the dominant consumer of NR in the country. The poor growth of the industry coupled with a 6.3% growth in NR production led to a surplus for the first time after 1997. The situation resulted in a crisis leading to accumulation of rubber stocks and depressed market conditions characterised by declining rubber prices. Table 5 gives the annual growth in consumption vis-a-vis production

**Table 5: Growth in consumption vis-a-vis production of NR**

Year	Consumption ('000 tonnes)	Annual growth (%)	Production ('000 tonnes)	Annual growth (%)
<b>VIIIth Plan</b>				
1992-93	414	8.9	393	7.3
1993-94	450	8.7	435	10.6
1994-95	486	8.0	472	7.4
1995-96	525	8.0	507	7.4
1996-97	562	7.0	549	8.4
<b>IX th Plan</b>				
1997-98	572	1.8	564	6.3
1998-99(E)	594	3.8	605	3.6

E -Estimate

Source : Same as Table 4

After scaling to unprecedented heights in 1995 and 1996, the price started declining. The average price of RSS 4 grade sheet rubber which was Rs 51.12/kg in October 1996 came down to Rs 34.95/kg in October 1997. The gloom in the rubber market further aggravated during 1998 and the average market price for RSS 4 grade rubber hovered around Rs. 26.95/kg in

January 1999. Crop shift in response to price decline may not happen in the short run due to the rigidities of rubber being a perennial crop. But the cessation of yield augmenting cultural practices as already reflected in the estimates for 1997-98 and 1998-99.

#### Projections on NR production and consumption in India

In the backdrop of the emerging trends in the Indian NR sector, projection have been done on the annual planted area tapped area, productivity, production and consumption of NR till 2010 ad (Tables 6 and 7).

**Table 6: Projections on area, tapped area and productivity of Rubber in India**

Year	Area ('000 ha)	Tapped area ('000 ha)	Productivity (kg/ha)
1999-00	569	395	1588
2000-01	581	403	1615
2001-02	593	411	1640
2002-03	603	410	1881
2003-04	613	427	1679
2004-05	623	433	1697
2005-06	633	436	1715
2010-11	683	470	1790

Source : Same as Table 4

The estimated area under rubber at the end of 1998-99 is 5.57 lakh hectares with 3.87 lakh hectares under tapping. The targets proposed for new planting and replanting during the five year period 1997-2001 are 60,000 and 30,000 hectares respectively. Out of the proposed new planting 58 per cent is in non-traditional region especially in the North-Est.

**Table 7: Projections on production and consumption of NR in India**

Year	Consumption	Growth	Production	Growth	Deficit
1999-00	624	5	627	3.7	+3
2000-01	664	6	661	3.8	-18
2001-02	710	7	674	3.6	-36
2002-3	760	7	694	3.0	-66
2003-04	813	7	717	3.3	-96
2004-05	866	6	735	2.5	-131
2005-06	921	6	748	1.8	-173
2010-11	1217	6	841	2.4	-376

Source : Same as Table 4

The outlook for future is that of a widening demand-supply gap. The estimated deficit may increase from 1300 tonnes in 2000-01 to 376000 tonnes in 2010-11. These projections do not include present stock, probable imports and exports.

#### **Policy perspectives on the Indian Rubber sector**

The hitherto insulated status of the Indian rubber sector has been undergoing significant changes since 1991-92 consequent to the implementation of liberalised economic policies. The major identifiable consequence is a considerable dilution in the extent of protection given to the NR production and the rubber products manufacturing sectors. To a certain extent, this has affected the growth prospects of the industry as a whole as evident from the emerging trends. Therefore, the future priorities and strategies of Indian rubber sector shall be focused on the basis of the issues conformation the NR production, rubber products manufacturing and export sectors.

The focus on the production sector is confined to the NR sector due to its dominant position in total rubber production and consumption in the country. In spite of the achievement of the highest reported productivity of NR in the world, there exists marked differences in productivity among the different rubber growing regions to the extent of more than 40 per cent. The major issues in the traditional rubber growing region of Kerala are: increasing share of part-time farmers, growth of homestead farms and operational

level problems associated with the availability of hired labour. In the emerging scenario, there are serious constraints in pursuing expansion of NR cultivation in marginal areas where the realisable productivity is below the national packages are required to enhance productivity in such regions as competitiveness and quality are the prime guiding factors determining the feasibility of NR production in the context of globalisation.

The attainment of the short-term and long-term targets and realisation of the projections depend to a great extent on the potential issues influencing the relative profitability of NR production in the country.

