

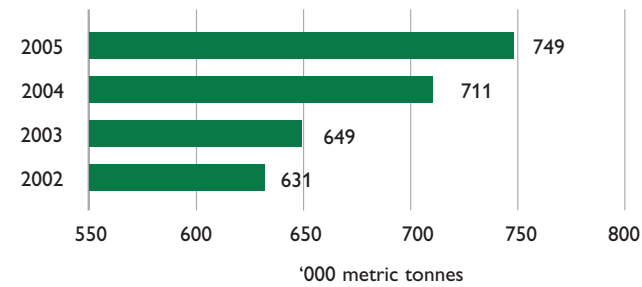
RUBBER & PLASTICS

October 2007

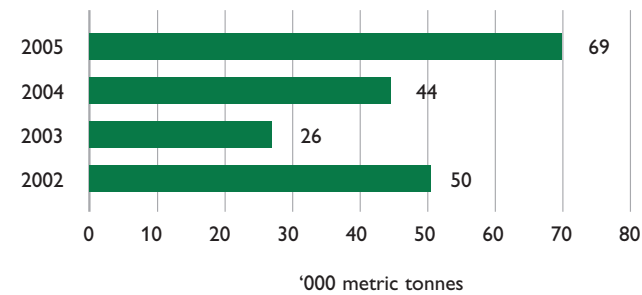
The Rubber industry has been growing rapidly

On the Supply side, Production and Imports have been growing steadily – Domestic Production at 6% CAGR and Imports at 11%

Indian Rubber Production



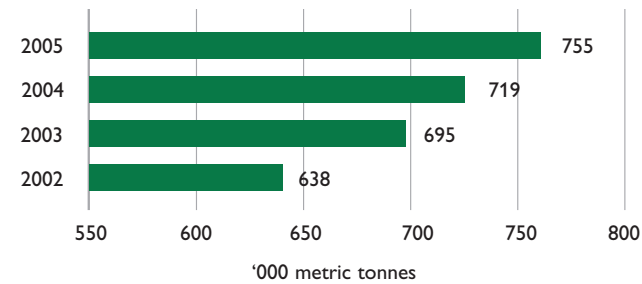
Indian Rubber Imports



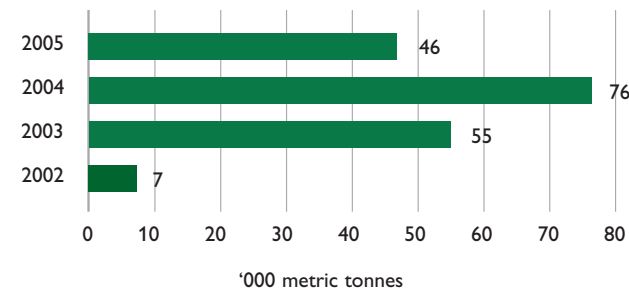
The Rubber industry has been growing rapidly

On the Demand side, Domestic Consumption has been growing steadily at 6% CAGR, while Exports have been fluctuating

Indian Rubber Consumption



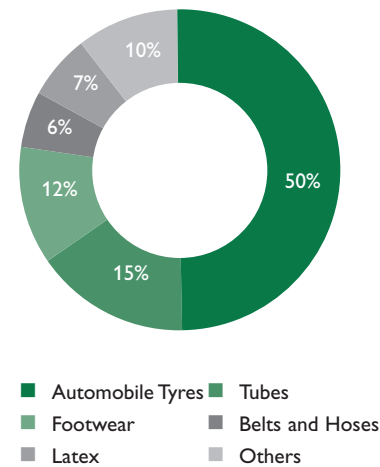
Indian Rubber Exports



Automotive Tyres and Tubes are the dominant user segments for Rubber

- India's booming Auto sector driving production of tyres and tubes and in turn, rubber consumption
- Favourable consumer demographics and increase in consumption spending are other key drivers
- Industrial belts, hoses growth driven by overall growth in manufacturing

Category-wise usage of Rubber

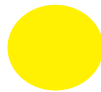


The organised sector in the Rubber industry is competitive, with a number of well established players

High



Medium



Low



Treat of New Entrants

- Fragmented industry
- Growing domestic market
- Number of established, strong players



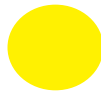
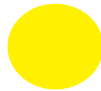
The organised sector in the Rubber industry is competitive, with a number of well established players

Supplier Power

- Abundant supply of raw materials, concentrated in one state
- Suppliers are mostly small and unorganised
- Raw material supply is quite price sensitive

Competitive Rivalry

- Overall industry is fragmented
- Organised sector is competitive



The organised sector in the Rubber industry is competitive, with a number of well established players

Customer Power

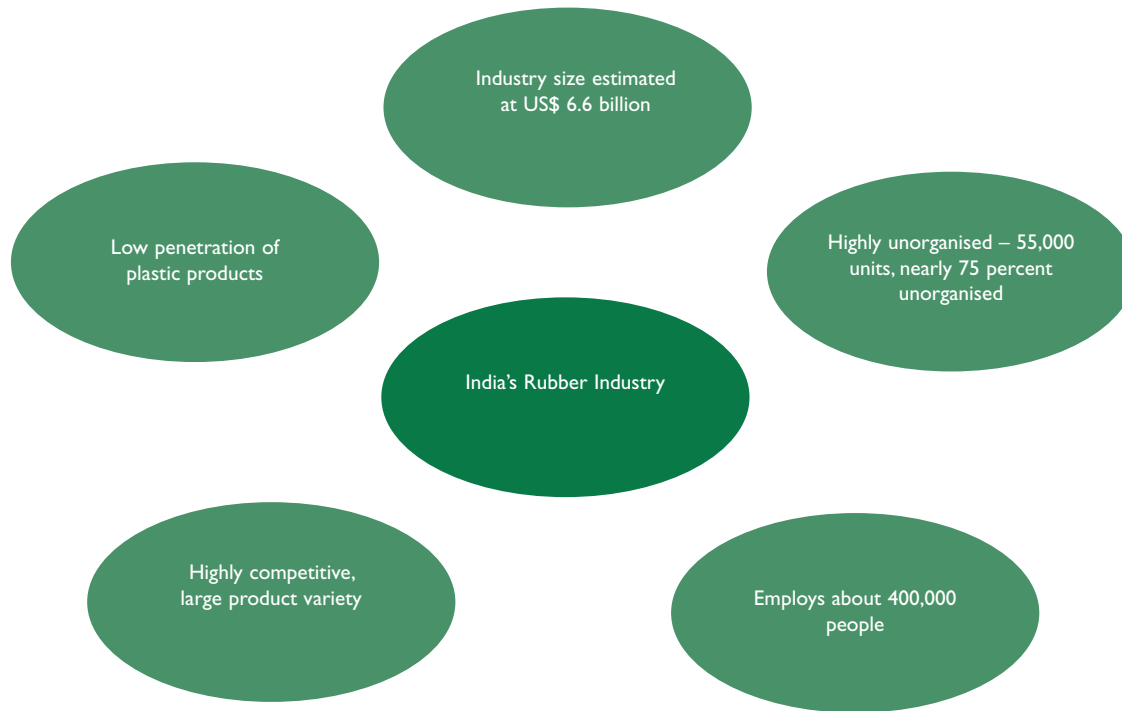
- Increasing demand from key user segments
- Demand for lifestyle products
- Majority of the market still price sensitive

Threat of Substitutes

- No significant threats to natural rubber, though synthetic rubber is being used in some applications

Source: KPMG Analysis

The Indian Plastics Industry is large and fragmented

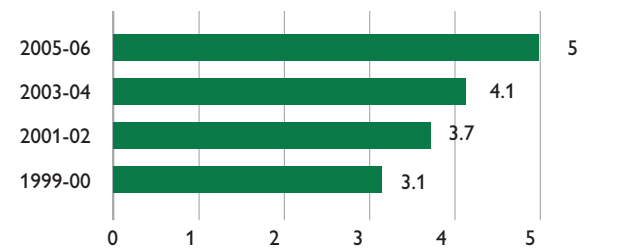


The Plastics Industry has also been growing in domestic and exports markets

Domestic consumption is expected to double to reach nearly 12.5 million MT by 2010

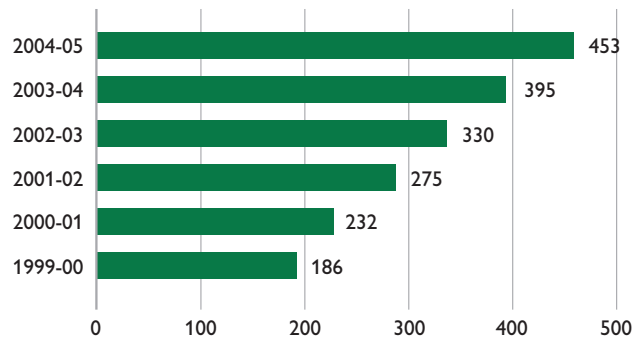
Source: India will be the third largest plastics consumer by 2010 – Hindu Businessline, Jan 21 2006

Plastic consumption



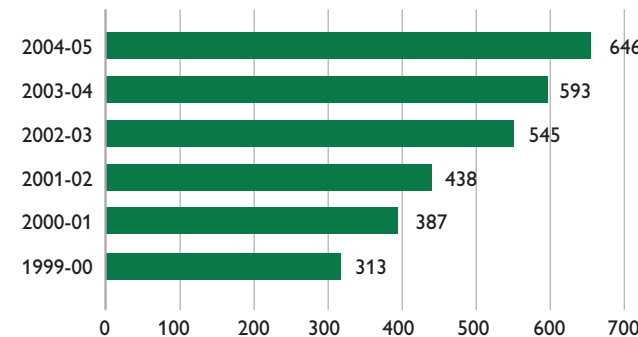
Source: ICRA Plastics Industry Report

Plastics Imports into India



Source: ICRA, KPMG Analysis

Plastics Exports from India

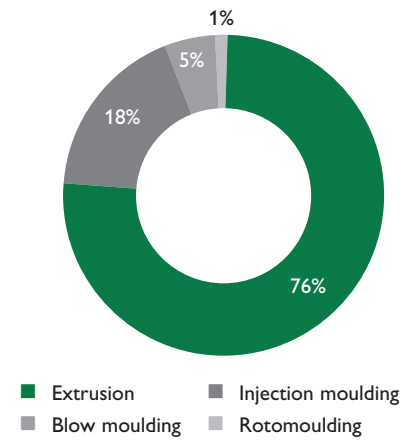


Source: ICRA, KPMG Analysis

Most Plastic products in India are formed by Extrusion

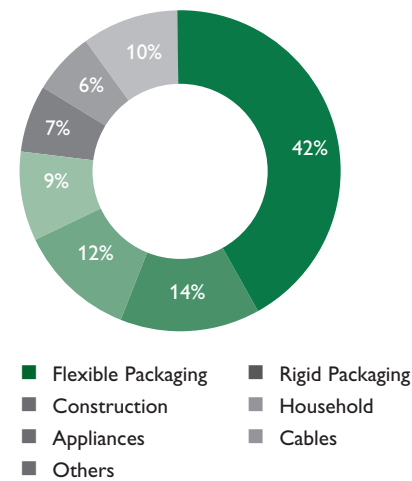
Typical extruded products include Films, Sheets, Bags, Pipes, etc

Plastics: Break-up of Manufacturing processes



Packaging products are the biggest plastic product segment

Plastics - Break-up product/Application



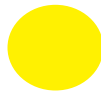
Source: Indo-Italian Chambers of Commerce & Industry

The Plastics sector is competitive, with a large number of small players vying for market share

High



Medium



Low



Treat of New Entrants

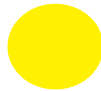
- Most players are small scale
- Growing domestic market
- Industry is not investment intensive



The Plastics sector is competitive, with a large number of small players vying for market share

Supplier Power

- Limited number of suppliers
- Increasing level of imports



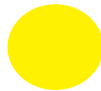
Competitive Rivalry

- The industry is competitive, with a high level of fragmentation



Customer Power

- Buyers include individual consumers and businesses
- Number of manufacturers indicate consumers have choice of whom to buy from



The Plastics sector is competitive, with a large number of small players vying for market share

Threat of Substitutes

- Due to environmental concerns, eco-friendly substitutes could come up, though large scale replacement of plastics is unlikely

Source: KPMG Analysis



Government policies play an important role for the growth of the industry

The Government of India has been proactive in supporting the Plastics and Rubber industry

- The Task Force on Petrochemicals has envisioned the following :
 - Development of value added, quality petrochemical products at globally competitive prices using eco-friendly processes and technologies
 - Innovation of newer applications and products with focus on sustainable development.
-

Government policies play an important role for the growth of the industry

- The thrust areas for the plastic industry include:
 - modern farming through plasticulture
 - packaging for processed foods and consumer non-durables
 - better performing plastics for automobiles and consumer durables
 - infrastructure development through cost effective plastics
 - innovative products for telecommunications and information technology services sector
- Export promotion of natural rubber has been identified as a thrust area in the Tenth Plan

The sector provides several opportunities for Investments

- Plastics Processing Machinery
 - It is estimated that 30,000 new machines and around US\$ 9.5 billion of project investment over the next 3 years¹
- Products
 - Plastics: Electronics, Packaging, Healthcare, Consumer Durables and Telecommunication are fast growing sectors of Indian economy offering growth for plastics consumption
 - Rubber: Tyres & Tubes, Belts
- Technology
 - Development of better performing plastics

Source: [1]www.plastindia.org

Attractive States for Investment

- For Rubber industry, Kerala presents the maximum availability of natural rubber. The state also has a number of small scale units involved in rubber processing/manufacture
 - Though the state does not boast gap of as many industries as neighbouring Tamil Nadu or Karnataka, the state government has recently taken steps to make it more attractive to investors.
 - Tamil Nadu could be another attractive option, given its track record in attracting investment, and proximity to Kerala
 - For Plastics, Gujarat and Maharashtra appear attractive, both from the point of view of proximity to raw materials, and policy support for investments
-

Profile of Key Players

MRF Limited

- Started in 1946 as a small balloon making unit, MRF has grown to become one of India's largest tyre manufacturers, with a turnover close to US\$ 1 billion
 - It manufactures a full range of tyres – from 2 wheelers to 4 wheelers and commercial vehicles
 - The company's main plant is in Tiruvottriyur, Chennai and it has another plant in Pondicherry to manufacture radial tyres
 - It has diversified into toys and games, through Funskool India Ltd, a JV with Hasbro International, USA. The company also has a collaboration with Pirelli to make Conveyor and Elevator belts
 - Strongly associated with racing, rallying and cricket, through sponsorships and its renowned MRF Pace Academy for training fast bowlers in cricket
-

Profile of Key Players

Apollo Tyres

- Established in 1975, Apollo Tyres is one of India's leading manufacturers of tyres for heavy vehicles and off-road applications
 - The company manufactures tyres for passenger cars, light trucks, commercial vehicles, farm equipment and off-road applications
 - The company has its main plant in Kerala and 7 other manufacturing plants across India and Africa – 3 more in India, 2 in South Africa and 2 in Zimbabwe
-

Profile of Key Players

JK Tyres

- Part of the 70 year old, diversified JG Group, the company's first tyre manufacturing plant was set up in 1976 at Kankroli
 - In 1997, it acquired Vikrant Tyres
 - JK Tyres manufactures tyres for passenger cars, commercial vehicles and tractors
 - Products are exported to nearly 55 countries – JK Tyres accounts for nearly 26 percent of all tyre exports from India
 - Along with Vikrant Tyres, it has 4 manufacturing locations in India, and has a turnover of over US\$ 700 million
-

Profile of Key Players

Ceat Ltd

- Part of the RPG Group, Ceat Tyres was established in 1958
 - With a turnover of close to US\$ 450 million, the company manufactures a full range of tyres, for 2 wheelers, 3 wheelers, cars, commercial vehicles, off-roaders and fork lifts
 - It also markets tubes and flaps sourced from other manufacturers
 - It manufactures over 6 million tyres annually from its plants in Mumbai and Nasik
-

Profile of Key Players

Bata India Ltd

- The Bata Group has 40 production facilities across 26 countries and a retail presence in over 50 countries globally.
 - Through its 4600 retail stores, the group employs over 40000 people and serves nearly 1 million customers a day
 - Bata India was established in 1931 and is India's leading footwear manufacturer
 - The company has 1250 outlets, sells nearly 45 million pairs of footwear a year and has a turnover of US\$ 200 million
-

Profile of Key Players

VIP Industries Ltd.

- VIP Industries Ltd. is the flagship company of the US\$ 200 million DG Piramal Group, with a workforce of nearly 2000 people
 - It has 2 manufacturing units in India and multiple sub-contract operations in China and Indonesia
 - The product portfolio of VIP Industries Ltd. today includes a diverse range of hard-sided and soft-sided luggage
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