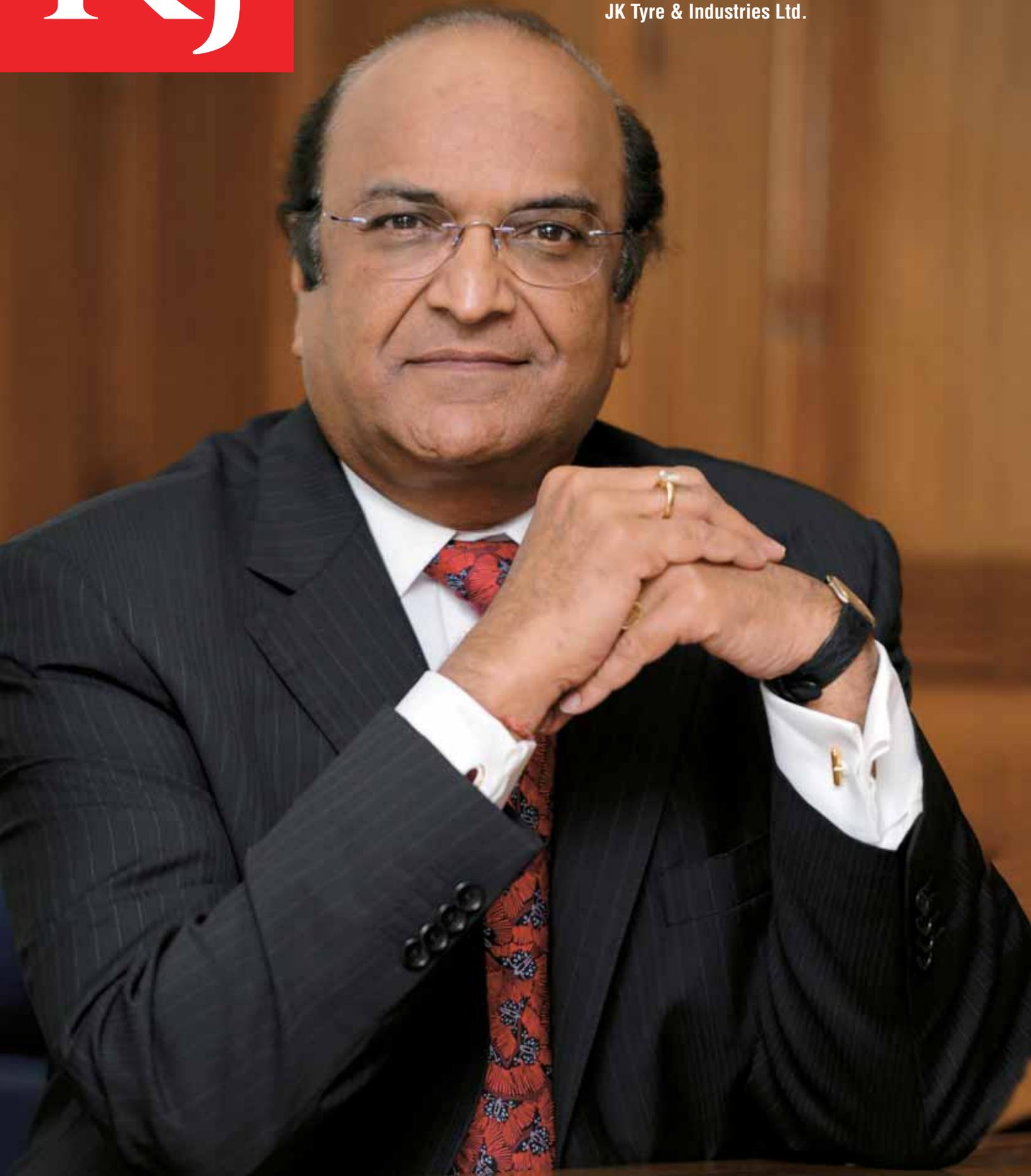


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INDIAN RUBBER JOURNAL
INTERNATIONAL RUBBER JOURNAL



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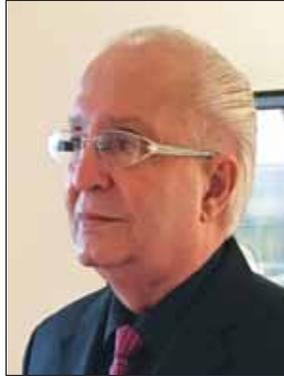
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As we enter the 4th quarter of the year at the time of going to press, there is mixed news for India, which now expects a GDP growth rate of 8.1% for the financial year ending March 2019. Unfortunately, the Rupee has sunk further to an all-time low of 85 against the Euro and 73 to the US Dollar. With crude oil prices surging past \$80 per barrel, further pressure can be expected on the Rupee and on India's foreign exchange reserves, which are down to just under \$400 billion, as compared to \$426 billion a few months ago. Since there are no signs of an increase in exports, the Reserve Bank of India will possibly continue to intervene and buy US dollars.

Like the EU, India is also trying to find ways to buy Iranian crude oil with the Indian Rupee to circumvent the US embargo.

The Cover Story in this issue features India's tire major and multinational, JK Tyres. Dr Raghupati Singhania, Chairman and Managing Director of the company, pioneered the introduction of radial tires in India in the mid-seventies. He has had unswerving belief in the power of R&D to provide JK Tyres and India with the best available technology. To this end, he set up HASETRI (Hari Shankar Singhania Elastomer and Tyre Research Institute) in 1991. He recently celebrated the Silver Jubilee of HASETRI and just inaugurated the RPSCOE (Raghupati Singhania Centre of Excellence) in Mysore. Like HASETRI, this world-class R & D organisation will serve as an exemplary centre in India, and has the ability to further propel JK Tyre up the International Global tire rankings.

Once again, the IRJ participated in RubberTech China in Shanghai, this time held in September, and as we go to press, we are currently participating in

the Asia Rubtech Expo in Bangalore. Detailed reports on both interesting and well-attended events will follow in the next issue.

Like all tire majors operating in India, Michelin India is doubling its capacity to meet the ever-growing demand from the country's booming automobile industry. Rajiv Budhraj, Director General of ATMA, provides an invaluable picture of India's tire and automobile industry in a presentation published in this issue.

On the polymer front, we take pleasure in publishing the latest quarterly report of Dr. Prachaya Jumpasut, Managing Director of the Rubber Economist Ltd. and since long an expert in the field, and also a presentation by Moenardji Soedargo of GAPKINDO of Indonesia, the world's second-largest natural rubber growing country.

The trade war between the US and China continues to escalate and will hopefully not worsen further and have a disastrous impact on global trade. Mid-term election results in the US could force Trump to moderate his tone. On the economic front, we hope that we can provide more cheerful news in our end-of-year issue, for India, the global rubber industry and the global economy.

M Noorani

Aida Malik

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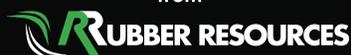
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Dr. Raghupati Singhania

**Chairman & Managing Director
JK Tyre & Industries Ltd.
in an interview with M Noorani**



Heartiest congratulations on the Silver Jubilee of HASETRI on making it India's premier R&D Institute. Can you tell us about the main objectives leading to the foundation of HASETRI?

At JK Tyre, right from the very inception, we have strongly emphasised on Development of Technology as a critical need and thus 'Hari Shankar Singhania Elastomer and Tyre Research Institute' (HASETRI) – an independent entity, first of its kind – was established in 1991, though earlier we had already set up our in-house R&D Centre, which was duly recognised by DSIR in 1980.

HASETRI was established with a clear vision "To become a Premier Industrial Research Institute of Global repute in the field of Elastomer and Tyre Technology" with the approach to:

- ▶ Technology development through innovative ideas.
- ▶ Collaborative/sponsored research through industry-academia interaction.
- ▶ Leadership role on developing skilled technical manpower.
- ▶ To be a world-class Accredited Testing Laboratory.

We are committed to this and have taken all necessary measures to fulfill this. We are also focused on ensuring that we are future ready and will continue to serve our valued customers with the best technology can offer.

What was the initial investment and what were the testing equipments with which it was started?

The initial investment during 1991-93 was Rs. 200 million towards setting up the full-fledged Rubber Processing Lab having Laboratory Banbury, Mixing Mill, Curing Press and Processability Tester followed by establishment of Physical, Chemical and Analytical Laboratory.

What have been the major milestones in HASETRI's journey during the last 25 years?

- ▶ April 1988 : Conceptualisation of Independent Elastomer & Tyre Research Institute (HASETRI)
- ▶ October 1991 : HASETRI established at Jaykaygram, Kankroli, Rajasthan
- ▶ April 1993 : MoU signed with different Universities & Institutes for Ph.D programmes of Scientists & Engineers of HASETRI as a part of Self-development programme.
- ▶ June 1993 : Recognition of HASETRI as SIRO (Scientific Industrial Research Organisation) by DSIR Govt. of India

- ▶ April 1994 : Established Tyre Mechanics Group
- ▶ October 1995 : First SIRO Institute to receive ISO-9001 Certification
- ▶ August 2002: HASETRI is accredited as per ISO/IEC-Guide 25
- ▶ July 2004 : MoU signed with IIT Madras to establish "RPS CoE for Tyre & Vehicle Mechanics" at IIT Madras
- ▶ October 2006 : Established full-fledged Tyre Testing & Vehicle Dynamics Lab., under Technology Initiative : World Bank Project – Phase-I
- ▶ July 2007 : Established Faridabad campus
- ▶ December 2009 : Installed OnLEVEL Tyre Testing Machine first time in this part of the world for meeting the long-awaited need of OEM at Faridabad campus
- ▶ April 2010 : Set up Calibration Laboratory (Mechanical & Thermal) at Jaykaygram campus
- ▶ July 2011 : Technology Initiative – World Bank Project – Phase-II
- ▶ October 2011 : Completed 20 years service to Rubber Industry
- ▶ August 2013 : 1st RSDC Approved Training Provider for Rubber Sector Under NSDC for skill development.
- ▶ October 2014 : 1st Research Institute to receive Excellence in Skill Development award in India
- ▶ 2017-18 : Received NABL Accreditation for new location at Mysuru
- ▶ August 2018 : 25 years celebration at Mysuru on 28th August '18

What has been the cumulative investment in HASETRI so far and how much investment is further planned in your Centre of Excellence at Mysuru?

So far, total cumulative investment is Rs. 2,000 million. We have planned another Rs.500 million investment during next two years for further addition of equipments and machineries.

How does your Centre of Excellence reckon in the field of Elastomer & Tyre Research & Technology?

It is a matter of pride and honour that during the last 25 years, HASETRI has established itself as a mark of Excellence in the field of Elastomer & tyre Research not only at the national, but also at the International level. Today, HASETRI is recognised as an international brand and has earned high acclaim for quality and excellence in research and evaluation, besides training, skill development, validation and testing.

With the advent of newer vehicles, the need for competitive design technology, Vehicle dynamics, Predictive technology and Tire mechanics also grew. At this juncture, we initiated industry-academia joint ventures with leading technological institutes in India and abroad, in various areas of R&D and technology development. The most prominent among these is the setting up of a joint venture with IIT Madras in 2004, a 'Centre of Excellence' for vehicle dynamics, tire mechanics and predictive technology. Incidentally today, it is the largest private sector-funded industry academia joint venture Research Programme, providing extensive technology support to HASETRI and JK Tyre in their quest for excellence.

Do you expect the tire and rubber industry in the country and overseas to make more use of this fine centre?

Presently, some of the multinational companies have been using our tire testing facilities regularly besides the Indian tire and auto industry, several Govt., defence establishment and R & D Institutes of National Importance.

How many scientists and technicians are employed?

Presently, 180 scientists and engineers are working at RPS CoE, Mysore. We plan to increase this strength to 200 within the next one year. Going forward, the strength will grow to commensurate with our needs.

Do you plan still closer co-operation with Universities and IITs?

We are committed to stay ahead and be ready for every challenge in future. In our quest of excellence, collaborative work with best in-class institutes and research centres is always refreshing.

This 'Global Research & Technology Centre' is equipped with the best equipment and machineries. It is manned by the best. HASETRI has created sophisticated facilities in areas of R&D, which include:

- ▶ Advance Material Research including material characterisation and testing
- ▶ Computational Mechanics : FEA Simulation, Modelling and Predictive Techniques.
- ▶ Vehicle Dynamics, NVH Testing and Semi Anechoic Chamber
- ▶ Advanced Tire Testing including Non Destructive Testing.

Some of these equipments, are unique only to HASETRI, so far in India.

As is done by RAPRA of UK, Smithers Inc. (USA) and the MRB (Malaysia), do you also plan to organise seminars?

From the inception, HASETRI was engaged in Technical manpower development for Rubber & Allied Industries in the Asia Pacific Region through organising workshops, seminars, training programmes in collaboration with CII, ARAI, CIRT, IRI, AIRIA, and different institutes and universities covering various topics related to Rubber Science and Technology. This effort will continue.

Will you conduct joint development work with various tire companies and other rubber product manufacturers?

We believe in collaborative research. Now, we are in a fast-changing world. The automobile industry is running at a faster pace in technology development. To meet the upcoming demand of OEM's, we also need to update ourselves through collaborative work with OEM's and raw material manufacturers. HASETRI is continuously working on such collaborative research projects and has been able to introduce different new generation materials to meet the OEM's technology challenge. Also, another area of research where HASETRI scientists are involved is the usage of bio-based sustainable materials in tire.

As you may be aware the more one collaborates, the more one gains. We are also collaborating with universities and research institutes to ensure our technology advantage. We are also open to collaborate with leading tire industries for mutual benefit.

What are your plans for RSCOE for the coming decades and your vision for its future?

Being future ready is the core of our philosophy. In this endeavour, we will continuously upgrade our capabilities and facilities. Most importantly, development and growth of our manpower. We have also tapped some global talents to fulfill our needs and aspirations and thus maintain our technology edge.



HD Kumaraswamy,
Chief Minister of
Karnataka at the
inauguration of "Global
Technology Centre" of
JK Tyre (RPS CoE)

JK Tyre:



Inauguration of "Global Technology Centre" of JK Tyre (RPS CoE) & Celebration of Silver Jubilee of Hari Shankar Singhanian Elastomer & Tyre Research Institute (HASETRI)



Inauguration of RPS CoE: Dr. RP Singhanian (3rd from right) with Chief Minister HD Kumaraswamy, Dr. R Mukhopadhyay on extreme left

At a glittering ceremony on August 28 in Mysore, HD Kumaraswamy, Chief Minister of Karnataka inaugurated JK Tyre's state-of-the-art "Global Technology Centre" of JK Tyre (RPS CoE) & celebration of Silver Jubilee of Hari Shankar Singhanian Elastomer & Tyre Research Institute (HASETRI) in the presence of Dr. Raghupati Singhanian, Chairman and Managing Director of JK Tyre & Industries Ltd, Jitendra J Jadhav, Director, National Aerospace Laboratory, Bangalore as Guest of Honour; GT Devegowda, Minister for Higher Education & District in Charge Minister; Sa Ra Mahesh, Minister for Tourism & Sericulture; Pratap Simha, MP, and other distinguished members of the legislative assembly and senior officials of the Karnataka government, stalwarts of the Indian

auto industry and different raw material partners of JK Tyre & Industries Ltd.

This R&D facility is the first-of-its-kind in India to offer the latest technologies in the tire manufacturing space, including a Semi-Anechoic Chamber for reduced noise vibration and harshness data analysis. Hari Shankar Singhania Elastomers & Tyre Research Institute (HASETRI), part of "Global Technology Centre" of JK Tyre (RPS CoE), is a conglomeration of the best scientists, engineers and technicians in the industry who have come together to optimise product performance and product design cycle time through simulation and predictive techniques. JK Tyre has invested enormous resources in the development of the Centre that has a prominent place in the company's ethos of having best-in-class technology at the heart of its products.

Welcoming the opening of the centre, HD Kumaraswamy, Chief Minister of Karnataka, said, "Mysore has been known for reputed institutions like CFTRI, DRDO, BEML, Infosys and the Raghupati Singhania Centre of Excellence is another feather in the cap of Mysore. I greatly appreciate JK Tyre for setting up this "Global Technology Centre" that will provide technology to its identities in India and abroad. JK Tyre has had a presence in Mysore for the last 21 years, and that too as the only large tire manufacturer in Karnataka. I urge the company under the able leadership of Dr. Raghupati Singhania to continue its good work by providing tailor-made courses through HASETRI and the RPS CoE to the youth of Karnataka and contribute to the economic and social development of Mysore."

Dr. Raghupati Singhania, Chairman & Managing

Director, JK Tyre & Industries Ltd, said the new R&D Centre re-affirms his company's trust in technology. "RPS CoE is a celebration of excellence. It is testimony to JK Tyre's ethos of investing in technology," he said. "Ever since we introduced India to radial tire technology in 1977, we have continued our search to stoke the scientific temperament. A year ago, we rolled out our 10 millionth truck/bus radial tire from our plant in Mysore, becoming the first company in India to do so. Today, it gives me immense joy to say that with this Centre we have added to the list of the many firsts for JK Tyre. We want RPS CoE to become an aspiration not only for the people of Mysore but for the whole country. It has been a good beginning, now the people of Karnataka and Mysore will have to support us in building this Centre and making it one of India's treasured institutions for R&D."

Research at RPS CoE is focussed on multiple aspects of tire technology, including developing advanced laboratory predictors for tire performance and providing key inputs for life prediction of rubber products. Among the many areas researched at the Centre include material and compound development, future technology development, computational mechanics and tire characterisation. One of the special features of the Centre is the Semi-Anechoic Chamber, a first in the Indian tire industry, which uses specialised software for noise vibration and harshness data



HASETRI was established in October 1991 to fulfill the need for Research & Development in the Rubber and Allied Industries in the Asian region"

HASETRI: Celebrating 25 years service to Rubber & Allied Industry





High Performance Liquid Chromatography-GPC



Advanced Analytical Characterisation Laboratory



Advanced Material Characterisation and Forensic Analysis

This R&D facility is the first of its kind in India

analysis. RPS CoE collaborates with and supports suppliers and manufacturers globally, and is predicated on the company's thrust on constant learning and reskilling of technical manpower.

HASETRI is named after the late Hari Shankar Singhania, past President of JK Organisation.

Genesis and Objectives:

HASETRI was established in October 1991 as an independent Research and Testing Laboratory, to cater to the needs of rubber and allied industries at National and International level. The primary goal of HASETRI was to foster development and evolution of new technologies for Rubber and Allied Industries for domestic and international markets, and also to develop technical manpower for the industry.

HASETRI is India's first and foremost independent Research and Testing Center, and fulfills the nation's need for developing newer and better technologies for Elastomer and Tires. It is recognised under SIRO (Scientific and Industrial Research Organization) by the Department of Scientific & Industrial Research (DSIR), Govt. of India. It is also acknowledged by the Indian Institute of Technology (IITs) and other universities for registration leading to higher studies.

JK Tyre's R&D Vision

HASETRI was established in October 1991 to fulfill the need for Research & Development in the Rubber and Allied Industries in the



Late Hari Shankar Singhania
Past President, JK Organisation

Asian Region to fuel the 'fast paced' growth in the industry. The Institute has never rested on its laurels, but always strived to stay ahead of the



Laboratory Abrasion Tester (Grosch Abrader)

HASETRI Services

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- Design, Development (CAE) of Products
- Product Testing including Automotive Tires
- Reverse Engineering
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- Bench Marking
- Manpower Development and Training
- Quality Management Services
- Literature Search
- 3D Printing



Cure Simulation of rubber compound



Creep & Stress Relaxation



Visco Elastic Characterisation of cured rubber



Rubber Processing Analyser



Sound quality system



Tear Fatigue Analyser

rest - setting the pace and paving a path for others to follow. Set up with the objective of broadening the scope of material research, mechanical and chemical & analytical testing, performance evaluation, product certification and other advance testing to make products that are not only world-class, but have unparalleled standards in quality and performance in tune with the ever-emerging needs of the consumers. HASETRI is committed to provide service of ever-improving quality on a continuous basis in India and overseas.

In keeping with the modern trend for companies to make their R&D activities economically viable, Hasetri has all along done very well financially.



Rolling resistance testing machine



Multi-functional load deflection machine



High-Speed Tire Endurance Testing



Semi-Anechoic Chamber NVH Testing

OnLEVEL tire testing machine



Associated Academia

RESEARCH ADVISORY COUNCIL OF HARI SHANKAR SINGHANIA ELASTOMER AND TYRE RESEARCH INSTITUTE CONSTITUTES OF EMINENT PROFESSORS AND RESEARCH SCIENTISTS FROM DIFFERENT INSTITUTES AND ACADEMIA:

- 1 Prof. R Krishnakumar, Indian Institute of Technology, Chennai
- 2 Prof. A K Bhowmick, Indian Institute of Technology, Kharagpur
- 3 Dr. James Jacob, Director Rubber Research Institute of India, Kottayam
- 4 Dr. Roop Singh Bhakuni, Ex Technical Director Goodyear Asia SBU, Instructor-Dept. of Polymer Engineering, University of Akron & APTC (Akron Polymer Training Center), USA
- 5 Dr. R Mukhopadhyay, Director and CE, Hari Shankar Singhania Elastomer and Tyre Research Institute

HASETRI acts as a bridge between academia and industrial circles for better interaction. Some of the areas where it is involved are:-

- Jointly conducting a Post Graduate Diploma course (recently upgraded to M.Sc.) in Polymer Science and Rubber Technology with Mohan Lal Sukhadia University, Udaipur.
- Technical manpower development through the Indian Rubber Institute (IRI), Jaykaygram, Rajasthan Branch.
- Sponsored Research Programme with IIT Kharagpur, IIT Chennai, IIT Delhi and other Universities leading to M.Tech and Ph.D degrees.
- Association with BIS, ISO and ASTM for standardisation of specification and test method related with rubber and allied industries.
- Association with Confederation of Indian Industries (CII) for conducting courses on Rubber Science and Technology in pursuance of its objective of manpower development and customised training, at different locations in India.
- Visiting Faculty for the Institute of National Importance (viz. IIT, MIT Chennai, Cochin University, Calcutta University).

R&D Initiatives

Collaborative Research with Premier Academic Institution(s): Indian Institute of Technology, Madras

Raghupati Singhania Centre of Excellence (RPS CoE) for Tyre and Vehicle Mechanics was established at IIT-Madras, for enhancing the activities of simulation and predictive techniques as well as meeting OEM requirements.

Utilising dedicated 'Mini Super Computer' for Advance Simulation & Predictive Technology (Rolling Resistance, Wear, Tire Durability, Tire Dynamics etc.). First Research Institute harnessing benefit of 'Industry-Academia interaction' for Tire Development & Research.



Visit of Sr. Executives of JK Tyre to RPS CoE, IIT Madras



Engineers at work at RPS CoE, IIT Madras

Accreditation

Hari Shankar Singhania Elastomer And Tyre Research Institute is accredited as per ISO/IEC-17025:2005 standard for its Testing (Chemical & Mechanical) and Calibration (Thermal & Mechanical) functions.

The test & calibration certificates provided by Hari Shankar Singhania Elastomer and Tyre Research Institute is acceptable worldwide.



QUALITY POLICY

We at HASETRI are committed to provide reliable testing & calibration conforming to National & International Standards and render services to satisfy customers' emerging needs while maintaining confidentiality.

Towards this end, we will:

- Continuously upgrade the testing & calibration facilities and capabilities.
- Train and re-train manpower

Be committed to establish and maintain the Management system to achieve international recognition following latest ISO/IEC 17025 standard

Training and Consultancy

- Lectures on Rubber Science and Technology for DIRI (Diploma Indian Rubber Institute).
- Training on Rubber Science and Technology (Basic and Advanced).
- Modular Course on Rubber Technology and a host of other important subjects



SKILL DEVELOPMENT : Hari Shankar Singhania Elastomer And Tyre Research Institute is affiliated with Rubber Skill Development Centre (RSDC) and is an approved training provider for the rubber sector.



HASETRI received PHD Annual Award for Excellence 2014 in Skill Development on December 20, '14 from Shri Nitin Gadkari, Union Minister for Transport & Highways at New Delhi

UNIVERSITY/INSTITUTE -HASETRI COLLABORATION

Following employees completed Ph.D Programme through collaborative research with Universities and Institutes.

S. No.	Name of the candidate	Year
1.	Arup K. Chandra	1996-00
2.	Partha Pratim Chattaraj	1996-01
3.	Abhijit Adhikary	2005-08
4.	Saikat Dasgupta	2004-08
5.	Samar Bandyopadhyay	2004-07
6.	Sugata Chakraborty	2007-10
7.	Barun Kumar Samui	2010-14
8.	Prasenjit Ghosh	2008-15
9.	SK Bhattacharya	2010-15
10.	M Dasgupta	2010-15

People / Publications

Hari Shankar Singhania Elastomer & Tyre Research Institute (HASETRI) has a team of 81 consisting of 10 PhDs, 6 M. Techs, 48 BEs & B.Techs, 16 P.G. Diplomas in Rubber Science & Technology and Diploma in Engineering and Support Staff including P.Gs and MBAs, from IITs and other premier institutions across the country.

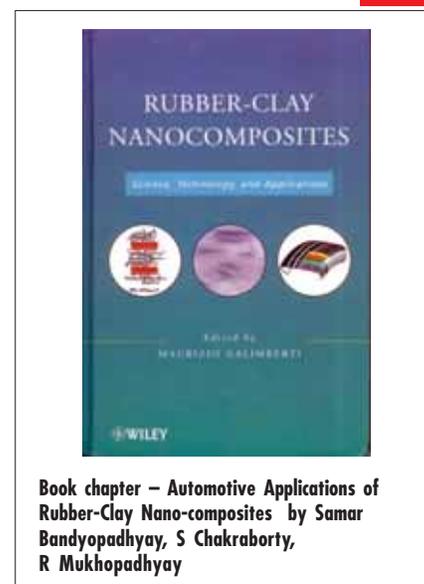
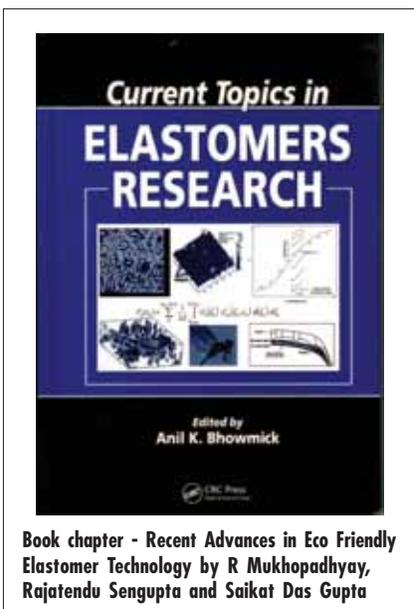
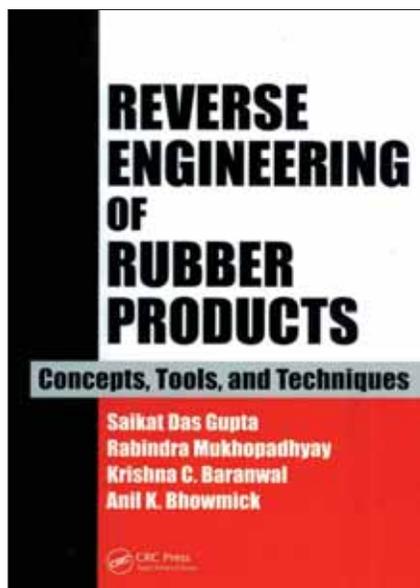
Publications in different international journals

- Rubber Chemistry and Technology – ACS Rubber Division
- Tire Science & Technology
- Progress in Rubber, Plastic & Recycling Technology
- Polymer Testing
- Journal of Elastomer & Plastic
- Atomic Spectroscopy
- Tire Technology International
- Rubber World
- Polymer degradation & stability

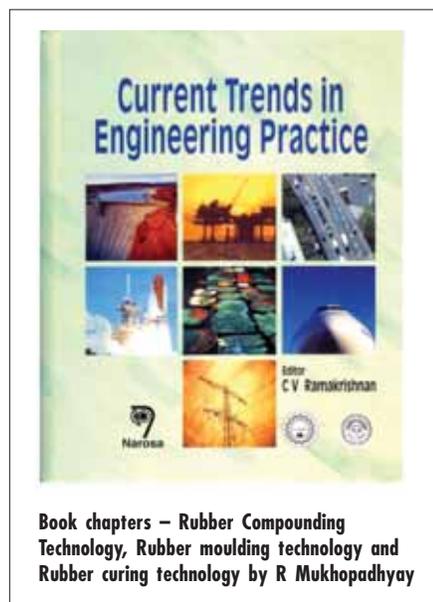
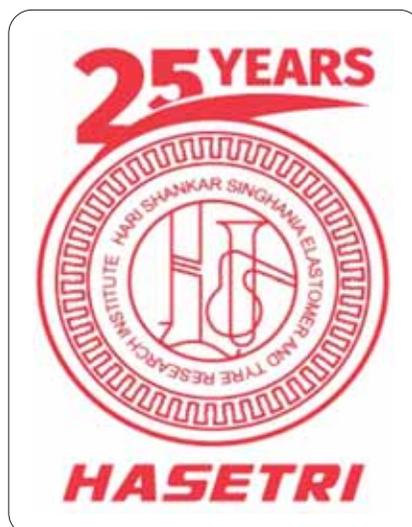
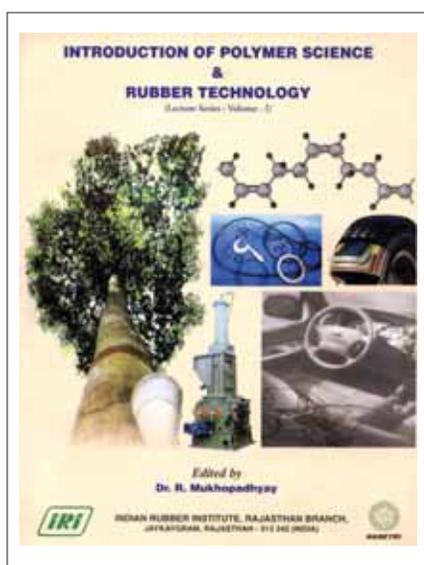
ALL-INDIA TOPPERS OF PGD-IRI EXAMINATION FROM HASETRI

S. No.	Name	Year
1.	Shambhu Lal Agarwal	2001
2.	Abhay Rai	2002
3.	Anirudh Paliwal	2008
4.	Bhawani Shankar Parmar	2009
5.	Anusree Das	2014
6.	Abhilash Guha	2018

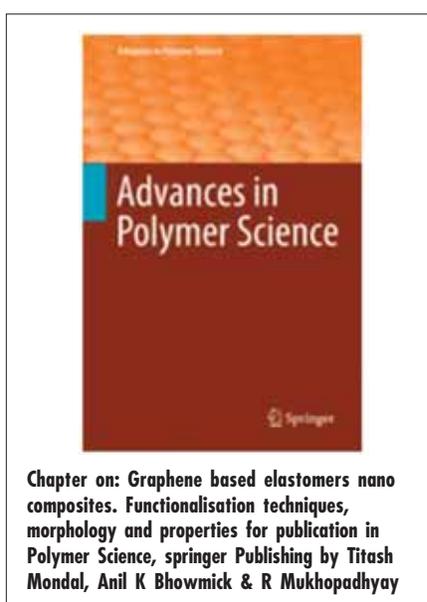




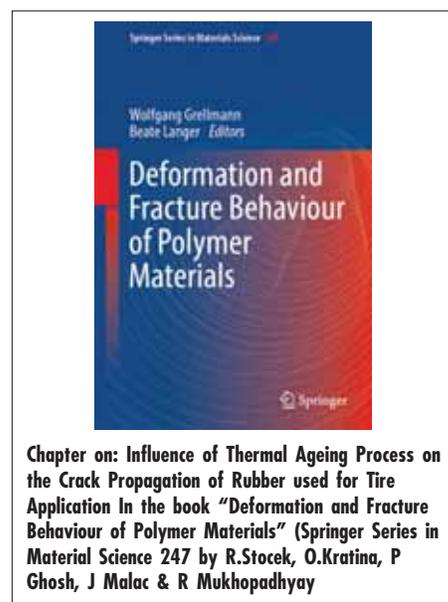
Book chapter – Automotive Applications of Rubber-Clay Nano-composites by Samar Bandyopadhyay, S Chakraborty, R Mukhopadhyay



Book chapters – Rubber Compounding Technology, Rubber moulding technology and Rubber curing technology by R Mukhopadhyay

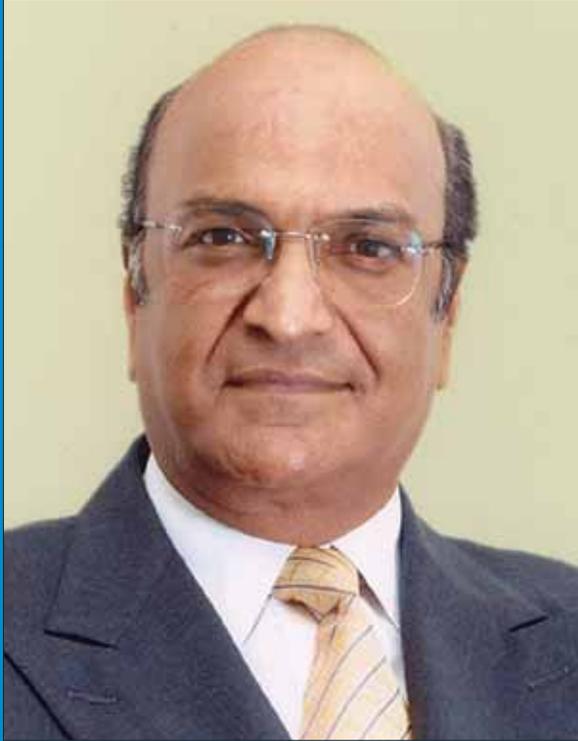


Chapter on: Graphene based elastomers nano composites. Functionalisation techniques, morphology and properties for publication in Polymer Science, springer Publishing by Titash Mondal, Anil K Bhowmick & R Mukhopadhyay



Chapter on: Influence of Thermal Ageing Process on the Crack Propagation of Rubber used for Tire Application In the book "Deformation and Fracture Behaviour of Polymer Materials" (Springer Series in Material Science 247 by R.Stocek, O.Kratina, P Ghosh, J Malac & R Mukhopadhyay

Top Management Team



Dr. Raghupati Singhania
Chairman & Managing Director



Arun K Bajoria
Director & President -
International Operations



Anshuman Singhania
Whole-time Director



Rajiv Prasad
President - India Operations



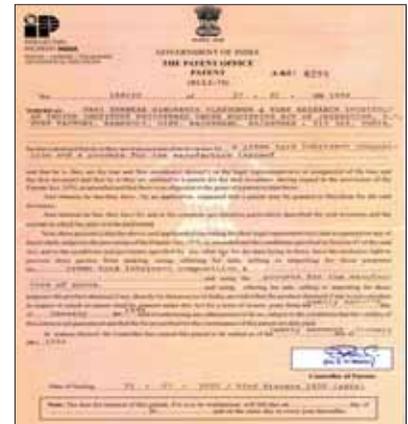
VK Misra
Technical Director

HASETRI PATENTS

- Four patents have been awarded to HASETRI.
- Development of Aqua-based Inner Lube for Tire Application
 - Development of Apparatus for Adhesion testing under dynamic condition
 - Yeast Treated Corn Powder as a filler in tire compound to reduce rolling resistance properties
 - A Rubber Composition based on eco-friendly multifunctional additive

New areas where Patents have been filed are:

- Latex Carbon Black Master Batch for Rubber Industry
- Naturally Occurring 'Thor' Latex derivatives as Processing Aid ('Thor' is a member of Cactus family)
- Use of eco-friendly filler in rubber compounds



HASETRI INTERACTION





Dr. R Mukhopadhyay
Director (R&D)



AK Kinra
Finance Director



AK Makkar
Manufacturing Director



Praveen Chaudhury
Executive Director – JK TORNEL



Sanjiv Saxena
VP-Corporate Accounts



HK Chopra
Advisor – International
Sourcing & Sales



Vikram Malhotra
Marketing Director



KH Prasad
VP – CAVENDISH

HIGHEST CIVILIAN AWARD BY MEXICAN GOVT.TO DR. RP SINGHANIA

Dr. RP Singhania has over the years systematically built a cohesive, experienced and committed team to carry forward his vision for JK Tyre's future and its eminent place in R&D.

JK Tyre has a deservedly prominent place in the history of the Indian tire and rubber industry. It pioneered the introduction of truck radials in the mid '70s. It was therefore but natural, and inevitable, that it would also pioneer R&D for the industry. Dr. Raghupati Singhania has backed his vision consistently by supporting Dr. R Mukhopadhyay, CEO of HASETRI to make HASETRI in to the fine institution that it has become. The inauguration of the Raghupati Singhania Centre of Excellence (RPSCOE) on August 28 in Mysore is the culmination of these great efforts. The RPSCOE will be of great help to the fast-growing Indian tire and rubber industry and, like HASETRI, it will become an institution that India can be proud of.

As we go to press, Dr. Raghupati Singhania has been honoured with the **"Mexican Order of the Aztec Eagle"** (the highest Civilian Honour award to a foreign national) by the President of Mexico for his business leadership and the work done by him to strengthen trade relations between Mexico and India.



Mexico's Ambassador of India Melba Pria presenting the award to Dr. Singhania on September 14

Leadership changes at Cooper Tires

● Cooper Tire & Rubber Co. has made a number of senior appointments as part of its strategy for long-term growth. Luis Ceneviz, senior vice president & managing director-Europe and Latin America has been promoted to the position of Senior Vice President and President, International. He will oversee operations in Europe, Latin America and Asia effective Oct 1.



Luis Ceneviz, Senior Vice President & President International, Cooper Tire & Rubber Co.

Alan Yang has been named Vice President & General Manager-Asia. His appointment coincides with the planned retirement of Allen Tsaur, who has been with Cooper for 11 years, most recently as senior vice president & general manager-Asia. Tsaur's retirement will be effective from Oct 1. He is credited with leading the growth of Cooper's Asia business with an extensive original equipment (OE) business.

Ceneviz has nearly 40 years of tire industry experience, including global leadership roles at Cooper over the past three years, as well as 28 years at Goodyear Tire & Rubber Co and Apollo Tires.

He holds production-mechanical engineer and safety engineer degrees from the Universidade Metodista de Piracicaba in Brazil, as well as MBA degrees in international business from Ecole Nationale de Ponts Et Chaussées Paris in Buenos Aires, and strategic management from the Universidad de Belgrano in Buenos

On a roll, Michelin India to double capacity

● Global tire brand Michelin continues to expand its operations in India both in terms of capacity and capabilities.

The Chennai factory, its largest and most advanced globally, which has come up at an investment of over Rs. 3,500 crore is on the verge of expanding production capacity to 30,000 tonnes a year.

"We are on track to doubling the capacity in our plant within this year. This capacity increase is due to increased demand from the replacement market and widening of the tire portfolio manufactured from Chennai plant," said Mohan Kumar, Executive Vice-President, Michelin India. He, however, did not provide financial details of the expansion.

Michelin has been witnessing demand for its truck and bus radial tires in the replacement market. "We expect this cycle of growth to sustain on the back of a good monsoon, infrastructure push by the Government and increasing rural demand. Our tires are showing good performance from a cost per km basis as well as safety and reliability leading to our growth year-on-year," he added.

R&D operations

The company has also strengthened its presence in India with an R&D centre in Gurgaon and a materials testing laboratory in Manesar in recent years.

These facilities have been established to adapt cutting-edge global Michelin technologies to develop products that are designed specifically for Indian conditions.

Its latest X Guard range of truck radial tires and X Multi tubeless radial range are the result of its local R&D operations.

Riding on two-wheeler

Apart from truck and bus radial tires, two-wheeler tire segment is also a key growth enabler for Michelin in India. The company has recorded a CAGR of about 50% in the past five years in this segment.

"We are very encouraged to see more leisure and performance bikes being introduced in India by renowned global brands such as the most recently-launched BMW G 310 R, which comes equipped with Michelin Pilot Street radial tires," said Kumar.

Michelin has an agreement with TVS Srichakra to produce Michelin-designed bias motorcycle and scooter tires for the Indian market. Michelin radial tires for superbikes are imported.

The French tire maker's presence in the intercity bus segment is also strong through association with Volvo, Scania, Daimler, MAN along with rising demand from the replacement market.

"We also supply tires to multiple State Transport Corporations in addition to a large number of commercial bus fleets. Our presence in this segment will further strengthen with more and more fleets opting for radial tires to reduce their operating cost and maximise profits," he said.

Michelin tires are sold through more than 5,000 outlets in 150 locations across the country.



Mohan Kumar, Executive Vice President Michelin India

Aires. He also earned a doctorate in management from the Indian Institute of Technology in New Delhi.

Yang, who previously served as director (China) and VP & general manager of China operation, has significant tire industry experience. Most recently, he was the chief operating officer at China National Rubber Company (a unit of ChemChina) and led that company's tire business, including the integration of the Pirelli and Prometeon businesses. Prior to that, he was the

CEO of China National Chemical Environment Co. (a unit of ChemChina). Yang holds a bachelor's degree in engineering from Inner Mongolia University of Technology.

Maxxis Tyres rolls out first consignment from Sanand plant to Honda Motorcycle & Scooter India

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Maxxis Tyres India rolls out first consignment for Honda Motorcycle & Scooter India from its Sanand plant

companies globally, has rolled out its first two-wheeler tires consignment from the recently set up Sanand Gujarat facility to Honda Motorcycle & Scooter India (HMSI). The company has been supplying OEM tires fitment to HMSI through its Vietnam facility since 2016.

Chun Hsuan Liu, Plant Head, Maxxis India, said, "This is a landmark moment for us at Maxxis India as we mark the first 'Made in India' consignment delivery to our long-standing partners Honda Motorcycle & Scooter India. Maxxis has set high standards in providing benchmarked product quality and customer service, globally and India will be no exception. While this is our first locally-manufactured consignment to HMSI, Maxxis has been the preferred original equipment tire supplier to Honda Activa since 2015."

The Indian market is touted to play a vital role in achieving Maxxis's global vision to become one of the top five tire manufactures in the world by 2026. Production from the first phase of the India facility began in August, 2017 and the company aims to supply 1 million tires to its OEM partners by end of this year. Maxxis India is targeting to capture a market share of at least 15% of India's two-wheeler tire market by 2023. Apart from catering to the domestic tire market, the product portfolio from the Sanand facility will be exported to South Asia,

and will further expand to Africa and Middle East countries in the coming years. The company also has plans to set up five more plants in India that will also cater to the 4-wheeler tires market.

Gajah Tunggal and Inoue Rubber, IRC building motorcycle tire plant in Indonesia

● PT Gajah Tunggal Tbk. and Japan's Inoue Rubber Co. Ltd (IRC) have broken ground on a motorcycle tire joint venture plant in Tangerang. The 50/50 joint venture, Gajah Tunggal

IRC Manufacturing Indonesia, will produce IRC-brand high-performance motorcycle tires for the Indonesian OEM and replacement markets as well as exports and will go on stream by September 2019.

Gajah Tunggal said it was selling 5.8 acres of land at its Tangerang manufacturing complex to the joint venture for \$253 million. The new JV represents deepening of a relationship between the Indonesian and Japanese companies that dates back to 1971, when IRC helped Gajah Tunggal—then a bicycle tire and tube maker—expand into motorcycle tires.

The company has a capacity for 95,000 motorcycle tires production daily.

Sales of motorcycle tires represented about 25% of Gajah Tunggal's sales last year, or \$264 million.

Giti Tire Group is PT Gajah Tunggal's single-largest shareholder at 49.7% while Group Michelin has a 10% share.

Sumitomo starts Radial TBR production at S Africa plant

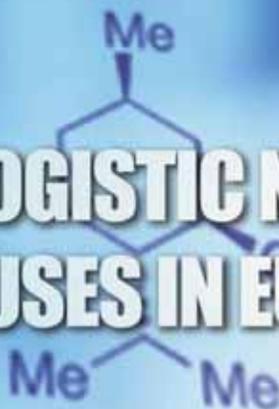
● Sumitomo Rubber Industries Ltd.'s South African subsidiary has inaugurated production of radial truck and bus tires at an expanded Ladysmith factory. Up to now, Sumitomo Rubber South Africa (Pty) Ltd. had to rely on imports to supply African markets with Dunlop and Sumitomo brand truck and bus tires.



PT Gajah Tunggal and Japan's IRC broke ground on a motorcycle tire joint venture plant in Tangerang, Indonesia.

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The start of local production ensures a stable supply for the company's markets throughout Africa.

SRI committed \$62 million in April 2016 to add capacity for radial truck and bus tires at the plant it acquired in late 2013 from India's Apollo Tyres Ltd. The new capacity is rated at 750 tires a day by 2020.

The truck/bus tire project was on top of \$100 million SRI had committed for the plant through 2017 to upgrade capacity for high-performance tires and expand overall capacity at plant, originally built by Dunlop Holdings in 1973 will boost capacity to 14,500 car and light truck tires daily.

Bridgestone investing Euro160m in Poznan, Poland tire plant

● Bridgestone Corp. is investing more than Euro 160 million up to 2020 to expand and upgrade its tire production facility in Poznan. The investment will involve modernising and optimising the existing manufacturing lines, said a translated version of the release supplied by Bridgestone.

"We are planning to increase the daily production volume of tire from current 31,000 to 40,000," commented Roman Staszewski, managing director of Bridgestone Poznan.

Bridgestone said the investment would encompass process automation, capacity increase, further improvement of process accuracy and ergonomic of work improvement. Additionally, the warehouse capacity at the site will be increased. One of the most advanced Bridgestone tire plants, the Poznan factory produces premium tires, high-performance tires, run-flat technology tires and "ologic" low-rolling-resistance tires.

The plant supplies tires to leading OEMs including Volkswagen, BMW, Audi, Maserati, Porsche and Mercedes, and is the only Bridgestone facility to manufacture soundproof B-Silent and B-Seal tires.

In October 2017, Bridgestone announced a Euro266-million, phased-investment programme across three of its EU tire manufacturing operations. As well as Poznan, Bridgestone said its Stargard plant in

Michelin confirms its guidance for 2018

● After reviewing the main external factors, namely the markets, raw materials costs and currency effects, the French tire giant, Groupe Michelin, is confirming its guidance for 2018.

The company says the slowdown in the Chinese market is being balanced out by growth in the European market for replacement Passenger car and Light truck tires. Meanwhile, the global OE Passenger car and Light truck tire market is shrinking, hit by weaker growth in China. Strong demand from the freight industry in the Americas and in Europe is driving growth in the truck tire market, while the specialty markets continue to grow rapidly.

Michelin expects the impact on operating income of changes in raw materials costs to remain neutral in the second half of 2018, as rising Brent oil prices will be countered by lower natural rubber prices.

The effects of the stronger dollar against the euro is offsetting the negative impact of currency depreciation in emerging markets- particularly the Turkish Lira and the Argentine peso, the currency of countries in which Michelin has raised prices.

Poland and Burgos facility in Spain would be "upgraded significantly" by early 2022.

The programme would include the installation of the "most advanced production technology available" in autonomous vehicle systems and high-capacity machinery. The target is to increase the plants' ability to produce sophisticated, high-quality tires, and raise output capacity by more than 20%.

Sri Lanka's Euro 72 million tire project back on track

● Rigid Tyre Corp (Pvt) Ltd has restarted building work on a greenfield tire production plant in Sri Lanka.

Rigid Tyre had announced plans to build the plant in Horana, 50km away from the Sri Lankan capital of Colombo in January 2017. It was intended to produce 3 million passenger car radial (PCR) tires a year. The project was put on hold due to various disputes, including around the allocation of land for the facility.

Construction activities at the site have been resumed and the scope of investment had risen to \$250 million. Estimated tonnage of the plant has been expanded to 200 kilotonnes per annum (12.5 million tires) and commercial production will start by the third quarter of 2019.

"The plant is commissioned to manufacture the whole gamut of tires that roll on the roads including passenger as well as commercial and off road tires (OTR tires)," breakdown of the project, now includes 8 million PCR tires, 2 million truck and bus radials (TBR) and 1 million two-

wheeler tires. In addition to that, the plant will manufacture 30ktpa of solid tires and 400ktpa of "TBB tires". "All tires are designed conforming to European and US standards comprising high-performance (HP) & ultra high-performance (UHP) tires," according to the spokesman.

Rigid Tyre's parent company, UAE's Onyx Group, acquired Marangoni's solid tire assets in May last year. The company already supplies solid tires under the Marangoni brand.

Continental appoints new Plant Manager for its tire plant in Modipuram

► As of September 1, Kuldeep Singh heads the bias and radial commercial vehicle as well as passenger light truck tire manufacturing facility

► Bringing in over 30 years of professional experience, he is now leading a team of over 1,000+ employees

● The technology company and premium tire manufacturer Continental announced the appointment of Kuldeep Singh as plant manager for its tire plant in Modipuram-Meerut, India. Singh succeeded Vivek Devgun who left Continental in June 2018.

"It's an honour to be part of Continental which is such a diverse corporation with state-of-the-art tire manufacturing technology," says Singh. Asked for his objectives in the new position he points out: "The Modipuram team has done an excellent job in integrating into the global manufacturing landscape of



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- The DIRI and PGD-IRI courses well accepted by members of All India Rubber Industries Association (AIRIA), Automotive Tyre Manufacturers Association (ATMA) and Rubber & Allied Industries in India.

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Kuldeep Singh, Plant Manager, Modipuram-Meerut tire plant of Continental

Continental. Top quality and customer satisfaction, sustainable operations and business growth, respecting the health and safety standards, lean manufacturing and top process cost, as well as a people-oriented culture, are my main goals.”

“The Continental tire plant in Modipuram has developed multifold since its acquisition in the year 2011. Therefore, with Kuldeep Singh on board, we have won an experienced professional with solid management experience in the industry and within Continental who together with our local team will ensure a steady development of the plant and top products for the Indian market,” highlights Patrick Haarmann, Head of Manufacturing Commercial Vehicle Truck Tires. He also acknowledged



Patrick Haarmann, Head of Manufacturing Commercial Vehicle Truck Tires, Continental

Vivek Devgun for his five years of services to the plant.

Singh has a professional experience of over 29 years. In the last five years, he was working with ContiTech, another division of Continental, as Managing Director in Sonipat, Haryana. He holds a Post Graduate degree in Chemistry, an MBA in Operations along with a senior management diploma from The Open University Business School (OUBS), UK. He is an experienced auditor for ISO 9001, ISO 14001, and OHSAS 18001 and worked as a member of the worldwide ContiTech team who derived a leadership compass for their

Rising costs worry Indian tire makers

● India’s tire manufacturers are concerned about rising NR prices in the wake of floods in the southern state of Kerala, which supplies over 80% of the country’s natural rubber.

Data from the Rubber Board of India show the weekly average price of rubber per 100 kg rising from Rs 12,692 on June 30, 2018 to Rs 13,442 on September 1. Estimates from India Ratings and Research reveal that domestic NR output meets over 50% of the requirement of tire companies in the country. The disruption in supply and higher prices caused by the floods in Kerala may cause tire makers in India to opt for greater NR imports to meet demand. NR imports attract a duty of 25% and will now be even more expensive due to the recent depreciation of the rupee, further adding to costs and hurting the margins of tire companies in India.

According to Indian Ratings and Research, the operating profit margins of India’s tire industry could shrink by 1.5% to 2% between the second and third quarters due to the higher cost of production, with NR accounting for 50% of the total raw material cost.

Non-tire rubber product manufacturers in the country are also worried about the NR price hike.

Power Transmission Group.

Continental India Pvt. Limited (CIPL) is a fully-owned subsidiary of Continental. CIPL was founded on July 15, 2011, by acquiring Modi Tyres Company Limited. The manufacturing facility at Modipuram in the district of Meerut in Uttar Pradesh produces bias tires for buses and trucks (TBX) and radial tires (TBR) for both commercial vehicles and passenger cars. The plant has around 1,000 employees.

\$994 Mn Serbia plant deal for Linglong Tyre

● The Chinese tire manufacturer, Linglong Tyre, recently signed an investment memorandum with the Serbian Minister of Economy, Goran Knežević, for a \$994 million plant in Serbian Zrenjanin Free Trade Zone. The facility will be Linglong’s second overseas manufacturing base and will have an expected annual capacity of 13.62m HP radial tires.

According to the Chinese company, after extensive research, it is planning to make high-performance radial tires in Serbia, in order to further increase its global competitiveness, effectively expand overseas markets and avoid trade barriers.

“Serbia is the first country in Central and Eastern Europe to establish a partnership with China, which possesses outstanding advantages in an investment environment”, Linglong said in a statement. With the development of the tire maker’s OE business with Volkswagen, the timeline for supplying tires to Volkswagen’s European plant will be shortened dramatically when the

Serbian facility is complete, which will also improve the company’s international industrial layout.

Malaysia’s MyCC investigates tire companies in Malaysia

● In September, the Malaysia Competition Commission (MyCC) initiated investigations into tire and beverage companies in the country for possible anti-competitive behaviour, following a directive from the Domestic Trade and Consumer Affairs Minister Datuk Saifuddin Nasution Ismail. The Minister had been notified of price increase notices issued by certain industry players in July and August 2018 prior to the implementation of Sales and Service Tax (SST) on Sept 1, 2018.

MyCC’s director of investigation and enforcement division, Iskandar Ismail, said Saifuddin instructed MyCC, together with the Domestic Trade and Consumer Affairs Ministry’s (MDTCA) enforcement division, to conduct an investigation to determine whether these actions raised concerns under the relevant laws.

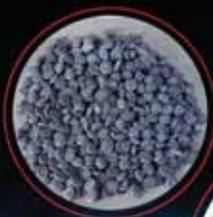
Several tire companies in Malaysia were jointly inspected by the MyCC and the MDTCA. The investigation by the MyCC concerns Section 4 of the country’s Competition Act 2010, while the investigation by the MDTCA was pursuant to the Price Control and Anti-Profitteering Act 2011. Notices have been issued to the relevant companies to produce certain data and documents within a deadline set by both authorities in order to assist further investigations.

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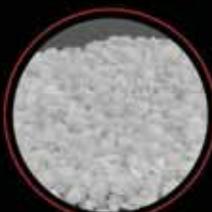
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Reinforcing Phenolic Resin



Micro Crystalline Wax



Tackifier Resin

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Michelin announces management change



Pascal Couasnon

● Groupe Michelin has announced the appointment of Pascal Couasnon as director of the mobility experience business line, effective 5 Sept.

Michelin stated that Couasnon will replace Alexandre Taisne while



Matthiev Bonardel

also maintaining the supervision over the motorsport business line, which he is currently directing. Couasnon joined the Michelin group in 1987 and has previously served as vice-president marketing of Michelin North America, technical spokesperson and a road test engineer at the Ladoux technology centre.

Pascal Couasnon, currently director of the Michelin group's connected tires department, has been appointed director of the motorsport business line under the supervision of Pascal Couasnon. Bonardel joined Michelin in 1995 and has served as director of research for passenger car and van tires at Michelin North America. He also led the Movin'On programme in 2016 before becoming the director of the connected tires department in 2017.

Halcyon Agri wants to be "The Amazon of Rubber"

● The world's largest supply chain manager for natural rubber (NR), Halcyon Agri, says it will launch a digital marketplace for the commodity, in order to combat market dysfunction that has halved rubber prices in the past 18 months. The Singapore-based company is 55% cent owned by Sinochem, the Chinese state-owned chemical and energy group.

Halcyon Agri's service, which will launch in 2019, will offer an alternative to futures markets, which now set global rubber prices that some traders say are distorted. Robert Meyer, chief executive of the company, said "I want to be the Amazon of rubber. "Exactly what Amazon did to retail is what we are going to do to the traditional supply chain model of rubber."

Since the beginning of the year, Singapore's RSS3 futures have fallen by almost 10% since the start of 2018. The recent sell-off in the oil market

and the excess supply of NR are amongst factors blamed for the fall. Meyer holds that the "perceived over-supply" of a grade of rubber produced in China, which is not used by tire makers across the world, but affects global NR prices because of its link to Chinese rubber futures, is pulling down the benchmark. China's NR stocks have leapt 40% year-on-year to a record 547,000 tonnes.

The online platform is intended to fix the dysfunctionality of future markets, as producers and consumers will be able to set rubber prices bilaterally, bypassing the public market. The company said the new multi-million dollar project will provide a market for sustainability-controlled rubber and also extend financing services to rubber farmers through an external partner.

Some traders feel that a platform such as the one planned by Halcyon Agri's would not be sufficient to resolve the global oversupply driving the sector's weakness. It is felt that market participants were likely to favour public futures markets, as opposed to private pricing services.

Mitsui Chemicals to expand elastomer production in Singapore

● Mitsui Chemicals Inc. is increasing its production capacity for Tafmer high-performance elastomers in Singapore by 25,000 tonnes at its Jurong Island (Singapore) facility.

The plant currently produces 200ktpa of the elastomer series. Tafmer is a resin modifier and soft molding material with lightweighting features. The elastomer series is used in a wide range of applications, including automotive materials, packaging materials, solar battery encapsulants, engineering plastic modifiers and sports shoe midsoles.

Automotive growth and lightweighting requirements have driven the increase for global demand for the material.



Trelleborg receives DNV-GL Certification for fireproofing tiles

● The Swedish engineering giant Trelleborg AB announced that its offshore operation has been awarded a DNV-GL certification for its Vikodeck™ fireproofing tiles which was manufactured using the group's next-generation Firestop™ material.

According to Trelleborg, the Vikodeck™ tiles are lighter and thinner than any current passive fire protection materials available, and can be tailored to withstand various chemical and mechanical conditions. It has been designed to offer surface protection against blast, jet and pool fire in harsh demanding environments, while also providing corrosion protection and anti-fatigue dampening support for the comfort and safety of employees. The flexibility of Vikodeck™ allows the tiles to withstand movement as well

as impacts that could possibly damage or crack a rigid system.

Christian Kolderup, Project Engineer for Trelleborg's offshore operation based in Norway, explained that by obtaining DNV-GL certification for the Vikodeck™ tiles, the group intends to identify new applications for the material in markets other than in the oil and gas industries.

In addition to the existing fire properties, Vikodeck™ is impact resistant and capable of withstanding heavy loads; dampens vibrations, provides significant sound attenuation, and has good resistance against ozone, UV-light and process liquids. The tiles are rubber-based and hence are very flexible, water repellent and reduce the effect of an impact, minimizing wear on any protected surface. They are available in four varieties: Vikodeck™ HF – protects according to certified hydrocarbon fireproofing

requirements; Vikodeck™ JF – protects and insulates assets in a possible jet fire scenario; Vikodeck™ S – protects structures from hang fires and Vikodeck™ L – for areas that need sound, impact, weather or tear protection.

Firestop™ is a passive fire protection material used to protect personnel and equipment by minimising fire escalation. This provides time to evacuate people, close down critical equipment and for responders to gain control of a fire. The certified rubber-based material protects structures from exceeding critical temperature limits. Its dampening, noise reducing flexible nature protects equipment from vibration, collision, explosion and even earthquakes. The newly developed next-generation fire-resistant material is thinner and lighter than any current passive fire protection materials available to the market.



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Zeon to build 500 tonne acrylic rubber production unit in Thailand

● Zeon Corp. is planning to build an acrylic rubber (ACM) production plant in Thailand as part of a move to expand its ACM business. It said the location of the plant is not yet determined, but confirmed that the unit will have the capacity to produce 5,000 tonnes per annum. Completion date is set for early spring 2020.

In addition to the production unit, Zeon will set up a new Rayong-based ACM subsidiary – likely to be named Zeon Chemicals Asia Co. Ltd – to handle sales and production. The subsidiary is set to start operation in October with an initial paid-in capital of THB1,250 million (•33 million).

ACM is a speciality synthetic rubber combining high heat and oil resistance. The material is broadly



utilised in under-hood automotive applications such as transmission seals, gaskets as well as inter-cooler hoses. Zeon expects demand for

acrylic rubber to “expand steadily” in Asia, led by production growth of internal combustion and turbo-charged engine-powered vehicles.

Adnoc commissions new \$ 2.5million carbon black facility

● Abu Dhabi, UAE – Adnoc Refining, a subsidiary of the Abu Dhabi National Oil Company (Adnoc), has commissioned a \$2.5-billion specialised carbon black and delayed coker (CBDC) plant in Ruwais, Abu Dhabi, as part of its Carbon Black and Coker Project. It will produce over 40 kilotonnes per annum of two different grades of carbon black per year, and 430 ktpa of high value anode grade

calcined coke.

The project incorporates a coker, known in the oil and gas industry as a ‘delayed coker’, for recovering specialised and valuable grades of carbon black and calcined coke from residual oil feed. “Not only will it create higher value from what would otherwise be used for low value fuel oil, but both products are essential to industrial processes within Adnoc subsidiaries and other UAE industries.

The carbon black grades at Takreer, reportedly will be N220 and N115, both of which are used in the rubber

Industry. The N220 is also used as the staple grade for plastics colouring. Adnoc expects its polyolefin joint venture with Borealis AG to make extensive use of the special carbon black project.

“World’s largest” Euro 150 million conveyor belt plant in China

● Shandong New Continent Tire (SNC), a fully-owned subsidiary of China’s passenger car tire and carbon black maker Shandong Yinbao Tyre Group, has signed a contract with Qingdao local authorities in August to build a new conveyor belt plant at the Xinhe Eco Chemical Park in Qingdao, Shandong.

The plant will have a capacity of 100 million sqm/year for high tenacity belt and will become “the world’s largest conveyor belt plant”, claim local authorities. The plant will sell to overseas markets such as Europe and North America and generate \$316 million annual sales when on stream.

SNC already has facilities at its base city of nearby Linyi that have been making passenger car tires under the labels of Comforser and Roadcruza since 2012. Parent company Yinbao also has another subsidiary Delun Rubber with an ongoing passenger car tire project in Chuzhou Anhui.

China’s Guilin Rubber to supply machinery to Turkish tire maker

● ChemChina-owned Guilin Rubber Machinery has announced an order contract with an unnamed Turkish-based tire company. It will provide “dozens of vulcanising machines for the construction of the second phase of their new tire production line.”

Guilin Rubber Machinery will provide equipment to the Turkish customer “mainly based on OTR and TBR vulcanising machines,” said a recent ChemChina statement

According to Guilin, the machines have already been developed based on market demand and user characteristics. The company has also carried out “customised debugging and optimisation” for the application scenarios of its Turkish customer.

This will be Guilin’s fifth collaboration with the customer, the first of which started in 2013. After the delivery of machinery, Guilin said it will be providing after-sales care and training to help a smooth launch of the production line.

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Elastomers professionals from across Silicone Elastomers and TPE industries to meet in Milan on November 27-28 at the 'home' of the elastomers industry

Over 250 key professionals from across the global elastomers industry will come together in Milan, Italy from November 27 – 28 to attend this year's renowned Silicone Elastomers and Thermoplastic Elastomers World Summits.

Over the years, there have been a number of new developments in elastomers, driven by increasing performance requirements across various sectors; from automotive and healthcare to consumer and industrial applications. With so many important developments, it's vital for all areas of the supply chain to stay up-to-date with what's happening in the industry and get ahead of the competition. This is why so many industry experts come together to attend this yearly gathering, known widely as the 'home' of the elastomers industry.

The organisers, Smithers Rapra have put together a comprehensive programme for each summit this year, covering the full scope of the global elastomers industry and providing valuable information on these developments and initiatives, as well as delivering an insightful forecast into the future. Sessions include: **material innovation, regulatory updates, use of TPE in medical devices, new trends and technologies, updates in LSR** and much more.

Plus, new for this year, the event will bring both audiences together for a joint session dedicated to the automotive industry. As an industry experiencing a high-level of change and development, it is the perfect time to bring this discussion together and accelerate innovation. The session will assess the latest material trends, requirements for suppliers, the future for autonomous vehicles and the electric car revolution.

Described as an "Excellent opportunity for networking and improvement of market and technology knowledge" by OCSiA, both summits offer delegates the opportunity to gain the knowledge to boost their business, increase profit, meet new industry contacts, build business relationships and develop an increased understanding of customers' needs. Not only that, by purchasing one ticket to their preferred event, delegates will gain full and unfiltered access to the other event as desired, providing double the content and double the ROI.

Presentations include:

- *Modern high-tech elastomers: requirements for suppliers*, **Dr Marc Kreye, Materials Technology Polymers, Group Powertrain and Chassis, Deputy Lead, Volkswagen AG**
- *Practical three-dimensional (3D) printing of LSR*, **Rick Ziebell, VP of Technology, R.D. Abbott Company**
- *The impact of changing regulations in silicone production and use*, **Dr Pierre Germain, Secretary General, CES – Silicones Europe**
- *Autoshock: the car industry meets the electric revolution*, **Guido Fontanelli, Journalist, Panorama**
- *Enhanced electromechanical properties of thermoplastic elastomer actuators*, **Dr Chaoying Wan, Associate Professor, University of Warwick**
- *Emerging trends and innovation needs in TPE markets*,

Suresh Swaminathan, Executive Vice President, Teknor Apex

Just a few of the organisations attending include: Teknor Apex, BASF, Saint Gobain, KRAIBURG, Dow Silicones, Arburg, Engel, Aptiv, University of Warwick, UNIpace, Sigma Engineering, Wittmann Battenfeld, R.D Abbott Company, Wacker, Fraunhofer Institute for Silicate Research, Arkema, Dynasol, Interface Performance Materials, HEXPOL, Nexant, PolyOne, University of Applied Sciences Schmalkalden, Silent Sensors, Ashahi Kasei Corporation, Böllhoff Elasmoplastics GmbH, JMMace, Panorama, Evonik, Momentive, Kassel University,

India Rubber Meet in October on October 30-31

India Rubber Meet 2018 will be held at Hotel Grand Hyatt Kochi Bolgatty on October 30 and 31, 2018. The Meet is jointly organised by the Rubber Board and the stakeholder associations in rubber and allied sectors.

The Meet scheduled to be conducted on August 30 and 31, in Kochi, had to be postponed owing to the grim situation caused by heavy rain and floods in Kerala.

Lanxess at ITEC 2018

The German specialty chemicals giant, Lanxess AG, had a strong presence at the International Tire Exhibition & Conference, held from September 11 to 13 at the John S. Knight Centre in Akron, Ohio. ITEC is an event dedicated to exploring the latest technology and innovations behind tire design and manufacturing.



Hermann-Josef Weidenhaupt



Joel Neilsen

Two representatives from the Cologne, Germany-headquartered company explored rubber additives used to improve tire traction and reversion resistance during the presentations.

Hermann-Josef Weidenhaupt, senior application technology specialist for Lanxess' Rhein Chemie business unit, presented "Vulkanol TOF To Improve Wet and Ice Traction In Tires", which detailed how the use of Vulkanol TOF rubber additive resulted in improvements in the "magic triangle" of tire technology in silica tread formulation.

Joel Neilsen, technical applications specialist for Rhein Chemie, presented "Two Compounding Additives to Improve Tire Reversion Resistance", which involved the use of Vulcuren and Perkalink 900 to reduce reversion in truck and bus radial tires and off-the-road tires to prolong service life.

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OCTOBER 2018

▶ GLOBAL SMART MANUFACTURING FORUM FOR TIRES 4.0

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Amsterdam, The Netherlands
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Amistat Group
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Email : milan@amistatgroup.com
Website :
www.smartmanufacturingtires.com

NOVEMBER 2018

▶ 2018 Rubber Recycling Symposium

07 – 08 November 2018:
Sheraton on the Falls Hotel,
Niagara Falls, Ontario, Canada
Contact: Michal Majernik - Tire
and Rubber Association of
Canada
Tel: +11 519 249 0366
Email: info@tracanada.ca
Web: www.tracanada.ca

▶ Africa Rubber Expo & Summit 2018

20 – 21 November 2018:
Sandton Convention Center,
Johannesburg, South Africa
Contact: Peram Prasada Rao -
TechnoBiz
Tel: +66 2 933 0077
Fax: +66 2 955 9971
Email: peram@technobiz-
asia.com
Web: www.rubbertechnology-
expo.com

▶ TPE & Silicone Elastomers 2018

27–28 November: Milan - Italy
Contact: Joana Gibson
Tel: +44 (0) 1372 802000
Email: jgibson@smithers.com

DECEMBER 2018

▶ Tire Production Forum (Mixing Forum collocated with Curing Forum)

13-14 December 2018
Leonardo Hotel, Berlin,
Germany

Contact: Luka Jovanovic
Marketing Manager-TBM Evolution
Group
Tel: + 420 212 24 24 00
Email: luka@tbmgroup.eu
Web: www.tire-forum.com

JANUARY 2019

▶ 10th India Rubber Expo 2019

17-19 January: NESCO Complex,
Goregaon(E), Mumbai.
Contact: Raj Shah, Manager
Operation
Email: sales@indiarubberexpo.in
Tel : + 022-28392095 /2107
Web : www.indiarubberexpo.in

MARCH 2019

▶ Tire Technology Expo 2019

05-07 March
Deutsche Messe, Hannover, Germany
Contact: Colin Scott, UKIP Media &
Events,
Tel : +44-1306-743744
Email: colin.scott@ukipme.com
Fax: +44-1306877411
Web: www.tiretechnology-expo.com

▶ Tyrexpo Asia 2019

19 - 21 March at Singapore Expo
Convention and Exhibition Centre, Hall
1 & 2, Singapore
Contact: Darren Tay - Project Manager
Tel: +65 64032100
Email: darren.tay@singex.com
Web: www.tyrexposeries.com

SEPTEMBER 2019

RubberTech China 2019

18-20 September, 2019
Shanghai new International Expo
Centre, China
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Sun
Tel: +86-10-58650277
Fax: +86-10-58650288
Email: expo@chrubber.com
Web: http://en.rubbertech-expo.com

▶ Tyrexpo India 2019

26 - 28 September, Chennai Trade
Centre,
Chennai, India
Contact: Rahul Bhatia
Tel.: +91 8527765556

Email: rahul.bhatia@singex.com
Web: www.tyrexpoindia.com

OCTOBER 2019

▶ Arab Rubber Expo 2019

16-17 October 2019
Sharjah Expo Centre
UAE
Contact: Peram Prasada Rao -
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Web: www.rubbertechnology-
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▶ K - 2019

16-23 October: Duesseldorf,
Germany
Contact: Fr. Eva Rugenstein/
Desislava Angelova/Sabrina
Giewald
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Fax: +49-211-4560 8548
Email: AngelovaD@messe-
duesseldorf.de
GiewaldS@messe-duesseldorf.de

MARCH 2020

▶ Global Rubber, Latex & Tyre Expo 2020

11-13 March 2020, Bangkok
International Trade &
Exhibition Centre, Bangkok, Thailand
Contact: Peram Prasada Rao -
TechnoBiz
Tel: +66 2 933 0077
Fax: +66 2 955 9971
Email: peram@technobiz-asia.com
Web: www.rubbertechnology-
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APRIL 2020

Tyrexpo Africa 2020

April 2020 at Gallagher
Convention Centre, Hall 2
Johannesburg, South Africa
Contact: Zann Lee (Ms)
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SingEx Exhibitions
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After Kerala floods, tire makers face a shortage of natural rubber

● The unprecedented rains in Kerala and the consequent flooding have claimed yet another victim: The tire industry. With the state accounting for 80% of the country's natural rubber (NR) production, tire makers are in a tight spot.

Vehicle sales are in full throttle, driving up their raw material requirement. But tire companies are having to raise rubber imports to make up for the shortage at a time when the rupee has fallen steeply. Besides, the widening demand-supply gap could push up domestic NR prices in the coming months, affecting their operating margins.

Production loss

According to the Rubber Board, a survey on the loss due to floods is still on. In any case, the production of NR has been on the slide this fiscal. Production in April-July 2018 was 1.72 lakh tonnes, 14.4% lower than in the same period of 2017.

"Our estimate is that August production would not be more than 20,000 tonnes as against 58,000 tonnes in August 2017. In September 2017, production was 61,000 tonnes; this year, it is not likely to be more than 35,000 tonnes," said Rajiv Budhraj, Director-General, Automotive Tyre Manufacturers Association.

The NR production for 2018-19, estimated at 7.3 lakh tonnes at the beginning of the year, was revised downwards to 7 lakh tonnes in July by the Rubber Board. Now, this figure may move down further.

Big worry

The shortage of its key raw material domestically is a big worry for the tire industry for it comes at a time when auto sales are on an upswing. So far in this fiscal, automobile sales have shown a healthy double-digit volume growth. Sales of commercial vehicles, whose tires are more dependent on NR, have grown at

a much higher rate than the industry.

"Even if production this year reaches 6-6.5 lakh tonne levels, it will not meet more than 50-60% of the estimated consumption," says Budhraj.

"Production in Kerala has not been meeting industry requirements in recent years due to issues of lower productivity, perception of prices as being non-remunerative, etc. So there is a shortfall of about 35-40%. This gap will only widen because of the floods," says Satish Sharma, President, Asia-Pacific, Middle East and Africa, Apollo Tyres.

Although domestic prices are currently at the same levels as last year, the shortage after the floods could push them up in the quarters to come. Already, tire makers have been feeling the heat of the rise in crude oil prices on inputs such as synthetic rubber (SR) and carbon black.

Also, the sharp fall in the rupee is increasing the landed cost of imports, though global NR prices are ruling 5-20% below India prices.

Secondly, the unexpected shortage is also driving companies to buy from the international spot market where prices tend to be higher than what they may be under planned long-term contracts, says Budhraj. The fact that imports are allowed only via Chennai and the Jawaharlal Nehru Port Trust (Navi Mumbai) does not help either as it increases the freight cost for companies with plants far away.

Rains hit rubber output

● Production of rubber is certain to see a fall this year, with plantations in Kerala, especially in the central Travancore belt, experiencing an abnormal leaf-fall disease in the wake of the unprecedented rain of the last few months.

The emerging situation has impacted production and the Rubber Board is collecting data, which is likely to be published in a week. There are also reports of shoot-rot disease in immature plantations, which may result in the delayed maturity of plantations. There is a shortage in the market and the trade is also getting affected, sources in the Rubber Board said.

The output concern has already resulted in a firming trend in rubber prices over the past few days. Spot rubber prices, which were hovering around Rs. 131 per kg in early August have now moved up to Rs. 134 per kg. Similarly, rubber futures on the National Multi Commodity Exchange settled higher on supply concerns. The September contract ended at Rs. 13,425 per 100 kg on the NMCE on 27th August.

Shajimon Jose of Chirakkadavu RPS in Kanjirappilli said production has come down in the last couple of weeks, at 1,000-1,200 tonnes against the Board's targeted weekly production of 1,500 tonnes.

The rains, which began in April, also resulted in the loss of almost 40 tapping days per hectare. Lower price realisation is also staring at the sector, impacting cultivation in large areas.

Besides, GST has forced the sector



Weekly production down by 500 tonnes after Kerala deluge



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to bleed. For NR, rates are very nominal, at 5%. But other inputs, such as plastic, gum, spill, tapping cup, cup holder etc invites a GST rate of 18%. The rain guarding cost per tree has risen to Rs. 6.20, he said.

PC Cyriac, President of the Indian Farmers Movement blamed the low prices on imports. As long as these shipments are not reduced, he said, the situation will worsen. He urged the captains of the manufacturing industry to offer viable prices for domestic rubber.

Tire lobby fears output fall

Rajiv Budharaja, Director General, Automotive Tyre Manufacturers Association, said that production is expected to be gravely affected due to incessant rains and floods. Already, the gap between production and demand is widening. In Q1, more than 40% of the demand had to be met from imports due to a domestic deficit.

There was limited tapping in July because of rains and in August, there has been virtually no production. Arrivals in the market are practically nil. On the other hand, there is a sudden upsurge in demand from OEMs for commercial vehicles and tractor tires. Both these categories are very intensive in using natural rubber.

"The industry expects a gap of over half a million tonnes in the ongoing fiscal. This definitely needs the



attention of the government," he said.

There is a need to assess and re-look at the medium-term situation because of damage to plantations. Each rubber tree has a life span of 25-30 years. An assessment also needs to be carried out to see how NR's production is affected, he added.

Meanwhile, India Ratings & Research said the disruption in NR supply from Kerala would force the tire companies to resort to higher imports to meet the rising tire demand. Domestic production meets over 50% of the requirements of tire companies in India and Kerala accounts for close to 90% of the total domestic rubber production. NR imports attract a duty of 25%. Additionally, with a depreciating rupee, imports are likely to be more

expensive and will hurt margins of tire companies amid a rise in rubber procurement costs, Indra said.

Kerala's massive floods hit Indian NR production

- The century's heaviest rainfall in Kerala state, which has already resulted in big floods, is expected to result in a decrease in natural rubber output by at least 40%. The significantly-reduced tapping due to heavy rains between June and August, could result in a further drop in production. The severe floods have already claimed more than 1,000 lives and made over 200,000 people homeless.

Sabu P Idicula takes over as Rubber Production Commissioner



Sabu P Idicula

- Sabu P. Idicula has taken charge as the Rubber Production Commissioner in the Rubber Board. A scientist by profession, and experienced in crop protection and

Kerala floods hit NR output, prices

- The severe flooding in the southern Indian state of Kerala, where 80% of the country's rubber is grown, naturally had an impact on the production of the commodity. By early September, prices had soared by 20%.

It was estimated that the flooding would affect NR production by about 15%. According to All India Rubber Industries Association (AIRIA) President, Kamal Kishore Chowdhury, India's NR output is at around 600,000 tonnes, while consumption is at around 1 million tonnes.

Rising NR prices will impact profitability, cautioned Vikram Makar, senior member of the association and chairman of India Rubber Expo 2019. It is feared that Indian producers of rubber products from tubes and tires for bicycles and rickshaws, conveyor belts and footwear could face the threat of losing market to cheaper imported finished products. The spike in input costs is of particular concern to the country's Rs 45,000 crore non-tire rubber products manufacturing industry.

AIRIA has urged the Indian government to rationalise import duty on raw materials in order to make domestic manufacturing competitive. Imported raw materials including NR attract 20-25% duty, while up to 10% duty is imposed on imported finished products.

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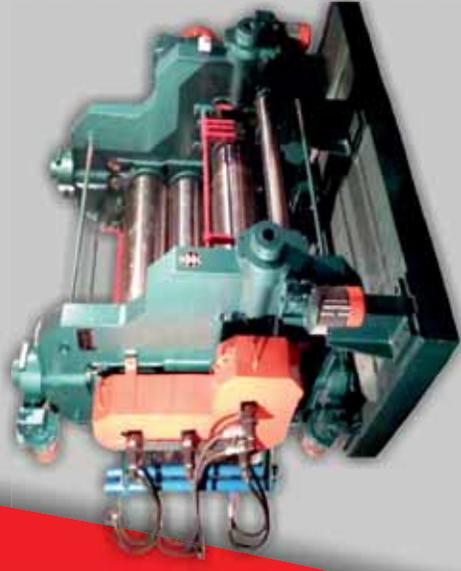
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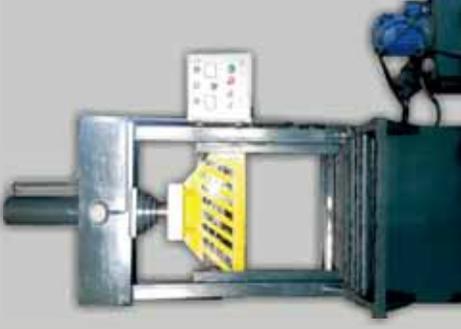
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various aspects of plantation management, he had been working as Joint Director (Crop Protection) in the Rubber Research Institute of India (RRII). He had a crucial role in developing economic and efficient disease management strategies in rubber and in the studies on impact of various diseases on growth and yield in rubber. He has been the editor of various journals, books and other publications of RRII and Rubber Board. He is also the Chairman of Corynespora Task Force formed by the Board for control of Corynespora leaf disease of rubber.

A known researcher and administrator, he started his career as an agricultural officer, in Kerala State Agriculture Department. As Rubber Production Commissioner, he will be heading the Department of Rubber Production, which is responsible for planning, formulation and implementation of schemes for improvement and expansion of rubber cultivation and production in the country.

He belongs to Palathinal family of Kallissery, Chengannur. His wife is Smt. Suja George (Joint Director of Agriculture, Pathanamthitta).

Indian govt orders one-time relaxation for regularisation of advance authorisations of exports

●The Commerce Ministry of India recently granted a one-time relaxation of the regularisation and issue of Export Obligation Discharge Certificate (EODC) for the exports of Natural Rubber and Silk, made prior to imports, where Advance Authorisation has been issued for import.

In a notification, the Director General of Foreign Trade (DGFT) said the one-time relaxation for the regularisation of Advance Authorisations/DFIAs issued, where some inputs appear in Appendix-30A and Appendix-4J. The DGFT pointed out that various representations have been received from exporters of Silk and NR products. Even though pre-import conditions have not been

specifically mentioned in Appendix-30A, except for drugs, regional authorities (RAs) are denying the issuance of EODC on the assumption that items listed in Appendix-30A are subjected to pre-import condition and exports made prior to imports cannot be accounted.

The exporters have also raised the issue related to retrospective amendment made through Public Notice-35 dated 11.09.2015 wherein pre-import condition on NR was imposed w.e.f 01.04.2015.

Exporters have sought relief in all such cases where exports have been completed within the stipulated EO period as per authorisation, and imports were made subsequently. They have requested that they should not be penalised for the ambiguity in the Policy and Procedures and the subsequent implementation.

Taking into consideration the genuine hardship being faced by exporters of the commodities, the DGFT then decided to relax the conditions of Appendix-30A and Appendix-4J on the Authorisations already issued for the import of NR and Silk whereas exports and imports have already been made within the stipulated period as per authorisation.

This facility is allowed only for the

regularisation and the issue of EODC and the relaxation is to be applicable only on the authorisations where the “pre-import condition” has not been specifically endorsed by RAs in the condition sheet attached to the Advance Authorisations/DFIAs and import and exports are completed within the stipulated validity of the authorisation. However, no further imports or exports shall be allowed.

India starts countervailing duty probe on Chinese FKM

●India has launched a countervailing duty probe into the imports of “certain” subsidised fluoroelastomers” (FKM) from the People’s Republic of China.

The 29th August investigations were due to a complaint by Indian FKM manufacturer Gujarat Fluorochemicals Ltd.

In its application, Gujarat Fluorochemicals alleged that producers/exporters of the product in China benefited from “actionable subsidies provided by various levels in the government of China.” The subsidies, the company claimed, come from governments of the different provinces and municipalities in which the producers/exporters are located, and other public bodies.

36.3% rise in Malaysia’s NR output in July

●In July, Malaysia’s Statistics department said that the country’s NR production rose 36.3% to 56,397 tonnes, from 41,364 tonnes in June, and was up 2.1% on a year-by-year basis.

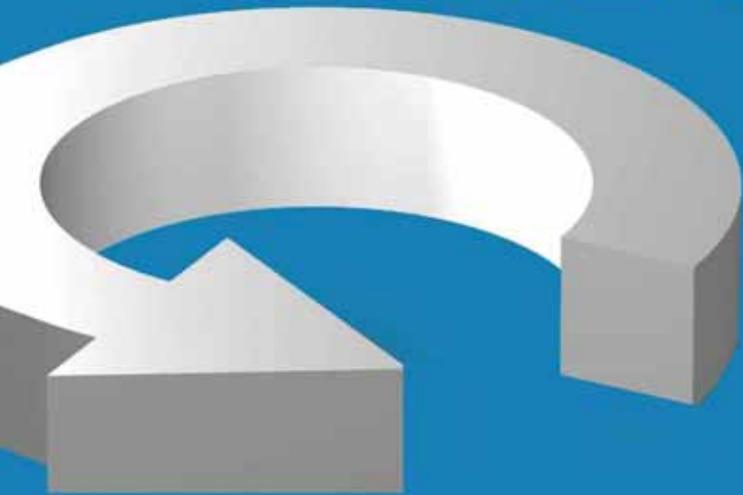
The average price of latex concentrate was recorded at 415.39 sen/kg whereas the average price of Standard Malaysian Rubber 20 (S.M.R. 20) was 527.80 sen/kg, both falling by 5.6% and 3.2% respectively compared to the average price in June.

During the month of July, Malaysia’s NR exports were up 7.8% to 56,490 tonnes, with China the main exports destination, accounting for 52.4% of total exports, followed by Germany (11.6%), Iran (7.6%), Finland (4.3%) and the US (2.5%).

The country’s domestic NR consumption in July rose 8.3% to 44,192 tonnes, from 40,820 tonnes in June—with the rubber glove industry being the main consumer, accounting for 33,518 tonnes or 75.8 % of total domestic NR consumption.

Malaysia’s NR stocks shrank by 5.4% during July to 185,491 tonnes, compared to 196,084 tonnes at the end of June.

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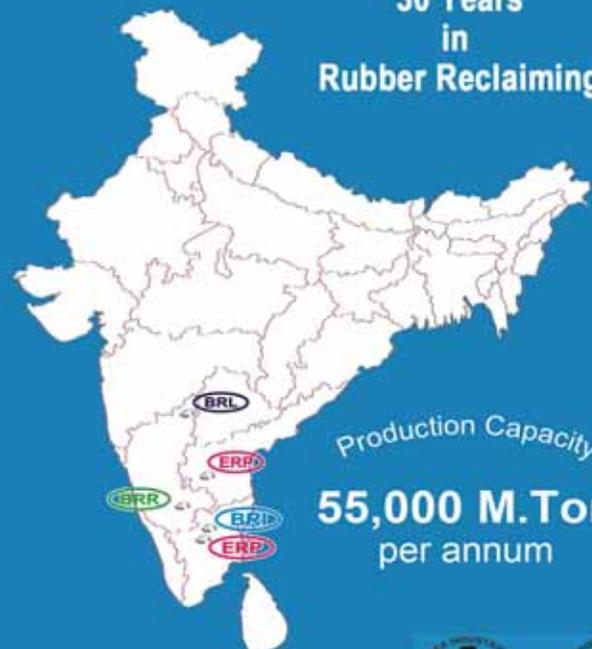
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Myanmar joins ANRPC

Myanmar has joined as a Member of the Association of Natural Rubber Producing Countries (ANRPC), the inter-governmental organisation established in 1970 for multilateral co-operation among the countries producing NR. The Ministry of Agriculture, Livestock and Irrigation (MOALI) will represent the Government of Myanmar in ANRPC. On behalf of the government, Dr. Yc Tint Tun, Director-General, Department of Agriculture, Ministry of Agriculture, Livestock and Irrigation, signed the Instrument of Accession. Myanmar produced 242,000 tonnes of NR during the year ended June 2018 from 311,000

hectares of yielding rubber trees in the country. As the yielding area is largely occupied by clones having low-yield potential, the average annual yield remains low at 777 kg per hectare. The country also has 346,000 hectares of young rubber plants, which have not attained the yielding maturity. The annual production is expected to cross 500,000 tonnes when these trees are opened for tapping in the next six years. Of the four auto-tire manufacturing companies operated in Myanmar, three are state-owned. The country annually exports about 150,000 tonnes of NR including cross-border trade. With the accession of Myanmar,

ANRPC now has 13 member governments representing 90.5% of the world output of NR (Figures attached).

The Government of Thailand is hosting the 4P1 session of the ANRPC Assembly, 43th Executive Committee, 11th Annual Rubber Conference and annual meetings of three other forums, at Chiang Rai in North Thailand, from October 8 to 13. Apart from the 13 Member Governments, a few non-member countries will attend the events as Observers. The Annual Rubber Conference, with the theme "Adapting for the Emerging Megatrends", will be held on October 8.

Karnataka and Rajasthan branches top the DIRI / PGDIRI 2018 Examination

Karnataka and Rajasthan branches of the Indian Rubber Institute (IRI) once again topped the IRI Examination. Dr. Narayan Chandra Das, Controller of IRI Examination from Rubber Technology Centre, IIT Kharagpur declared the result on 30 August, 2018 in record time. The summary of the result is as follows;

PGDIRI Examination 2018

Abhilash Guha: All India First – 86.25% Marks (345/400) from Karnataka Branch

Rohit Kumar Awasthi: All India Second – 85.25% Marks (341/400) from Rajasthan Branch

M. Poornima: All India Third – 85.00% Marks from IRI Chennai Branch



Abhilash Guha

DIRI Examination 2018

Akash Rathore: All India First – 81.50% Marks (326/400) from Rajasthan Branch

Raghuveer Singh Gussain: All India Second – 81.25% Marks (325/400) from Rajasthan Branch

Anu Sasi: All India Third – 81.00% Marks (324/400) from IRI Kerala Branch



Akash Rathore

Branch	Candidates Appeared	Candidates Passed	Absent
Kolkata	5	5	Nil
Karnataka	29	28	1
Delhi	5	5	Nil
Gujarat	10	9	1
Rajasthan	21	21	Nil
Chennai	31	22	9
Mumbai	2	1	1
Kerala	2	2	Nil
Total	105	93	12

Branch	Candidates Appeared	Candidates Passed	Absent
Karnataka	7	7	Nil
Delhi	9	9	Nil
Gujarat	4	4	Nil
Rajasthan	11	11	Nil
Chennai	12	12	Nil
Mumbai	6	6	Nil
Kerala	11	11	Nil
Total	60	60	Nil

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India's Report: Production, Domestic Sales & Exports data for the month of August 2018 and Growth

Category	Production						Domestic Sales						Exports					
	August			August			August			August			August					
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change			
I Passenger Vehicles (PVs)																		
Passenger Cars	241,089	255,697	6.06	198,892	196,847	-1.03	45,309	46,619	2.89									
Utility Vehicles(UVs)	92,840	93,113	0.29	78,664	73,073	-7.11	11,373	13,778	21.15									
Vans	16,634	18,308	10.06	16,860	17,266	2.41	84	414	392.86									
Total Passenger Vehicles (PVs)	350,563	367,118	4.72	294,416	287,186	-2.46	56,766	60,811	7.13									
II Commercial Vehicles (CVs)																		
M&HCVs																		
Passenger Carriers	3,193	3,111	-2.57	3,099	3,018	-2.61	815	710	-12.88									
Goods Carriers	24,399	33,803	38.54	23,407	31,054	32.67	2,384	4,197	76.05									
Total M&HCVs	27,592	36,914	33.79	26,506	34,072	28.54	3,199	4,907	53.39									
LCVs																		
Passenger Carriers	3,518	3,559	1.17	3,231	3,618	11.98	278	170	-38.85									
Goods Carriers	37,026	54,175	46.32	35,613	46,978	31.91	3,815	4,197	10.01									
Total LCVs	40,544	57,734	42.40	38,844	50,596	30.25	4,093	4,367	6.69									
Total Commercial Vehicles	68,136	94,648	38.91	65,350	84,668	29.56	7,292	9,274	27.18									
III Three Wheelers																		
Passenger Carrier	70,636	101,260	43.35	41,945	52,872	26.05	31,490	50,679	60.94									
Goods Carrier	10,227	11,365	11.13	9,506	10,327	8.64	342	831	142.98									
Total Three Wheelers	80,863	112,625	39.28	51,451	63,199	22.83	31,832	51,510	61.82									
IV Two wheelers																		
Scooter/Scooterette	664,179	683,252	2.87	673,444	669,416	-0.60	32,995	42,812	29.75									
Motor cycles/Step- Through	1,398,779	1,484,487	6.13	1,136,322	1,206,512	6.18	202,564	245,294	21.09									
Mopeds	74,406	73,246	-1.56	81,919	70,883	-13.47	946	774	-18.18									
Total Two wheelers	2,137,364	2,240,985	4.85	1,891,685	1,946,811	2.91	236,505	288,880	22.15									
Quadracycle	150	785	423.33	0	67	-	150	882	488.00									
Grand Total of All Categories	2,637,076	2,816,161	6.79	2,302,902	2,381,931	3.43	332,545	411,357	23.70									

Society of Indian Automobile Manufacturers (11/09/2018)

The Trend

The production of natural rubber (NR) in India fell during April 2018 by 16.7%, year-over-year, to 40,000 tonnes. Preliminary observations reveal that the production continued its downtrend through May 2018. The production during May 2018 is estimated to have fallen by 16% to 42,000 tonnes.

The NR consumption during April 2018 fell by 4.4% to 98,500 tonnes from 103,000 tonnes during March 2018. According to preliminary estimate, the country has consumed 103,000 tonnes of NR during May 2018, up 4.6% from April 2018.

The country imported 38,603 tonnes of NR during April 2018 as against 24,289 tonnes imported during the same month a year ago. According to preliminary estimate, the volume

compared to 37,256 tonnes during May 2017. The country exported 329 tonnes of NR during April 2018 as against 2,240 tonnes exported during April 2017.

The above trends in production, consumption, imports and exports suggest that a total quantity of 270,000 tonnes of NR was held as stock at the end of April 2018, distributed among growers, processors, traders and manufacturers.

Coming to synthetic rubber (SR), the production during April 2018 was 32,580 tonnes as compared to 34,450 tonnes produced during March 2018. The consumption of synthetic rubber also fell to 56,175 tonnes in April 2018 from 58,200 tonnes consumed during March 2018.

PRICE OF NATURAL RUBBER (Rupee per 100 Kg)

Month / Year	RSS-5	RSS-4	RSS-3 20	Latex	(60% drc)	ISNR	20	SMR
	Domestic		International	Domestic	International	Domestic	International	
April	2017	13939	14339	14625	15688	15885	12522	10701
May	"	12815	13073	14165	15595	15940	11916	9859
June	"	11971	12238	11627	15410	14623	11089	9228
July	"	13027	13300	11315	15290	13178	12495	9706
August	"	12571	13063	11775	13685	13747	11414	9783
September	"	13102	13424	11977	13993	14313	11743	10269
October	"	12767	13060	10889	13807	12772	11200	9414
November	"	12290	12587	10298	13788	12508	10689	9184
December	"	12794	13082	10455	15283	12633	11365	9309
January	2018	12285	12746	10755	14787	12937	11352	9602
February	"	12054	12413	10963	14385	12733	10993	9421
March	"	12137	12438	11286	14090	13297	11426	9389
Average	2017-2018	12646	12980	11678	14650	13714	11517	9655
April	2018	11790	12012	11343	13678	12742	10787	9077
May	"	12194	12419	11808	14640	14053	11959	9715
June	"	12263	12646	10920	14550	12615	12112	9382

Note: Domestic price refers to Kottayam market, international RSS 3 refers to Bangkok market and international price of latex and SMR 20 to Kuala Lumpur market.

PRODUCTION & CONSUMPTION OF NR & SR

Type-wise Production & Consumption of NR & SR	(Tonnes)				Percentage increase (+)/ decrease (-) of (3) & (4)
	April 2018 (1)	April 2017 (2)	April 2017 to Marc 2018 (3)	April 2016 to March 2017 (4)	
PRODUCTION					
NATURAL RUBBER (NR)					
Ribbed Smoked Sheet (RSS)	24610	32680	478445	473375	
Solid Block Rubber	9570	8425	114875	106560	
Latex Concentrates(DRC)	4520	5055	75070	83200	
Others	1300	1840	25610	27865	
Total	40000	48000	694000	691000	0.4
SYNTHETIC RUBBER (SR)^P					
Styrene Butadiene (SBR)	21418	9056	209938	96637	
Poly butadiene (BR)	10662	6550	113666	116557	
Others	500	188	7617	9550	
Total	32580	15794	331221	222744	48.7
Total NR & SR	72580	63794	1025221	913744	12.2

CONSUMPTION

NATURAL RUBBER (NR)					
Ribbed Smoked Sheet (RSS)	41925	47835	513710	486470	
Solid Block Rubber	47100	33250	493410	451240	
Latex Concentrates(DRC)	7315	5875	79765	82100	
Others	2160	2040	25325	24265	
Total	98500	89000	1112210	1044075	6.5
Out of which Auto Tire Manufactures	69640	62894	772162	707335	9.2
SYNTHETIC RUBBER (SR)^P					
Styrene Butadiene (SBR)	28860	22615	311555	278800	
Poly butadiene (BR)	15700	14010	184130	184720	
Others	11615	11250	138290	135060	
Total	56175	47875	633975	598580	5.9
Out of which Auto Tire Manufactures	38498	33637	437754	417728	4.8
Total NR & SR	154675	136875	1746185	1642655	6.3
Out of which Auto Tire Manufactures	108138	96531	1209916	1125063	7.5



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The Rubber Economist Quarterly Report



Dr. Prachaya Jumpasut, Managing Director of The Rubber Economist

Highlights

- ▶ The growth estimate for global rubber consumption in 2018 has been revised upward to 3.0% but may slow down to average 2.5% a year during 2018-2020.
- ▶ Most consuming regions may show slow growth over the next few years, but North America and the EU will likely perform the worse.
- ▶ NR consumption is now expected to show a much faster rate of growth compared to SR over the next few years, sending global SR shares down to 51.5% by 2020.
- ▶ Growth rate of world NR production is expected to slow down sharply from last year, partly because of continuous low prices, bad weather and other factors.
- ▶ Apart from the top producer, Thailand, the growth rate for output this year in other major producing countries may not be as high as last year.
- ▶ The estimate for growth in world SR output has been revised downward from this year and the weak trend may continue over the next few years.
- ▶ SR output may decline for most regions and weak growth or a decline may continue during the forecasting period.
- ▶ As NR consumption is now expected to increase much faster than production, the deficit may return and global stocks may decline slightly.
- ▶ For SR, even though production is expected to show a slow growth, consumption may increase at an even slower rate, resulting in global stocks reversing their recent declining trend.
- ▶ Hence, the stock to consumption ratio for NR is forecast to decline, and the opposite is expected for SR.
- ▶ *Analysis:* Is it possible for NR to move from a current surplus to future shortage – if so, what are the alternatives?
- ▶ Monthly NR prices in Thailand fell to the lowest level in more than 15 years in August this year. In 2018 alone, the RSS3 fell by almost 30% while US SBR increased by almost 40%. Hence, NR price was just about 70% of SR price by July.
- ▶ *Analysis:* The influence of speculative trading and stocks at Shanghai Futures market on NR prices.
- ▶ *Analysis:* Oil prices – the influence on SR and NR prices.
- ▶ *Question:* Could it be that NR faces a deficit in the short-term, a surplus in the medium-term and a shortage in a long-term?

Box 1: Is it possible for NR to move from current surplus to future shortage – if so, what are the alternatives?

Natural rubber (NR) surplus returned to the picture again last year. Despite the fact that the balance may turn to a

deficit during the next few years because of the influence of the relative rubber prices, but this is only a temporary situation. As discussed in detail in the last report, the surplus situation has been a constant major threat because of the increase in global production capacity. The sharp increase in the rubber area has no doubt contributed to the increase in global rubber production, surplus and stocks over recent years.

With increasing production capacity, how can a long-term rubber shortage ever be possible? Briefly, on the demand side, as income and population both continue to grow in Asia, more tyre and general rubber products will be consumed, giving opportunities for end use industries to expand. The rapid growth in Asia is more than balancing out the saturation effect on rubber consumption in North America and Europe, resulting in a continued growth in world rubber demand.

On the supply side, increasing opportunity costs in major producing countries will influence a decline in NR supply. Even rubber prices will return to \$6/kg as in early 2011, and/or rubber acreage will continue to expand like what happened over the past 10 years, and/or even with prospects for a continued increasing output from new and smaller producing countries, it is not guaranteed that there will be sufficient NR in coming years.

The decision to plant or to tap rubber trees depends not only on current prices, but also on alternative incomes and alternative costs. The land, capital and labour that go into producing rubber means the opportunity to build a factory or industrial complex are lost. In the early stages of economic development, in a rubber producing country, the opportunity cost of rubber production is quite low. There are few opportunities apart from producing rubber and other commodities and wages in the city are not high enough to attract tappers away from the plantations. As the country becomes increasingly industrialised and wages in the city increase, which attracts workers and makes land and capital relatively expensive to produce rubber. It is inevitable that all producing countries, at one time or another will reach the point at which the opportunity cost will be higher to continue to produce rubber. This time will come sooner or later.

NR is unique because many major producing countries are amongst the world's fastest growing economies. That is why Malaysia rubber output declined from 1.7 million tonnes in the late 1980s to just over 700,000 tonnes last year. Soon Thailand, Indonesia and Vietnam will follow the same path.

So as demand continues to increase while supply declines, the NR industry may eventually face shortages.

This may likely lead to increases in the use of alternative materials such as synthetic rubber (SR), guayule, and dandelions. There has been news of developments of NR from these latter two materials and the trials being undertaken by a number of tire manufacturers. However,

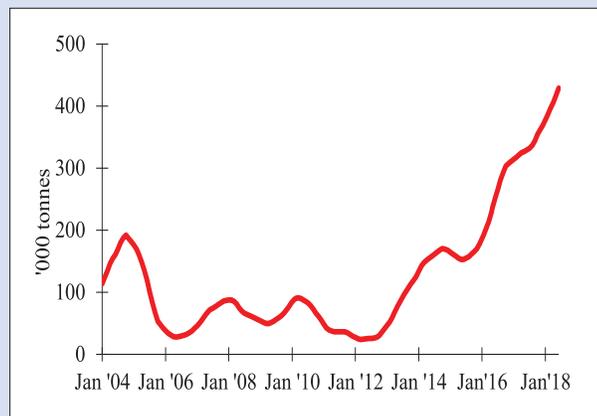
to us it is not certain whether these materials can be a viable source for NR. The most important question is whether dandelions or guayule be produced on a large scale and as cheap as rubber? Many people believe that this is unlikely.

Box 2: The influence of speculative trading and stocks at Shanghai Futures market on NR prices

Speculative trading on the Shanghai Futures market and other rubber futures market, e.g., Tokyo Commodity Exchange (TOCOM) can have a major influence on natural rubber (NR) price volatility. NR prices rose towards the end of 2016 to peak in early 2017 because of unseasonal rains and floods in Thailand. This together with the speculative factor of the Shanghai and TOCOM futures market influenced the sharp rise and when these factors disappeared prices fell sharply. The last peak of the instability index (see Figure 56) was the result of speculation and weather problems. Physical stockpile is always a problem - whether that is in Thailand, China or elsewhere. Just like the release of the Thai stockpile in early 2017, which caused prices to fall from their peak, which was caused, by weather and speculative markets, the recent increase of stocks in China has also had similar effects. The stocks at the Shanghai Futures market have been increasing quite rapidly in 2017 and the first half of 2018 by more than 200,000 tonnes to reach the record level of 505,000 by June this year. As can be seen below, the Annual Moving Average of the Shanghai stocks

has been on a rising trend since 2012. This has some influence on the declining trend of rubber prices during that period. However, as the Shanghai stocks represent only about 12% of world total stocks, the picture does not tell the whole story of global price movements. The global stocks do explain the movement in rubber prices more accurately for this purpose.

Reported NR stocks at Shanghai Futures Exchange, Jan'04-Jun'18



In any case, it must be emphasised that all these problems - speculation, weather, etc. - do not cause rubber prices to remain low for a long time. Rubber prices are low because of the slow demand and increasing rubber capacity as mentioned often in this report. One should not mix these temporal factors of futures trading with the real and more fundamental factors of excess supply and increase in stocks level.

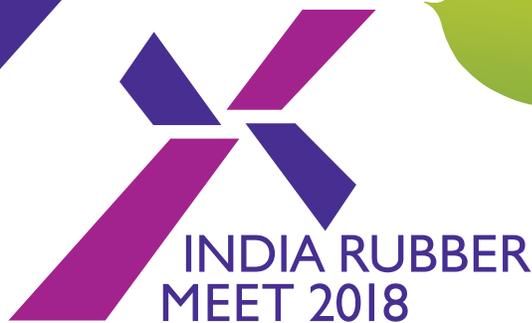
Box 3: Oil prices – the influence on SR and NR prices The *Rubber Economist* has been asked often whether there is any threshold or inflection point for the price of oil that influences the competition between natural rubber (NR) and synthetic rubber (SR). Yes, oil price is an important factor in SR price determination. However, the oil price is not always transferred to feedstock prices in a one-to-one ratio because of the many steps from oil to the final product, the existence of the by-product relationships, etc. Furthermore, SR is produced almost entirely by large national or multinational companies and the cost of SR is not the only factor but rather the cost and profit of overall operation for both rubber products and SR plants.

One has to understand that NR and SR are to some degree complementary as well as substitutes for each other. The choice of using one or the other depends not only on cost considerations but also on properties and performance required for the end use as well as other factors. Substitution is marginal for some products such as tires. Change to the input mix of NR/SR needs time to happen.

In general the two prices follow similar trends, e.g. they both rose to their peaks in 2011 and to their troughs in early 2016. However, the price of NR is important in determining discounts or premium against SR list prices. When the NR price increases, SR producers will see an opportunity to raise their prices as well.

(Courtesy : Dr. Prachaya Jumpasut, The Rubber Economist , info@therubbereconomist.com)

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Sustainable Natural Rubber Working Group in Indonesia



Moenardji Soedargo

Sustainable Natural Rubber Working Group in Indonesia

Moenardji Soedargo
Rubber Association of Indonesia (GAPKINDO)



World Rubber Summit
 Colombo, 7 – 8 May 2018

1. Introduction



- Rubber Association of Indonesia (Gabungan Perusahaan Karet Indonesia) well known as GAPKINDO, established in 1972.
- Currently there are 157 member of processing companies producing Technically Specified Rubber (TSR traded as Standard Indonesia Rubber/SIR) and 11 member of traders.
- There are 10 GAPKINDO branches located in Sumatera, Kalimantan and Java Islands.

2. Current Status of Indonesia Natural Rubber Industry

Tabel 2. Planted Area and Productivity of Smallholder Rubber in Main Producer Countries



Country	Area (000 ha)	Percentage of smallholder	Productivity (kg/ha/year)**
India	840,0	90.2*	1.467
Indonesia	3.679,0** (TM=3054)	83.0**	1.188**
Malaysia	1.077,9	89.0***	1.420
Thailand	3.734,4	90.0***	1.363
Vietnam	961,2	40.0***	1.665

Source :

* IRSG: Rubber Statistical Bulletin, Vol. 72, No. 7-9, Jan - March 2018.
 ** Ditjenbun, Statistik Perkebunan - Karet, 2016-2018 Feb 2018
 *** Viswanathan: Asian Journal of Agriculture and Development, Vol 5 No 2, 2008.
 **** Syarif et al., Evaluasi tingkat adopsi kon unggul di tingkat petani karet di Provinsi Sumatera Selatan, Jurnal Penelitian Karet, 30(1), 12-22, 2012
 ***** Ditjenbun: Statistik Perkebunan-Karet, 2016 - 2017

Table 1. Planted Area, Production and Productivity of Rubber Plantations



Status of ownership	2017				Growth Rate (2011 – 2017), %		
	Area (ha)		Production	Productivity	Area	Production	Productivity
	Total	Mature	ton	(kg/ha/yr)			
Smallholder	3.103.310	2.644.987	2.999.310	1.134	7,1	4,2	2,4
State	233.086	163.055	249.281	1.529	-4,6	-2,8	2,6
Private	322.733	245.992	380.953	1.549	-2,2	2,6	-2,7
Total	3.659.129	3.054.033	3.629.544	1.188¹⁾	5,0	3,4	1,8

Source : Statistik Perkebunan, Ditjenbun, 2016-2018

¹⁾ national productivity



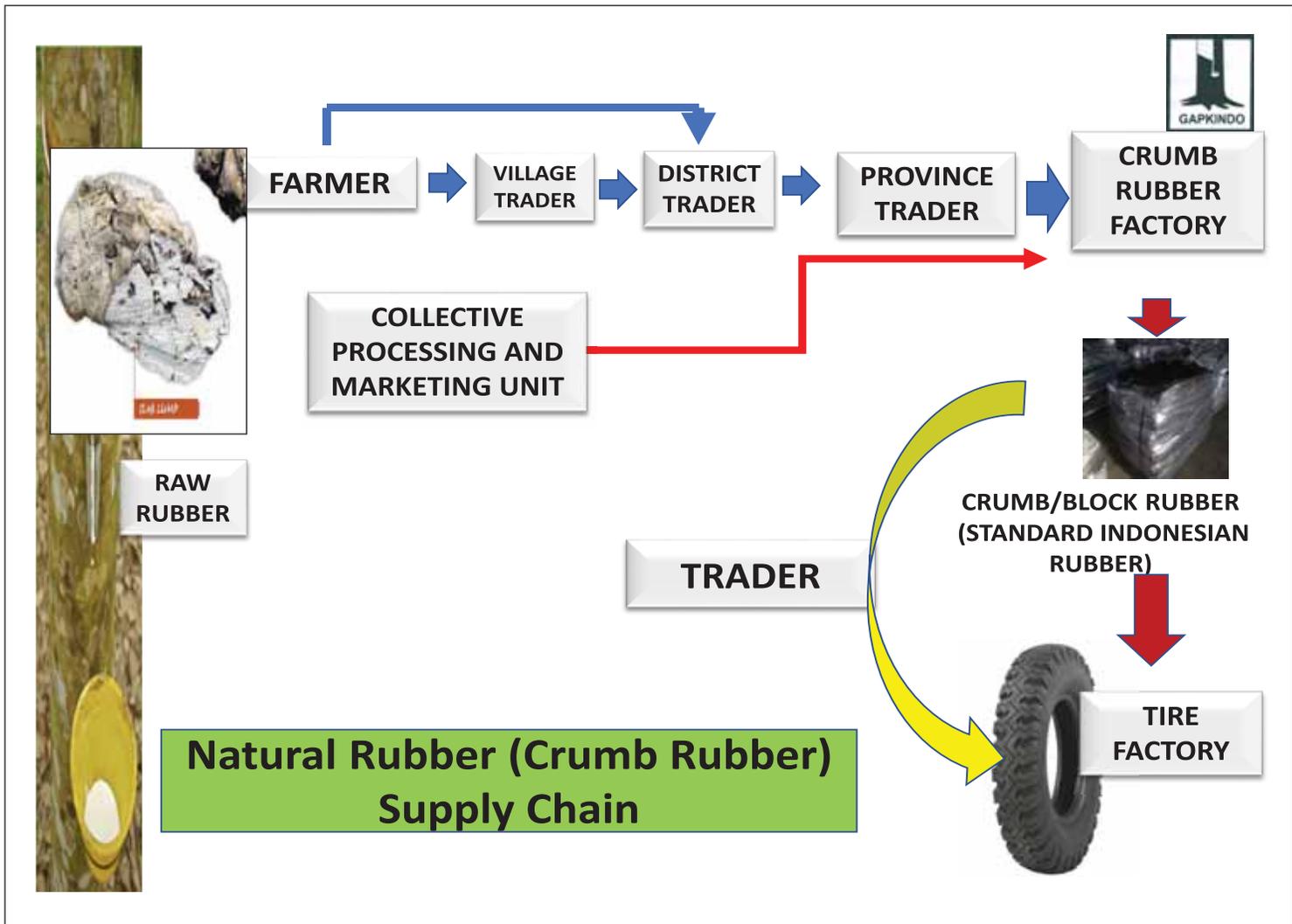
3. Efforts to support smallholder rubber production in Indonesia



Some Scattered Prevailing Projects on Sustainable Development of Indonesian NR

1. International NGO Donor Projects

Empowering farmer organisation through the introduction of sustainable farming and post harvest practices as well as opening up to an accessibility of efficient supply chain.





Working Group on Indonesia Sustainable Natural Rubber (WG ISNR)

Indonesia natural rubber community and GAPKINDO would like to:

- contribute to better NR farmer livelihood.
- establish Indonesia Sustainable Natural Rubber which is in line with SDG

4. Indonesia Natural Rubber towards Sustainability Action



To fulfill the international sustainable expectation, Gapkindo realize that it is necessary to improve and to strategize as follow :

- Formulate scientific argument
- Provide field evidence
- Enhance traceability

First important steps initiated by GAPKINDO



- Held the first Focus Group Discussion on Indonesia Sustainable Natural Rubber (ISNR) on 23 April 2018 in Jakarta.
- Attended by multi-stakeholders comprising of institution from GAPKINDO, government, Indonesia Rubber Council, Farmer Association, Tire Manufacture, Research Institute, Local NGO, International NGO and Donor, Lecturer, Rubber Processors and Trader.
- The objectives of the FGD were:
 - a. To establish an inclusive Working Group on Indonesia Sustainable Natural Rubber
 - b. Exploring challenges on the ISNR and way forward



- To have strategic discussion, participants were divided into 3 groups
 - Group 1: Farmer/Collective Processing And Marketing Unit /Raw Rubber Traders
 - Group 2: Processor
 - Group 3: Trader & User
- Each group discussed :
 - ✓ What main issues they are facing toward sustainable Natural Rubber in Indonesia
 - ✓ Who Should main drivers to provide support (facilitation) ?
 - ✓ Who to be involved to provide support ?

Conclusion of FGD I



- The FGD participants have committed on further discussion to develop more concrete framework of Indonesian Sustainable Natural Rubber (ISNR).
- The FGD should eventually be formalized to be a legal platform under Indonesian law and involve a larger number of participants.
- GAPKINDO will take lead and facilitate the process for the steps forward after several FGDs
- GAPKINDO will inform National and International Forums that working group on Indonesia Sustainable Natural Rubber (ISNR-WG) is now exist.



ISNR Development Strategy

Schedule

- ✓ Carried out FGD I (23 April 2018 in Jakarta)
- ✓ Established "Working Group on Indonesia Sustainable Natural Rubber" (23 April 2018 in Jakarta)
- Declare "Working Group on Indonesia Sustainable Natural Rubber"
- Carry out several more FGDs
- Establish "Platform of Indonesia Sustainable Natural Rubber"



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INNOVATIVE MIXING ROOM FORUM

Accounting for almost half of the entire plant's energy consumption and one third of costs and resources at the facility, mixing is regarded as the most critical operation in the whole tire production process. With the rising complexity and versatility of recipes and mixing procedures, mixer manufacturers and operators are increasingly turning to automation, outsourcing, new technologies and materials science to gain competitive advantage. With even further disruptive changes coming to the sector, mixing room offers the biggest opportunity for efficiency improvements in the upcoming years.

The Innovative Mixing Room Forum brings together industry leaders to present and discuss on the latest innovations and developments within the compounding and mixing sections of tire production process. The forum discovers and displays the best insights from the latest researches from around the globe. It stands as a networking platform for mixer manufacturers, operators and solution providers to come together and communicate effectively.

Among the key challenges discussed will be:

- **Mixing Room Automation 4.0**
- **Optimizing Energy Efficiency**
- **Outsourcing Opportunities and Pitfalls**
- **Liquid-Phase Mixing**
- **State-of-the-art Technologies in Mixing Technology**
- **Material Handling**

INNOVATIVE CURING AND TIRE BUILDING FORUM

Tire curing and tire building processes account for the largest percentage of energy consumption at the tire production plants. The machines have a large footprint, overall high costs and remain the largest capital investments for tire companies. Most of the currently used machines are decades old, affecting the tire production and the competitiveness of companies. The industry is in an urgent need for innovation in every aspect of both tire curing and tire building processes.

The 2nd Annual Innovative Curing and Tire Building Forum brings together industry leaders to present and discuss on the latest innovations and developments of the two most challenging sections of curing and tire building. The forum discovers and displays the best insights from the latest researches from around the globe. It stands as a networking platform for curing and tire building machine producers, end-users and solution providers to come together and communicate effectively.

Among the key challenges discussed will be:

- **Evolution of production plants**
- **Increasing automation**
- **Achieving curing cycle efficiency**
- **Monitoring technology**
- **RFID solutions and endurance**
- **Efficient energy usage and maintenance**
- **Waste reduction**

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For more information about the event please visit:
tire-forum.com

We look forward seeing you in Berlin

Automotive Tyre Manufacturers' Association



Rajiv Budhraj
Director General, ATMA

Editorial

Broadly speaking, August'18 has been a harbinger of a series of positive news about Indian economy, spreading cheer at every move. The best was perhaps saved for the last day of the month, when the GDP figures for first quarter (Q1) of ongoing financial year were announced.

India's GDP zoomed to 8.2%, highest in more than two years and a vast improvement over 5.6% recorded in the first quarter in the previous year. By all means, the growth rate has exceeded expectations and reinforces India's tag as the fastest growing economy.

The stage was set early in the month when International Monetary Fund (IMF) proclaimed that India will drive global growth for next 30 years. In its annual report for the year 2017-18 released recently, the Reserve Bank of India (RBI) too expected the country's economic growth rate to come at 7.4% for the full fiscal year 2018-19, backed by pick up in industrial activity and good monsoon.

What is of more satisfaction is the fact that the rally in growth rate is attributed to the manufacturing sector which grew by 13.5% in the first quarter as compared to a negative growth of 1.8% in the same quarter previous year.

Amidst all the bullish news on economic front, the month of August also brought along much despair for the tyre Industry as Kerala battled large scale floods and natural calamity. Kerala is not only home to over 85% of rubber production in India but also a base for several tyre plants. The state and the rubber planters are an integral part of tyre industry's value chain.

In this hour of adversity, Tyre industry stands closely with the rubber growers and the people of Kerala who have demonstrated an exemplary tenacity in facing this crisis. We fervently wish that normalcy returns to the state sooner than its normal course.

With good wishes for ensuing festive season in India...

Rajiv Budhraj
Director General

ATMA Member Companies



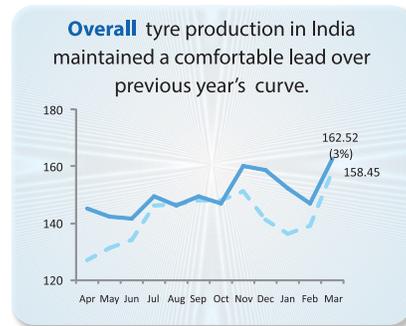
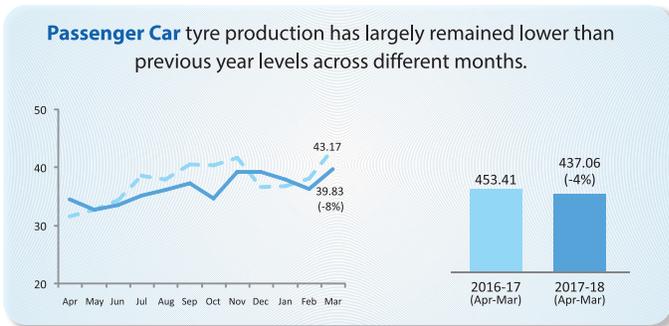
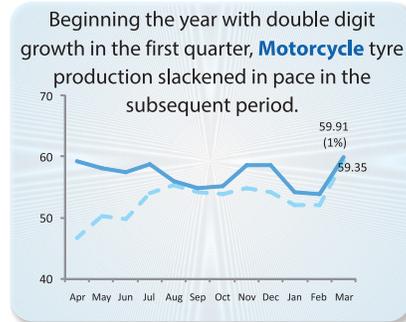
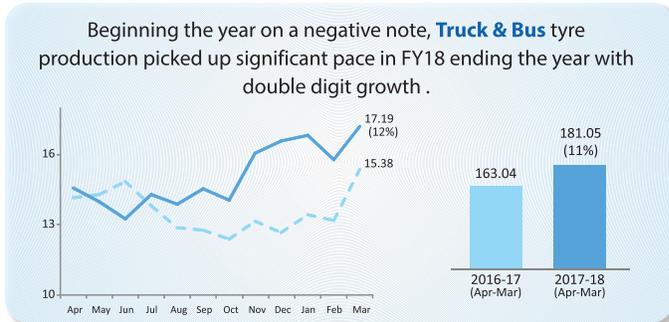


Industry Trends - Tyre

Tyre Production - India

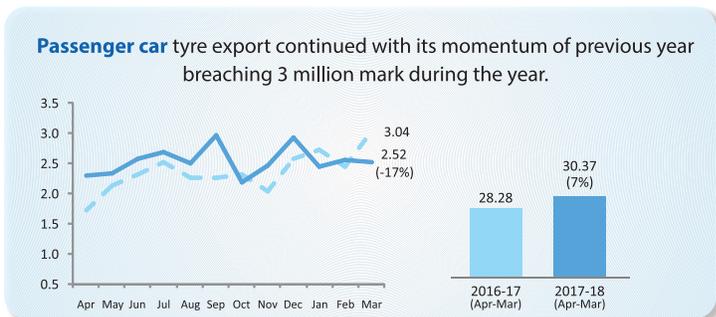
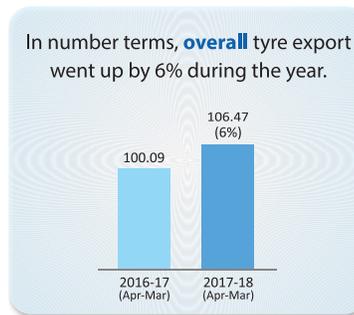
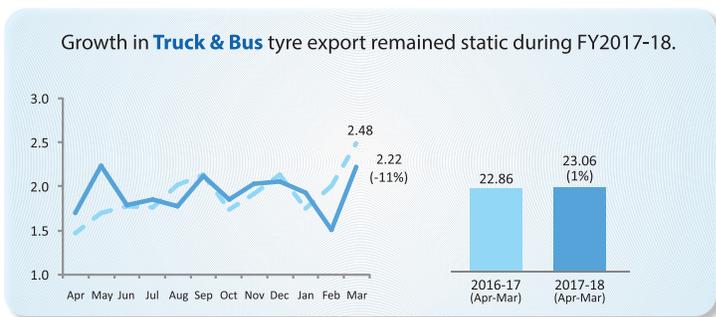
Apr'17 - Mar'18 & YoY Comparison

All Figs in Lakh Nos
 ■ FY17 ■ FY18



Tyre Exports - India

Apr'17 - Mar'18 & YoY Comparison



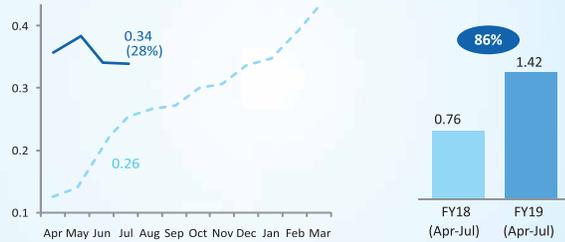
Note: Figs in brackets indicate % change YoY



Vehicle Production - India

Apr-Jul FY19 & YoY Comparison

M&HCV production has been on an overdrive during the year with a growth of 86% in the first four months.



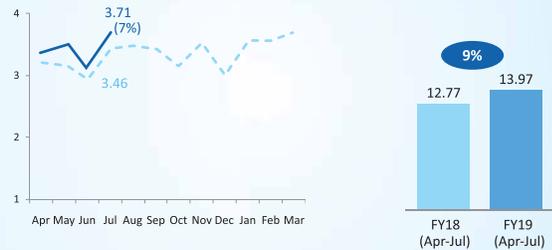
All Figs in Lakhs

■ FY 18 ■ FY 19

Mirroring the growth in M&HCVs, **LCV** production has also witnessed strong double digit growth during the first four months of the year.

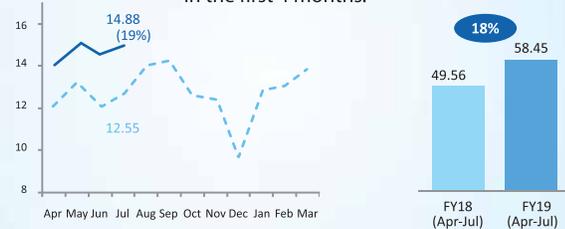


Passenger vehicle production has witnessed a steady growth in high single digit during the year.

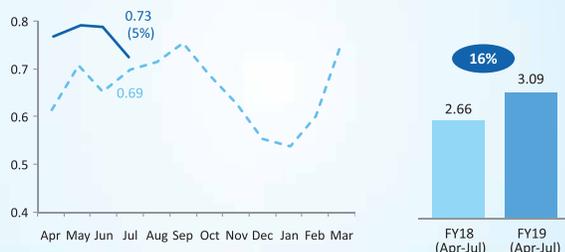


+ Including P. CAR, MUV/SUV/VANS.

Marking significant strides over previous year, production of **motorcycles** has been in the vicinity of 1.5 million units per month in the first 4 months.



Tractor production nosedived in July with 5% growth reported during the month.



Scooterisation of **2-wheeler** segment continues, though the pace has slackened.



Note: Figs in brackets indicate % change YoY

Unit(s): 1 Lakh = 100,000; 10 Lakhs = 1 Million; 100 Lakhs/10 Million = 1 Crore.

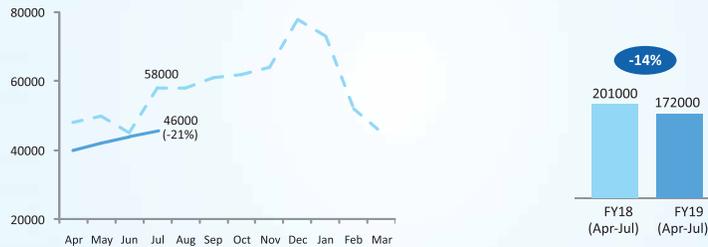


Natural Rubber - INDIA

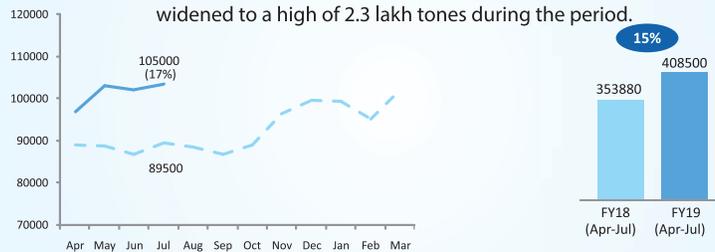
Apr-Jul (FY19) & YoY Comparison

All Figs in MT
■ FY 18 ■ FY 19

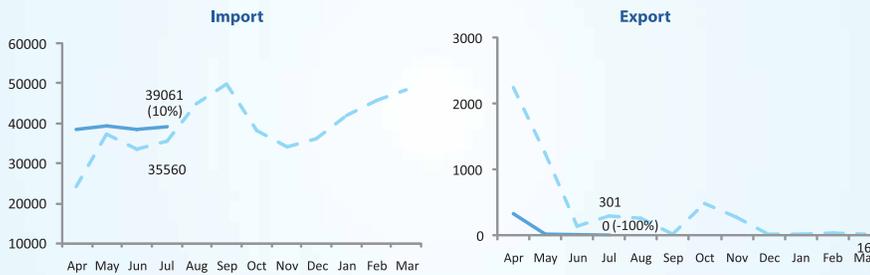
NR production in India continued to reel under stress during the first four months of FY19 with 14% de-growth against year-ago period.



NR Consumption, on the other hand, is on an upward trajectory breaching 4 lakh mark during the Apr-Jul period. The gap between production and consumption has widened to a high of 2.3 lakh tones during the period.



NR Imports stood higher in the first four months in view of domestic shortfall. **NR exports** have petered out.



NR Stock at the end of Jul'18 stood lower at 212000 tonnes.



NR Prices have ruled largely lower than previous year's level in the first four months.



Note: Figs in brackets indicate % change YoY





Global NR Overview (ANRPC* Countries)

Jan - Jul'18 & YoY Comparison

All Figs in '000 Tonnes
■ 2017 ■ 2018

After a sharp drop in March, **NR production** in ANRPC countries has recouped in the subsequent months with July production standing 2% higher.



NR Consumption has remained consistently higher during calendar 2018 in comparison to the previous year. Overall consumption stood 5% higher in the 7-month period till July'18.



NR consumption in **India** went up by 12% in Jan-July'18 against growth rate of 3% in **China**.

NR Consumption YoY (INDIA vs. CHINA)



Figs in brackets '(') indicates % change (YoY).

*ANRPC - Association of Natural Rubber Producing Countries

(Member countries : Cambodia, China, India, Indonesia, Malaysia, Papua New Guinea, Philippines, Singapore, Sri Lanka, Thailand & Vietnam)



■ Event

ATMA Events



ATMA celebrates Independence Day with "Freedom from Worn-out Tyres" campaign

Automotive Tyre Manufacturers Association (ATMA) connected with motorists on Independence day through a specially designed campaign #FreedomFromWornoutTyres. ATMA ambassadors reached out to people urging them to take a decisive step towards road safety by



getting rid of worn-out tyres which are a safety hazard.

"We have been spreading the message of Tyre Safety through our campaigns. The Independence Day fervor celebrating freedom provided an effective backdrop to spread the message of freedom from worn out tyres", said Rajiv Budhraj, Director General, ATMA.

Tread is the part of the tyre that comes in direct contact with the road and plays a vital role in safety. According to ATMA, the legal minimum tread depth in case of passenger car tyres is 1.6 mm. Worn out tyres require longer distance to stop which could lead to accidents. Particularly during rains, worn out tyres adversely affect handling and increase the risk of skidding.

Tread Wear Indicators (TWI) are provided in every tyre and tyres should be replaced when the tread is worn to the level of TWI. On the occasion, specially designed gauges to measure the safe tread depth were distributed along with booklets on overall tyre safety. ATMA ambassadors engaged with the motorists at public places including markets and parking lots etc drawing attention to the importance of good tread depth.



ATMA ambassadors creating awareness on Tyre Care & Safety in the Capital



China's domestic tourism revenue hits 2.45t yuan (\$ 359 Billion) in H1



China's domestic tourism industry brought in 2.45 trillion yuan (\$358.9 billion) in the first half of 2018, up 12.5 percent year-on-year, according to the figures released by the Ministry of Culture and Tourism.

During H1, Chinese tourists also made more than 71.3 million overseas trips, up 15 percent year-on-year, according to the ministry.

China saw nearly 23.8 million inbound trips made by tourists from outside the country in the first six months of 2018, with 76.7 percent from Asia. It also attracted tourists from countries including the United States, Canada, Australia and Germany.

China's consumer confidence remains high in Q2: Nielsen

China's consumer confidence remained high in the second quarter of the year, according to a research report by global measurement and data analytics company Nielsen.

The country's **Consumer Confidence Index (CCI) released by Nielsen stood at 113 points in Q2**, down two points from Q1 but still well above the baseline of 100 that demarcates between optimism and pessimism.

Nielsen's CCI index measures perceptions of local job prospects, personal finance and willingness to make purchases. All three components of the CCI stayed high in Q2, with local job prospects climbing seven points from 68 points in the same period last year.

The willingness to spend increased four points from 56 points a year earlier. Personal finance in Q2 stood at 68 points. In the first seven months of the year, China's retail sales expanded 9.3 percent year on year, compared with 9.4-percent growth in the first half, data showed.



China's Foreign trade shows robust growth in Jan – Jul 2018



China maintained strong foreign trade growth of 16.4 percent year-on-year in the first seven months of the year, reaching \$2.61 trillion, amid intensified trade friction with the United States over tariff increases. The country's exports rose 12.6 percent year-on-year to \$1.39 trillion in the January-July period while imports grew 21 percent to \$1.22 trillion.

As per the department of Statistics, China's foreign trade performance was stable during the first seven months of 2018 thanks to **growing domestic demand, new policies to stimulate exports and narrowed trade surplus figures.** The country saw more balanced import and export development during this period.

The country's trade with major trading partners saw an increase between

January and July. **Trade with the European Union and ASEAN countries respectively climbed 13.2 percent and 19.7 percent year-on-year.**

Bilateral trade between China and the US rose 12.9 percent year-on-year to \$356.56 billion. Their trade volume amounted to \$54.98 billion in July, with China's exports jumping 13.3 percent from the same month a year earlier to \$41.54 billion. **The trade dispute between China and the US has not produced any major effect yet judging by the country's foreign trade volume in July.** The trade data for July remained normal, partially due to companies' pushing earlier this year for orders to be completed in time to avoid potential risk from additional tariffs. As China keeps expanding its imports, its trade surplus has shown signs of reduction (witnessing a 25% YoY decline in the first 7 months of 2018)



Figs. In () indicate YoY% Change



Globe Watch

Tyres find new life in innovative wall system

Tyres sandwiched between slabs of concrete may not sound terribly exciting, but there are plenty of reasons to get enthusiastic about just that. **West Australian company and Tyre-Stewardship-Australia (TSA)-accredited recycler Lomwest Enterprises has created a high-performance wall system out of baled used tyres contained within highly stable concrete skins.** Its applications include retaining walls, sound barriers, sea and blast walls, cyclone shelters and even race track impact barriers.



The modules for the flexible use **walling system – called C4M – are manufactured offsite by accredited precasters, allowing quick, easy and safe onsite construction.** The outer surfaces of the C4M can be architecturally modified to fit in with or enhance their environment.

The Perth company and its founder, Cliff Strahan, have been working on the C4M tyre bale system for 14 years, and have achieved a wide range of successful applications that demonstrate the wall system's capabilities.

Each C4M module contains 100 tightly baled used car tyres, sandwiched between precast panels and can be up to 2.4 metres in height. They also meet Australian and New Zealand stability, durability and relevant load standards, including for cyclone shelter construction and as fire-rated partition walls. Modules can be linked to produce structures of any practical height and length, be they retaining walls, coastal protection barriers, noise walls, blast walls, ROM (run of mine) walls, even eco-house walls.

As befits a product that has a high recycled content, **the C4M module is also highly recyclable due to the relatively flexible nature of the tyre bale.** At the end of an application's life, the concrete faces can be simply crushed off by an excavator using a demolition grab, leaving the tyre bale intact for reuse with new face panels.

How RFID technology is smartening up CV tyres

It may sound like something from a sci-fi movie, but **monitoring truck and van tyres via radio frequency is bringing improved safety to our roads,** in yet another example of how the CV Sector is using telematics to innovate.



Radio-frequency identification (RFID) on its own is not a new phenomenon. The technology originated in the late 1940s and comprises a minuscule electromagnetic chip or tag, which can be read by a scanner. Prolific across many industries, the systems can be found embedded in livestock and pets as a means of identification, as security tags in shops and even in your passport, among other applications.

The automotive industry is no stranger to it, as plenty of manufacturers have used RFID in the production process, typically for the likes of stock checking. **Tyre manufacturers have applied similar tactics for some time, using the tags to keep track of stock in production facilities. However, the industry has begun examining other uses for RFID, including fitting the tags directly to commercial vehicle tyres.** The practice is currently in its early stages, but the intention, initially at least, is to allow OEMs to track tyres throughout their life cycle

However, this is where things get interesting, because the industry is speculating about the possibility of getting more out of RFID tags, **allowing them to supply greater amounts of information to the tyre manufacturer and to fleet operators, such as tread depth, pressures and condition.** The end result would effectively be **a smart tyre that could virtually manage itself** – or at least flag up any issues without requiring a physical examination – and development of the concept is already underway.

In an ideal world, you'd want a tyre that would know when it was getting worn and what its pressure is. It could be that you link it [the RFID chip] to the pressure monitoring system so it knows how much pressure is in there. While the technology's there, but it's a bit like smartphones; you need to get it to a point where it's easy to make, it's robust enough, it's the right price and it works in practice to tick all the boxes



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Why To Attend?



GLOBAL SMART MANUFACTURING FORUM FOR TIRES 4.0
OCTOBER 18-19 | AMSTERDAM, NETHERLANDS

Smart Manufacturing applies information and manufacturing intelligence to integrate the voice, demands and intelligence of the 'customer' throughout the entire manufacturing supply chain.

It melts together all data, technology and human ingenuity to bring about a rapid revolution in the development and application of manufacturing intelligence to every aspect of business.

Tire sector should look closer how their products are invented, manufactured, shipped and sold.

Join us in this global forum that will give you the general overview of smart manufacturing and the production trend in tires that are currently led by the top industry leaders. From case studies from our top minded speakers to small panel discussions, you will gain insights on what it takes to thrive in this new paradigm shift in manufacturing through the use of advanced technology.

Be part of the 60+ delegates from the top leading companies sharing their management strategies on the opportunities and challenges that lie ahead in the Digital Economy. You will have a number of networking opportunities to mingle with the industry giants through coffee breaks and lunches.

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Tire Building Machinery
RFID Technologies
Material Handling
Construction Equipment
Mechanical and Industrial Engineering
Industrial Automation Machinery
Smart Sensor Technology
Factory Management Software
Automatic Warehousing Systems
Data Acquisition Implementation
Tire Pressure Monitoring System - TPMS
Rubber Mixing Technology
Smart Tire Technology
Tire Testing
Laser Measurement Components
Tire Design and Simulation Software

A few of our attendees include:



Lexus rolls out new version of hybrid electric car ES 300h

● On September 10, Japanese car maker Toyota's luxury vehicle arm, Lexus, launched the all-new version of its hybrid electric car, ES 300h in India priced at Rs 59.13 lakh (ex-showroom all India).

The seventh generation ES 300h is powered by a 2.5 litre petrol engine coupled with Lexus' fourth generation hybrid system.

"Our country is going through the problem of pollution and we strongly believe that hybrid electric vehicles are a solution for it," Lexus India President PB Venugopal told reporters.

With enhanced riding comfort and driving dynamics, the all-new ES 300h delivers a fuel economy of 22.37 kmpl, the company said.

The model is equipped with 10 airbags and other safety features such as vehicle stability control, hill start assist besides anti-theft system with break-in and tilt sensors.

When asked about the company's plans for India for future mobility, Lexus India Chairman N Raja said, "For us, all technology will co-exist. While electric vehicles are the future, hybrids will be the bridge."

"We are working on several technologies, including hybrids, EVs and fuel cells and we will come up with the appropriate technology," he added.



Toshihiro Suzuki, President, Suzuki

Suzuki hopes to sell 5 m cars by 2030; sees market reaching 10 million units

● India will be the focus for Suzuki Motor Corporation's growth plans in automobiles till the end of the next decade going by what its Representative Director and President, Toshihiro Suzuki, says in the 2018 annual report.

"In and around 2030, there is a possibility that India would grow up to be a market of 10 million units. If we are to maintain the current market share of 50%, Suzuki would become five million units," he says in the opening pages of the annual report. At present, Maruti-Suzuki's share is closer to 55% with Hyundai Motor a distant second.

Toshihiro Suzuki then gives a spin to the narrative saying that in such a scenario, if Suzuki's other markets

(apart from India) account for two million units in 2030, its overall tally would be seven million units. "This is rather a theoretical figure than a target, but Suzuki will challenge toward the future growth," says its President.

'Great transformation'

From his point of view, the automobile industry is undergoing a period of "great transformation" where it becomes necessary for companies like Suzuki to "open up the future in long-term outlook by imaging the targeted aspect of 10 years and 15 years ahead". The idea, according to him, is to trace back to the present "to think about what should be done from now".

India is already the company's largest region globally and will become even more significant, especially after the recent decision to part ways with its Chinese ally, Changan Automobile. "Approximately 25 years ago, we launched the Alto in China, and since then we have made efforts in cultivating the Chinese market. However, due partly to shifting of Chinese market to larger vehicles, we have decided to transfer all equity to Changan Automobile," said Osamu Suzuki, Chairman, in a statement.

The importance of India has also magnified, thanks to Japan's ageing population that has slowed down demand for cars. The ASEAN region still has strong markets such as Indonesia and Thailand, but even here growth has reached a level of maturity unlike India where two-thirds of the population is under 30 and constantly aspiring for smart and competitively-priced cars.

"Also, we believe that fulfilling India would lead to fulfilling other markets through globally expanding the models developed for India," elaborates Toshihiro Suzuki. This, in any case, is in sync with the company's plans to increase export shipments from India as well as develop models here for other emerging markets in Africa and Latin America.

Target 2030

Additionally, with 2030 as the goalpost, the endeavour will be to introduce unique products "with



Lexus ES 300h



Anand Mahindra, executive chairman, Mahindra & Mahindra (right) and Pawan Goenka, managing director at the launch of multi-utility vehicle Marazzo, in Nashik

value exceeding customer expectations” even while sales continue to expand. “Along with making of small cars and development of high-efficiency powertrain, which Suzuki excels in, we will proactively make efforts in expansion and strengthening of hybrids and new development of electric vehicles,” says the company President.

All this also puts into context the alliance between Suzuki and Toyota, which will see joint production of hybrids and EVs. For now, the two Japanese automakers have agreed to swap products as part of this deal that will see Suzuki’s Vitara Brezza and Baleno head out to Toyota’s India stable. In return, the (re-engineered) Corolla will be retailed in Maruti Suzuki showrooms.

M&M drives in Marazzo in race against Innova Crysta, Ertiga

● Putting together synergies of its global subsidiaries, Mahindra & Mahindra (M&M) recently introduced Marazzo, a multi-utility vehicle (MUV) targeted at large families and businesspersons.

Priced starting Rs 9.99 lakh, Marazzo will compete with Toyota’s Innova Crysta and Maruti Suzuki’s Ertiga, two successful vehicles in the segment that has

otherwise seen more misses than hits, say analysts.

While Ertiga and Crysta clock in excess of 4,000 and 6,500 units a month, respectively, Datsun GO plus sells barely 350 units and Renault Lodgy has been able to reach 100 units a month.

With this launch, the maker of the hugely-successful Scorpio wants to hold on to its market share in the UV segment, which has dwindled in the past couple of years. Though senior executives at M&M did not specify the targeted sales for Marazzo, they claim that Marazzo together with a future sports utility vehicle (SUV) launch codenamed S201 will be able to sell around 9,000-9,500 units per month. The launch of S201 is expected early next year.

Also, the company is confident that Marazzo will not cannibalise any of M&M’s existing products, as the targeted customers this time are different.

Anand Mahindra, executive chairman, M&M, said that the launch is a definitive moment for the company as it enters a new orbit.

On M&M losing market share in UVs, Mahindra said that the definition of SUV keeps changing with each passing day as some car makers just by making a few small changes here and there tend to place such products as SUVs. Also, the

overall market size is increasing, he added.

According to company executives, the product took around four years in the making and was developed at a cost of around \$20 million.

The engineering collaboration was between Mahindra Automotive North America (MANA) and Mahindra Research Valley (MRV) in Chennai. The design was done via collaboration between M&M’s in-house team and its Italy-based subsidiary Pininfarina. Going forward, the company will continue to generate more products from such collaborations, the executives added.

US sanctions: Volvo halts truck assembly due to in Iran

● Swedish truckmaker AB Volvo has stopped assembling trucks in Iran because US sanctions are preventing it from being paid, a spokesman for the company said.

The sanctions against Iran, reimposed on August 6 by US President Donald Trump after his decision to pull out of a nuclear deal with Tehran, have forced companies across Europe to reconsider their investments there.

Volvo spokesman Fredrik Ivarsson said the trucks group could no longer get paid for any parts it shipped and had therefore decided not to operate in Iran in another blow to the country’s car industry, which unlike the energy and banking sectors, had managed to sign contracts with top European firms.

“With all these sanctions and everything that the United States put (in place) ... the bank system doesn’t work in Iran. We can’t get paid ... So for now we don’t have any business (in Iran),” Ivarsson told Reuters.

Before the sanctions were reimposed, Volvo had expressed an ambition for Iran to become its main export hub for the Gulf region and North Africa markets. Volvo was working with Saipa Diesel, part of Iran’s second-largest automaker SAIPA, which was assembling the Swedish firm’s heavy-duty trucks from kits shipped to Iran.

Ivarsson said Volvo had no active orders in Iran as of 24th September.



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India has third-highest number of family firms

● India has the third-largest number of family-run businesses in the world after the US and China, according to a report by Credit Suisse. The country has 111 family-owned business with a combined market capitalisation of \$839 billion.

Indian companies owned by families generated average annual returns of 13.9% since 2006, more than double the 6% reported by companies that were not.

“Indian firms, on average, generated the highest absolute cash-flow return on investment (CFROIs) across our Non-Japan Asian group. However, they generated the second-lowest absolute share price returns in 2017 and on average since 2006. The one country where the relationship between relative profitability and returns does appear to hold is China,” said the report, titled ‘The Credit Suisse Family 1000 in 2018’.

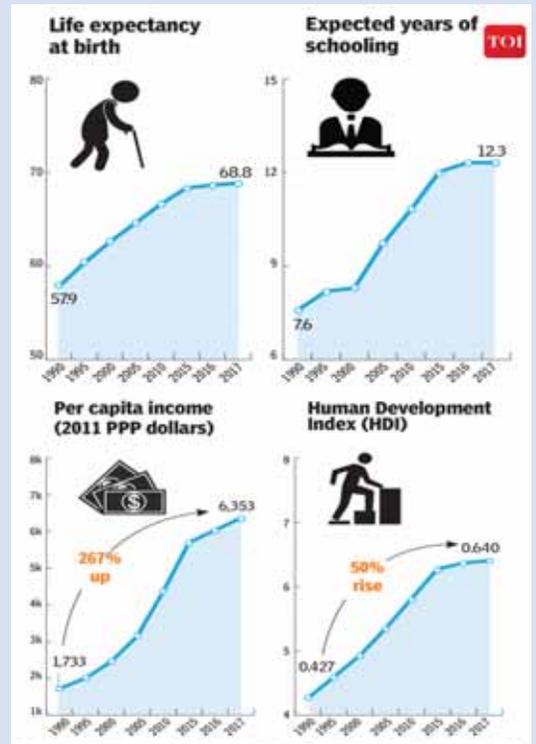
A look at the best-performing family-owned companies in Asia indicates that more than 15 of the top 30 are from India. This is nearly twice the share of Indian family-owned companies in the entire Non-Japan Asian universe, the report said.

Family companies — where founders or descendants hold at least 20% in direct shares or where voting



Indians live 11 years longer than they did in 1990

● India went up one notch in the UN Human Development Index, ranking 130 out of 189 countries surveyed. But if you compare where India stands now with where we were in 1990, we have made massive progress. While Indians had a life expectancy of only 57.9 years in 1990, this has gone up to 68.8 years. Similarly, we are all a lot better off, with a per capita income of \$6,353 (in PPP) in 2017 compared with only \$1,733 in 1990. That’s a 267% growth. We have done much better than most of our South Asian neighbours. India’s HDI is now is now at 0.640, higher than the south Asian average of 0.638. India’s HDI was 0.427, so we have grown almost 50% against a global average of 22%.



rights held by the founders or descendants is at least 20% — continue to generate stronger top-line growth than their non-family peers, the report said, adding that the revenue growth premium appears relatively robust for family-run businesses across all the main regions around the world. This clearly lays down the foundation for a superior overall financial performance, which, in turn, supports strong share-price appreciation as well.

“The countries that dominate the Non-Japan Asian region are China (159 companies) and India (111). Hong Kong adds 72 companies. These three (geographies) combined comprise some 65% of the Non-Japan Asian section of our database. In terms of market capitalisation, our Non-Japan Asian family-owned database is also dominated by China, India and Hong Kong,” Credit Suisse said.

“Although family-owned companies across the Asian region have a strong long-term track record of outperforming non-family-owned peers, they do not necessarily outperform all the time. For example,

last year, family-owned companies in Thailand, Indonesia and Taiwan underperformed their local non-family-owned peers. Countries where family-owned companies outperformed their local peers in 2017 and so far this year are Malaysia, Singapore and India.

Why India’s record growth is not creating jobs

● The world’s fastest growing major economy isn’t growing nearly fast enough.

That may seem like an absurd description for India, an economy the International Monetary Fund expects to expand 7.3% in the fiscal year through March 2019 and 7.5% in the next. Yet the reality is that even at its current pace, India is having trouble creating enough new jobs for its massive workforce or enough wealth to broaden its middle class.

With its demographic tailwind and massive developmental needs, Asia’s third-biggest economy should be growing at double-digit rates. Holding India back are glacial economic

Delhi's IGI Airport may overtake Heathrow next fiscal year

● The Indira Gandhi International Airport (IGI) here could overtake London's Heathrow airport in traffic volume by the 2020 financial year, a Sydney-based aviation research body has said.

In its latest report, the Centre for Asia Pacific Aviation (CAPA) India said that IGI airport, which handled 65.7 million passengers in FY18, is likely to cross 80 million passenger by FY20.

"India's largest airport, Delhi, which handled 65.7 million passengers in FY2018, is likely to cross 80 million passengers in FY2020, which would see it approach or even overtake London Heathrow in traffic volumes," the report said.

The IGI airport handles over 1,200 flight operations a day. Earlier this year, the Airports Council International had adjudged the airport as number one in the world in the category of over 40 million passengers per annum. At present, it remains among the top 20 busiest airports globally.

Talking about the overall growth of airports in the country, the CAPA report said that in FY18, India's airports handled 309 million passengers, which was 16.5% rise year-on-year.

During the first quarter of this year, traffic was up 17.1%,



With over 1,200 flight operations a day, Delhi's IGI airport handled 65.7 million passengers in FY2018.

and a similar or possibly even slightly higher rate is expected for the full year, it said.

"That would mean that India's airport system will handle 50 million incremental passengers this year, which is more than all of India's airports handled in total in financial year 2004," the report said.

Higher losses

The report also said the domestic airlines industry is expected to post higher losses at \$1.65-1.90 billion this fiscal, up from projected \$430-460 million, amid the headwinds caused by higher costs and lower yields.

Besides, airlines need to raise over \$3 billion in the near term based on June quarter estimates, with full-service carriers requiring around \$2.6 billion.

reforms, a fragile banking sector, rigid labor laws and a spotty educational system that imparts limited skills to the 12 million young people who enter the job market each year.

Prime Minister Narendra Modi is trying to address these challenges. He's introduced a nationwide consumption tax, an insolvency code for companies and a program to boost domestic manufacturing under his signature Make in India.

Yet analysts generally agree that more needs to be done to open up the economy, attract foreign capital and generate the kind of wealth and business opportunities that has broadened the middle class in China, whose \$12.2 trillion economy is more than four times as big as India's (\$2.6 trillion).

"It hasn't embraced global trade and foreign direct investments in the way

China aggressively succeeded," said Jim O'Neill, a former Goldman Sachs Asset Management chair and ex-commercial secretary to the U.K. Treasury and who coined the acronym BRIC in 2001 to describe Brazil, Russia, India and China as a group.

"India has created big wealth for a limited number of people at the highest income levels, but it hasn't created a massive pool of consumers by creating hundred of millions of middle income class," he said.

With more than 90% of India's labor force employed in the nation's informal economy, the government has struggled to produce reliable jobs data to even get an accurate read on the level of joblessness in India. A glimpse into just how dire the job market is came in March, when the government announced 90,000

vacancies at the state-run Indian Railways, the nation's biggest civilian employer, and a staggering 28 million people applied.

The rail jobs pay a minimum of Rs.216,000 a year – a princely amount in the country.

India should be enjoying a demographically powered economic dividend at this stage of its development. It's one of the youngest countries in the world with a median age of 28, compared to China's 37 and 47 in Japan. Yet, economic gains from favorable demographics aren't automatic. A lot depends on whether the government can harness that dividend and overcome the population's skill shortage. And time is ticking – in 2040 the share of the population that's of working-age is set to start declining.

According to Ejaz Ghani, a World

At 8.2%, Q1 GDP growth beats all expectations

● Beating all expectations, the Indian economy recorded a growth of 8.2% during first three months (April-June) of the current fiscal, the best performance in over two years.

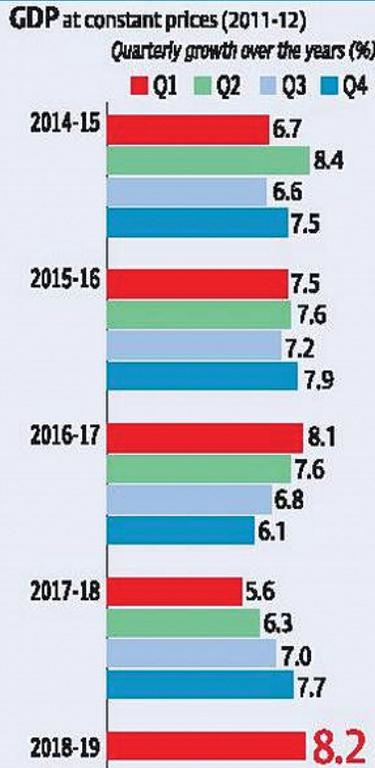
"I am reasonably confident that we may exceed 7.5% growth as projected earlier," Economic Affairs Secretary in the Finance Ministry Subhash Chandra Garg said, adding that the consumption story is robust, manufacturing is on track and investment is picking up.

With this, India has become the world's fastest-growing economy, leaving China (6.7 per cent) much behind. Also, the government can now claim that demonetisation is now showing a positive outcome after the 5.6% growth recorded during the first quarter of the last fiscal.

Rise in spending

Better rainfall this year, and government spending have given households more money to buy consumer durables, which helped the manufacturing sector post 13.5% growth in the June quarter, in sharp contrast to the 1.8% contraction recorded a year ago. The

GROWTH SURGE



Source: Ministry of Statistics & Programme Implementation

farm sector recorded 5.3% growth, against 3% growth during the corresponding quarter of the last fiscal.

Finance Secretary Hasmukh Adhia said the 8.2% growth rate indicates that several structural reforms introduced, such as the Goods and Services Tax (GST), have started yielding dividends. The growth in the manufacturing sector also indicates broad-based recovery of demand, he tweeted.

B Prasanna, Group Executive at ICICI Bank, said that the performance of industry and agriculture probably points to some employment generation in labour-intensive sectors.

"However, we are disappointed with the muted growth seen in services components. This is largely due to lacklustre performance of the trade segment, which is probably still adjusting to the GST transition," he said.

Dharmakirti Joshi, Chief Economist at Crisil Research, expects 7.5% growth to be supported by the third year of normal monsoon and reductions in GST-related problems.

Bank senior economist and India expert, there's concern that India's job challenge will remain long into its future. One worry is that India will join the global trend toward more protectionism, limiting its manufacturing and technological progress. Another challenge is that the growing use of digital technologies would create more skilled and productive jobs while displacing less-skilled and labor intensive positions.

"Growth, education, home ownership, better economic security, and a desire for more durable goods are the cause and consequence of young demographics. But demographic dividend can also transform into a curse," he wrote earlier this year.

Foodgrain output to hit all-time high of 285 mt

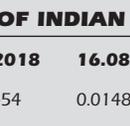
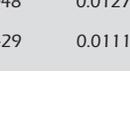
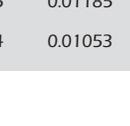
● Riding on a near normal monsoon, output of most food crops is projected to hit record levels in 2017-18 to give an all-time high foodgrain harvest of 284.83 million tonnes, 3.5% higher

than that of the previous year, according to the 4th advance estimates released on 28th August.

Rice production is expected to touch a peak of 112.91 mt, 3% more than last year's, while wheat will just fall shy of the 100-mt mark, the data released by the Agriculture Ministry showed.

Pulses production, on the other hand, is seen crossing 25 mt, despite a substantial fall expected in tur production. The record increase expected in urad and gram will compensate for the tur shortfall.

Output projection

Crop	2016-17 Final estimates	2017-18 4th advance estimates	(In million tonnes)	
Rice	109.70	112.91		
Wheat	98.51	99.70		
Pulses	23.13	25.23		
Tur	4.87	4.25		
Gram	9.38	11.23		
Urad	2.83	3.56		
Maize	25.90	28.72		
Bajra	9.73	9.13		
Coarse cereals	43.77	46.99		
Oilseeds	31.28	31.31		
Soybean	13.16	10.98		
Groundnut	7.46	9.18		
Sugarcane	306.07	376.91		
Cotton*	32.58	34.89		
Total foodgrain	275.11	284.83		

*million bales of 170 kg each

RATES OF INDIAN RUPEE

Currenc	01.10.2018	16.08.18	11.07.18
1 US \$	0.01454	0.01485	0.01373
1 Euro	0.17048	0.01275	0.01185
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Aug US job growth higher than expected

● Following several months of slowing gains, job growth was strong in the US in August, with 201,000 new jobs. The unemployment rate held steady at 3.9%, near an 18-year low, according to the monthly jobs report released by the country's Labor Department. The numbers beat the predictions of most economists, who expected about 190,000 jobs to be added.

Wage growth finally rose, with hourly earnings up by 2.9% year-over-year.

Tax cuts, higher consumer confidence, more government spending and greater business investment in equipment are all driving growth in the economy. Wages have started to rise as the expansion gathers strength.

Most industries grew, with particular job expansion in health care, education, business and professional services, hospitality and construction, while there were small losses in retail and manufacturing.

Even though job estimates for the US in June and July were revised down, showing that 50,000 fewer jobs were created than initially reported, monthly job growth for 2018 has been the fastest since 2015, with an average of 207,000 jobs a month added. The economy only needs to add about 100,000 jobs monthly to keep up with population growth.

Indians work hardest, happy with 5-day work week: Study

● India leads the way as the hardest-working country with 69% of full-time employees saying they would work five days a week even if they had the option to work fewer days for the same pay, according to a survey.

Mexico was the second-highest at 43% of workers, followed by the US at 27%, according to the culture study survey by US-based multi-national workforce management firm Kronos Incorporated.

UK (16%), France (17%) and Australia (19%) are the least content with the standard five-day workweek, it added.

If pay remained constant, one-third of global workers felt their ideal workweek would last four days (34%), while 20% said they would work three days a week, the survey said. One in four global employees (28%) are content with the standard five-day workweek, it added.

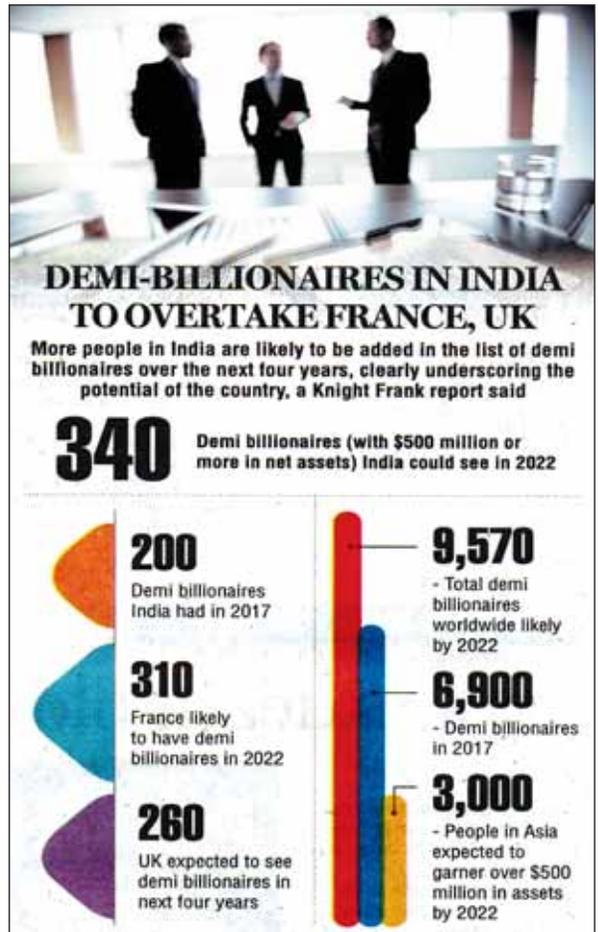
For this survey, research was conducted by Future Workplace on behalf of Kronos Incorporated between July 31-August 9, 2018, among 2,772 employees.

Meanwhile, the survey found that one-third of employees (35%) would take a 20% pay-cut to work one day less per week.

However, those numbers vary greatly by country, as 50% of workers in Mexico, 43% in India and 42% in France would take that arrangement compared to only 29% in Canada and 24% in the US.

It also revealed that even though 75% of full-time employees globally said they have enough time in the workday to finish their major tasks, nearly two in five (37%) work more than 40 hours each week and 71% claim work interferes with their personal lives.

The US leads the way with overtime, as



49% clock more than 40 hours each week, followed by India (44%), Mexico (40%) and Germany (38%), it added.

"It's clear that employees want to work and do well and many roles require people to be present or on call during specific hours to get the job done such as teachers, nurses, retail associates, plant workers, delivery drivers, and nearly all customer-facing roles," executive director of The Workforce Institute at Kronos, Joyce Maroney said.

US DOLLAR RATES			
Currency	01.10.2018	16.08.2018	11.07.2018
1 INR	0.01373	0.01423	0.01485
1 Euro	0.01185	0.01251	0.01275
1 UK £	0.01053	0.01120	0.01114
1 Yen	1.56217	0.00090	0.00915

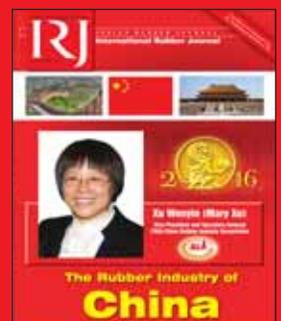
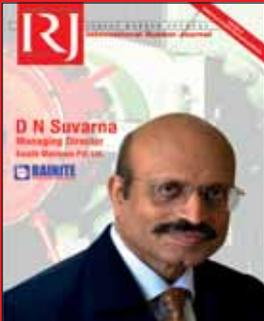


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RSS 4	10462	13250	12800	12850
RSS 5	10362	13050	12550	12850
ISNR 20	9765	12900	11795	11795
Latex (60% drc)	7059	8980	8240	8694

(Source: Rubber Board)

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(BASIC SELLING PRICE w.e.f. 01-04-2018)

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Product	Price (Rs./Kg)
Accelerators	(Rs./Kg)
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Pilcure MBTS	330.00
Pilcure F	360.00
Pilcure CBS	400.00
Pilcure MOR	440.00
Pilcure ZDC	210.00
Pilcure ZMBT	325.00
Pilcure ZDBC	280.00
Pilcure ZBzDC	420.00
Pilcure TBzTD	500.00
Pilcure TMT	195.00

Antioxidants/Antidegradants

Pilflex 13	370.00
Pilnox TDQ	270.00

Prevulcanisation Inhibitor

Pilgard PVI	500.00
Pilnox SP	240.00

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ACCELERATOR ZDC	224.00
ACCELERATOR CBS	360.00
ACCELERATOR MBT	250.00
ACCELERATOR MBTS	285.00
ACCELERATOR ZDBC	297.00
ACCELERATOR ZMBT	305.00
ANTIOXIDANT SP	219.00
ANTIOXIDANT TDQ	225.00
ALUMINIUM SILICATE	13.00
BITUMIN	41.00
BONDING AGENTS	ON REQUEST
CALCIUM SILICATE	13.50
CHINA CLAY	6.50
CALCIUM CARBONATE PRECIPITATED	15.00
CALCIUM CARBONATE ACTIVATED	17.00
CRUMB RUBBER-TRC 40	23.00
CARBON BLACK-ORDINARY	40.00
CARBON BLACK-(HAF/GPF/FEF/SRF/ISAF)	ON REQUEST
D.O.P./D.B.P.	ON REQUEST
EBONITE DUST-(BROWN)	55.00 95.00
EBONITE DUST-(BLACK)	32.00
FACTICE - BROWN	99.00
FACTICE - WHITE	90.00
GRAPHITE POWDER	50.00
LIGHT MAGNESIUM CARBONATE	ON REQUEST
LIGHT MAGNESIUM OXIDE	ON REQUEST
PINE TAR - Synthetic	68.00
PARAFFIN WAX	ON REQUEST
PROCESS OIL	ON REQUEST
PETROLEUM JELLY (WHITE)	100.00
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WHITING POWDER(P&W)	6.50
WOOD ROSIN	108.00/115.00
ZINC HYDROXIDE	20.00
ZINC STEARATE	65.00
ZINC OXIDE-(RUBBER GRADE)	125.00
ZINC OXIDE (WHITE SEAL)	199.00

**Please note it is difficult to stick to prices especially minerals and petroleum products as they fluctuate widely on weekly basis.



INDIAN RUBBER INSTITUTE

(Registered under West Bengal Societies
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APPEAL

DR. D. BANERJEE CENTRE OF EXCELLENCE FOR RUBBER TECHNOLOGY EDUCATION, TRAINING, RESEARCH, TESTING AND SKILL DEVELOPMENT AT JSS SCIENCE & TECHNOLOGY UNIVERSITY, MYSORE

Indian Rubber Institute (IRI) is a non-profit organization involved into education of Rubber Industry Operatives and Professionals for several decades. The experience and knowledgeable faculty of Rubber Industry, Polymer & Rubber Institutes have come forward voluntarily to participate and impart knowledge to the professionals.

IRI also conducts regular courses and have instituted Diploma (DIRI) and Post Graduate Diploma (PGD-IRI) courses for upgrading knowledge of people associated with Rubber & Allied industry while working. The examinations are conducted at eight branches all over India. The Controller of Examination is Rubber Technology Centre, IIT Kharagpur. So far more than 3000 qualified rubber technologists were provided to Indian Tyre and Rubber Industries since its inception.

In order to substantially enhance this activity and to impart knowledge as well as to support rubber industry, small and medium scale in particular, IRI has undertaken setting up this "Centre of Excellence" which will house all types of facility for training, education, hands on experience besides undertaking development and testing for various industrial rubber products and tyres. This centre will be one of the approved training providers in India for Skill Development for the rubber sector under RSDC/NSDC, Govt. of India and an NABL accredited Rubber Product and Tyre Testing Centre.

This centre is being set up at the premises of JSS Science and Technology University, Mysore who were kind enough to provide IRI 10000 sq.ft area on long lease (62 years).

The construction of 32000 sq.ft building is under progress. It will have an auditorium with a seating capacity of 250, training halls (three Nos.), full-fledged Library cum Documentation centre, different laboratories for On the job training & testing like Rubber Processing Lab (Intermixer, 2 Roll Mill, Extruder, Baby Calender, Moulding, Auto clave etc.), Physical Testing Laboratory, Chemical testing Laboratory, Analytical & Characterization Laboratory, Rubber Product Failure Analysis Lab, Rheology Lab, Reverse Engineering facility, Tyre Testing Lab, Pilot Plant for new product development etc. The estimated cost of establishing the centre is Rs. 500 million (Rs. 100 million for Building, Furniture/fixtures, utilities etc. and Rs. 400 million for equipment & machinery).

The construction, commissioning and smooth running of this institute will be possible only with whole-hearted support from well-wishers from the global rubber fraternity. We are appealing individuals/organisations/society/ Universities/ Institutes/raw material suppliers/ equipment suppliers to whole heartedly support this noble cause by way of donation or adopting a Laboratory/Lecture Hall/Library cum Documentation Centre etc.

Your contributions in the form of cheque/DD in favour of "INDIAN RUBBER INSTITUTE", payable at Kolkata may please be sent to above address or may please transfer to account through NEFT/RTGS.

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Your contributions will be acknowledged.

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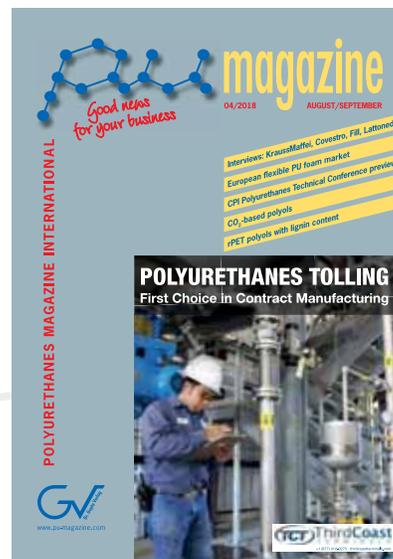
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