

# Rubber Production Priorities Under The WTO Regime In India

**T**hough the tree *Hevea brasiliensis* made its entry as a plantation crop confined to large estates, over the years its status has been greatly transformed as it found its way into households occupying areas as tiny as 0.1 ha or even less. This factor has added dimensions in the fact that apart from supporting large corporate the crop also provides livelihood for millions of people. It is estimated that the small grower population in the world would be around three million.



By A K Krishna Kumar

In the Indian context this aspect is far more crucial as the average Indian small holder is having very small holding size vis-a-vis his counterpart in other countries. While the average size of small holdings in Malaysia is around 1.9 ha and in Thailand two ha, the Indian average small holding is just around 0.5 ha.

Apart from the smaller holding size of the Indian rubber small holding sector, there are many other adversities which confront the plantation sector in general and in small holding sector in particular. Most of the plantations are raised in marginal soils where production potential is becoming low. The plantations are entering third cycle where again the soil health is not too sound and the expansion of area in the traditional region even though on a limited scale only takes place in marginal areas where high productivity levels can be obtained only with high technology inputs.

The Indian rubber small holder has not many alternatives. Of the half a million hectare of rubber plantations, more than 80 per cent is in highly inhospitable terrain where other agricultural practices are not going to be very easy. The above aspects therefore point to the fact that rubber plantation for a small grower who is already in the business is something which he cannot afford to neglect as an immediate switch over is practically impossible.

Income from this source is very crucial to the socio-economic development of about one million households in the country. The only way is to look forward to measures which can make it internationally competitive for which fortunately the opportunities are galore and what is required is a will to adopt and withstand the adverse moments.

## AN OVERVIEW OF THE RUBBER PLANTATION SECTOR IN INDIA

Production and consumption of natural rubber (NR) registered a rapid growth rate during the last five decades. In India the production of rubber which was 15,830 tonnes in 1950 - 1951 has gone upto 630,000 tonnes in 2000 - 2001 and the area registered more than a seven-fold

Table 1 - Area, Production And Productivity Of Rubber In India

Year	Area (ha)	Production (Tonnes)	Productivity (kg/ha)
1950-51	75,000	15,830	284
1960-61	143,905	25,697	366
1970-71	217,198	92,171	653
1989-91	284,166	153,100	788
1990-91	475,083	329,615	1,076
1995-96	524,075	506,910	1,422
1998-99	554,000	605,045	1,563
2000-01	563,000	630,405	1,576

increase. The most impressive growth has been in the productivity, from 284 kilogram in 1950 - 1951 to 1,576 kilogram in 2000 - 2001 (refer to It is needless to mention that the future of NR is bright, the occasional fall in price notwithstanding. In India rubber industry holds a place of pride and it has a turnover of about Rs 190 billion. Considering the various

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domestic factors which are advantageous to the rubber industry in this country the potential for export for rubber goods is very bright. One has to appreciate the fact that in spite of remarkable increase in exports during the last four to five years our export market share is only less than two per cent of the global trade of NR. This shows the potential for exports and earning foreign exchange. In the domestic front also consumption will increase as per capita consumption is one of the lowest in the world.

India's performance in growth rate of plantation industry against the global scenario has been very impressive. The average annual growth rate of rubber plantation sector during the eighth plan in India was 8.4 per cent against about three per cent during the corresponding period in the world. It is pertinent to mention here that the impressive growth in terms of production and productivity has been achieved in the country where climatic conditions are not as conducive for growth of rubber as in other major NR producing countries.

India has always been a net importer of NR except a brief period in 1970s and late 1990s when due to industrial recession the consumption drastically got reduced (refer to Table 2).

## PROJECTED DEMAND OF NATURAL RUBBER

The projected demand and supply of NR in the world as a whole in general and in this country in particular is showing a deficit in supply. In India, at the end of 11th Plan (2011 - 2012) a shortage of as high as 229,000 tonnes is estimated.

Government of India and the Rubber Board had been striving to achieve self sufficiency in NR production over the years and priorities in various five year plans have been directed to this. Though we have achieved self sufficiency during the last four years, projections reveal that production cannot keep pace with consumption. Therefore, attempts to bridge the gap between projected production and consumption should continue as the availability of this raw material, even if free imports are allowed, will not be assured in the years to come.

As mentioned earlier 91 per cent of the production is coming from Asian countries. Of which 68 per cent is from Thailand, Indonesia and Malaysia. World over, it is projected that NR will be consumed in larger quantities being an eco-friendly and renewable source. Though new producers are emerging, a significant impact of production from these countries will be felt much later in the 21st century only. The world scenario has been explained to highlight the need for India to produce as much NR as it can if its import bill against NR is to be contained within a reasonable limit.

## DEVELOPMENT STRATEGIES

The strategies adopted for increasing production are as follows:

- Expansion of area by promoting new plantations
- Replanting of old and uneconomic trees
- Productivity enhancement

The current pace of new planting in Kerala is on an average around 2,000 ha per year. One has to appreciate the fact that the area available

rubber cultivation but still where rubber cultivation would be economically viable.

## RUBBER DEVELOPMENT IN NON-TRADITIONAL REGION

Expansion of rubber cultivation in non-traditional region however, needs reorientation of strategies. Rubber plantation development in the N-E region will have to confront socio-cultural, socio-economic problems specific to the region which warrants separate strategies adopting an integrated approach. Rubber has already found its place as a crop for economic settlement of the shifting cultivators and social economic and ecological relevance have already been established.

To demonstrate the success of rubber-based rehabilitation plantation adopting an integrated approach the Rubber Board itself took the lead role of an implementing agency and the rubber-based tribal development plan has been formulated and has achieved success. Rubber plantation has already made an indelible impression among the policy makers and the local population including tribals in N-E that it is a reclaimative, productive and protective forestry.

## REPLANTING

Rubber has an economic life-span of 30 to 32 years, latex extraction period being around 25 years. After the economic life, the plantation has to be replanted when the yield gets substantially reduced. Thus the old uneconomic plantations can be replanted with high yielding materials. As replanting leads to cessation of steady income, the small growers would be reluctant to cut down the plantation and this can be tackled only with aggressive extension and by offering attractive incentives.

## IMPACT OF FINANCIAL INCENTIVES AS A STRATEGY FOR PROMOTION OF CULTIVATION

The Rubber Board has been promoting rubber plantation in the country since its inception. For its promotion, various incentives were offered to growers to encourage the same. The financial assistance provided should not be classified as mere subsidies alone as the plantation industry generates revenue by way of cess for being ploughed back to the sector. Increase

for rubber cultivation in Kerala is getting reduced and expansion of area beyond this limit may not be possible and that too only for a few more years. Hence activities have to be intensified in the non-traditional region, ie, in areas which are marginally suitable for

Table 2 - Production, Consumption And Imports Of NR In India

Year	Production	Consumption	Imports
1980-81	153,100	173,630	9,250
1984-85	186,450	217,510	37,461
1990-91	329,615	364,310	49,013
1991-92	366,745	380,150	15,070
1992-93	393,490	414,105	17,884
1993-94	435,160	450,480	19,940
1994-95	471,815	485,850	8,093
1995-96	506,910	525,465	51,635
1996-97	549,425	561,765	19,940
1997-98	583,830	571,820	32,070
1998-99	605,045	591,545	29,534
1999-00	622,265	628,110	20,207
2000-01	630,405	631,475	8,572



in NR production has helped in import substitution. A much higher package of incentives even linking with sources of credit have to be worked out to ensure raising of scientific plantations.

#### PROMOTING GROUP APPROACH

The board has already started group approach in its extension programmes in the later part of 1980s forming association of small growers known as Rubber Producers Societies (RPSs). RPSs have been formed to function as an extension arm of the Rubber Board for an effective transfer of appropriate technology on a seasonal basis to the vulnerable section of the rubber planting community, the small holders whose number have been steadily increasing over the years.

These societies were promoted by the Rubber Board to adopt a group approach among rural small holders at village level which would not only help for transfer of technology but also for timely supply of inputs and group marketing. This concept needs more strengthening and the RPSs need to be devel-

oped as consultancy centres at village level.

#### DEVELOPMENT IN WTO MANDATED REGIME

As the quantitative restrictions (QRs) are removed, NR can be freely imported to the country by the manufacturers and this can depress the domestic market price. NR production is not even throughout the year. About 55 per cent of the production of NR is during the five months from September to January which is regarded as the flush season and the remaining seven months produce 45 per cent. However consumption is almost uniformly spread out.

This leads to mismatches in production and consumption and can lead to free imports during lean months. The market intervention pro-

grammes by STC used to tide over the difficulties experienced to a certain extent and this coupled with the restrictions imposed on import was able to bring in a stability to a certain extent in the domestic market.

Since production was falling short of consumption and with the ready market insistence on quality has not been very stringent. Now since opportunities for sourcing the required



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quality rubber from anywhere in the world are available to the manufacturers it can be anticipated that manufacturers may not confine themselves to the domestic market alone if other factors mainly the price and quality are favourable to them. QR removal also will lead to a market integration and synchronisation of international and domestic prices.

The synthetic analogues to replace NR would prove to be too costly. Therefore NR will have an assured demand. However, one has to move away from the conventional post-harvest system leading to internationally accepted standards. Far more infrastructure development and institution building is required in the field for mobilising such activities considering the fact that the sector is predominated by small holders.

#### ATTAIN INTERNATIONAL COMPETITIVENESS

There is tremendous potential for improving productivity in spite of the high growth rate already achieved. The technology gap has to be bridged as the potential is there for increasing the productivity by about 40 per cent at least, if not more. There is scope for cost reduction which has to be tackled through R&D efforts. The subsidies paid as an incentive for adoption of technology in the rubber sector has been scaled down considerably from almost 100 per cent during late 50s and early 60s to about 16 per cent now.

The sector generates a cess of more than Rs 80 crore annually which has to be ploughed back for supporting scientific developments under the WTO regime. It needs a mention that subsidies directly or indirectly are paid to farmers in other NR producing countries too. Assistance is required for the small holding sector, considering the socio-economic relevance for building up of infrastructure to meet quality standards for which provisions do exist under the WTO regime too.

The labour productivity has to be increased considerably to attain competitiveness. Similarly the management skills also need upgradation. The complacency which has been prevailing needs to be shed and all stake holders in the industry have to become more professional.

#### RESEARCH PRIORITIES

Research also has to be reoriented towards achieving the above goals. Considering that land is going to be extremely scarce, optimum utilisation of this will be required. The breeding programmes which are currently on should be accelerated with the adoption of biotechnological tools to evolve new clones. The breeders also should evolve trees which are sparse in canopy and can support inter-growth of both perennial and annual crops helping the rubber plantations to adopt an agro-forestry system with options for risk distribution.

Research is on for identification of work with

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isolation of various biochemicals which are of medical importance from latex serum. The need for broadening the genetic base of rubber plantations and also making the rubber tree as a potential source for latex as well as a timber is a must. The small grower requires a tree which can withstand high intensity tapping.

Research also must be accelerated for broadening the use of NR in various fields. NR SR blends, thermoplastic rubber etc will have to be aggressively promoted and new blend should come up with properties superior to its synthetic analogues. This is a priority for those who are involved in NR industry.

#### EXTENSION SUPPORT

Extension service has to be made more professional, farmer oriented and also has to be decentralised. The self-help group of farmers viz Rubber producers' Societies should ultimately be transformed to village level consultancy units capable of transfer of technology besides processing, marketing of rubber etc. Development of these units at village level will lead to infrastructure development.

Indian share in global market for rubber product is one per cent and it has not made any market in international market in terms of raw rubber. Quite often the need for flushing out surplus quantity is felt only during temporary phases on a slight excess production over consumption and once this problem is solved, no one really thinks at depth on this. It is a fact known to all that we cannot gain entry in the international market when there is a small quantity of surplus rubber.

The future of NR is quite sound. The advantages of NR which cannot be replaced by SR, mainly the eco-friendly characteristics of NR, need to be further promoted. It is no secret that we cannot continue to tap the non-renewable source of energy invented. From the energy consumption point of view, while the NR consumes about 15 to 16 GJ per tonne, synthetic rubber consumes almost 10 times (SBR 130, Butile rubber 174 etc). This aspect of NR that apart from its social, economical and ecological considerations it also saves non-renewable source of energy considerably by being a solar energy harvester will get favour in the long run.

Even if the present ratio of SR to NR globally may not change, in any case it is not going to swing in favour of SR anymore. This is going to ensure better price for NR in the long run as production is unlikely to meet the consumption. Since the overall global scenario points to a shortage of NR, the domestic surplus will definitely find a market outside even if there is a domestic recession in consumption in various number of periods even in the years to come. One has to realise this to tap the potential.

It is essential that we have to produce NR more economically and cheaply exploiting the local favourable situations. Productivity enhancement with the high cost will not deliver the desired results. With plenty of potential and scope the grower should not get discouraged by the momentary lower prices and should wake up and nurse the plantations more intensively and carefully and a vibrant and bouncing future is for sure waiting and he should not lose the opportunity when it comes.

*(The author is rubber production commissioner, Rubber Board)*