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Modernisation best way to survive crisis

Promotion of products suited for the domestic and export markets with an inbuilt option for flexibility in restructuring the production process is necessary for surviving the present crisis in the NR industry

A rubber plantation: Highest productivity

Asian financial crisis since July 1997 has been one of the major economic disasters seriously damaging the world economy in general and Asian region in particular during the post-war era. The polemics on the crisis are centered around three important issues, viz., identifying the root causes, assessing the economic consequences and prescribing the remedial measures.

However, the economic reverberations of the Asian financial crisis on the eve of the next millennium are saddled with a number of economic, social and political issues which will influence the form and content of the strategies of various economies and the constituent sub-sectors for many years to come.

Decline in GDP

Although the immediate consequence of the crisis has been a sudden and steep devaluation of local currencies of the affected countries in terms of dollar, it affected the performance of real sector and various sub-sectors of Asia in particular and world economy in general. The most discernible distortions evident in the real sector of the crisis-ridden economies are a perceptible decline in GDP growth rates and export earnings. A common feature found in most cases has been persistent current account deficit, huge borrowing in dollar for investment without sufficient infrastructure, weak local market and large dependence on external market.

At the global level, estimates of the International Monetary Fund (IMF) indicates that the net output loss on account of spreading of the financial and economic crisis is around US $ 600 billion.

Worst victims

In the emerging scenario, it is interesting to note that the three worst-hit victims of the current crisis are the three major natural rubber (NR) producing countries, viz., Thailand, Indonesia and Ma-

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laysia. The combined share of these three countries in total world trade production and exports are around 72 per cent and 87 per cent respectively.

Logically, the developments in these countries since mid - 1997 may have serious implications on the world rubber economy as well as other major NR producing countries like India. Therefore, this article is conceived within the backgrop of market integration and Asian crisis to analyse the specific issues of the Indian NR industry in the larger framework of the world NR economy.

World production

The 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 80 per cent of the world NR production. The sectorial 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 markets and the share of Asia (38.1%) is lower than the world average. However, there are substantial differences in the extent of absorption of NR in the major producing countries.

In the major non-NR producing and NR producing and consuming countries the tyre sector is the single largest consuming industry. Therefore, to a large extent, the prospects of the NR production sector is largely dependent on the fortunes of the tyre and tyre products sector which is 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. The most recent trends tend to indicate that compared to the indigenous tyre companies the multinationals are better equipped to face the challenges of the ongoing global recession because of the latter group's worldwide links.

Table I

Production, consumption, import and export of NR (Tonnes)

Year	Production	Consumption	Import	Export
1990-91	3,29615 (10.9)	3,64,310 (6.6)	49,013	- - -
1991-92	3,66,745 (11.3)	3,80,150 (4.3)	15,070	5,834
1992-93	3,93,490 (7.3)	4,14,105 (8.9)	17,884	5,999
1993-94	4,35,160 (10.6)	4,50,480 (8.7)	19,940	186
1994-95	4,71,815 (8.4)	4,85,850 (8.0)	8,093	1,961
1995-96	5,06,910 (7.4)	5,25,465 (8.0)	51,635	1,130
1996-97	5,49,425 (8.4)	5,61765 (7.0)	19,770	1,598
1997-98	5,83,830 (6.3)	5,71,820 (1.8)	29,389	1,415
1998-99*	6,05,000 (3.6)	5,92,000 (3.5)	26,000	1,669

* Estimate. Note : Figures in brackets are annual growth rates

NR prices

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. 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 in spite of the market interventions by the International Natural Rubber Organisation (INRO) since the 1980's to stabilise the NR price.

The free market price indices of NR declined to the extent of 40 percentage points in 1990 from its 1980 level. 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 in 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 varies 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.

Economic growth

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-East Asian region and the industrialised countries in Europe, the 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 the cost of production, quality and value addition.

The Indian rubber production sector consists of three segments: the NR, synthetic rubber (SR) and reclaimed rubber (RR). As in the

case of the three major NR producing countries, the NR producing sector has been the dominant segment from the very beginning in terms of its relative share (81%) in total rubber production in the country. However, the unique feature of the Indian rubber production sector is its internal market orientation arising from a captive domestic market compared to the export orientation of the three major NR producing countries. In 1996-97, the relative share of exports of rubber in the total production was less than one per cent which is in sharp contrast to the respective shares of Thailand, (92%), Indonesia (89%) and Malaysia (60%).

The two cardinal features of Indian NR production sector are: a relatively high degree of regional and structural concentration. Regional concentration of NR production in the country is characterised by a near monopoly position of the state of Kerala in terms of control over the area under the crop (85%) and production (93%). The structural concentration is characterised by the dominance of the smallholdings sector in areas under the crop (87%) and production (87%).

In the context of the Asian economic and financial crisis, the structural dimension of the Indian NR production sector assumes relatively more importance in terms of vulnerability as about 0.96 million units of the smallholdings with an average size of about 0.50 ha accounts for a major portion of the area under the crop and production.

The average reported productivity of 1549 kg/ha in 1997 in the country is the highest among the major NR producing countries. The cumulative effect of R&D programmes and well co-ordinated extension schemes initiated by the Rubber Board, a positive price policy followed by the Government since independence and an enlightened outlook of the planters have enabled the country to achieve impressive results in the NR production sector.

Excellent progress

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.

The other two segments in the Indian rubber production sector, viz; SR and RR, occupy relatively insignificant positions in terms of the relative shares in total elastomer production and consumption. To a large extent, the three types of elastomers have been complementary to each other compared to the competition between SR and NR in the international market. Though during 1996 and 1997 prices of various grades of SR were subjected to sharp downward revisions, the prices remained considerably higher than NR prices.

Despite the production of eight different types of SR in the country, the requirements of butyl rubber and polychloroprene rubber for the domestic manufacturing industry are met by imports. In 1997, the total imported quantity of 78103 tonnes of SR was higher than the domestic production of 71993 tonnes. Among the nine SR processing units in the country eight are in the private corporate sector and the remaining one is in the public sector.

There are 38 units engaged in the processing of RR in India. RR is used in the manufacturing of rubber products, usually in blends with either NR or SR. During 1997 the total production and consumption of RR in the country were 69,840 tonnes and 70,085 tonnes respectively. The proportion of total NR, SR, and RR consumption by the rubber products manufacturing sector during the year was 71:20:9. Conversely, the international elastomer consumption pattern is characterised by a dominant share of SR (61%) compared to NR (39%).

Manufacturing sector

Though the estimated relative share of rubber products manufacturing sector in the total value of industrial output in India is estimated to be only less than 2 per cent, two distinct features of this sub-sector compared to other three major NR producing countries are: a comparatively wider and larger manufacturing base and the inward market orientation. India is the fourth largest consumer of NR in the world and it also occupies fourth rank in total rubber consumption. In fact, the manufacturing sector has played a pivotal role in the growth of the production sector by absorbing the steady increases in the production of rubber.

A significant decline in growth of the consumption (Table I) appears to be mainly rooted in the recent industrial recession in the country and partly due to the structural characteristics of this industrial sub-sector. The evolution of Indian rubber products manufacturing sector as a supplementary segment catering to the requirements of the large industrial base in the country rather than as a relatively independent export oriented sector as in the case of Malaysia is the most important structural characteristic of the industry. This strong linkage between the Indian

Table II

Projections on production and consumption of NR in India

Year	Consumption (000 tonnes)	Growth rate (%)	Production ('000 tonnes)	Growth rate (%)	Deficit-Surplus+ ('000 tonnes)
1999-00	624	5.4	627	3.7	3
2000-01	664	6.4	651	3.8	-13
2001-02	710	6.9	674	3.6	-36
2000-03	760	7.0	694	3.0	-66
2003-04	813	7.0	717	3.3	-96
2004-05	866	6.5	735	2.5	-131
2005-06	921	6.4	748	1.8	-173
2010-11	1,217	5.4	841	2.4	-376

industrial sector and the rubber products sub-sector appears to be the major factor behind the steep decline in the rate of growth in NR consumption.

Foreign trade

Despite an insignificant share of rubber products (0.96%) in India's total export earnings, the country has been enjoying a favourable balance of trade in the foreign trade of rubber products during the 27-year period between 1971-72 to 1997-98. In fact, the surplus has been registering a steady increase as the total value of imports expressed as a percentage of the value of exports has declined from 40 per cent in 1971-72 to 34 per cent in 1997-98. To a large extent, Indian rubber products exports is an horizontal extension of the structure of its rubber products manufacturing sector.

The impact of the Asian crisis on the Indian rubber sector is as follows:

(i) In the short run the direct impact of the crisis would be limited on India's financial sector and exports due to controls on capital account convertibility and destination of exports.

(ii) The impact on the NR production sector is mainly confined to the synchronisation of domestic prices vis-a-vis world market prices due to policy changes.

(iii) The trends in the dominant dry rubber products sector would be mainly influenced by the growth indicators in the Indian economy rather than the exports to Asian countries.

(iv) The emerging trends indicate a comparatively higher potential impact on the export-oriented latex products manufacturing sector.

Projections

In the backdrop of the emerging trends in the Indian NR sector, projections have been done on the annual planted area, tapped area, productivity, production and consumption of NR till 2010-11 AD.

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-East.

The outlook for fumre is that of a widening demand-supply gap. (See Table-II) The estimated deficit may increase from 13,000 tonnes in 2000-01 to 3,76,000 tonnes in 2010-11.

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 the Indian rubber sector shall be focused on the basis of the issues confronting the NR production, rubber products manufacturing and export sectors.

The future NR scenario is likely to be dictated by the comparative competitiveness in the cost of production, quality and value addition

Constraints

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 average. Simultaneously, R&D inputs and specific extension 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. The strategies employed to achieve the desired results are squeezing unit cost of production of NR and increasing net income per unit of area. The promotion of the practices of discriminatory fertilizer application, low frequency tapping systems and group processing of raw rubber are expected to yield considerable savings in the operational cost components of NR production.

At the same time, earnest attempts are being made to increase the ancillary sources of income by popularising intercropping in the immature phase and commercial exploitation of the by-products, viz., rubber seed, rubber honey and rubberwood in the mature phase of rubber plantations. The primary objective is exposing the NR sector to globalised production.

Industrial base

Though a comparatively large industrial base ensuring a captive domestic market has a "cushioning effect" to the manufacturing sector at times of crisis in the export market, it is important to note that the industrial base itself is undergoing significant transformation process. Therefore, matching efforts to modernise and upgrade the manufacturing sector are vital for maintaining the share in the domestic market as well as sustaining the growth in exports.

While equipping the manufacturing sector for global production with cost competitiveness and quality in the long run, the immediate concerns are centered around identification and promotion of products suited for the domestic and export markets with an inbuilt option for flexibility in restructuring the production process. The guiding principles in this endeavour shall be optimum allocation of the available resources in the rubber sector and comparative advantage in the manufacturing and export of rubber products. ■