By Nilesh Wadhwa

GLOBAL NATURAL RUBBER SUPPLY UNDER STRESS, PRICE HIKE EXPECTED

The global tyre industry is grappling with a significant challenge: a severe shortage of natural rubber, a critical raw material in its supply chain. The demand-supply gap is estimated to reach an unprecedented shortfall of 829,000 tonnes in CY2024, despite a projected improvement in supply. This widening demand-supply gap has driven global natural rubber prices up by over 60 percent in the last nine months and the situation is exacerbated by adverse weather conditions in key producing regions and a shift away from rubber cultivation, leading to expectations of continued price hikes and supply constraints in the coming years.

The tyre industry, both in India and globally, is witnessing an unprecedented challenge: a shortage of one of the key raw materials in its supply chain, 'natural rubber'. The demand-supply gap between the production and consumption of natural rubber has grown significantly. While there is an expectation of some respite in the coming months, it is expected to reach unprecedented levels in the coming years. According to *Whats Next Rubber Media International's* monthly report for July-August 2024, there will be a global shortfall between demand and supply of around 829,000 tonnes of natural rubber for CY2024 (projected). This is despite an improvement in supply (projected) and a surplus from August (see table below).

Natural Rubber Production 2024			
Month	**Production**	**Consumption**	**Difference**
January	1,148	1,231	-83
February	971	1,105	-134
March	718	1,232	-514
April	691	1,226	-535
May	877	1,270	-393
June	1,072	1,247	-175
July	1,209	1,272	-63
August	1,290	1,288	2
September	1,419	1,312	107
October	1,569	1,308	261
November	1,634	1,326	308
December	1,661	1,271	390
Total*	14,259	15,088	-829

**Data estimation from January-July; Projected for August-December*
All figures in '000
Data source: What Next Rubber Media International

At present, the Indian tyre industry meets its production needs through a mix of domestic sourcing, which accounts for almost 60-65 percent, while the remaining 35-40 percent is met through imports. Natural rubber currently accounts for 27-30 percent of the raw material basket.

Nithya Debbadi

Nithya Debbadi, Assistant Vice President and Sector Head – Corporate Ratings at ICRA, tells *Tyre Trends* that "Around 60-65 percent of natural rubber demand is sourced domestically, and its prices have increased by over 50 percent in the last nine months. Given the supply gap, around 35-40 percent of natural rubber requirements are met through imports, and thus domestic prices are impacted by global prices as well. Global prices for natural rubber have risen by over 60 percent in the last nine months and are trading at around INR 225-230 per kg (RSS3 grade) in August 2024 owing to global supply shortages amid adverse weather conditions in key natural rubber-producing nations in Southeast Asia. Factors like supply shortage, higher freight costs and container availability issues are likely to keep prices elevated in the near term, marking 2024 as a year of decadal high levels."

INDIA'S NATURAL RUBBER INDEXING AND PRODUCTION

The prices of natural rubber have been rising for the last several months, with industry observers predicting that it will scale new heights and surpass the previous peak it attained in 2011. When one looks at the various types of natural rubber being produced, it is important to understand that they are classified as Ribbed Smoked Sheets (RSS) on the global index. These are coagulated rubber sheets processed from fresh field latex sourced from well-managed rubber plantations adopting modern processing methods. The higher grades RSS 1x to RSS 3 are mainly used for manufacturing products for medical, pharmaceutical and engineering purposes.

The lower grades of RSS 4 and 5 are generally used to make automobile tyres, re-treading materials and all other general products. RSS 3 and RSS 4 are the preferred raw materials for radial tyres. The quality of RSS is ascertained as laid down in Green Book Standards.

Year (April to March)	Rubber area (ha)	Tappable Rubber area (ha)	Production (tonnes)	Average yield (kg/ha)	Consumption (tonnes)	Import (tonnes)	Export (tonnes)	Average price of RSS-4 at Kottayam (INR/100kg)
2005-06	597,610	447,015	802,625	1,796	801,110	45,285	73,830	6,699
2006-07	615,200	454,020	852,895	1,879	820,305	89,799	56,545	9,204
2007-08	635,400	458,830	825,345	1,799	861,455	86,394	60,353	9,085
2008-09	661,980	463,130	864,500	1,867	871,720	77,762	46,926	10,112
2009-10	686,515	468,480	831,400	1,775	930,565	177,130	25,090	11,498
2010-11	711,560	477,230	861,950	1,806	947,715	190,692	29,851	19,003
2011-12	734,780	490,970	903,700	1,841	964,415	214,433	27,145	20,805
2012-13	757,520	504,040	913,700	1,813	972,705	262,753	30,594	17,682
2013-14	778,400	518,100	774,000	1,629	981,520	360,263	5,398	16,602
2014-15	795,135	533,675	645,000	1,443	1,020,910	442,130	1,002	13,257
2015-16	810,800	558,900	562,000	1,437	994,415	458,374	865	11,306
2016-17	818,000	584,600	691,000	1,553	1,044,075	426,188	20,920	13,549
2017-18	820,900	612,000	694,000	1,458	1,112,210	469,760	5,072	12,980
2018-19	822,000	637,900	651,000	1,453	1,211,940	582,351	4,551	12,595
2019-20	822,300	663,700	712,000	1,459	1,134,120	457,223	12,872	13,522
2020-21	823,000	692,900	715,000	1,442	1,096,410	410,478	11,343	14,185
2021-22	826,660	718,300	775,000	1,472	1,238,000	546,369	3,560	17,101
2022-23* (provisional)	850,000	743,650	839,000	1,482	1,350,000	528,677	3,700	15,652

Data source: Rubber Board Ministry of Commerce & Industry of India

Domestically produced RSS rubber grades are in good demand for tyre and other product manufacturing, indicating their quality and market acceptability.

According to the latest statistics available from India's Rubber Board, Ministry of Commerce & Industry, the total rubber area has grown from 597,610 hectares in 2005-06 to 850,000 hectares in 2022-23; the tappable rubber area has grown from 447,015 hectares to 743,650 hectares. On the other hand, the total production of rubber has grown marginally from 802,625 tonnes in 2005-06 to just 839,000 tonnes in 2022-23, meaning the average yield has decreased from 1,796 kg/ha to 1,482 kg/ha. For the same period, the country has also seen the share of imports grow from 45,285 tonnes to 528,677 tonnes, while exports have diminished from 73,830 tonnes to 3,700 tonnes.

One might think that farmers would have benefited from the growing demand and that procurement prices for natural rubber may have risen. But, as is often the case, government statistics paint a different picture. The average price of RSS-4 at Kottayam was INR 15,652 per 100 kg of natural rubber in 2022-23. The peak price of INR 20,805 per 100 kg was last observed in 2011-12.

GLOBAL TRENDS

Of the total requirement by tyre makers in India, the primary production of natural rubber is concentrated in Kerala and a few regions in the northeast. But similar to the global production trend, there is a shift among farmers/producers away from natural rubber due to several factors.

Jom Jacob

Jom Jacob, a rubber industry veteran with over three decades of experience in numerous senior leadership & analyst roles Chief Analyst and Co-Founder, *What Next Rubber Media International | Commodities*, tells *Tyre Trends* that globally, farmers are shifting from rubber to other crops, especially in Indonesia and Thailand.

"There was a large-scale shift from rubber to other crops like oil palm, durian and sugar because the price for RSS has remained low since 2016. Farmers have lost their long-term confidence in rubber cultivation and have started shifting to other crops," he says.

For the unversed, unlike some cash crops, the rubber cultivation process sees a lag of seven years from the plantation of seeds to the ability to cultivate and sell. This means that even if there were widespread demand and a push for rubber plantations, it would take almost seven to eight years to see a difference.

Secondly, the yield per hectare has also dramatically decreased due to various climatic conditions, including *Pestalotiopsis*, a fungal leaf disease that is also impacting production in Southeast Asian regions.

"The fungal attack infected nearly 0.6 million hectares of rubber area, mainly in Indonesia, and the second-largest country impacted was Malaysia, followed by Vietnam and Sri Lanka. India was not affected by this particular disease," shares Jacob.

SUSTAINABILITY AND TYRE PRODUCTION

Farming is one of the oldest known professions, but it has seen a decline in the number of people joining this age-old profession. In India too, the number of people involved in rubber tapping has gradually declined, and the cost of labour has grown so high (along with labour availability) that many farmers find it difficult to continue production.

"Lack of skilled labour, prevailing rates and confidence in long-term pricing," are some of the key challenges that need to be addressed to attract more people to cultivate and invest in rubber production.

Imports, on the other hand, are also facing many headwinds. With global demand from China, Europe and US on the rise, natural rubber is in demand across the globe. High shipping costs and container availability are other challenges for Indian tyre producers that need consideration.

In the coming few months, as the peak for natural rubber production approaches, there could be a temporary respite with tyre makers going for bulk purchasing and excessive stocking to meet their needs for the coming months.

Jacob explains that the situation for tyre makers in India reached a critical level a while ago. "The stock of natural rubber inventory with them came down abnormally this year. The situation was so severe that many tyre companies had to stop the production of certain segments of tyres that were not in high demand. They started focusing on producing certain categories of tyres that were in very high demand and placed prime attention on optimising the stock of natural rubber," elaborates Jacob.

ICRA's Debbadi believes that "the spike in natural rubber prices has been sharp, and in a period of such rapid price increases, tyre makers have limited flexibility to fully pass on the same, especially given that the tyre market is largely replacement-led. High prices and increasing crude prices are likely to moderate the tyre industry's margins by 200-300 bps in FY2025, notwithstanding the price hikes taken by the industry to mitigate the impact of increased raw material costs."

Jacob also agrees that for tyre makers, the price is not as high a concern as is availability since natural rubber commodity prices remain similar for their competitors too. This also hypothetically means that in such a scenario, tyre makers could be on the same page in passing on the price hike to end consumers, albeit in a phased manner.

MSME SECTOR AND SYNTHETIC RUBBER

On the other hand, when one looks at natural rubber producers and processors in India, the sector is largely dominated by MSMEs (Micro, Small and Medium Enterprises), for whom such a spike can spell disaster.

According to Jacob, "Several MSME units have already closed down, especially in northern India, as they are unable to afford the raw material prices; they are not in a position to increase the end-product price because of the cheaper imports from China and other countries. Of course, for the tyre sector, that problem does not exist because they have protection against the import of tyres from China and other countries. For MSMEs, there is no such protection in India."

One may argue that if the supply of natural rubber has been such a challenge, why does the industry not look at synthetic rubbers? But the reality is that experts believe that "synthetic rubber and natural rubber are not easily substitutable."

There is usually a pre-defined ratio between the usage of natural rubber and synthetic rubber in tyre production depending on the usage and end-application. For passenger vehicles, around 55-60 percent of the compounds used are synthetic, while the balance 40 percent is natural rubber.

In the truck and heavy-duty segment, the usage of natural rubber goes up to 80 percent and even higher in certain cases.

"The compound mix cannot be changed in a significant way, but still to a limited extent, the compound mix can change, maybe two to four per cent," explains Jacob.


Stefano Savi

Stefano Savi, Director of the Global Platform for Sustainable Natural Rubber, is optimistic that there will be a gradual shift towards the usage of synthetic rubber as the "sustainability requirements (both from regulators and from the market) are increasing. This will shape the market as we will see a decommoditisation of the rubber market, and a focus on traceability and better understanding of origins to ensure environmental/social compliance."

LOOKING FORWARD

While it is difficult to accurately predict the future, it is almost certain that for the global tyre industry, the coming quarters will play a crucial role. On the one hand, there is a slowdown in terms of new vehicle sales, but aggressive new product launches, a shift towards electric vehicles and tightening norms on old vehicles (vehicle scrappage and inspection) will lead to higher demand for OE Fitment tyres.

This means the demand for tyres is going to remain positive, but at the same time, with global tyre manufacturers all trying to ensure stable supply, experts see this will lead to a lot of "pre-buying activity to take place."

Natural Rubber Production

Month	Production	Consumption	Difference
2025	14,710	15,567	-857
2026	14,948	16,031	-1,083
2027	15,060	16,479	-1,419
2028	15,113	16,924	-1,811
2029	15,114	17,352	-2,238
2030	15,118	17,777	-2,659

***Projected All figures in '000*

Data source: What Next Rubber Media International

Globally, governments have been trying to incentivise and promote the plantation of natural rubber, but results have been mixed depending on the geography. Many believe that in addition to traditional natural rubber-producing markets, the African region could also play a key role in supporting the global natural rubber trade. But till a significant new plantation of natural rubber is formed, one can expect that the trade deficit will lead to higher prices; in fact, as per estimates, by 2030 the demand supply gap is estimated to be around 2,659,000 tonnes. ■