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## INDUSTRY OUTLOOK

### “INDIA'S RUBBER INDUSTRY - STRETCHING THE BOUNDARIES”

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#### Introduction

India began the cultivation of rubber commercially in the year 1902 and is now the world's sixth-largest producer of NR (Natural Rubber). It is the fourth largest in south Asia, behind Thailand, Indonesia, and Vietnam, respectively. It was introduced in India by the British, although the experimental efforts to grow rubber on a commercial scale in India were initiated as early as 1873 at the Botanical Gardens, Calcutta.



The first commercial *Hevea brasiliensis* plantations in India were established at Thattekad, Kerala in 1902.<sup>1</sup>

The land area suitable for natural rubber (NR) cultivation has risen in recent years. Studies have also shown that the increase in rubber plantations has socio-economic benefits, such as an increase in per capita income and expenditure, as well as overall household income among rural communities. The Rubber (*Hevea brasiliensis*) is a well-known cash crop that has supplanted traditional tropical agricultural crops.

The rubber industry is at once global and diverse in the sense that it is a pre-requisite for the automotive industry and also provides materials extensively used in consumer products, construction, and industrial applications. The coexistence of a well-established rubber producing sector and a rapidly expanding manufacturing and consumer sector for rubber products characterizes the Indian rubber industry. A vast array of dry rubber and latex-based goods marks the conclusion of the rubber industry's value chain, which starts with NR plants.

As per Indian Rubber Board, there are three types of rubber India produces, namely, Natural Rubber (NR), Synthetic Rubber (SR), and Reclaimed rubber (RR).

- Natural Rubber – It has attracted increased attention among all polymers due to its quantity and applicability in the rubber industry. It is commonly used in the manufacture of tires, gloves, and contraceptives. It finds all these uses since it is a biomaterial with excellent mechanical characteristics.
- Synthetic Rubber – There are many kinds of Synthetic Rubber. Some of them are as follows:
  - Ethylene Propylene Rubber (EPDM) - It is the most widely used synthetic rubber. It exhibits great resistance to heat, steam, weather, and ozone, and is an electrical insulator. It is used to produce automotive weather-stripping and seals, glass-run channel, radiator, electrical insulation, etc.
  - Styrene-butadiene rubber (SBR) is mainly used in the manufacture of tyres/tyre products, conveyor belts, gaskets, hoses, floor tiles, wire and cable insulation, footwear, and adhesives.
  - Polybutadiene rubber (BR) - It is also used to improve the mechanical properties of plastics.
  - Acrylonitrile butadiene rubber (NBR) - It has good elongation properties, good to excellent compression set resistance, adequate resilience, and tensile strength but poor flame and steam resistance. is used in automotive and aeronautical fuel, hydraulic and oil hoses, seals, and grommets. It is also used to create oil/gas exploration and recovery parts, molded goods, footwear, printing rollers, cable jacketing, and non-latex gloves.
  - Polychloroprene Rubber (CR) – It has good flame/heat resistance. It also gives excellent rubber-to-metal bonds. It is used to manufacture gaskets, hoses, car fan belts, electrical insulation, weather stripping materials, wet suits, fly fishing waders, professional diving suits, life jackets, remote controls, knee and elbow pads, laptop sleeves, etc.
  - Nitrile rubber (NBR) – It is commonly known as nitrile-butadiene rubber, is a synthetic rubber that resists oil and is made from a copolymer of butadiene and acrylonitrile. Its primary uses are in gasoline hoses, gaskets, rollers, and other items where oil resistance is necessary.
- Reclaimed Rubber – It is any rubber recovered from vulcanized scrap rubber (as by grinding old tires and treating with alkali, oils, and plasticizers), often mixed with crude rubber for compounding. It is scrap rubber (natural or synthetic) that is prepared for reuse.

Rubber is produced in several major states in India, including Kerala, Karnataka, Tamil Nadu, and Assam, with Kerala being the largest rubber-producing state. Most NR-producing countries are saddled with the issues of low rubber prices, increased labour costs, labour shortage, diseases, climate change, and environmental issues.

While natural rubber sector accounts for only 0.4 per cent of the gross cropped area of the country and contributes 0.64 per cent to agriculture gross domestic product (GDP), its contribution towards manufacturing GDP was 3.63 per cent during FY19 because of a well-established natural rubber production sector and the fastest-growing natural rubber consumption sector (National Rubber Policy 2019). It has

been demonstrated that the natural rubber sector is instrumental in providing livelihood, generating employment, regional development, and addressing environmental issues<sup>2 3 4</sup>.

It has also distinctly emerged that natural and synthetic rubber are close substitutes, but they are not identical. Natural rubber has high strength and resistance to fatigue, has important adhesive and glue properties, moderate heat resistance, low rolling resistance, and high resistance to cutting, chipping, and tearing. Synthetic rubber has better abrasion resistance, good elasticity, better heat and aging resistance, flexibility at low temperatures, and resistance to grease and oil. While some products require only natural rubber, others need synthetic rubber, and yet others require a judicious mix of both Natural and synthetic rubber, e.g., tyres.

There are about 4600 registered units comprising of 30 large scale, 300 medium scale and around 4400 small scale and tiny units, which constitute the natural rubber industry in India. While domestic production has stuttered, the demand for natural rubber in India has surged. During the period FY13 and FY22, production fluctuated between 600,000 and 800,000 tonnes with the solitary exception of FY16 when it reached a low of 562,000 tonnes.

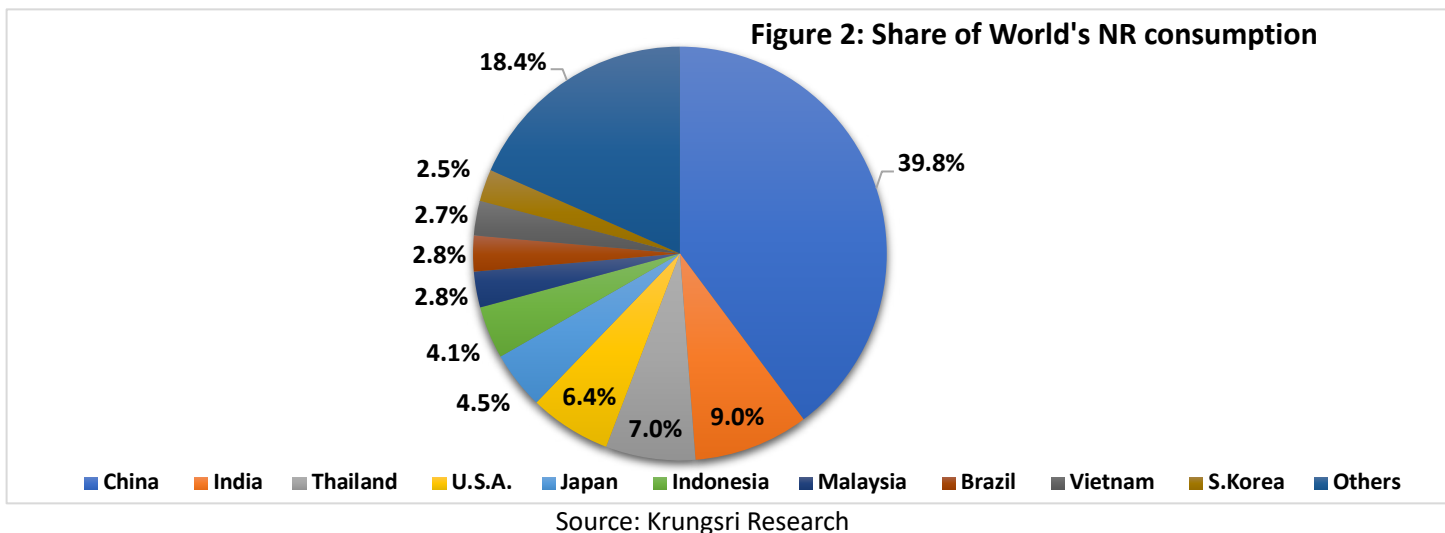
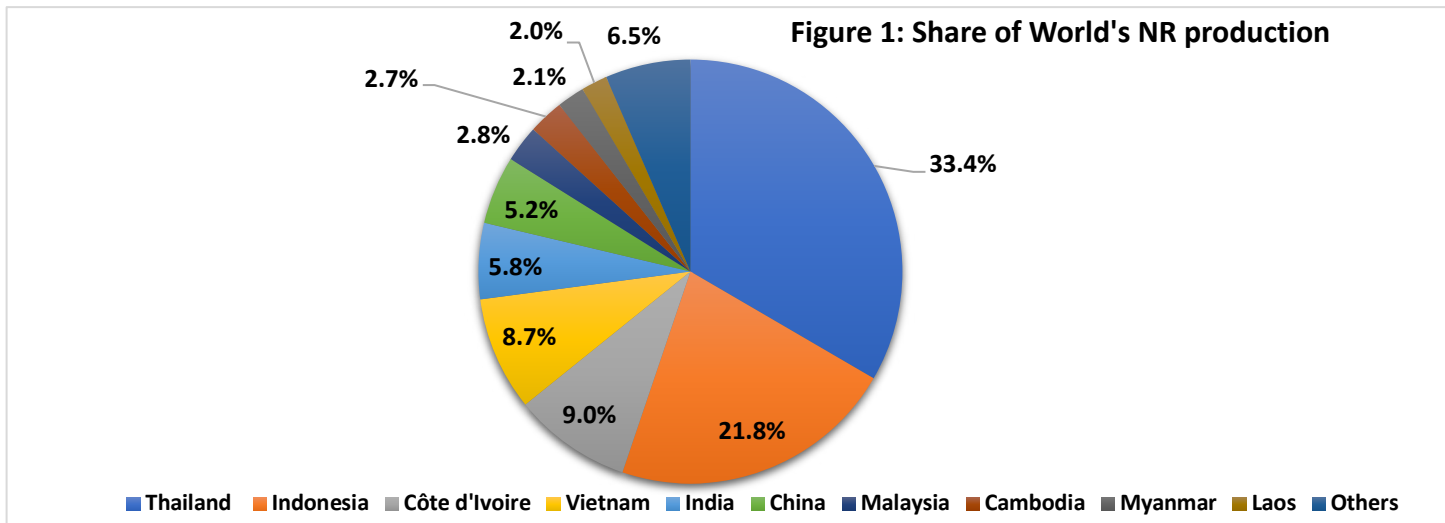
The rise in output stemmed from improved production in Kerala, the largest rubber-producing state in the country, and higher yield from north-eastern (NE) states. The NE states, particularly Tripura and Assam, account for over 16 per cent of the total production, up from around 10 per cent a few years ago. The share of Kerala reduced from around 90 per cent to 78 per cent. The non-traditional regions of Karnataka, Goa and Maharashtra have a combined share of 6 per cent in the total output. Low prices and high production costs have reduced tapping in Kerala. Many producers are active because of the price stabilization scheme of the state government. The defoliation of rubber trees in Central Kerala reduced the output. The production was better in the estates in north Kerala.

## Global Market

Post economic reforms in 1991 and the subsequent implementation of the World Trade Organization (WTO) agreement in 1995, the price of natural rubber sector was characterized by greater influence of global market dynamics. These market dynamics impacted domestic prices, reduced import duties, stiff competition from other major natural rubber producing countries, which concomitantly affected sustainable livelihood for the dependent population and the development of those regions with preponderant natural rubber cultivation<sup>5 6</sup>.

The Future Market Insight report, which examined the global rubber market's data from 2017 to 2022, found a CAGR of 4.7 per cent, culminating in a valuation of US\$ 17,334.6 million by the end of 2022. The consumption of NR is anticipated to reach US\$ 30,914.3 million by the end of 2033 with steady growth.

As shown in the figure below, Thailand produces most rubber in the entire world accruing to rising outputs and firmer demand. In 2022, the global supply of NR came to 14.4 million tonnes, of which 33.4 per cent came from Thailand, this being sufficient for Thailand to retain its place as the world's primary source of rubber. Thailand is followed in importance by Indonesia, Vietnam, Côte d'Ivoire, India & China, and indeed overall, Asia is the source of over 80 per cent of the world's rubber.



The above figure illustrates that China consumes the most NR as compared to the other rubber producing countries. China leads the field, with about 50 per cent of the world's tyre market, followed by the US, Europe, India, and Japan. Increased consumer spending power has fueled the demand for automobiles, which drove the global tyre market's remarkable surge and consequently the need for rubber.<sup>7</sup>

The demand side of the market has benefitted from: (i) growth in downstream industries at home and abroad, including the automotive sector (helped further by the government support for the domestic EV production), the manufacture of rubber gloves, rubber contraceptives, and the production of medical equipment; (ii) stronger spending on the new infrastructure; and (iii) greater demand for NR in place of SR, whose cost is climbing with rising crude prices.

**Domestic Prices of the year 2023-24**

Surging demand from the automobile sector and rising application of rubber items in end-use industries has provided tailwinds for the domestic market for industrial rubber products. With rapid growth of autonomous and battery-powered vehicles on the anvil together with growing demand for condoms, reclaim rubber for cars both as original equipment and replacements, rubber floor mats, PVC Flex banner, conveyor and transmission belts, crude rubber processing and latex rubber threads, bicycle tyres and tubes,

belts, camelbacks, the sector is likely to grow at a fast clip though there are persisting concerns of fluctuations in raw material supply and volatility in the price of rubber.

The annual average price for domestic Ribbed Smoked Sheets (RSS) grade 5 rubber for 2023-24 is ₹ 14653 per 100 kg and for grade 4 it was ₹ 14961 per 100 kg. The lower grades of RSS 4 and 5 are generally used for the manufacture of automobile tyres, re-treading materials, and all other general products.<sup>8</sup> The annual average price for latex (60% drc) for 2023-24 is ₹ 18655 per 100 kg and for the ISNR 20<sup>a</sup> it is ₹ 12977 per 100 kgs. The domestic RSS 4 and 5 price peaked at ₹ 15796 and ₹ 15506 per 100 kg in May 2023, resp. The monthly average price of NR in domestic market of Kottayam, Kerala is presented in table below.

<b>Table 1: Domestic Prices of Natural Rubber (Rupees per 100 Kg) 2023-24</b>				
	<b>RSS -5</b>	<b>RSS-4</b>	<b>Latex - 60% drc</b>	<b>ISNR 20</b>
<b>January</b>	13668	13996	15590	12640
<b>February</b>	13998	14310	15893	13010
<b>March</b>	14200	14528	16405	12657
<b>April</b>	14873	15100	19380	13158
<b>May</b>	15506	15796	19986	12785
<b>June</b>	15218	15470	20670	12274
<b>July</b>	15078	15394	21842	13213
<b>August</b>	14308	14724	20048	12633
<b>September</b>	14292	14667	18305	12876
<b>October</b>	14667	14992	19170	13430
<b>November</b>	15125	15352	18600	13698
<b>December</b>	14900	15198	17973	13348

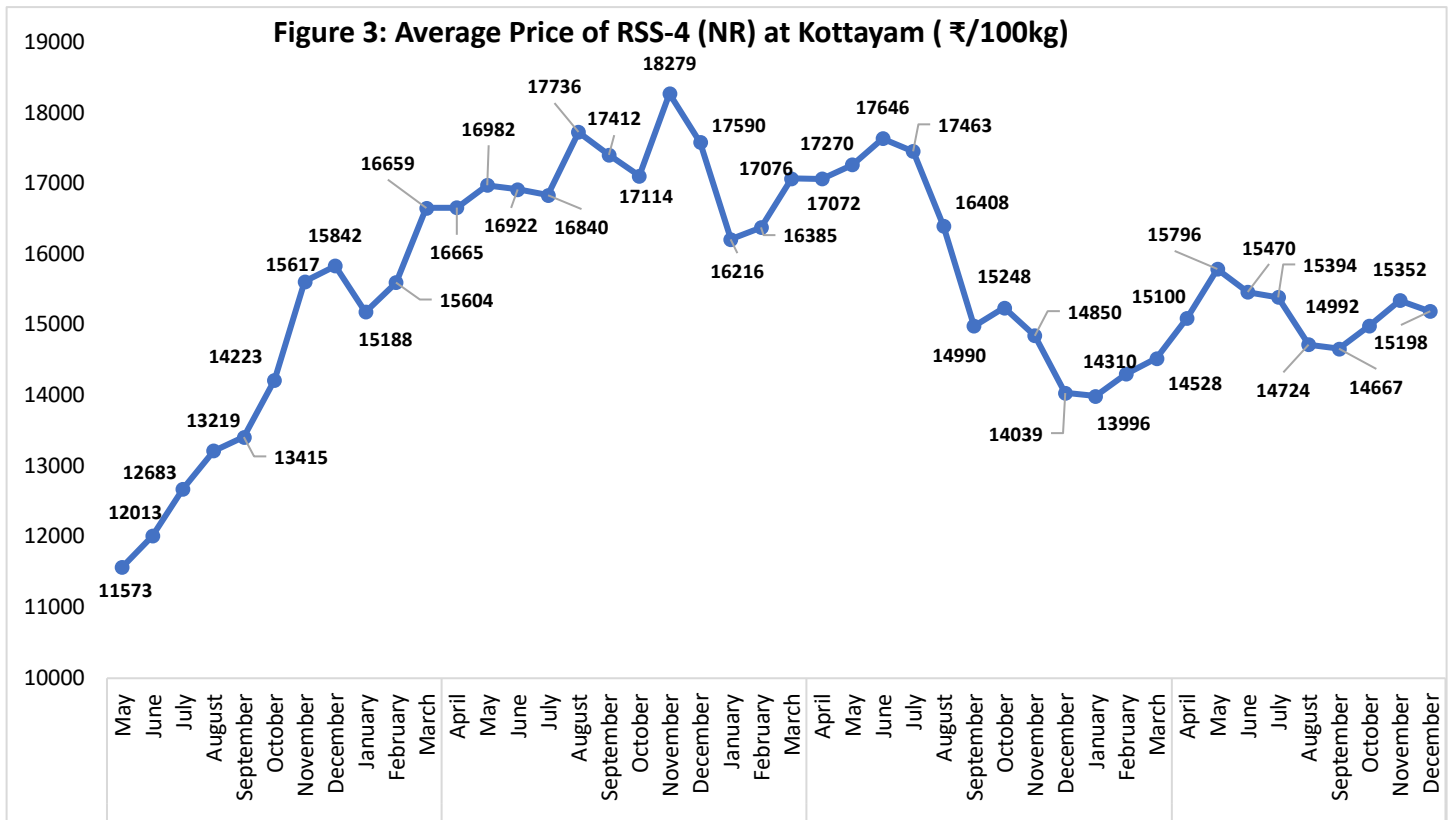
Note: RSS - Ribbed Smoked Sheets grade 4 and 5 traded in domestic market (Kottayam market) of Natural Rubber; Latex (60% drc) - Processing of natural rubber latex into high quality latex concentrate of 60% dry rubber content is done through centrifugation (CENEX); ISNR - Indian Standard Natural Rubber (ISNR) / Block Rubber

Source: Statistical department of Rubber Board of India.

## Declining Rubber Prices

As shown in table 1, prices of rubber (RSS 4 NR) declined over 18 per cent to ₹ 13996 per 100 kg in January 2023 from ₹ 17072 per 100 kg in April 2022. Due to the European energy crisis, sluggish Chinese demand, increased inflation, mass arrival of imports, higher supply season globally and domestically, currency depreciation, prices continued to decline in FY23. Fortunately, FY24 prices showed resilience coming towards the end of the year. This is because of the subdued demand from the tyre industry, which is the main consumer amongst others.

<sup>a</sup> Bureau of Indian Standards formulated specifications for ISNR in 1969 (IS 4588).IS 4588 prescribes 6 grades viz., ISNR 3 CV, ISNR 3 L, ISNR 5, ISNR 10, ISNR 20 and ISNR 50.

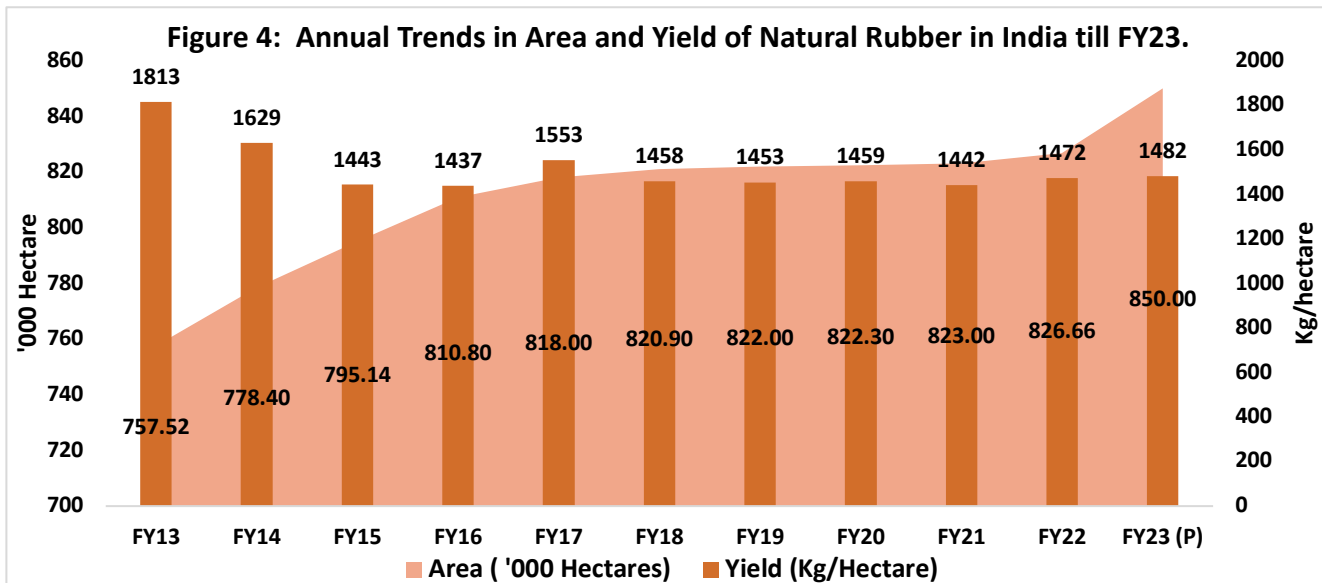


Source: Statistical department of Rubber Board of India.

In September 2023, the price of NR in the Indian market dropped to a 16-month low of ₹ 150 per kg (RSS grade 4). The price of RSS 4 sheet rubber that is used more by the consumers shrunk by 5 per cent since August to ₹ 146 per kg.<sup>9</sup> This was expected with the advent of peak tapping season. But, even for a small rubber grower not dependent on tappers, a price below ₹ 150 per kg is inadequate to break even. Currently, the price of grade 4 RSS is around ₹ 200 per kg. While the prices of natural rubber were up 3-5 per cent, that of synthetic rubber fell on the back of subdued crude oil prices.

### Area and yield of Natural Rubber in India

Out of the entire 8.5 lakh hectares under rubber plantation in the country, about 5 lakh hectares were in Kerala and Kanyakumari district of Tamil Nadu, while 1 lakh hectares were in Tripura.<sup>10</sup> In a move to expand the area in non-traditional States, the Rubber Board was implementing a project to bring 2 lakh hectares under NR in the Northeastern States, except Sikkim, but including West Bengal.



The Rubber Board of India has clearly brought out the urgent need to increase the area under rubber cultivation to meet the demand of 15 lakh tonne of NR by 2025-26. Total NR demand in the country rose significantly by 9 per cent during FY23 compared to FY22.<sup>11</sup> India is largely dependent on the imports of NR, which heavily strains the foreign exchange. The area under rubber cultivation increased by 69,140 hectares from 7,57,520 hectares in FY13 to 850,000 hectares in FY23, i.e., an increase of 12.2 per cent. However, the average yield (kg/ha) decreased by 18.3 per cent in this period.

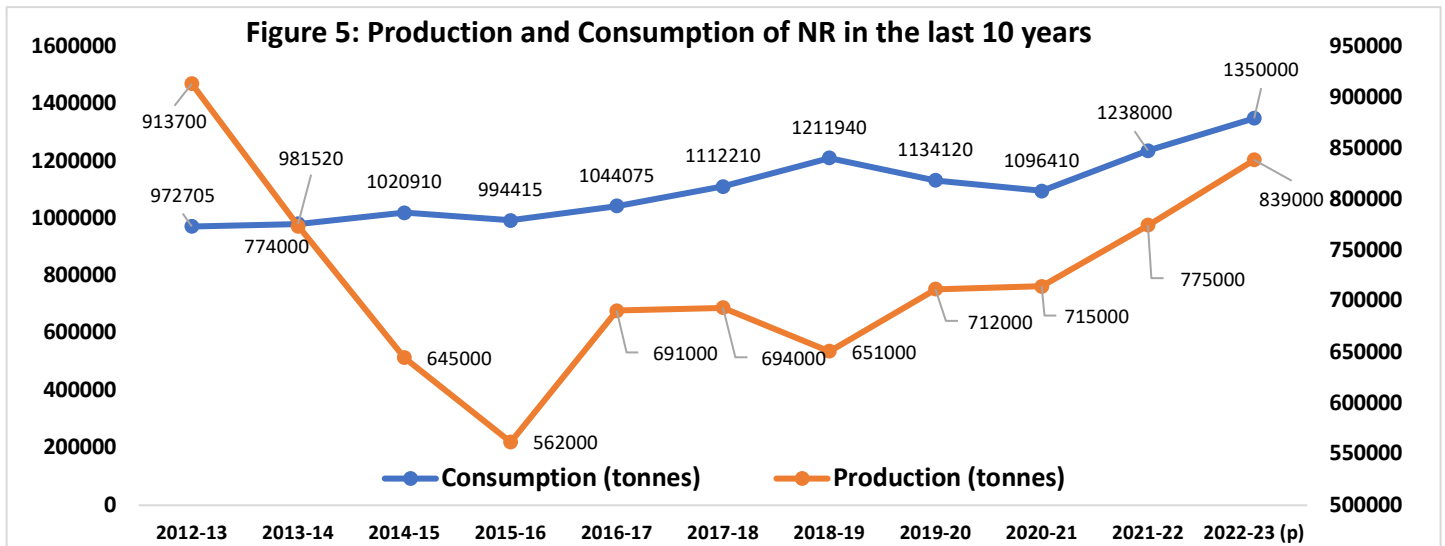
### Northeast States – Part of the Growth Saga

There has been a remarkable increase in rubber production from Northeast states from FY18 with Tripura leading the way. There has also been significant rise in rubber production from Assam, Nagaland, and Meghalaya.

What is equally important is the beneficial impact on conserving the remaining forests and climate change mitigation due to carbon sequestration. Hence, the Tripura experiment needs to be successfully replicated on the national level with similar agro-climatic features, resource endowment and political will to improve lives and rural livelihoods on a large scale.

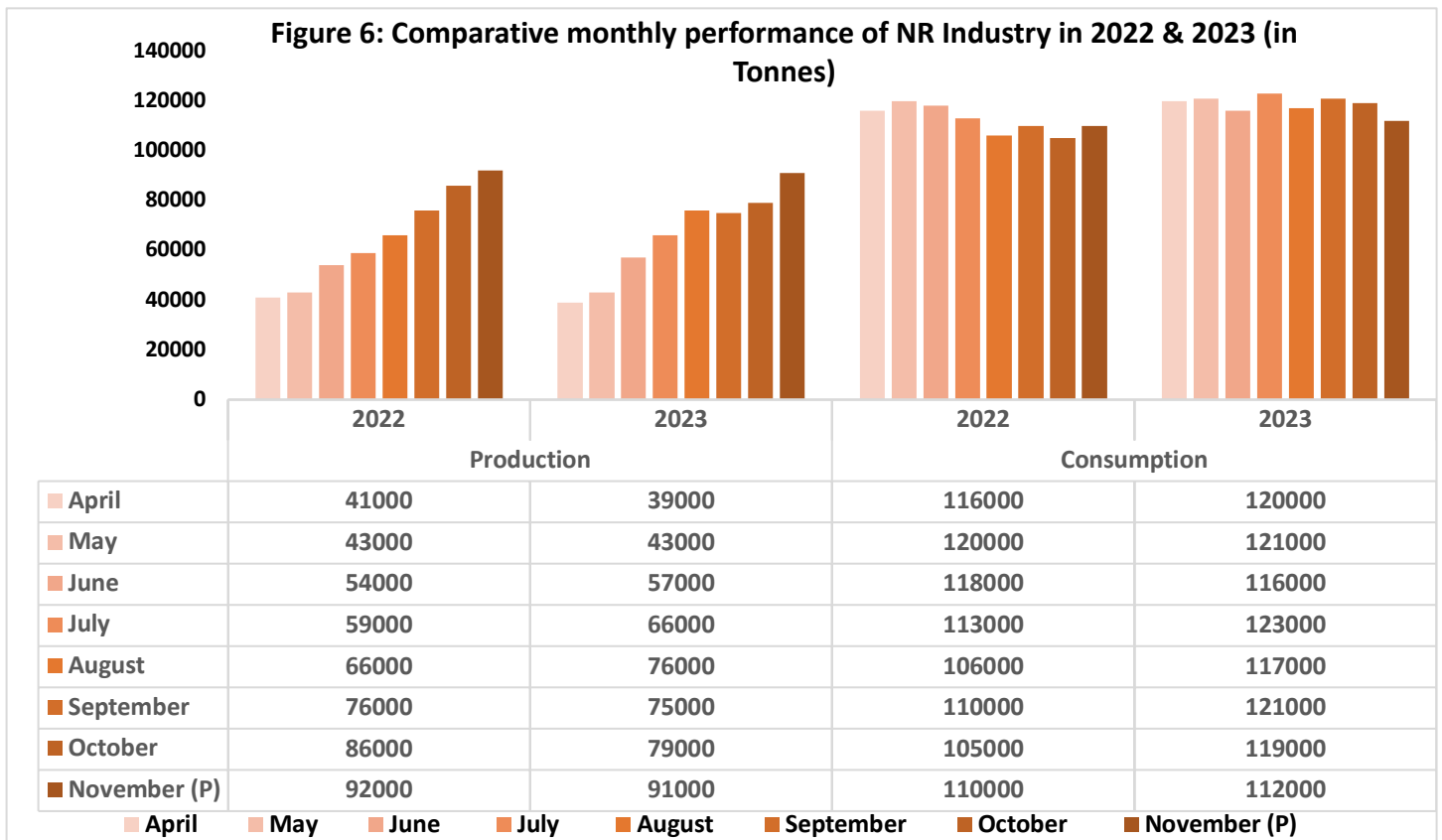
### Natural Rubber

In the year 2021-22, the total production of NR of 7,75,000 tonnes increased by 8.39 per cent from 7,15,000 tonnes in 2020-2021. In the year 2022-23, the projected value provided by the Rubber Board of India stood at 8,39,000 tonnes. While the consumption of NR was 12,38,000 tonnes in 2021-22, which increased by 12.91 per cent from the 10,96,410 tonnes in 2020-21. It increased to 13,50,000 tonnes in 2022-23.



Source: Monthly Statistics of Rubber Board of India.

India produced 79,000 tonnes of NR during October 2023 compared to 86,000 tonnes produced during the same month a year ago. The total quantity of NR produced during April to October 2023 was 435,000 tonnes, an increase of 2.4 per cent from the quantity of 425,000 tonnes produced during the same period in the previous year.<sup>12</sup> The production preliminarily estimated for November 2023 is 91,000 tonnes.



Source: Monthly Statistics of Rubber Board of India.



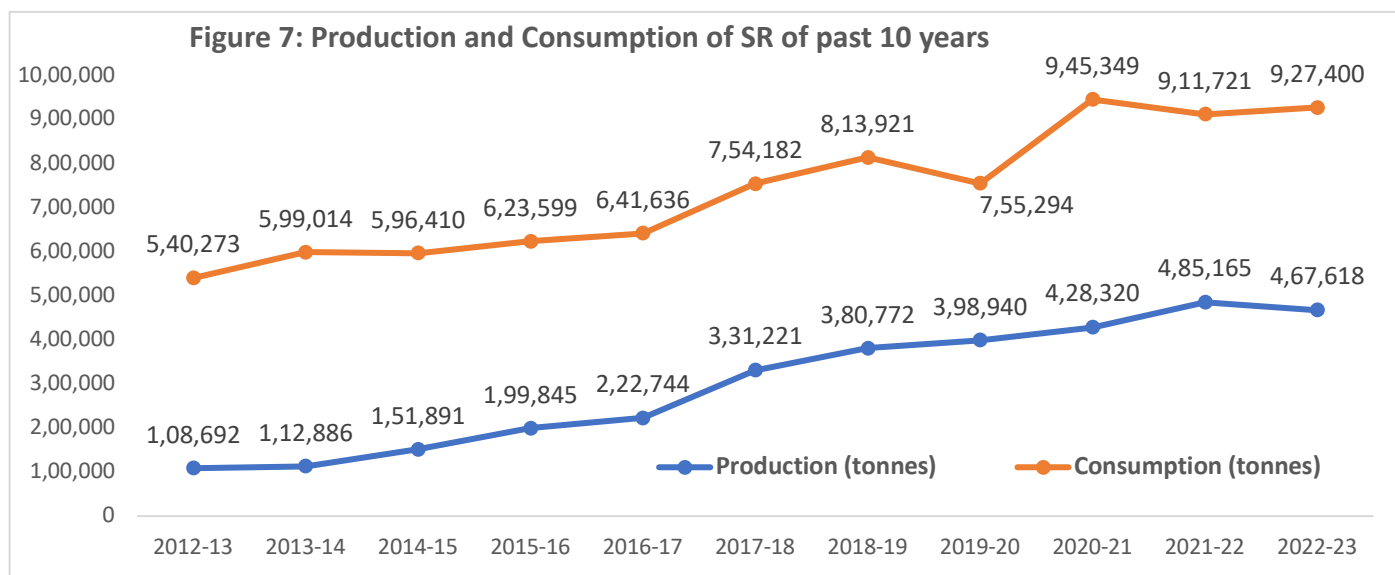
In October 2023, the country's rubber goods manufacturing business consumed 119,000 tonnes of NR, compared to 121,000 tonnes consumed in September 2023. The overall amount of NR consumed from April to October 2023 grew by 6.2 per cent to 837,000 tonnes, compared to 788,000 tonnes consumed during the same time the previous year. According to early estimates, the country consumed 112,000 tonnes of NR in November 2023.

## Synthetic Rubber

In the last ten years, the production of Styrene Butadiene Rubber (SBR) has increased rapidly. But the past five years show only moderate change. In 2012-13, the production of Styrene Butadiene Rubber was 19,296 tonnes, which increased to 2,49,063 tonnes in 2022-23 (see table 2). The production of SBR is increasing with a compound annual growth rate (CAGR) of 29.15 per cent from 2012-13 to 2022-23. However, the production of Butadiene Rubber has increased from 77,038 tonnes in 2012-13 to 1,26,200 tonnes in 2022-23 growing with 5.1 per cent CAGR.

Table 2: Production of SR in the past ten years			
Years	Styrene butadiene rubber (Tonnes)	Butadiene rubber (Tonnes)	Other synthetic rubbers (Tonnes)
2012-13	19,296	77,038	12,358
2013-14	22,105	80,685	10,096
2014-15	35,738	105,925	10,228
2015-16	76,999	111,807	11,039
2016-17	96,637	116,557	9,550
2017-18	209,938	113,666	7,617
2018-19	253,859	122,081	4,832
2019-20	250,172	129,920	18,848
2020-21	236,479	128,564	63,277
2021-22	279,295	133,000	72,870
2022-23	249,063	126,200	92,355

Source: CMIE



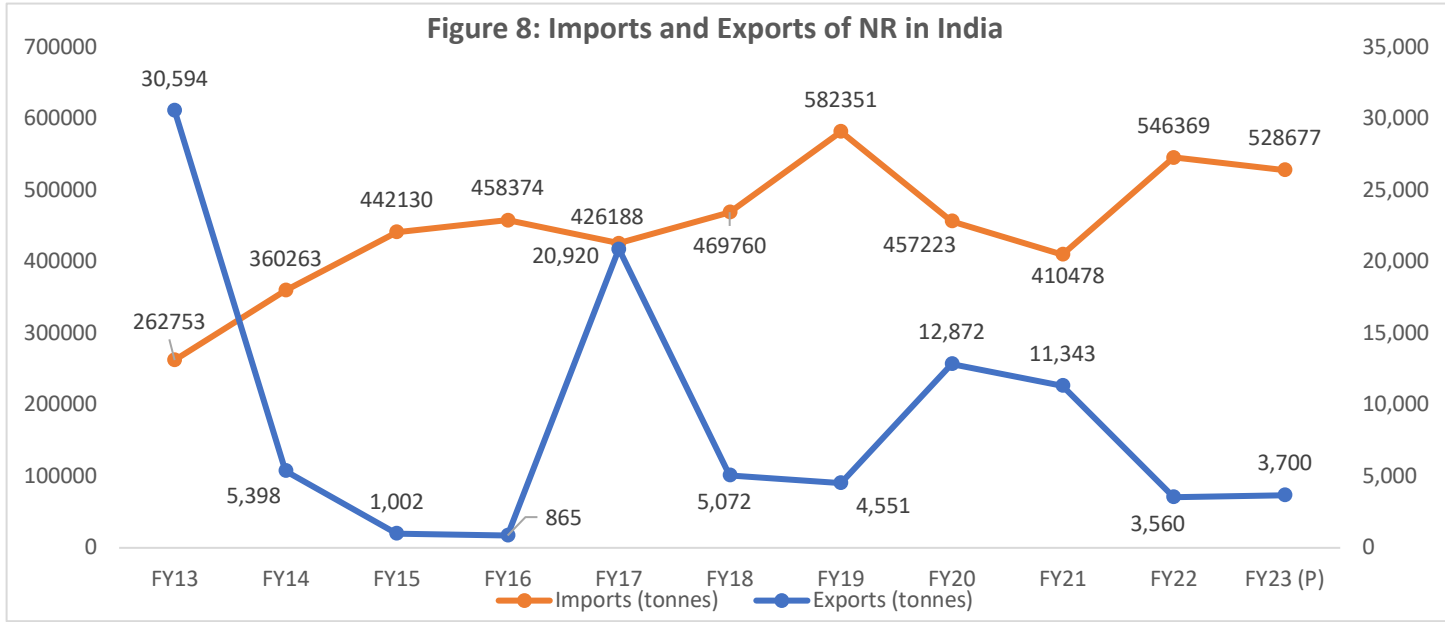
Source: CMIE

As per the Rubber Board of India, the domestic SR output was 43,715 tonnes in October 2023, bringing the total amount produced from April to October 2023 to 318,053 tonnes, up 14.2 per cent from 278,572 tonnes the previous year. It was predicted that the country consumed 67,950 tons of SR in October 2023 (see figure 7). Total SR consumption during April to October 2023 was 455,750 tonnes, a 1.4 per cent rise from 449,330 tonnes the previous year.

Total SR consumed in the year 2022-23, was 927,400 tonnes, i.e., 72 per cent increase from the 540,273 tonnes of consumption in the year 2012-13. The consumption of SR grew at 5.6 per cent CAGR in the last ten years. The gap between consumption and production of both NR and SR is due to the inefficient production of rubber in India. Most demand is met by the imports.

**Foreign Trade**

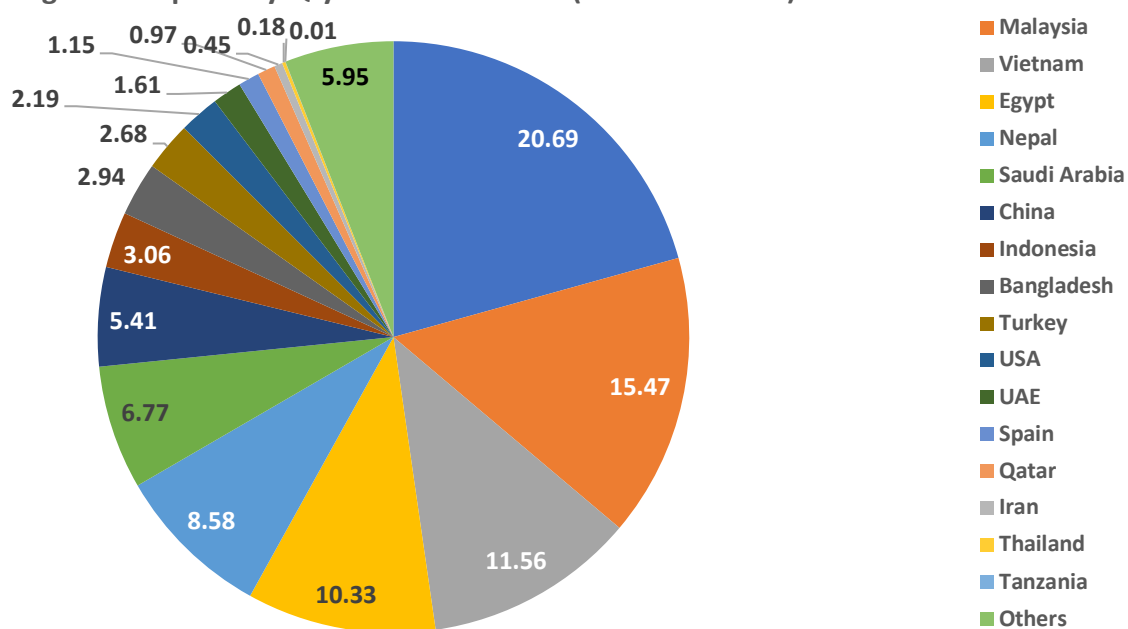
During the FY23, India imported 5,28,677 tonnes of NR while 5,46,369 tonnes, 4,10,478 tonnes and 4,57,223 tonnes of NR were imported during FY22, FY21 and FY20, resp. During the FY23, India exported 3,700 tonnes of NR, which is much lower than the peak of FY20 and FY21 (see figure 8).



Source: Economic Outlook, CMIE

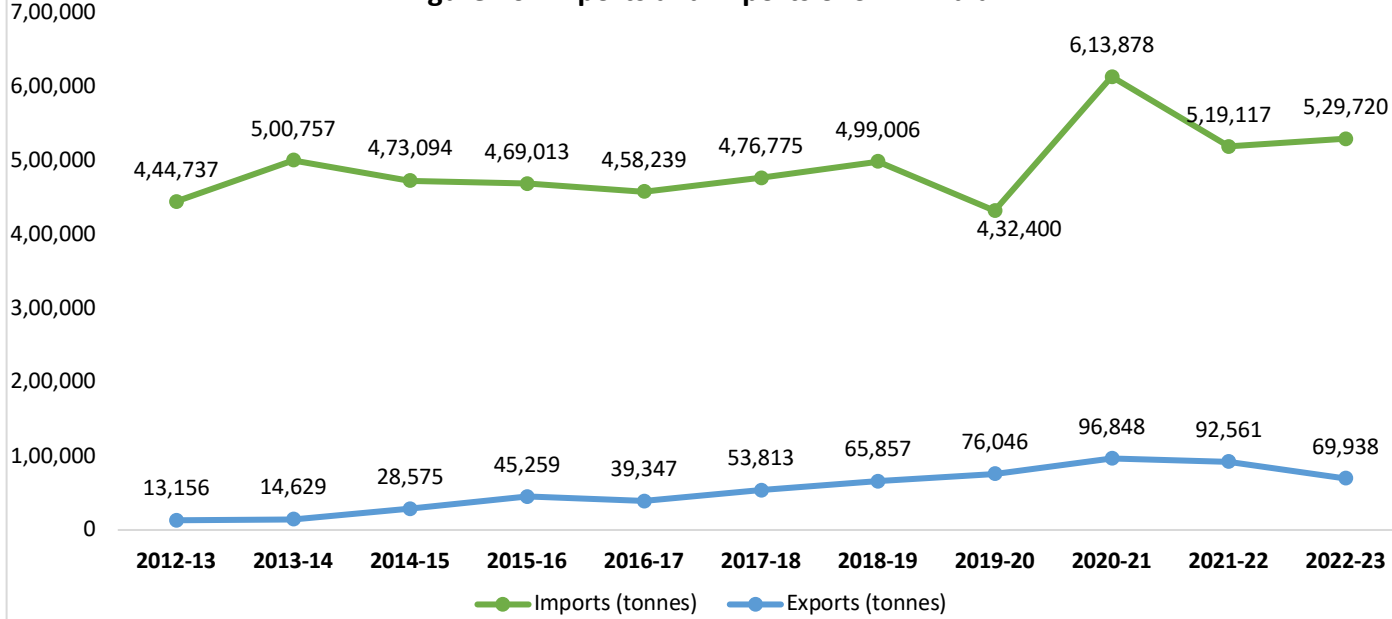
During the FY23, India imported 5,29,720 tonnes of SR while 5,19,117 tonnes, 6,13,878 tonnes, and 4,32,400 tonnes of SR were imported during FY22, FY21 and FY20, resp. During the FY23, India exported 69,938 tonnes of SR, which is again lower than the export quantities of FY20 and FY21 (see figure 10).

Figure 9: Exports by Qty of NR In 2022-23 (% share in total)



Source: Economic Outlook, CMIE

Figure 10: Imports and Exports of SR in India

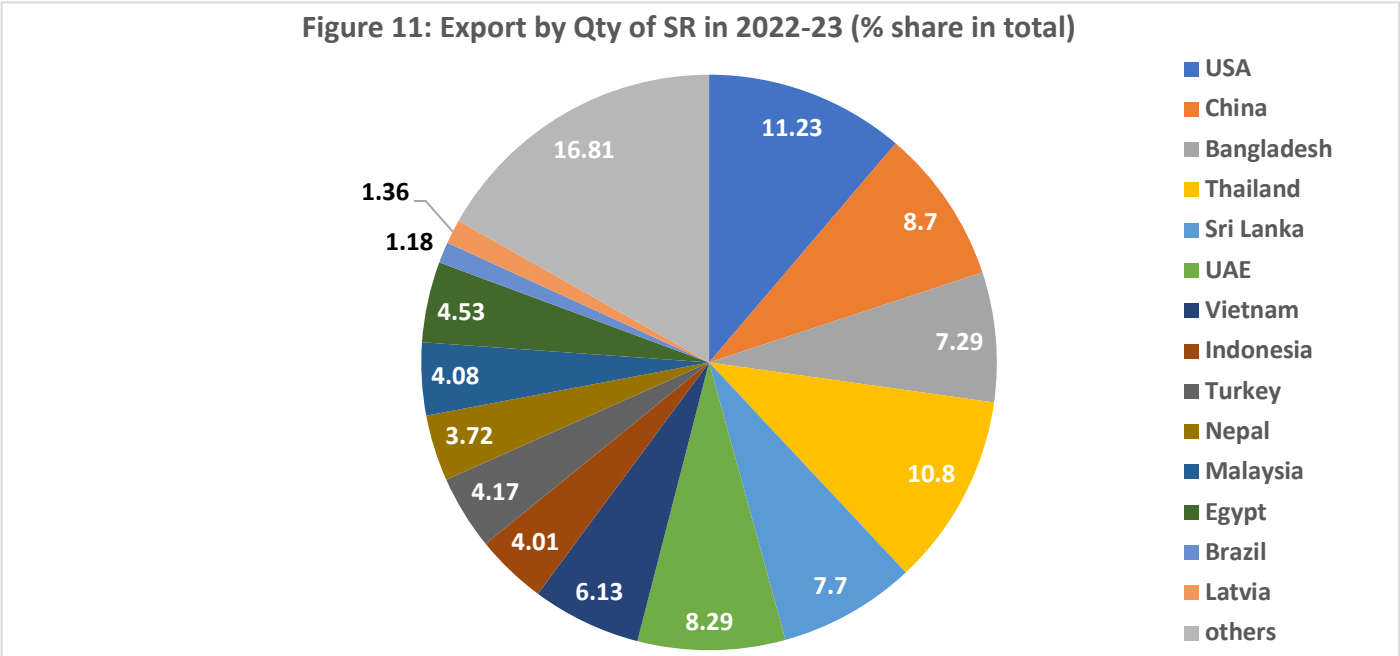


Source: Industry Outlook, CMIE

The country imported 39,382 tonnes of NR in October 2023, bringing the overall volume of NR imports from April and October 2023 to 293,869 tonnes, compared to 331,615 tonnes the previous year. India exported 181 tonnes of NR in October 2023, bringing the total tonnage exported between April and October 2023 to 1872 tonnes, up from 1571 tonnes the previous year.

The country imported 28,915 tonnes of SR in October 2023, bringing the overall volume of NR imports from April and October 2023 to 205,138 tonnes, compared to 207,527 tonnes the previous year.

Figure 11: Export by Qty of SR in 2022-23 (% share in total)

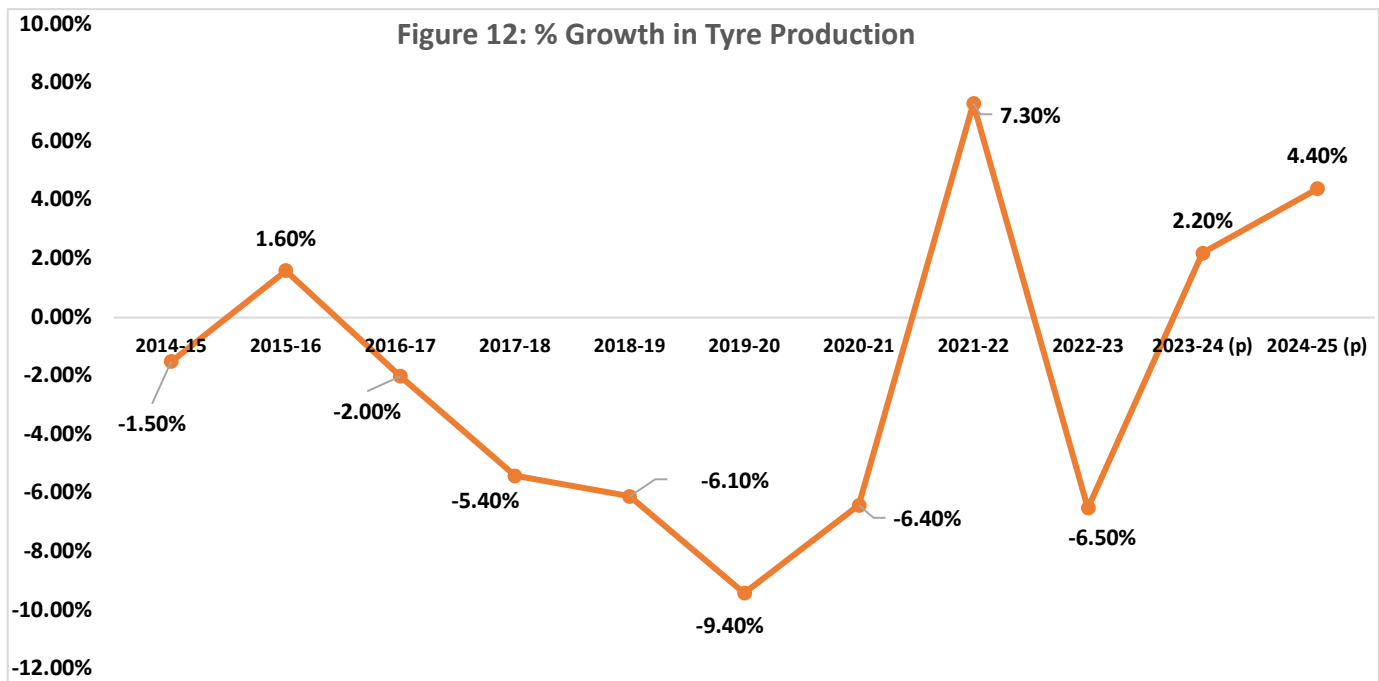


Source: CMIE

### Tyre Production

As per a CMIE analysis, the production of tyres is projected to accelerate to 4.4 per cent in 2024-25 as compared to 2.2 per cent estimated in 2023-24. The output is likely to stand at 157.4 million tyre units. The three major tyre segments - passenger vehicle tyres, commercial vehicle tyres and two and three-wheeler tyres - are expected to report 4-6 per cent growth in output during the year. The growth in tyre production is likely to rise in the year 2024-25. This will be on the back of traction in replacement demand for tyres.

However, demand from automotive original equipment manufacturers (OEMs) is likely moderate during the year. The auto tyre segment consumed 70.3 per cent of the total NR consumed in the country and registered 4.8 per cent growth in 2022-23 compared to 2021-22.<sup>13</sup> As per CMIE, the tyres industry derives around 60 per cent of its volumes from the replacement market, while OEMs and exports account for 30 per cent and 10 per cent, respectively. Replacement demand for tyres is expected to gain traction in the year 2024-25.



The raw material costs of the tyre industry fell by 11.6 per cent in the September 2023 quarter backed by subdued prices of SR, NR, and carbon black. The raw material costs as a proportion of net sales contracted by 870 basis points to 58.4 per cent.

## Risks and Challenges

India, the world's second-largest consumer of NR, imports approximately five lakh tonnes annually to fulfill its needs. During the 2022-23 period, there has been a noticeable widening of the production-consumption gap in India, with consumption reaching 13,50,000 tonnes and production standing at 8,50,000 tonnes. The reduction in import duty for compound rubber resulted in a significant influx of NR imports disguised under its category. To address this issue, the government raised the import duty for compound rubber from 10 to 25 percent in the last budget and enabled domestic farmers to get a higher price for their produce.<sup>14</sup>

Import data from the state-run Rubber Board indicates imports of 5,28,677 tonnes during this period. The United Planters' Association of Southern India (UPASI) has raised the issue of consistent rise in the import of NR, which has severely eroded the earning of planters. According to UPASI, the import of compound rubber rose by 0.19 lakh tonnes in FY 22 from the previous financial year.

In the scenario of exceptionally strong demand, prices can maintain momentum. Unfortunately, Indian rubber market was suffering from the low prices. Rubber prices have been an antagonistic issue in the high ranges of the state of Kerela. The poor demand of rubbers globally and European energy crisis coupled with rising inflation has severely impacted the prices of NR. The Covid-19-led restriction has seriously dented the demand for NR.<sup>15</sup> Even in the last 11 years, there was no significant rise in the prices of NR. Low prices for NR affect small and medium scale farmers as their livelihood depends on the industrial commodity. But a rise is soon expected in the first quarter of 2024 due to constrained global supply and reduced carryover stock. And as this supply constraint intensifies in the subsequent months, prices may gain momentum in the second and third quarters.

An incisive analysis of the changes in natural rubber sector in India in terms of the price and production performance post 1980s and the challenges in its wake reveal increased price volatility together with a deceleration in tapped area, production, and yield of natural rubber. The conspicuous decline in yield vis-à-vis other natural rubber producing countries has brought to the fore the issue of the capability of the existing institutional structure<sup>16</sup>.

According to a report by IIFL Research, the tyre industry has experienced remarkable revenue growth of 20 per cent over the last two years. However, escalating crude oil price<sup>17</sup> is a potential challenge.

In recent years, there has been a significant and concerning labor shortage, particularly in the dominant rubber sector. Several factors contribute to this issue:

- (a) Expansion in the area under rubber cultivation managed by poor farmers, leading to an increased demand for rubber tappers.
- (b) Reluctance among younger generations to pursue rubber tapping as a viable economic activity, which has further increased the labour cost.
- (c) Limited presence and involvement of women in rubber tapping and related tasks.
- (d) Aging workforce engaged in tapping, resulting in a decline in available labor.

Further, Kerala, a traditional rubber-growing region, has experienced a notable consequence of this shortage. This underscores the severity and multifaceted nature of the labor shortage issue within the state's rubber industry.

There are issues of volatility in natural rubber prices, labor costs, the pricing clash between rubber growers and tyre companies, delicate balancing acts, and policy interventions. In view of the increased consciousness and heightened awareness of the issues of environmental degradation, preservation of biodiversity, clean development mechanisms and climate change, which are subsumed in the broader global imperative of sustainable development, the impact of the production of rubber on rising deforestation causes concern. Hence the deleterious impact of the production of rubber on deforestation has also rapidly emerged as a critical element of the risk matrix<sup>18</sup>.

## Government Initiatives

The government is planning to introduce the Revised Rubber (Promotion and Development) Bill, 2023, which is an initiative by the Government aimed at modernizing and promoting the rubber industry in India. The Bill focuses on replacing the Rubber Act of 1947 to address contemporary challenges in the industry, such as falling rubber prices, high labour costs, and increasing import competition. It proposes changes to the Rubber Board's structure, including quality standards and stakeholder representation.

The government has increased the financial package for the rubber sector by 23 per cent to ₹ 708.69 crore from ₹ 576.41 crore for FY25 and FY26 to enhance natural rubber production and productivity and reduce import dependency. The Rubber Board provides subsidies for new planting and replanting (of senile plantations) to growers. The funds will be used for supporting the plantation of rubber, generation of planting material, productivity enhancement, formation of rubber producers' societies, and rubber research and training. The financial aid is also meant for planting and replanting on 3,752 hectares in non-traditional areas like Andhra Pradesh, Odisha, and north-east states to be brought under cultivation in FY25 and FY26.

The assistance rate has been increased to ₹ 40,000 per hectare from the previous ₹ 25,000 per hectare to help cover the increased cost of production and provide additional incentive to growers. The government has also provided ₹ 29 crore for rubber research for the two years. The Rubber Board is the implementing agency of the scheme.

There are 1.3 million rubber growers in the country and Kerala accounts for a major chunk of the production, which was 5.99 lakh tonnes in 2022-23 followed by Tripura with 89,390 tonnes of natural rubber production. The production was almost half of the total domestic consumption during that fiscal. Consumption of natural rubber in the country was 1.35 million tonnes in 2022-23.

India is largely dependent on imports from Vietnam, Malaysia, Indonesia, and other Southeast Asian nations. India also imports a huge chunk of natural rubber from Ivory Coast.

Under the scheme, planting materials worth ₹ 50,000 per hectare will be supplied to rubber growers by the Rubber Board. And this assistance will be in addition to the on-going plantation being carried out in 2 lakh hectares under the Indian Natural Rubber Organisation for Assisted Development (INROAD) project in the Northeast. The scheme also entails planting assistance of ₹ 2 lakh/hectare for growers belonging to the scheduled caste category in non-traditional region.

The production of natural rubber would be increased through expanding planted area, accelerating rubber plantation development programmes in non-traditional regions, including the Northeast.

\_\_\_\_\_ Press Information Bureau (PIB).

The rubber farmers demanded a minimum support price (MSP), after revisions in 2022 and July 2023, in the third round of discussion of the revised Rubber (Promotion and Development) Bill, 2023—growers want MSP to be included in the Bill along with the grant of agriculture status for rubber.<sup>19</sup> Rubber growers maintain that the Bill is biased towards the manufacturing industry. Accordingly, on 5<sup>th</sup> February 2024, the Kerala's Finance Minister Shri K N Balagopal in the state's budget for the FY25 allocated ₹ 1,698.30 crore for the struggling agriculture sector and increased the MSP for rubber to ₹ 180 from ₹ 170.<sup>20</sup>

In 'Bharat Mobility Global Expo 2024', the Prime Minister asked the tyre industry to reduce import dependence for rubber with the cooperation of farmers. The PM emphasized the importance of adopting an integrated and holistic approach. He urged the attendees to think innovatively and work collaboratively, encouraging them to explore unconventional solutions and foster partnerships.

The Rubber Production Incentive Scheme (RPIC) implemented by the state government has also encouraged the farmers to continue tapping efficiently. This is for controlling leaf diseases, adoption of rubber holdings for harvesting and the formation of Rubber Tapper Groups (RTGs) etc.

Of late, technological modernization and automation has increasingly emerged as an important instrument of transforming the manufacturing processes with digital transformation and connected worker initiatives. The rubber industry is no exception to the winds of change sweeping the world. There is, therefore, a compelling need to explore and examine strategies to enhance efficiency, streamline operations, and maximize productivity, integrating cutting-edge technologies to empower the workforce and optimize resource utilization.

Manual processes and lack of real-time data can lead to inefficiencies in production, resulting in increased costs and slower time-to-market. Ensuring consistent product quality requires proper monitoring and control to check defects or inconsistencies, leading to waste and customer dissatisfaction. Lack of visibility into the production process can hinder decision-making and responsiveness to various issues. This can result in delays, production bottlenecks, and missed opportunities for optimization.

While there is certainly scope for improvement, technology is being leveraged to consolidate the growth of this sector. For example, a Rubber Board research farm is growing the world's first genetically modified (GM) rubber plants in Guwahati, Assam. This plant is customized to the specific climatic conditions of Northeast India<sup>21</sup>.

Congenial agro-climatic conditions for rubber plants are warm, humid climate because of the origin of this produce in the Amazon. But the genes of the experimental plants have been modified to enable them to withstand the hotter, colder, or drier conditions by incorporating qualities in the existing cultivated clones, which is not possible through conventional methods.

There has also been a shift from manual tapping to motorised tapping machine because of the lack of tapping workers. The machines are costly but once used they turn out to be more cost-effective than manual tapping.

## Creating a Virtuous Circle

Planting and harvesting decisions of natural rubber are a function of agriculturally based supply where, in the long run, prices are governed by the cost of land and labor, fickle weather, and volatile global natural rubber market prices. But since synthetic rubber is produced with hydrocarbon monomers derived from petroleum and natural gas, the prices of various types of synthetic rubber are susceptible to plant shutdowns and long-run crude petroleum and natural gas price movements.

The Government should take measures to guarantee a fair price for rubber growers and safeguard their interests by considering an additional increase in the rubber import duty for a steady rise in production and consumption of rubber in India. The surge in imports over the past decade has led to a decline in local prices, consequently impacting production levels negatively. Rubber should be given the same treatment as any other cash crop. The government should ensure welfare and better working conditions for rubber plantation workers to address the labour shortage issue.

Transforming rubber, an industrial product, into an agricultural commodity may pose technical challenges. Hence, the government needs to grant agricultural status to rubber growers in view of the decline in rubber productivity per hectare, necessitating innovative approaches to enhance output. This change would enable them to access agricultural loans for rubber cultivation. Currently, many banks do not directly offer loans for rubber cultivation.<sup>22</sup>



There is also a manifesting need to include terms, such as, compound rubber, reclaimed rubber, and all forms of synthetic rubber in the definition of Rubber and for an equal representation to both southern and northeastern states in the proposed reconstituted rubber board.

With good prospects for the industry over the short-term and medium-term because of the extensive use of rubber across industries, viz., manufacturing, construction, fuel, etc.; easy availability of labor and raw materials; several technical training institutes and transformed lifestyles, there is a case for inclusion of the rubber industry in the government's Production Linked Incentive (PLI) scheme, which can provide incentives for manufacturing and boost the sector's competitiveness and growth.

Our confidence is based on the twin facts of the natural rubber / synthetic rubber consumption ratio is 75:25, while globally the ratio stands at 44:56 and the low per capita consumption of rubber at 1.0 kg. Apart from traditional features like product availability and price, there has also to be a greater attention on branding to create a distinctive niche and influence the purchase decision-making matrix.

Given this overarching scenario of the robust domestic demand and the increasing global prospects for natural rubber, all stake-holders in the rubber industry, viz., large and small growers, rubber processors, tyre and non-tyre rubber product manufacturers, government and non-government promotional bodies, trade organizations, research and skill development institutions and the media must come together as partners in development and work in unison to facilitate sustained and resilient growth and structural transformation of the industry. This would create a virtuous circle of economic growth, structural transformation, distributive equity, and employment.

Towards this end, launching of the trade information portal by the Rubber Board to provide timely trade information, viz., current market news, price movements (domestic and international) in spot and futures markets, sourcing points and uses of different grades, grade specifications, details of rubber wood and rubber wood companies, trade policies related to NR, various trade data and analysis, export and imports data on NR, schemes operated by the market promotion department etc. and branding of NR for export augur well.

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