

Industry Report on Cotton Yarn

20th June 2025

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Annexure for Abbreviation used.

| GDP | Gross Domestic Product | |
|----------------|---|--|
| | | |
| GVA | Gross Value Added | |
| IIP | Index of Industrial Production | |
| PFCE | Private Final Consumption Expenditure | |
| GFCF | Gross fixed capital formation | |
| WPI | Wholesale Price Index | |
| СРІ | Consumer Price Index | |
| у-о-у | Year on Year | |
| m-o-m | Month on Month | |
| IMF | International Monetary Fund | |
| RBI | Reserve Bank of India | |
| MOSPI | The Ministry of Statistics and Programme Implementation | |
| Est., Adv. Est | Estimated, Advance Estimates | |
| P, F | Projected, Forecast | |
| USD | US Dollar | |
| INR | Indian Rupee | |
| Mn, Bn, Tn, Cr | Million, Billion, Trillion, Crore | |
| PLI | Production Linked Incentive | |
| RBI | Reserve Bank of India | |
| CAGR | Compound Annual Growth Rate | |
| FDI | Foreign Direct Investment | |
| MMF | Man-Made Fibres | |
| MMT | Million Metric Tonnes | |
| SEC | Specific Energy Consumption | |
| SSI | Small-Scale Industries | |
| MSP | Minimum Support Prices | |
| ATUFS | Amended Technology Upgradation Fund Scheme | |
| PM MITRA | PM Mega Integrated Textile Regions and Apparel | |
| SITP | Scheme for Integrated Textile Parks | |
| DGFT | Directorate General of Foreign Trade | |
| | | |



| MNRE | Ministry of New and Renewable Energy |
|----------|--|
| PM-KUSUM | Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan |
| NSM | National Solar Mission |
| REC | Renewable Energy Certificates |
| RPOs | Renewable Purchase Obligations |
| AD | Accelerated Depreciation |
| MSP | Minimum Support Prices |
| ESG | Environmental, Social, and Governance |
| GW | Gigawatts |
| EBITDA | Earnings Before Interest, Taxes, Depreciation and Amortization Expense |
| GOTS | Global Organic Textile Standard |
| OCS | Organic Content Standard |
| GRS | Global Recycled Standard |
| SEDEX | Supplier Ethical Data Exchange |
| RCS | Recycled Claim Standards |



Technical Terms Used

- Man-Made Fibres: man-made fibre, fibre whose chemical composition, structure, and properties
 are significantly modified during the manufacturing process. MMF can be organic or inorganic. Organic
 MMF can be made from natural materials like wood or are made from synthetic polymers.
- Mercerization: A chemical treatment applied to cotton fibres or fabrics to permanently impart a greater affinity for dyes and various chemical finishes. This technique also gives cotton cloth increased tensile strength, greater absorptive properties, and, usually, a high degree of lustre, depending on the method used.
- **Sanforization:** It is a mechanical finishing process for woven fabrics, particularly cotton, in which the fabric is stretched, fixed, and stabilized so that it does not shrink significantly after washing. It is also called anti-shrinkage finishing process.
- **BT cotton**: BT cotton is a genetically modified pest-resistant plant cotton variety, modified by the insertion of one or more genes from Bacillus thuringiensis (common soil bacteria) which produces an insecticide to combat bollworms.
- **Minimum Support Price (MSP):** It is a government-set price at which it purchases crops from farmers, ensuring they do not suffer losses due to market fluctuations.
- **Bale:** A unit of measurement for a bundle of raw cotton. In the U.S., a bale weighs approximately 500 pounds (227 kilograms).



Global Macroeconomic Scenario

Global Economic Overview

The global economy, which grew by 3.3% in 2023, is expected to record a sluggish growth of 3.2% in 2024 before rising modestly to 3.3% in 2025. Between 2021-2022, global banks were carrying a historically high debt burden after COVID-19. Central banks took tight monetary measures to control inflation and spike in commodity prices. Russia's war with Ukraine further affected the global supply chains and inflated the prices of energy and other food items. These factors coupled with war-related economic sanctions impacted the economic activities in Europe. Any further escalation in the war may further affect the rebound of the economy in Europe.

While China, the largest manufacturing hub of world, was facing a crisis in the real estate sector and prices of properties were declining between 2020 - 2023, with the reopening of the economy, consumer demand is picking up again. The Chinese Government took several steps to help the real estate sector including cracking down on debt-ridden developers, announcing stimulus for the sector and measures to encourage the completion and delivery of unfinished real estate projects. The sector is now witnessing investments from developers and demand from buyers.

The year 2024 continued to remain a challenging year marked by uncertainties and transformative shifts. Numerous factors such as high inflation in many economies despite central bank effort to curb inflation, continuing energy market volatility driven by geopolitical tensions particularly in Ukraine and Middle East, and the re-election of Donald Trump as US President extended uncertainty around the trade policies as well as overall global economic growth. High inflation and rising borrowing costs affected the private consumption on one hand while fiscal consolidation impacted the government consumption on the other hand. As a result, global GDP growth is estimated to grow by 3.2% in CY 2024 as compared to 3.3% in CY 2023.



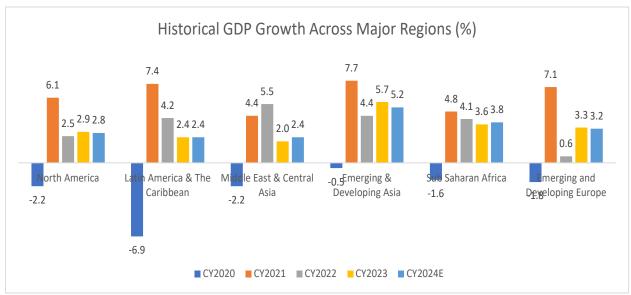
Source – IMF Global GDP Forecast Release January 2025



Note: Advanced Economies and Emerging & Developing Economies are as per the classification of the World Economic Outlook (WEO). This classification is not based on strict criteria, economic or otherwise, and it has evolved over time. It comprises of 40 countries under the Advanced Economies including the G7 (the United States, Japan, Germany, France, Italy, the United Kingdom, and Canada) and selected countries from the Euro Zone (Germany, Italy, France etc.). The group of emerging market and developing economies (156) includes all those that are not classified as Advanced Economies (India, China, Brazil, Malaysia etc.)

GDP Growth Across Major Regions

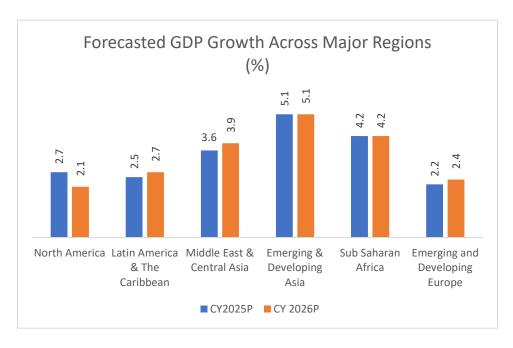
GDP growth of major regions including Emerging and Developing Europe, Latin America & The Caribbean, Middle East & Central Asia, and Sub-Saharan Africa, were showing signs of slow growth and recession between 2020 – 2023, but leaving Latin America & The Caribbean, 2024 is expected to show resilience and growth. Meanwhile, GDP growth in Emerging and Developing Asia (India, China, Indonesia, Malaysia, etc.) is expected to decrease from 5.2% in CY 2024 to 5.1% in CY 2025, while in the North America, it is expected to decrease from 2.8% in CY 2024 to 2.7% in CY 2025.



Source-IMF World Economic Outlook January 2025 update.

Except for Emerging and Developing Asia, Emerging and Developing Europe and North America, all other regions are expected to record an increase in GDP growth rate in CY 2025 as compared to CY 2024. Further, growth in the United States is expected to come down at 2.7% in CY 2025 due to lagged effects of monetary policy tightening, gradual fiscal tightening, and a softening in labour markets slowing aggregate demand. India and China saw greater-than-anticipated growth in 2023 due to heightened government spending and robust domestic demand, respectively. Sub-Saharan Africa's expected growth in 2024 is attributed to the diminishing negative impacts of previous weather shocks and gradual improvements in supply issues.





Source-IMF, OECD, and World Bank, D&B Estimates

Global Economic Outlook

As 2025 begins, there is some uncertainty due to the likely shift in policy following numerous elections around the world. New policies could lead to new trajectories for inflation, borrowing costs, and currency values, as well as trade flows, capital flows, and costs of production. Meanwhile, governments and central banks continue to navigate a balance between a desire to suppress inflation and a goal to boost growth.

Real GDP in advanced economies is projected to grow 1.9% in 2025, up from 1.7% in 2024. In the US, economic activity is expected to remain robust, supported by solid income and productivity, even as real GDP growth slips from 2.8% in 2024 to 2.1% in 2025. In Europe, steady income growth and falling interest rates should drive stronger consumer spending growth and a modest recovery in investment. Real GDP growth in Japan is likely to rebound toward 1.1% driven by a gradual acceleration in real wages and consumer spending. Additionally, real GDP growth in mainland China slowing to 4.6% in 2025 as structural property sector and demographic challenges will restrain economic activity despite fiscal and monetary policy support. India should remain a bright spot, with real GDP growth expected at 6.5%, driven by public investment and strong domestic demand. Latin America is expected to see a mildly stronger expansion, despite a notable slowdown in growth in Brazil.

The emerging markets that have advantageous locations and preferential trade agreements across major blocs will grow. India, Saudi Arabia, Mexico, Brazil, the United Arab Emirates and Southeast Asian economies will benefit from maintaining or developing strong trade and investment relations across geopolitical blocs. India will continue to foster trade and investment ties across geopolitical divides while being a critical driver of South-South trade. Southeast Asia is likely to remain the top destination for foreign investment among



emerging markets. In the US, protectionist measures will be used in a transactional manner to extract trade, immigration, drug traffic control, defense spending and other political concessions from trading partners. We anticipate targeted tariffs on trading partners. However, we note that a scenario factoring 60% tariffs on Chinese imports and a 10% universal tariff on all imports from other US trading partners (assuming proportional retaliation against US exports) would reduce global GDP by 1.4% after two years, with GDP in the US, mainland China, Mexico and Canada reduced by 2.0% to 3.0%.

In Europe, the European Commission will also make increasing use of trade-defensive tools such as tariffs and step up scrutiny of foreign direct investments in strategic sectors. And, in emerging countries, this trend will increasingly manifest in resource nationalism, as governments from Mexico to Indonesia seek greater state involvement in the resources sector or higher value-added process to occur domestically.

Global inflation is expected to decline steadily, to 4.2% in 2025 and to 3.5% in 2026 still somewhat higher than the 3.1% pace in 2019. In advanced economies, where inflation surged to multidecade highs following the pandemic, price pressures are expected to moderate but remain uneven. Wage cost pressures, potential tariffs and limited innovation undermining global competitiveness in some sectors are likely to persist across European economies and the UK. In the US, we expect the moderating trend in inflation will remain in place through early 2025, though it could then change as deregulation, potential immigration restrictions and tariffs lead to a renewed inflation impulse. In contrast to President-elect Trump's first term, these inflationary pressures would come in a new paradigm defined by fragile supply conditions, elevated geopolitical tensions and structural upside risks to inflation. Geopolitical tensions such as the wars in Ukraine and the Middle East could further exacerbate inflation volatility, particularly in energy and agricultural commodities.

Mainland China will face a different macroeconomic challenge: the risk of deflation due to subdued consumer spending trends, cautious business investment and ongoing deleveraging in the property sector. This has prompted authorities to announce stimulus measures to prevent exacerbating deflationary pressures. Indeed, deflation could slow the economic recovery by delaying consumer purchases, eroding corporate revenues and worsening real debt burdens, particularly if property sector weakness and slowing exports continue to weigh on private sector confidence. Emerging markets will grapple with the challenge of curbing inflation while contending with fragile supply chains, volatile commodity prices and foreign exchange fluctuations. Several Asian emerging economies, including India and Indonesia, are better positioned to maintain price stability due to proactive fiscal measures and monetary prudence. The combination of a diversified supply base that mitigates reliance on external inputs and importing deflation from China should further support disinflation.



India Macroeconomic Scenario

In India, growth is expected to decelerate to 6.5% in FY 2024 from 8.2% in FY 2023, reflecting a slowdown in investment and weak manufacturing growth. However, services activity has been steady, while growth in the agricultural sector has recovered. Private consumption growth has remained resilient, primarily driven by improved rural incomes accompanied by a recovery of agricultural output. In contrast, higher inflation and slower credit growth have curbed consumption in urban areas.

| Country | Real GDP Growth (CY 2023) | Estimated GDP Growth (CY 2024) | Projected GDP Growth (CY 2025) | Projected GDP Growth (CY 2026) |
|----------------|---------------------------|--------------------------------|--------------------------------|--------------------------------|
| India | 8.2% | 6.5% | 6.5% | 6.5% |
| China | 5.2% | 4.8% | 4.6% | 4.5% |
| Russia | 3.6% | 3.8% | 1.4% | 1.2% |
| Brazil | 3.2% | 3.7% | 2.2% | 2.2% |
| United States | 2.9% | 2.8% | 2.7% | 2.1% |
| Japan | 1.5% | -0.2% | 1.1% | 0.8% |
| Canada | 1.5% | 1.3% | 2.0% | 2.0% |
| France | 1.1% | 1.1% | 0.8% | 1.1% |
| Italy | 0.7% | 0.6% | 0.7% | 0.9% |
| South Africa | 0.7% | 0.8% | 1.5% | 1.6% |
| United Kingdom | 0.3% | 0.9% | 1.6% | 1.5% |
| Germany | -0.3% | -0.2% | 0.3% | 1.1% |

Source-IMF World Economic Outlook January 2025 update.

Countries considered include - Largest Developed Economies and BRICS (Brazil, Russia, India, China, and South)

Countries have been arranged in descending order of GDP growth in 2023)

Historical GDP and GVA Growth trend

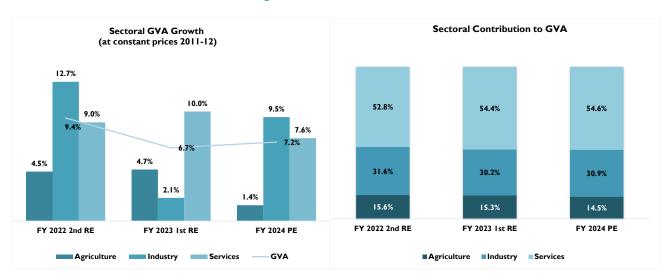
As per the provisional estimates 2023-24, India's GDP in FY 2024 grew by 8.2% compared to 7.0% in the previous fiscal on the back of solid performances in manufacturing, mining, and construction sectors. The year-on-year increase in growth rate is also partly due to by a strong growth in investment demand led by public capital expenditure.





Source: Ministry of Statistics & Programme Implementation (MOSPI), National Account Statistics, 2023-24

Sectoral Contribution to GVA and annual growth trend



Source: Ministry of Statistics & Programme Implementation (MOSPI)

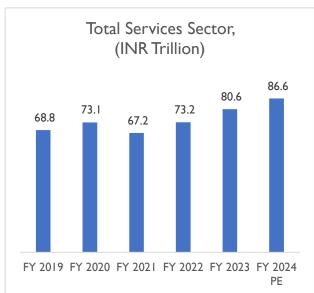
Sectoral analysis of GVA reveals industrial sector recovered sharply registering 9.5% y-o-y increase in FY 2024 against 2.1% in the previous fiscal. In the industrial sector, growth across major economic activity such as mining, manufacturing and construction sector rose significantly and it registered a growth of 7.1%, 9.9% and 9.9% in FY 2024 against a y-o-y change of 1.9%, -2.20%, and 9.44% in FY 2023, respectively. Utilities sector observed a marginal moderation in y-o-y growth to 7.5% against 9.44% in the previous years.

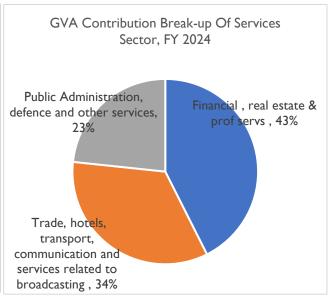
Talking about the services sector's performance, with major relaxation in covid restriction, progress on COVID-19 vaccination and living with virus attitude, business in the service sector gradually returned to normalcy in FY 2023. Economic recovery was supported by the service sector as individual mobility returned to the pre-pandemic level. The trade, hotel, transport, communication, and broadcasting segment continued to strengthen in FY 2023 and grow in FY 2024, although the growth hasn't shown substantial increases. In FY 2024, services sector grew by 7.6% against 10% y-o-y growth in the previous year.



Expansion in Service Sector

Services sector is a major contributor to the country's overall economic growth. In absolute terms, services sector GVA has increased from INR 68.78 trillion in FY 2019 to INR 86.6 trillion in FY 2024 (as per the provisional estimated), registering a CAGR of nearly 5%. Within Services sector, the GVA by financial, real estate and professional services-the largest contributing segment observed 6.3% CAGR while Public Administration, defence and other services I observed 4.5% CAGR and Trade, hotels, transport, communication, and services related to broadcasting witnessed 3.1% CAGR between FY 2019-24.





Sources: MOSPI, CMIE Economic Outlook and Dun & Bradstreet Research Estimates2F²

India's HSBC Services Purchasing Managers' Index, an important indicator to track service sector performance, measured 60.3 in July 2024 against 60.5 in the previous month. Since August 2021, the services sector has consistently remained above the threshold of 50, which distinguishes growth from contraction.

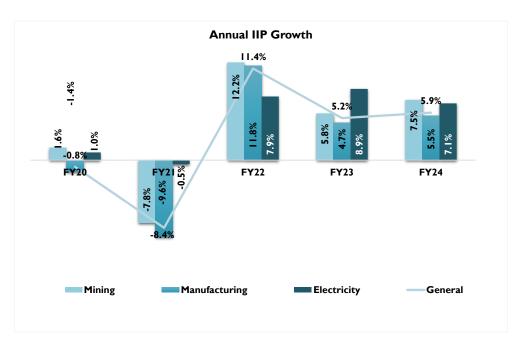
IIP Growth

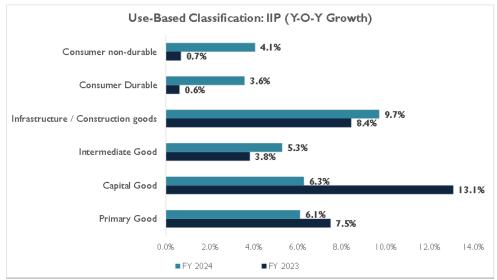
Industrial sector performance as measured by IIP index; in FY 2024 it is growing at 5.9% (against 5.2% in FY 2023). Previously IIP index exhibited temporary recovery in FY 2022 from the low of Covid induced slowdown in industrial growth during FY 2020 and FY 2021. Manufacturing index, with 77.6% weightage in overall index, grew by 5.5% in FY 2024 against 4.7% y-o-y growth in FY 2023 while mining sector index too grew by 7.5% in FY 2024 against 5.8% in the previous years. Mining & manufacturing both shown improvement according to previous except the Electricity Sector Index, witnessed an improvement of 7.1% in FY 2024 against 8.9% in the previous year.

² Projection as Based on CMIE Growth rate till FY 2029 and FY 2030 is based on Dun & Bradstreet assumption.



¹ Other services include Education, Health, Recreation, and other personal services.



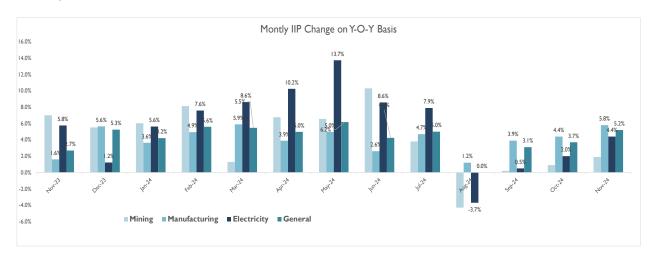


Source: Ministry of Statistics & Programme Implementation (MOSPI)

As per the use-based classification, most segments have shown growth for FY 2024 compared to FY 2023. Capital good and primary goods were segments which faced less growth as compared to previous year. The contracting IIP data points towards adverse operating business climate as global headwinds, high inflation, and monetary tightening cumulatively impacted the broader industrial sector performance. In contrast all the segments except the above two have shown growth.

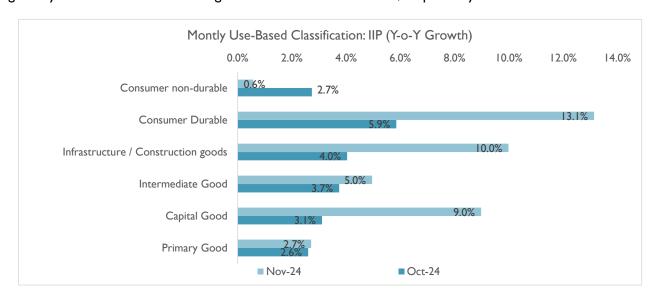


Monthly IIP Growth Trend



Source: Ministry of Statistics & Programme Implementation (MOSPI)

In the current fiscal FY 2025, the monthly IIP measured index has reported steady improvement over the last fiscal. Overall IIP index grew by 5.2% in November 2024 against 2.3% y-o-y growth observed in November 2023. However, the mining sector index growth slowed to 1.9% in November 2024, against 7.0% y-o-y growth in November 2023 while the manufacturing sector index exhibited substantial improvement and they grew by 5.8% in November 2024 against 1.6% in November 2023, respectively.



Sources: MOSPI

As per the use-based classification, growth in all segments excluding consumer non-durable increased in November 2024 as compared to the previous month. Growth in consumer non-durable segment slowed in November 2024 to 0.6% as against 2.7% in October 2024.

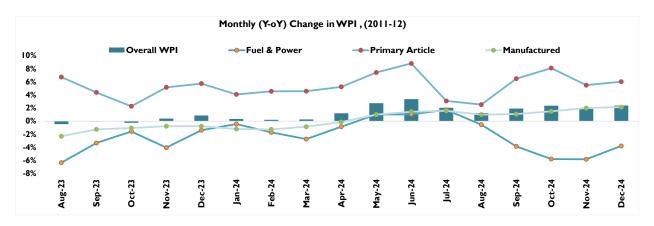
Inflation Scenario

The inflation rate based on India's Wholesale Price Index (WPI) exhibited significant fluctuations across different sectors from August 2023 to December 2024. Overall WPI number measured 2.4% in December

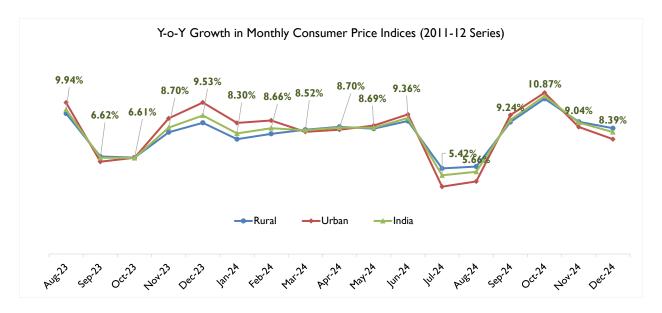


2024. Positive rate of inflation in December 2024 is primarily due to increase in prices of food articles, manufacture of food products, other manufacturing, manufacture of textiles and non-food articles etc. By December 2024, Primary Articles WPI inflation moderated compared to October prices level but increase marginally compared to the previous month and measured 6.0%. The Price of food articles (-3.08%) and crude petroleum & natural gas (- 2.87%) decreased in December 2024 compared to the previous month i.e. November 2024. However, the Price of non-food articles grew by 2.53% and minerals by 0.48% in December 2024 as compared to November 2024.

Moreover, power & fuel, the index for this major group increased by 1.90% to 149.9 in December 2024 from 147.1 in the month of November 2024. Price of electricity (8.81%) and coal (0.07%) increased in December 2024. The price of mineral oils (-0.06%) decreased in December 2024 as compared to November 2024.



Source: MOSPI, Office of Economic Advisor.



Source: MOSPI, Office of Economic Advisor

Retail inflation rate (as measured by the Consumer Price Index) in India showed notable fluctuations between August 2023 and December 2024. Rural CPI inflation peaked at 9.67% in August 2023, declining to 8.65 % in December 2024. Urban CPI inflation followed a similar trend, rising to 10.42% in August 2023 and then



dropping to 7.90% in December 2024. Overall, the national CPI inflation rate increased to 9.94% in August 2023 but moderated to 8.39% by December 2024, indicating a gradual easing of inflationary pressures across both rural and urban areas. CPI measured above 6% tolerance limit of the central bank since July 2023. As a part of an anti-inflationary measure, the RBI has hiked the repo rate by 250 bps since May 2022 to the current 6.5% while it has been holding the rate at 6.5% since 8 Feb 2023.

Growth Outlook

India's HI FY2024-25 GDP slowdown is cyclical, driven by credit tightening and delayed fiscal spending, but strong fundamentals should support growth in the second half of the fiscal year. Politically, the continuation of the National Democratic Alliance (NDA) government signals sustained reforms, with optimism around labour and land reforms. The government is also taking steps to control retail inflation by managing food prices and import duties. Retail inflation eased to 5.2% y/y in December, down from 5.5% in November as vegetable prices moderated following a bumper summer harvest and favourable monsoon. Still-high food prices and geopolitical tensions continue to pose risks to inflation and growth. High retail credit and rising unsecured loans signal consumption-driven borrowing, yet urban demand remains under pressure. Rural demand has shown resilience, benefitting from favourable monsoons, robust agricultural output and elevated food prices. The RBI's September economic review highlighted a contrasting trend in rural and urban consumption demand in H1 FY2024- 25, with rural demand remaining robust, while urban demand showed weakness.

On external front, the global business environment remains cautious, with geopolitical tensions, particularly in Gaza, posing potential risks to global stability. In mid-January 2025, the Indian rupee dropped below INR 86.6 USD, due to strong dollar demand from foreign banks, likely due to outflows from equities and the weakness in regional peers as the dollar strengthened. Rupee continued to face pressure due to sustained foreign fund outflows and the broad strength of the American currency in the overseas markets due to unabated dollar demand from oil importers and weak risk appetite

Looking ahead to 2025, India's projected GDP growth of 6.5% stands out as the fastest among major emerging markets, significantly outpacing China's 4.6%, and Brazil's 2.2%. This robust growth trajectory is expected to sustain at 6.5% annually from 2025 to 2026, reflecting strong economic fundamentals and continued momentum.

This decent growth momentum in near term CY 2025 is accompanied by a slowdown in inflation, as well as various other factors in the medium to long term that will support the economy. These include enhancements in physical infrastructure, advancements in digital and payment technology, improvements in the ease of doing business and a higher quality of fiscal expenditure to foster sustained growth.



On the demand side, improving employment conditions and moderating inflation are expected to stimulate household consumption. Further, the investment cycle is gaining traction, propelled by sustained government capital expenditure, increased capacity utilization and rising credit flow.

From uplifting the underprivileged to energizing the nation's infrastructure development, the Government has outlined its vision to propel India's advancement and achieve a 'Viksit Bharat' by 2047 in the interim budget announced on I st Feb 2024. The Union Budget for FY26, which takes a balanced approach to sustaining economic momentum. With a focus on stimulating demand, driving investment and ensuring inclusive development, the budget introduces measures such as tax relief, increased infrastructure spending and incentives for manufacturing and clean energy. These initiatives aim to accelerate growth while maintaining fiscal discipline, reinforcing India's long-term economic resilience. The expansion of tax relief i.e. zero tax liability for individuals earning up to INR 12 lacs annually under the new tax regime is expected to strengthen household finances and, consequently, boost consumption.



Textile Industry in India

Overview

India ranks as the 6th largest exporter of textiles and apparel globally, with the sector, including handicrafts, accounting for a significant 8.21% of the country's total exports in 2023-24. India holds a 3.91% share in the global textile and apparel trade. The USA and the European Union are the primary export destinations, collectively making up approximately 47% of India's total textile and apparel exports.

The industry plays a crucial role in employment, directly providing jobs to over 45 million people and supporting the livelihoods of more than 100 million individuals indirectly, including a substantial number of women and rural workers. The sector aligns seamlessly with key government initiatives such as Make in India, Skill India, Women Empowerment, and Rural Youth Employment.

To promote inclusive and participatory growth, the government remains focused on strengthening textile manufacturing by developing world-class infrastructure, advancing technology, fostering innovation, enhancing skill development, and leveraging India's traditional strengths in textiles. India's textile industry contributes around 2.3% to the GDP and provides direct and indirect employment to over 65 million people. As a significant textile producer, the sector is projected to reach \$350 billion by 2030, with an estimated addition of 35 million jobs.

The textile sector is expected to benefit from government policies focused on increasing exports and improving competitiveness. The Union Budget for 2025-26 highlights efforts to strengthen manufacturing and support exports through initiatives like the Cotton Productivity Mission, which aims to enhance cotton quality and production.

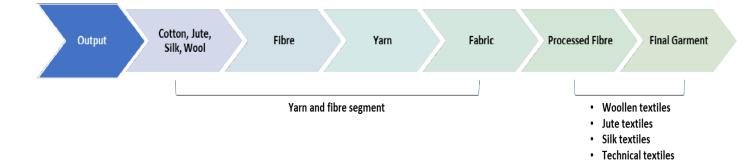
India is a major manufacturer of PPE and is projected to reach \$92.5 billion by 2025, up from \$52.7 billion in 2019. The country is also a significant producer of textiles and garments and exports apparel, home textiles, and technical products. The textile and apparel industry contributes 2.3% to India's GDP, 13% to industrial production, and 10.5% to exports, with its GDP contribution expected to increase to around 5% by the end of the decade.

India accounts for 4.6% of global textile and apparel trade and is a key exporter in multiple textile segments. In FY25 (April-June), exports of readymade garments, including accessories, were valued at \$2,244 million. The sector aims to achieve \$100 billion in exports by FY30, compared to \$34.43 billion in FY24.

The industry employs approximately 45 million people, including 3.5 million in the handloom sector. The textile sector has shown recovery post-pandemic, with the Manufacturing of Textiles Index reaching 106 in June 2024.



Key segments



Cotton:

India is the leading producer of cotton, often referred to as White Gold, and cultivates all four species: Gossypium arboreum and G. herbaceum (Asian cotton), G. barbadense (Egyptian cotton), and G. hirsutum (American Upland cotton).

Wool:

India ranks as the ninth-largest wool producer globally and produces three main categories: Carpet Grade, Apparel Grade, and Coarser Grade.

Silk:

India is the second-largest producer of silk and manufactures four types of natural silk: Mulberry, Eri, Tasar, and Muga.

Man-Made Fibres (MMF):

The MMF industry accounts for 17% of India's textile exports, with the country ranking as the sixth-largest exporter of MMF textiles worldwide.

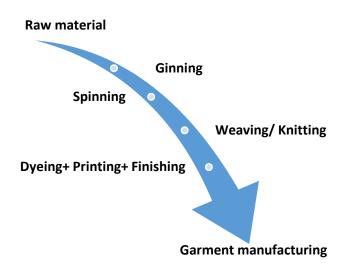
Technical Textiles:

These textiles are designed for technical performance and functionality, with applications in industries such as construction, agriculture, aerospace, automotive, healthcare, protective gear, and home care.



Mapping the textile manufacturing process & value chain (from input material to finished product)

Textile manufacturing involves converting raw fibres into finished materials such as fabrics and clothing. The process begins with fibre sourcing, which includes natural fibres like cotton, wool, and silk, as well as synthetic fibres such as polyester and nylon. While cotton remains the most commonly used natural fibre, synthetic fibres are widely favoured for their durability and cost-effectiveness. However, their extensive use raises environmental concerns, as they are derived from petrochemicals and contribute to micro plastic pollution. Textiles are responsible for approximately 9% of annual micro plastic losses to the ocean, with the production and washing of synthetic fabrics releasing plastic particles that persist in ecosystems.



I. Raw Material

The textile manufacturing process begins with sourcing raw materials, which can be natural or synthetic. Natural fibres like cotton, wool, silk, and flax (linen) come from plants and animals, while synthetic fibres such as polyester, nylon, and acrylic are derived from petrochemicals. The quality and type of fibre used play a crucial role in determining the properties of the final textile product.

2. Ginning

Ginning is an essential process for cotton textiles, where raw cotton fibres are separated from seeds. This is done using ginning machines that remove impurities and ensure cleaner fibres. The cleaned cotton is then pressed into bales for easy transport to spinning mills. Proper ginning enhances fibre quality and contributes to the efficiency of subsequent textile processes.



3. Spinning

The production of textile products from cotton fibre occurs through a two-stage process. The initial phase involves transforming raw cotton fibre into yarn via the spinning process. The subsequent phase converts the cotton yarn into fabric through weaving. It is important to recognize that these two stages represent a broad classification that also encompasses various other activities, such as mixing, carding, combing, drawing, roving, warping, and finishing. However, spinning and weaving are the fundamental processes at the heart of cotton fabric production.

4. Weaving/Knitting

Once the yarn is prepared, it is converted into fabric through weaving or knitting. Weaving involves interlacing yarns at right angles using looms to produce fabrics like denim, cotton blends, and polyester textiles. Knitting, on the other hand, loops yarns together, creating stretchable and breathable fabrics such as jersey and wool-based textiles. The selection of weaving or knitting depends on the intended application of the fabric, whether for casual wear, sportswear, or industrial use.

5. Dyeing, Printing & Finishing

The fabric undergoes dyeing, printing, and finishing to enhance its appearance and functionality. Dyeing involves adding colour to the fabric using chemical or natural dyes. Printing applies patterns or designs using methods like screen printing, digital printing, or block printing. Finishing treatments improve fabric properties, such as softness, water resistance, and wrinkle resistance. Techniques like mercerization add luster to cotton, while sanforization prevents shrinkage, making the fabric more durable and suitable for end-use.

6. Garment Manufacturing

The final stage of textile production is garment manufacturing, where fabrics are transformed into finished clothing items. The process begins with pattern making, followed by fabric cutting and stitching. Quality control ensures that garments meet industry standards for fit, durability, and aesthetics. Finally, garments are ironed, packaged, and distributed to retailers or directly to consumers. This stage is crucial for ensuring that the finished product is market-ready and meets customer expectations.



Insight on textile production scenario

The textile production scenario, particularly in India, is undergoing a dynamic phase marked by both challenges and opportunities. The industry has faced significant headwinds due to fluctuating cotton prices, which have adversely impacted production costs and profitability. Additionally, diminishing demand from major export markets such as the United States and the European Union has led to reduced capacity utilization and a decline in exports. For instance, US garment imports reportedly fell by 22.8% in value terms as of September 2023. Rising freight costs, driven by geopolitical unrest, have further strained operational budgets, increasing pricing pressures and affecting competitiveness. Furthermore, the influx of imported fabrics and garments from countries like China and Bangladesh has intensified competition for domestic manufacturers, with issues such as under-invoicing exacerbating the situation.

Despite these challenges, there are several positive developments that indicate a promising future for the sector. The technical textiles and man-made fibre segments are expected to grow significantly, supported by government initiatives aimed at boosting global market share. Sustainability and traceability are becoming key focus areas for manufacturers, with increased investments in recycling technologies and water-saving practices. Government interventions, such as the **PM MITRA Park Scheme** and branding initiatives like **Kasturi Cotton** to enhance cotton production, are also expected to bolster the industry's growth trajectory. Furthermore, market diversification strategies are being encouraged to reduce dependency on traditional markets. Exploring new destinations like Japan and leveraging anticipated free trade agreements with the EU and UK could provide additional growth opportunities.

India's textile industry is currently valued at \$174 billion and is projected to reach \$350 billion by 2030. Employing over 45 million people and producing approximately 22 billion garments annually, the sector holds a 4.5% share in global textile trade and ranks fifth globally in production. While challenges such as demand fluctuations and competitive pressures persist, the industry's focus on sustainability, innovation, and government-backed initiatives presents a pathway for long-term growth and resilience.



Cotton Production in India

Cotton cultivation in India: Area under production, key growing hubs / states

Cotton is a significant commercial crop in India, contributing approximately 23% of global cotton production. It supports the livelihood of around 6 million cotton farmers and 40-50 million people involved in related activities such as cotton processing and trade. The Indian textile industry utilizes a variety of fibres and yarns, with a cotton-to-non-cotton fibre usage ratio of about 60:40, compared to 30:70 globally. In addition to providing clothing, cotton plays a key role in India's foreign exchange earnings through exports of raw cotton, intermediate products like yarn and fabrics, and finished goods such as garments, made-ups, and knitwear. Due to its economic significance, cotton is sometimes referred to as "White Gold" in India.

Cotton Acreage and yield

| Cotton Year | Cotton Average (in lakh hectares) | Cotton Yield (Lint in Kg/ha) |
|-------------|--------------------------------------|------------------------------|
| 2019-20 | 134.77 | 460 |
| 2020-21 | 132.85 | 451 |
| 2021-22 | 123.71 | 428 |
| 2022-23 | 130.61 | 447 |

Source: Ministry of Textiles

India has the largest cotton acreage globally, with 130.61 lakh hectares under cultivation, covering about 40% of the world's total cotton-growing area of 324.16 lakh hectares. Around 67% of India's cotton is grown in rain-fed regions, while 33% is cultivated on irrigated land. In terms of productivity, India ranks 39th, with a yield of 447 kg/ha.

India is the only country that cultivates all four species of cotton: Gossypium arboreum and Gossypium herbaceum (Asian cotton), Gossypium barbadense (Egyptian cotton), and Gossypium hirsutum (American Upland cotton). Gossypium hirsutum accounts for 90% of hybrid cotton production in India, and all current Bt cotton hybrids belong to this species.

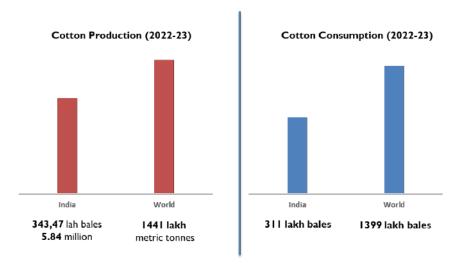
Cotton production in India is concentrated in nine major states, categorized into three agro-ecological zones:

- Northern Zone: Punjab, Haryana, and Rajasthan
- **Central Zone**: Gujarat, Maharashtra, and Madhya Pradesh
- Southern Zone: Telangana, Andhra Pradesh, and Karnataka

Additionally, cotton is cultivated in Odisha and Tamil Nadu.



India ranks second globally in cotton Production



Source: Ministry of Textiles

India ranks second globally in cotton production, with an output of 343.47 lakh bales (5.84 million metric tonnes) during the 2022-23 cotton season, accounting for 23.83% of the world's total production of 1441 lakh bales (24.51 million metric tonnes). Additionally, India is the world's second-largest consumer of cotton, with an estimated consumption of 311 lakh bales (5.29 million metric tonnes), representing 22.24% of the global consumption of 1399 lakh bales (23.79 million metric tonnes).

Key growing hubs / states-

| Rank | State | Contribution to Total Cotton Production |
|------|----------------|---|
| I | Gujarat | 27% |
| 2 | Maharashtra | 23% |
| 3 | Telangana | 16% |
| 4 | Rajasthan | 8% |
| 5 | Karnataka | 6% |
| 6 | Andhra Pradesh | 5% |
| 7 | Haryana | 5% |
| 8 | Madhya Pradesh | 4% |
| 9 | Punjab | 3% |
| 10 | Odisha | 2% |

Source: Ministry of Textiles



• **Gujarat** (27%)

Gujarat is the largest cotton-producing state in India, contributing 27% to the total national production. Gujarat, often referred to as the 'Cotton Bowl' of India, is the leading producer, contributing approximately 9 million bales annually, with prominent districts like Rajkot, Surendranagar, and Bhavnagar. The state's black soil (Regur soil) and semi-arid climate create ideal conditions for cotton cultivation. Gujarat is known for high-yield varieties, and irrigation facilities in some regions further enhance production. The state is also home to a large number of textile mills and ginning factories, strengthening the cotton value chain.

• Maharashtra (23%)

Maharashtra ranks second in cotton production with a 23% share. Maharashtra follows closely, producing around 8.5 million bales annually, primarily in the Vidarbha region, including districts like Yavatmal, Akola, and Amravati. However, the state's cotton farmers face challenges such as unpredictable rainfall, drought conditions, and soil degradation. Despite these difficulties, Maharashtra remains a significant contributor to India's cotton industry, with extensive use of genetically modified (BT) cotton to boost yields.

• Telangana (16%)

Telangana is the third-largest cotton-producing state, contributing 16% to India's total production. Telangana has emerged as a significant player in recent years, producing about 5.5 million bales annually in districts such as Warangal, Adilabad, and Nizamabad. The state has witnessed rapid growth in cotton cultivation due to favourable climatic conditions, government support, and widespread adoption of BT cotton. The availability of irrigation from the Godavari and Krishna rivers has also played a crucial role in increasing cotton output. Telangana's cotton industry is well-connected to textile hubs, ensuring a strong market for farmers.

Annual production & consumption of cotton (in terms of volume)

Production and consumption of cotton

| Cotton Year | Production (in lakh bales) | Consumption (including MSME, non-MSME and Non Textile) (in lakh bales) |
|-------------|----------------------------|--|
| 2019-20 | 365.00 | 269.19 |
| 2020-21 | 352.48 | 334.87 |
| 2021-22 | 311.17 | 322.41 |



| 2022-23 | 343.47 | 311.00 |
|---------|--------|--------|
| 2023-24 | 398.38 | 351.00 |

Source: Ministry of Textiles

Cotton production and consumption from 2019-20 to 2022-23 highlights significant trends and fluctuations in India's cotton industry. In 2019-20, production stood at 365 lakh bales, significantly exceeding consumption, which was **269.19 lakh bales**, indicating a surplus year. However, in 2020-21, while **production declined to 352.48 lakh bales**, consumption saw a sharp rise to **334.87 lakh bales**, suggesting increased demand, possibly due to economic recovery post-pandemic, higher textile industry operations, or export growth.

The most notable shift occurred in 2021-22 when production dropped substantially to 311.17 lakh bales, marking the lowest production in four years, while consumption remained high at 322.41 lakh bales. This created a scenario were consumption nearly matched production, leading to potential supply concerns. Several factors, such as adverse weather conditions, pest infestations, or lower acreage under cotton cultivation, might have contributed to this decline in output.

In 2022-23, cotton **production rebounded** to **343.47 lakh bales**, reflecting improved agricultural conditions, better yields, or government support measures. However, **consumption declined slightly** to **311 lakh bales**, possibly due to reduced industrial demand, global market changes, or price fluctuations affecting domestic usage. The most notable change occurred in 2023-24, where production surged to **398.38 lakh bales**, surpassing previous years and ensuring a substantial supply over the **consumption level of 351 lakh bales**. Over the four years, while production generally remained higher than consumption, the gap between the two varied, with 2021-22 being the only year where demand almost surpassed supply. These trends indicate the dynamic nature of India's cotton industry, influenced by both internal agricultural factors and external market forces, emphasizing the need for strategic planning in cotton cultivation, pricing, and trade policies.

Consumption pattern by end use segment (mills / non-mills / SSI units / Others)

1. Mills (Large and Medium Industries)

• Energy Utilization

Mills, such as those in the grain processing sector, are significant users of energy. Studies indicate that a portion of the electrical load in Karnataka's industrial sector is attributed to these mills.

The specific energy consumption (SEC) varies among different mills. For example, SEC for grain mills ranges from 0.01 to 0.43 kWh per unit of production depending on the type of energy used (electricity vs. biomass) and the district.



• Types of Energy Used

Mills use both commercial (electricity, coal, oil) and non-commercial energy sources (fuelwood, agricultural waste). In Karnataka, consumption is distributed between these two categories.

A portion of the total electricity produced is consumed by industrial units, reflecting their reliance on high-quality energy sources for operation.

2. Non-Mills (Power looms, Handlooms, Hosiery)

Energy Consumption Patterns

Non-mill sectors such as power looms and handlooms have lower energy consumption compared to large mills but remain important to the industrial landscape. These units often rely more on manual labour or limited mechanization.

Energy efficiency in these sectors varies based on technology adoption; for instance, power looms are more energy-intensive than handlooms due to their dependence on electricity.

Sectoral Insights

Comprehensive studies on non-mill sectors are limited, but existing research suggests opportunities for improving energy efficiency across these units.

3. Small-Scale Industries (SSI Units)

Energy Consumption Overview

SSIs include industries such as food processing and textiles. While individual SSIs may have relatively low energy consumption levels, their cumulative impact is notable given the large number of such units across India.

Surveys show that specific energy consumption in SSIs varies significantly; some groups exhibit SEC values differing by a factor of ten or more, indicating potential for energy conservation.

• Challenges and Opportunities

Many SSIs operate below their production capacity, with some surveyed units utilizing less than half of their installed capacity. This underutilization contributes to inefficiencies and higher per-unit energy costs.

Targeted studies could help identify specific energy consumption patterns across different SSI sectors to improve efficiency and reduce costs.



4. Others (Cottage Industries, Village Industries)

Energy Use Characteristics

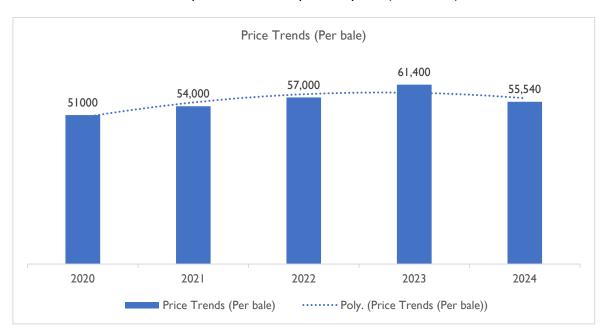
Cottage industries often rely on manual labour and have modest energy demands compared to larger industrial units. They frequently use non-commercial sources like biomass for operations.

These industries are important for rural economies, but face challenges related to modernization and access to efficient technologies.



Cotton price movement: Analysis of past 5-year price movement trend

• Price movement of cotton per bale over the past five years (2020-2024)



Source: PIB Government, Bank Bazaar

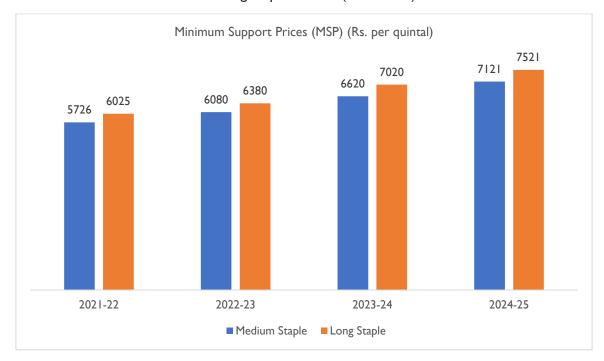
Over the past five years (2020-2024), cotton prices have exhibited a fluctuating trend, starting with a steady rise before experiencing a slight decline. In 2020, the price per bale was ₹51,000, which increased consistently over the following years. By 2021, it had risen to ₹54,000, followed by ₹57,000 in 2022, and reaching a peak of ₹61,400 in 2023. This upward trend suggests strong demand, possible supply shortages, or external market factors driving the price increase. Various influences, including global cotton consumption, agricultural productivity, and economic conditions, may have contributed to this growth.

However, in 2024, the price declined to ₹55,540, indicating a market correction. This drop could be attributed to factors such as increased cotton production, decreased global demand, or regulatory interventions like subsidies and trade policies. The polynomial trend line in the chart reflects this pattern, showing an initial rise followed by stabilization or a slight decrease. The correction suggests that while the market experienced a peak, it has now adjusted to changing supply and demand dynamics.

Despite the decline in 2024, the overall trend since 2020 still reflects price growth, as current levels remain higher than those seen at the beginning of the period. This increase could be linked to inflationary pressures, rising production costs, or shifts in global trade. Additionally, external factors such as climatic conditions, changes in the textile industry, and international market trends could continue to influence price fluctuations.



Trend in MSP for Medium and Long Staple Cotton (2021-2025)



Source: Cotton Association of India

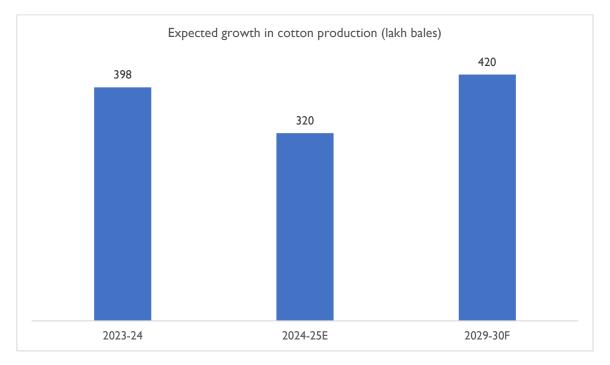
Minimum Support Prices (MSP) for Medium Staple and Long Staple cotton from 2021-22 to 2024-25, measured in Rs. per quintal. It shows a steady increase in MSP for both categories over the years.

In 2021-22, the MSP for Medium Staple cotton was Rs. 5,726 per quintal, while Long Staple cotton was priced at Rs. 6,025 per quintal. The following year, 2022-23, saw an increase to Rs. 6,080 per quintal for Medium Staple and Rs. 6,380 per quintal for Long Staple. The upward trend continued in 2023-24, with the MSP rising to Rs. 6,620 per quintal for Medium Staple and Rs. 7,020 per quintal for Long Staple. The latest data for 2024-25 reflects further growth, with Medium Staple cotton reaching Rs. 7,121 per quintal and Long Staple cotton at Rs. 7,521 per quintal.

Overall, the MSP for Medium Staple cotton has risen by approximately 24.3% from 2021-22 to 2024-25, while Long Staple cotton has increased by about 24.8% in the same period. The continuous rise in MSP suggests an effort to enhance farmers' income while accounting for inflation and production costs.



Expected growth in cotton production in India (next 5 years)



Source: OECD-FAO Agricultural Outlook 2021-2030

Global cotton production is projected to grow steadily, reaching approximately **28.4 million metric** tons (Mt) by **2030**. In 2030, India is projected to be the largest producer of cotton, contributing **25%** of global production.

In the year 2023-24, the estimated cotton production is **398 lakh bales**. However, a decline is anticipated in 2024-25, with production expected to drop to **320 lakh bales**. This decrease could be attributed to factors such as climate conditions, reduced sowing area, or lower yield per hectare. Despite this temporary decline, the long-term forecast for 2029-30 projects a significant recovery, with **production expected to rise to 420 lakh bales**. This indicates a positive growth trend in the long run, potentially driven by better agricultural practices, improved seed varieties, government support, and increased investments in the cotton sector.

The fluctuations in cotton production reflect the dynamic nature of the agricultural sector, which is influenced by multiple factors, including weather conditions, government policies, global demand, and technological advancements. While the short-term decline may be concerning, the overall long-term growth projection suggests resilience and potential expansion in the Indian cotton industry.



Cotton Yarn Industry in India

Cotton yarn production

The transformation of raw cotton into yarn involves a series of intricate processes, primarily categorized into ginning and spinning. Let's delve deeper into each stage to understand the nuances of cotton yarn production.

Ginning Process

Ginning is the foundational step in cotton processing, focusing on separating cotton Fibers from seeds and eliminating impurities to prepare the Fibers for spinning

Separation (Cotton Picking & Ginning)

- o Harvesting: Cotton is harvested from fields and transported to ginning facilities.
- Drying: Upon arrival at the gin, seed cotton is subjected to drying to reduce moisture content, facilitating efficient processing.
- Initial Cleaning: The dried cotton passes through cleaning equipment to remove foreign matter such as burs, dirt, stems, and leaf material.
- Ginning: The cleaned cotton is then processed through gin stands where revolving circular saws
 pull the lint through closely spaced ribs, effectively separating the fibres from the seeds.

Cleaning & Baling

- Secondary Cleaning: Post-ginning, the lint undergoes additional cleaning to ensure the removal of any remaining impurities, enhancing fibres quality.
- Moisture Restoration: After cleaning, the cotton may be moistened to prevent fibre breakage during subsequent processing stages.
- Baling: The cleaned and conditioned lint is then compressed into bales, typically weighing around
 227 kilograms (500 pounds), for efficient storage and transportation to spinning mills.

• Major Cotton Ginning Hubs in India:

- o Gujarat: Leading cotton producer with numerous modern ginning mills.
- o Maharashtra
- Telangana
- Madhya Pradesh
- Punjab



Spinning Process

Spinning is the subsequent phase where cleaned cotton fibres are transformed into yarn through a series of methodical steps.

• Opening & Cleaning

- Bale Opening: Compressed cotton bales are fed into machines that loosen and blend the fibres, preparing them for cleaning.
- Blow Room Process: The loosened fibres pass through a sequence of machines designed to remove impurities and achieve a uniform fibres mass.

• Carding (Fiber Alignment & Web Formation)

 Carding Machine: The fibres are fed into a carding machine, which disentangles, cleans, and aligns them into a thin web. This web is then condensed into a continuous strand known as a sliver.

• Combing (Optional)

 Combing: For finer yarns, the sliver undergoes combing to remove shorter fibres and further align the longer fibres, resulting in a smoother and stronger yarn.

Drawing & Roving

- o Drawing: Multiple slivers are combined and drawn out to improve uniformity and strength.
- Roving: The drawn sliver is then slightly twisted and wound onto bobbins to form roving, which
 is suitable for the final spinning process.

• Spinning (Final Yarn Formation)

- Spinning Frame: The roving is fed into a spinning frame where it is further drawn out and twisted to form yarn of the desired thickness and strength.
- Winding: The finished yarn is then wound onto cones or bobbins, making it ready for weaving or knitting into fabrics.

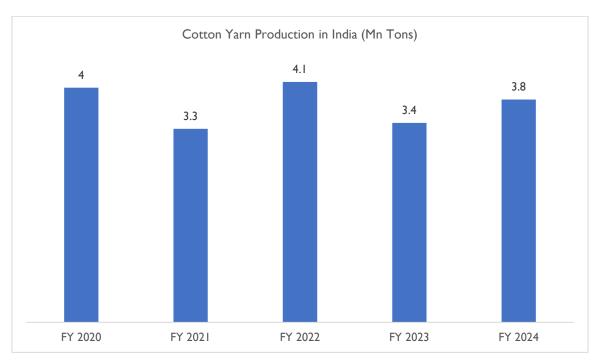
• Major Cotton Spinning Hubs in India:

- Tamil Nadu: Cities like Coimbatore, Erode, and Tiruppur are renowned as "The Manchester of South India" due to their extensive spinning mills.
- o Maharashtra: Notable centres include Nagpur and Solapur.
- o Gujarat: Ahmedabad and Surat are prominent for their spinning industries.
- Punjab: Ludhiana is a key hub.



Cotton ginning & spinning industry in India

Annual production of cotton yarn & historical trend in production



Source: Ministry of Textiles, D&B research

Annual production of cotton yarn

• Global Standing & Spinning Capacity

- o India holds the second-largest spinning capacity in the world, just after China.
- The country's spinning sector is highly fragmented, comprising large-scale mills, power loom units, and handloom sectors.
- The majority of the spinning capacity is concentrated in Gujarat, Maharashtra, and Telangana,
 where the climate and infrastructure Favour cotton processing.

• Annual Production & Growth Trends

- India produced nearly 3.8 million tons of cotton yarn in FY 2024, maintaining a steady supply for the domestic and global markets.
- The production has seen fluctuations over the years, influenced by factors such as raw cotton availability, global demand, government policies, and climatic conditions.
- The cotton yarn industry has benefited from technological advancements in spinning mills, adoption of automated machinery, and government incentives under schemes like the Amended Technology Upgradation Fund Scheme (ATUFS).



Contribution to the Textile Industry

- The cotton yarn industry is a critical component of India's textile value chain, providing raw material to the weaving, knitting, and garmenting sectors.
- India's textile and apparel sector contributes around 2.3% to the country's GDP and 12% to export earnings.

Historical Trends in Cotton Yarn Production

2018-2019: Steady Growth and Export Dominance

- •India maintained its position as a leading cotton yarn producer, with exports constituting a significant portion of production.
- •Major export destinations included China, Bangladesh, and Vietnam, driven by competitive pricing and quality.

2020: COVID-19 Pandemic Impact The pandemic led to factory shutdowns, labour shortages, and supply chain disruptions, causing a sharp decline in production and exports.

• Domestic demand plummeted due to reduced consumer spending on textiles and apparel.

2021: Gradual Recovery Amidst Challenges

- •With easing restrictions, the industry began recovering; however, challenges like fluctuating cotton prices and global shipping issues persisted.
- •The government introduced support measures, including subsidies and incentives, to revitalize the sector.

2022: Emphasis on Sustainability

- A global shift towards sustainable textiles prompted Indian manufacturers to adopt eco-friendly practices, such as organic cotton cultivation and green manufacturing processes.
- •Innovators like Abhishek Bansal at Arvind Limited led initiatives in sustainable cotton yarn production, aligning with global environmental standards.

2023: Export Resurgence

India's cotton yarn exports surged by approximately 85-90%, attributed to a shift in sourcing preferences away from China and an uptick in demand from markets like the US and EU.

•Despite increased export volumes, operating margins faced pressure due to lower yarn realizations and reduced gross contributions.

2024: Anticipated Industry Rebound

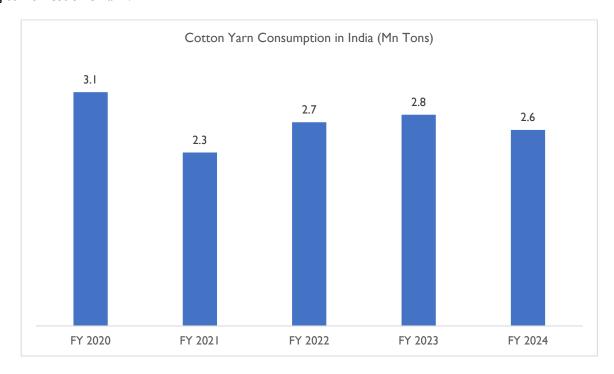
Projections indicate a 6-8% expansion in the domestic cotton yarn sector, driven by recovering demand in home textiles and ready-made garments.

 The government's focus on boosting cotton production, particularly the extra-long staple variety, aims to enhance raw material availability and quality.



Domestic Consumption scenario

India's cotton yarn industry plays a pivotal role in the textile value chain, with the majority of its production catering to domestic demand.



Source: D&B research

Domestic Consumption & Fabric Production

- Nearly 70% of India's total cotton yarn production is consumed domestically by textile mills.
- The knitted and woven fabric industry is the largest consumer of cotton yarn, producing a variety of cotton-based products, including:
 - o Apparel (shirts, trousers, ethnic wear)
 - Home textiles (bedsheets, curtains, upholstery)
 - o Industrial textiles (canvas, denim, medical textiles)
- The increasing preference for natural and breathable fabrics has driven demand for cotton yarn in the domestic market.

> Factors Driving Domestic Consumption

- Rise in Disposable Income: Growing affluence among Indian consumers has led to a higher demand for premium and sustainable cotton clothing.
- Changing Fashion Trends: The increasing adoption of casual and comfortable clothing has boosted demand for cotton-based apparel.



- Sustainability Awareness: With a global shift towards eco-friendly textiles, cotton-based fabrics have gained preference over synthetic fibres.
- Government Initiatives: Programs like the Production Linked Incentive (PLI) Scheme for Textiles and Amended Technology Upgradation Fund Scheme (ATUFS) support the growth of the domestic textile sector.

Export Contribution & Global Demand

- The remaining 30% of India's cotton yarn production is exported, making it one of the largest exporters globally.
- Key export destinations include:
 - o China (largest importer for its fabric manufacturing units)
 - o Bangladesh (for garment industry supply chains)
 - Vietnam, Turkey, and Egypt (major textile hubs)
- Export fluctuations are influenced by:
 - o Global trade agreements and tariff structures.
 - o Competition from countries like China and Pakistan.
 - Currency exchange rates affecting international pricing.

> Minimal Imports Due to Self-Sufficiency

- India imports negligible cotton yarn due to its strong domestic production.
- The only imports involve specialty yarns or high-quality blends that are not widely manufactured domestically.

Key demand drivers

The demand for cotton yarn is directly related to the demand scenario prevalent in the domestic textile industry. Being the primary input material used for cotton textiles, factors that have an impact on the overall textile as well as cotton textile industry have a direct impact on cotton yarn demand. Some of the key factors that are having an impact on the larger textile and cotton textile industry include:

Access to large urban population, young demography of India, availability of raw materials, existence of total value chain, Government support and technology up-gradation are major factors that contribute to the growth of overall textile sector.

Access to large base of Urban population:

India is undergoing in rapid demographic changes for over three decades, with a population of 1.44 billion, India has become the most populous country in the world. An emerging middle class with higher discretionary



spending power and increased appetite for consumer goods is fuelling overall textile industry in domestic market. Growth in domestic textile market has a high degree of correlation with the rise of affluent middle class cantered in urban markets. With increasing population, the trend of urbanization is also increasing. More and more people are migrating to cities every year, thus increasing urban population along with increasing disposable income.

India's capital New Delhi is identified as the world's fastest growing city, surpassing Tokyo, and Shanghai. Urban population increased from 278 Mn to 373 Mn during the past decade (2001-11) and the proportion of urban population to total population increased from ~27.8% to ~31%. In the last decade urbanization in India has increase at an average annual rate of about 2.4%. By 2030, the share of urban population is estimated to grow to about 41.7% of the population of India i.e., 625 Mn where 5 state in India namely Tamil Nadu, Gujarat, Maharashtra, Karnataka, and Punjab will have more than 50% urbanization. Also, the number of metropolitan cities in India is projected to increase from 46 in 2011 to 68 by 2030. Similarly, the urbanization of India is only at 33%³, which is an indicator that there is still a lot of rural divides in the country, which has the potential to become urban as tier II and tier III cities in the long term.

These larger trends (on urbanization & overall population growth) have created a large customer base for all kinds of consumer products, including textile products. Since cotton textile products has traditionally been strongly favoured by Indian consumer class, the growth in consumer base has helped in increasing the demand for all type of cotton textiles, and consequently for cotton yarn.

Higher demand from rural areas:

Traditionally, demand for textile products were lower in rural areas because of lower disposable income of rural consumer compared to their urban peers. However, the difference in disposable income has been improving in favour of rural consumers due to higher employment by means of government sponsored job outreach programs like MNREGA. Consequently, rural consumer base has increased, and rural income growth has been supporting the growth of textile products.

Changes in spending pattern

Spending pattern of the new class of consumer segment with higher disposable income has turned out to be entirely different from previous existing consumer segments. Spending on consumer durables and non-durables has seen a particular increase as this new consumer class mirrors the spending pattern observed in advanced economies. Exposure to consumption pattern and lifestyle pattern in western economies has played a role in this change. Consequently, the frequency on spending on clothing products among this new consumer segment has gone up.



Growth in Fashion Industry:

Fashion industry is evolving with increasing demand for fast fashion products is witnessing a surge in India. This is driven by changing consumer preferences, increasing disposable incomes, and the influence of social media. This growth trend is reshaping the retail landscape and creating significant opportunities for both established and emerging brands.

The primary drivers of this demand for fast fashion are Millennials and Gen Z consumers, who are increasingly seeking affordable yet trendy clothing options. Fast fashion brands cater to this demographic by offering a constant stream of new styles that align with current trends. Reports indicate that these consumers are not only purchasing more frequently but also experimenting with diverse styles, influenced heavily by social media platforms like Instagram. The ability of fast fashion brands to quickly identify and capitalize on viral trends has become a crucial factor in their success.

This has directly resulted in higher demand for all kind of textile products, and consequently for all type of textile input materials including cotton yarn.

• Rise in organized retail sector as well as e-commerce:

The rise of organized retail and the e-commerce sector in India has significantly contributed to the increased demand for textile apparel. These platforms have expanded access to a wide range of apparel products, providing convenience and a diverse selection for consumers across the country. The availability of a broader product range, competitive pricing, and discounts have fuelled consumer interest in textile apparel. Moreover, the enhanced consumer experience through user-friendly websites, personalized recommendations, and hassle-free returns has further stimulated demand.

The influence of social media and influencer marketing, along with the penetration of organized retail and e-commerce in tier 2 and tier 3 cities, has opened new markets and brought textile apparel within the reach of a larger consumer base. Overall, these developments have transformed the textile apparel market, making it more accessible, convenient, and appealing to consumers, leading to a rise in demand for textile apparel products.



Export of cotton yarn from India: Annual exports & top 5 export markets

Annual export of Cotton yarn

• India is one of the largest exporters of cotton yarn globally, playing a crucial role in the international textile trade. The export of cotton yarn has shown fluctuations over the years, influenced by domestic production, global demand, and international trade policies.

Trends in Cotton Yarn Exports

- In recent years, India's cotton yarn exports have seen both growth and decline due to various factors such as global economic conditions, demand from key markets, and domestic raw material availability.
- A significant increase in exports was observed during certain years, driven by strong demand from international buyers and favourable government policies.
- However, some years witnessed a decline due to external factors like trade restrictions, rising production costs, and disruptions in the global supply chain.

• Factors Influencing Export Performance

1. Global Demand and Trade Policies

- Major importing countries include China, Bangladesh, and Vietnam, where India competes with other leading producers.
- Trade agreements and tariff regulations impact India's competitiveness in the global market.

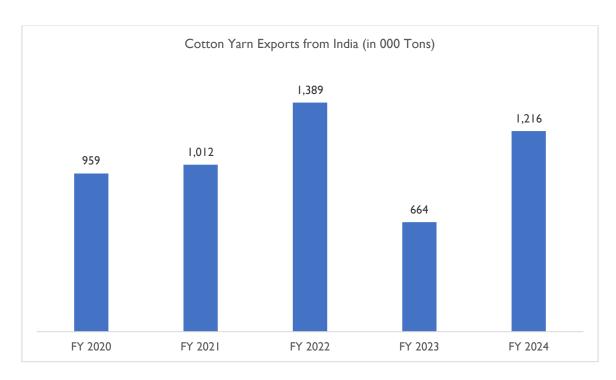
2. Domestic Production and Pricing

- Cotton availability and pricing within India affect yarn exports, as raw material costs influence profitability.
- Government policies related to subsidies and incentives for the textile sector play a vital role in maintaining steady export levels.

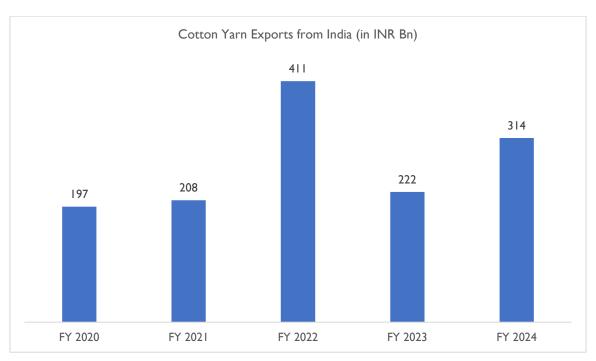
3. Impact of China + I Strategy

- With major economies reducing reliance on China for textile imports, India stands to gain a larger share in global markets.
- Increased interest in India as an alternative sourcing destination has the potential to boost cotton yarn exports in the coming years.





Source: D&B research

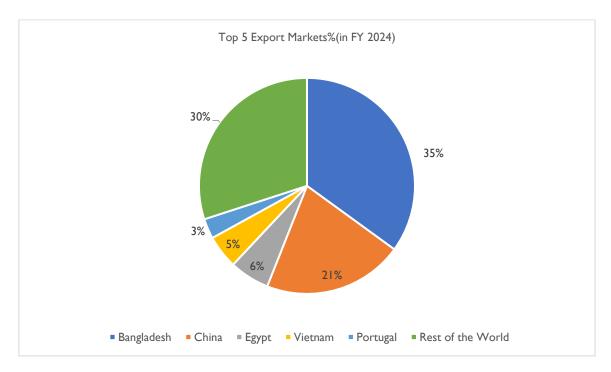


Source: D&B research

The graphs illustrate the annual cotton yarn exports from India in terms of quantity (000 tons) and value (INR billion). The data shows a notable increase in exports over certain years, followed by a decline, and then a recovery. The peak export volume and value were recorded in one financial year, followed by a drop due to possible global trade challenges. However, recent trends indicate a rebound, showcasing India's strong position in the global textile industry. The increase in exports aligns with international market shifts, including the China +1 strategy, which favours India as a key supplier.



Top 5 Export Markets



Source: D&B research

India remains one of the world's largest exporters of cotton yarn, leveraging its strong textile industry and abundant raw material availability. In FY 2024, India's cotton yarn exports saw steady growth, primarily driven by demand from Asian and European markets. The major export destinations include Bangladesh, China, Egypt, Vietnam, and Portugal, with the rest of the world accounting for a substantial portion.

• Bangladesh (35%)

- Bangladesh continues to be the largest importer of Indian cotton yarn due to its significant textile and garment manufacturing industry.
- The duty-free access for Indian cotton yarn under trade agreements further boosts exports to Bangladesh.

China (21%)

- China has increased its cotton yarn imports from India due to supply chain shifts and a decline in domestic production.
- o The rising cost of raw materials in China has made Indian yarn a more attractive alternative.



• Egypt (6%)

- Egypt, known for its textile industry, has been steadily importing Indian cotton yarn to support its local spinning and weaving mills.
- o Demand is driven by the production of fine-quality fabrics and home textiles.

Vietnam (5%)

- Vietnam's growing textile and garment industry has fuelled demand for imported cotton yarn.
- o Indian cotton yarn is preferred due to its competitive pricing and consistent quality.

• Portugal (3%)

- Portugal, a key European textile hub, imports Indian cotton yarn for use in apparel and home textile manufacturing.
- o Sustainable and organic cotton yarns are gaining popularity in the European market.

India's cotton yarn exports are well-diversified, with Bangladesh and China leading as top destinations. The increase in demand from Vietnam and Egypt highlights India's growing presence in both Asian and African textile markets. Despite global challenges, India's strong production capacity and trade agreements have positioned it as a crucial player in the global cotton yarn trade.



Regulatory Landscape

The Indian government has implemented a comprehensive regulatory framework and introduced several initiatives to bolster the cotton yarn manufacturing sector. These measures aim to enhance domestic production infrastructure, ensure quality standards, and promote sustainable growth.

Schemes and Initiatives to Develop Domestic Production Infrastructure

Production Linked Incentive (PLI) Scheme for Textiles

• Launched to promote the production of Man-Made Fiber (MMF) apparel, MMF fabrics, and technical textiles, the PLI Scheme offers incentives based on incremental turnover and investment in these segments. This initiative aims to enable the textile industry to achieve economies of scale and become globally competitive.

PM Mega Integrated Textile Regions and Apparel (PM MITRA) Scheme

• This scheme envisions the establishment of seven mega textile parks to create integrated textile value chains. The objective is to enhance competitiveness, attract investments, generate employment, and position India as a global textile manufacturing and export hub.

Amended Technology Upgradation Fund Scheme (ATUFS)

•ATUFS is designed to facilitate the modernization and upgradation of the textile industry by providing creditlinked capital investment subsidies. The scheme aims to promote ease of doing business, generate employment, and enable the textile industry to compete globally by encouraging investments in state-of-the-art technology.

Scheme for Integrated Textile Parks (SITP)

The SITP aims to provide world-class infrastructure for textile manufacturing by establishing integrated textile parks. These parks consolidate multiple textile businesses into one location, enabling companies to share resources, reduce costs, and improve overall productivity

National Technical Textiles Mission

Approved with a total outlay of ₹1,480 crores, this mission aims to position India as a global leader in technical textiles by promoting research, innovation, and indigenous production. The mission focuses on developing the usage of technical textiles in various flagship missions and programs, including strategic sectors, thereby enhancing the domestic production infrastructure

Regulatory Framework Governing the Cotton Yarn Manufacturing Sector in India

The cotton yarn manufacturing sector in India operates under a comprehensive regulatory framework designed to ensure quality, promote sustainable practices, and protect the interests of stakeholders:



Textile (Development and Regulation) Order, 2001 This order mandates the registration of textile units and ensures adherence to prescribed standards, aiming to maintain quality and regulate the orderly development of the textile industry.

Bureau of Indian Standards (BIS) • The BIS sets quality standards for various textile products, including cotton yarn, ensuring that manufacturers comply with specified norms to maintain product quality and safety.

Export-Import Policy • The Directorate General of Foreign Trade (DGFT) outlines policies related to the export and import of cotton and cotton yarn, including licensing requirements, export incentives, and quality stipulations, to regulate trade and promote the industry's growth.

Labour Laws

• The industry is subject to various labour regulations, such as the Factories Act, Minimum Wages Act, and Employees' Provident Funds Act, ensuring worker welfare, safety, and fair compensation.

Environmental Regulations Manufacturers must comply with environmental laws, including the Environment Protection Act and Water (Prevention and Control of Pollution) Act, to minimize the environmental impact of textile manufacturing processes.

Union Budget FY 2025: Impact on Textile & Cotton Yarn Sector

The Union Budget FY 2025 introduced several measures impacting the textile and cotton yarn sector:

• Allocation to the Ministry of Textiles:

The budget allocated ₹5,252 crores to the Ministry of Textiles, marking a significant increase from the previous fiscal year's allocation of ₹3,342 crores. This enhanced budgetary support is expected to fund various schemes aimed at boosting the textile sector's infrastructure and competitiveness.

• Launch of the Cotton Mission:

A significant announcement in the budget was the introduction of a six-year program to boost cotton production, particularly focusing on extra-long staple (ELS) cotton varieties. This mission aims to enhance



cotton productivity and reduce import dependency by promoting research and development in high-yielding cotton varieties.

• Customs Duty Adjustments:

The budget proposed reductions in customs duty on specific textile machinery, aiming to lower raw material costs for domestic manufacturers and enhance the competitiveness of Indian textile products in international markets.

• Support for Sustainability Initiatives:

Recognizing the global shift towards sustainable practices, the budget emphasized support for eco-friendly textile manufacturing processes, encouraging the industry to adopt sustainable and innovative practices to meet international environmental standards.



Solar & Wind Energy in India

Overview of Ground & Roof-Mounted Solar Power Plant Scenario in India

India has emerged as one of the global leaders in the deployment of solar energy, owing to its abundant solar irradiation, favourable climatic conditions, and a well-structured policy framework that promotes renewable energy adoption. The country's ambitious targets under the **National Solar Mission** have significantly accelerated the pace of solar power development across both large-scale and decentralized formats.

Solar power infrastructure in India is broadly categorized into two formats based on installation type: ground-mounted solar plants and roof-mounted (rooftop) solar systems.

Ground-Mounted Solar Plants

These installations are typically large-scale solar photovoltaic (PV) systems where solar panels are mounted directly onto the ground, usually across vast stretches of land. They are designed to generate significant volumes of electricity and are primarily deployed by:

- Utility-scale developers who feed the power into the national grid
- Large industrial units that utilize the power for their own operations through captive consumption or group captive models

Such systems are ideal for industries with access to surplus land and high-power demand, enabling them to reduce operational costs and gain better control over energy availability.

Rooftop Solar Plants

Rooftop solar systems are installed on the roofs of industrial buildings, commercial establishments, institutions, and residential complexes. These systems are generally smaller in scale compared to ground-mounted projects but are highly efficient for offsetting on-site electricity consumption. They allow users to directly consume the solar energy generated on their premises, thereby reducing dependency on grid-supplied power.

Installed Capacity (as of May 31, 2025)4

As of May 31, 2025, India's total installed solar power capacity has reached I 10.83 gigawatts (GW). This capacity is derived from two major segments of solar energy installations in the country. The ground-

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⁴ Ministry of New and Renewable Energy (MNRE)

mounted solar power plants contribute the largest share, with a total capacity of **84.43 GW**. These are large-scale solar installations typically deployed on open land for utility-scale electricity generation.

In addition, the **grid-connected solar rooftop segment** has achieved an installed capacity of **18.37 GW**. These rooftop systems are installed on residential, commercial, institutional, and industrial buildings, feeding solar energy directly into the local distribution networks or for captive use. Together, these installations highlight the growing adoption of solar power across different scales in India.

This significant capacity addition has been the result of multiple factors working in synergy to promote solar adoption, including:

- **Declining Solar Module Prices**: Continuous technological advancements and scaled-up production have led to a sharp fall in the cost of solar panels, making installations more economically viable.
- **Supportive Net Metering Policies**: Consumers are allowed to export surplus power back to the grid, effectively reducing their electricity bills and improving the return on investment.
- Accelerated Depreciation Benefits: Businesses can claim higher depreciation rates on solar assets,
 leading to substantial tax savings in the initial years.
- **Financial Incentives and Subsidies**: Central and state governments offer capital subsidies, low-interest loans, and other incentives to encourage solar deployment in the commercial and industrial segments.

Industrial Benefits of Captive Solar Installations

For industries, both rooftop and ground-mounted solar systems are especially advantageous as they help mitigate the burden of rising electricity tariffs and reduce reliance on grid-based or diesel-generated electricity. The ability to generate and consume their own power not only ensures energy cost savings but also supports long-term sustainability goals. Additionally, captive solar installations allow businesses to contribute toward India's national clean energy targets and improve their ESG (Environmental, Social, and Governance) profiles.

Overview of Windmill Power Generation Scenario in India

Wind energy continues to be a cornerstone of India's renewable energy ambitions, ranking as the second-largest source of clean energy after solar power. The country's geographical landscape, particularly in the southern and western regions, offers immense wind potential. States like **Tamil Nadu, Gujarat, Maharashtra, Karnataka**, and **Rajasthan** have emerged as leading destinations for wind energy projects due to their consistent and favorable wind conditions. The adoption of wind energy is aligned with India's broader goals of energy security, sustainability, and decarbonization.



Types of Wind Power Installations

Wind turbines, commonly referred to as windmills, function by converting the kinetic energy of wind into electrical energy. These turbines can be deployed in different configurations depending on the intended use. Broadly, wind power installations in India fall into two categories:

- The first is utility-scale wind farms, which are large projects connected directly to the national grid
 and are mainly developed by independent power producers and energy utilities. These installations
 contribute significantly to the country's total renewable energy output.
- The second type includes captive wind projects, where wind turbines are set up by industries either
 at their premises or in remote locations under group captive models. These projects are designed to
 meet the internal energy demands of businesses, enabling them to reduce dependence on grid electricity
 and benefit from lower power costs.

Installed Capacity and Recent Growth⁵

As of **March 2025**, India's total installed wind power capacity reached **50.04 gigawatts (GW)**. This milestone reflects the country's sustained efforts in scaling up wind energy deployment. The increase in capacity has been supported by both policy initiatives and industry participation.

During **FY 2024–25**, India added **4.15 GW** of new wind power capacity—marking a notable improvement over the **3.25 GW** added in the previous fiscal year. This growth signifies not just momentum in project development, but also growing confidence among investors and developers in the sector's long-term viability.

Industrial Adoption of Wind Energy

A noteworthy trend in the Indian wind energy space is the increasing interest from industries in adopting wind power for their operational needs. Businesses, especially those with high energy consumption, are installing wind turbines on-site or entering into **group captive agreements** to lock in long-term power costs.

This approach not only ensures more predictable electricity pricing but also helps companies meet their sustainability targets and reduce carbon footprints, contributing to India's climate commitments.

Government Support for Renewable Energy in the Industrial Sector

To accelerate the adoption of clean energy in India's industrial and commercial segments, the Government of India primarily through the **Ministry of New and Renewable Energy (MNRE)** has launched a range



⁵ Ministry of New and Renewable Energy, Press Information Bureau.

of policy measures, schemes, and financial incentives. These initiatives aim to make renewable energy technologies more accessible, affordable, and financially viable for businesses. Below is a detailed overview of key government support mechanisms:

Production-Linked Incentive (PLI) Scheme

The Production-Linked Incentive (PLI) Scheme, launched by the Ministry of New and Renewable Energy (MNRE), is a key initiative aimed at promoting domestic manufacturing of high-efficiency solar photovoltaic (PV) modules and reducing reliance on imports. With a financial outlay of ₹24,000 crore, the scheme targets the creation of gigawatt-scale manufacturing capacity for critical components such as polysilicon, wafers, cells, and modules. Manufacturers are selected through a transparent bidding process and receive performance-linked financial incentives for five years post-commissioning, based on actual production and sales. This initiative is expected to boost vertically integrated solar manufacturing in India, lower the cost of solar energy, improve supply chain resilience, and accelerate the adoption of solar power, particularly in the industrial and commercial sectors.

PM-KUSUM Scheme

While primarily designed for the agricultural sector, the **Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM)** Scheme also has provisions that benefit industries especially those operating in rural or semi-urban areas. The scheme supports the installation of **decentralized solar power plants** (up to 2 MW capacity) on barren or unused land. Industries located near such projects can partner with developers to procure clean power through open access, reducing their reliance on grid electricity and cutting operational costs.

National Solar Mission & Wind Energy Mission

India's long-term renewable energy roadmap is guided by flagship initiatives such as the **Jawaharlal Nehru National Solar Mission (NSM)** and the **National Wind-Solar Hybrid Policy**. These missions aim to establish policy certainty, attract private investment, and create a competitive market environment. They provide visibility on future capacity targets, tariff-based bidding mechanisms, and the availability of grid infrastructure factors that are crucial for industries planning long-term energy strategies.

Renewable Energy Certificates (RECs)

The Renewable Energy Certificate (REC) mechanism enables industries to meet their Renewable Purchase Obligations (RPOs) even if they are unable to directly procure green power. By purchasing RECs from the power exchange, companies can demonstrate their commitment to clean energy without necessarily setting up their own renewable generation infrastructure. This mechanism creates flexibility and promotes a market-driven approach to renewable energy adoption.



Financial Incentives and Tax Benefits

Accelerated Depreciation (AD):

Businesses investing in renewable energy assets are eligible for **accelerated depreciation of up to 40%** in the first year of commissioning. This allows them to significantly reduce their taxable income, thereby improving project returns and shortening the payback period.

• Capital Subsidies & Interest Subsidies:

Various **state-level policies** offer direct financial support in the form of **capital subsidies** for setting up renewable energy systems, especially in MSMEs. In addition, some states provide **interest subvention schemes** that lower the effective cost of financing renewable projects.

• Net Metering and Group Captive Models:

Net metering regulations allow commercial and industrial users to feed surplus solar or wind power into the grid and receive credit, reducing their electricity bills. Similarly, **group captive models** allow multiple entities to jointly own a renewable project and consume the generated electricity, offering both cost benefits and regulatory compliance under open access frameworks.

Cost Saving and Industrial Benefits

Captive solar and wind energy systems offer significant benefits for industrial and commercial users by reducing electricity costs, enhancing energy security, and supporting sustainability goals. With solar and wind power costing $\stackrel{?}{\underset{?}{?}}2.5-\stackrel{?}{\underset{?}{?}}5$ per unit compared to $\stackrel{?}{\underset{?}{?}}6-\stackrel{?}{\underset{?}{?}}9$ from the grid industries save substantially, especially in energy-intensive sectors. These systems ensure reliable power, reducing dependency on grids prone to outages. They also help meet ESG targets and comply with Renewable Purchase Obligations. Despite upfront costs, a short payback period of 3–5 years, long asset life, and tax incentives make them financially attractive with long-term savings.



Competitive Landscape

The cotton yarn industry in India is a dynamic sector characterized by the presence of established manufacturers, mid-sized enterprises, and smaller spinning units. Competition is shaped by factors such as operational efficiency, production capacity, and compliance with evolving market trends. The industry benefits from the availability of domestic cotton, but challenges related to cost fluctuations, regulatory requirements, and evolving consumer preferences influence market positioning.

Companies in this sector focus on optimizing production efficiency, adopting technological advancements, and meeting quality standards to strengthen their market presence. Export markets play a crucial role, with international demand influencing pricing and production strategies. The ability to maintain cost-effectiveness while ensuring product quality and sustainability is a key aspect of competitiveness. Additionally, government policies, infrastructure development, and industry-specific initiatives impact business operations and future growth opportunities.

Analysis of Nature of Competition in Indian Cotton Yarn Manufacturing Industry

Raw Material Sourcing & Price Stability

- Cotton price variations influence cost structures and profitability.
- * Efficient procurement strategies and supply chain management contribute to cost stability.

• Export Market Penetration & Trade Policies

- Access to international markets is influenced by trade regulations and currency fluctuations.
- Adherence to global quality standards enhances acceptance in export markets.

Technology & Automation in Manufacturing

- Process automation and advanced spinning techniques support efficiency improvements.
- Investment in monitoring systems and optimized resource utilization enhances production consistency.

• Product Diversification & Value-Added Yarns

- Demand for specialized yarns, including organic and blended varieties, is growing.
- Expanding product offerings to cater to evolving industry requirements strengthens market positioning.



Sustainability & Compliance with Global Standards

- Market preference for environmentally responsible production methods is increasing.
- Compliance with sustainability certifications enhances credibility in domestic and export markets.

• Financial Strength & Investment in R&D

- ❖ Investment in research and development supports process innovation and product improvement.
- Financial resources enable capacity expansion and technology upgrades.

• Supply Chain & Logistics Efficiency

- Timely and cost-effective distribution enhances competitiveness in both domestic and export markets.
- Infrastructure and inventory management strategies impact production continuity.

• Government Policies & Incentives

- Industry-focused schemes support modernization and infrastructure development.
- * Regulatory frameworks influence investment decisions and operational compliance.

• Market Entry Barriers & Competitive Positioning

- Capital-intensive requirements and regulatory approvals affect new market entrants.
- Operational experience and adherence to industry standards contribute to market stability.



Profiling of Key Peer Companies

| Name of the Company | Business Overview |
|-----------------------------|--|
| Shree Ram Twistex Ltd | Incorporated in 2013, located in Gondal, near Rajkot, Gujarat. Shree Ram Twistex Ltd focused on producing high-quality yarn that carries excellence, durability, and craftsmanship. The company offers various products such as 100% Cotton Compact Ring-Spun Combed & Carded Yarns, Compact Eli Twist Combed & Carded Yarns, Compact Slub Yarns and Lycra yarns. |
| Ambika Cotton Mills Limited | Incorporated in 1988, headquartered in Coimbatore, Southern India, the company is a manufacturer of premium-quality compact yarn catering to both the hosiery and knitting sectors. It has the capability to manufacture yarn for counts varying from 20's to 120's combed which goes for the manufacture of premium branded shirts and t-shirts globally. Moreover, it has manufacturing units in Dindigul, Tamil Nadu |
| Damodar Industries Limited | Incorporated in 1987, headquartered in Mumbai. The company is a yarn manufacturing company based in India, specializing in synthetic blended yarns and fancy yarns. The Company is having a yarn division with consolidated capacity of around 70,000 spindles. The Company produces variety of products ranging from NE 12, NE16, NE 20, NE 24 NE 30 Carded and Combed and blended varieties of Cotton Yarn. The Spinning mill is equipped with world-class Swiss, Japanese and German equipment. Currently, the Company exports approximately 56% of garment products mainly in Europe, Asia and Latin American countries etc. |
| Rajapalayam Mills Limited | Rajapalayam Mills Limited, the flagship mill of Ramco Group. Incorporated in 1938, headquarter in Tamil Nadu. The company is engaged in manufacture of cotton yarn and fabrics. The Company is also engaged in generation of electricity from its windmills for its captive requirements. Moreover, the company focus on strengthening its product lines with more value-added customized yarn counts such as Mercerized Yarn, Mélange Yarn, and Core Yarn. |



Key Performance Indicators⁶

| Companies | CMP* | EPS (₹) | PE Ratio | RONW (%) | NAV (Per Share) | Face Value | Revenue from Operation (₹ in Lakhs) | Other Income (₹ in Lakhs) | Total Income (₹ in Lakhs) |
|-----------------------------------|---------|------------|----------|-------------|-----------------------|---------------|---|------------------------------------|------------------------------------|
| Shree Ram Twistex Limited | [•] | 2.37 | [●] | 10.25 | 21.77 | 10.00 | 23,159.12 | 13.29 | 23,172.41 |
| Listed peers | | | | | | | | | |
| Ambika Cotton Mills Limited | 1506.70 | 110.00 | 13.70 | 7.52 | 1,463.33 | 10.00 | 82,345.99 | 2,275.32 | 84,621.31 |
| Damodar Industries Limited | 35.25 | 2.24 | 15.74 | 4.45 | 50.39 | 5.00 | 71,538.26 | 2,520.36 | 74,058.62 |
| Rajapalayam Mills Limited | 920.00 | 31.00 | 29.68 | 6.04 | 508.40 | 10.00 | 85,855.86 | 1,724.00 | 87,579.86 |

[#] Current Market Price as on June 19, 2025

Financial Analysis

 $^{^{6}}$ D&B has included the KPI indicators as provided by the Company and as available in public domain.



| Indicator | Units | Shree Ram | Twistex Lin | mited | Ambika Cotton Mills Limited | | | |
|---|-----------|-----------|-------------|-----------|-----------------------------|-----------|-----------|--|
| Years | | FY'24 | FY'23 | FY'22 | FY'24 | FY'23 | FY'22 | |
| Total Income | ₹ in Lakh | 23,172.41 | 21,357.93 | 21,837.35 | 84,621.31 | 86,134.97 | 92,547.98 | |
| Total Revenue from Operation | ₹ in Lakh | 23,159.12 | 21,314.05 | 21,797.20 | 82,345.99 | 84,750.14 | 92,051.80 | |
| Current Ratio | Multiple | 1.75 | 1.55 | 1.61 | 4.48 | 5.53 | 8.21 | |
| Debt Equity Ratio | Multiple | 1.00 | 0.91 | 1.06 | N.A. | N.A. | N.A. | |
| Debt Service Coverage Ratio | Multiple | 2.26 | 1.26 | 1.39 | N.A. | N.A. | N.A. | |
| EBDITA | ₹ in Lakh | 2,018.53 | 1,740.16 | 1,801.79 | 13,202.03 | 18,869.62 | 27,460.89 | |
| Operating EBDITA Margin | in % | 8.72 | 8.16 | 8.27 | 16.03 | 22.27 | 29.83 | |
| Profit after tax | ₹ in Lakh | 655.25 | 205.08 | 363.76 | 6,297.36 | 11,189.40 | 17,988.78 | |
| Net profit Ratio | in % | 2.83 | 0.96 | 1.67 | 7.44 | 12.99 | 19.44 | |
| Return on Equity | in % | 10.25 | 3.57 | 6.94 | 7.52 | 14.52 | 27.89 | |
| Return on Capital Employed | in % | 12.50 | 8.61 | 9.06 | 15.37 | 23.11 | 0.38 | |
| Net Cash from/ (used in) Operating Activities | ₹ in Lakh | -491.15 | 1,006.93 | 1,694.12 | - 13,775.47 | -7,982.38 | 30,175.77 | |
| Net Cash from/ (used in) Investing Activities | ₹ in Lakh | -218.83 | -465.17 | -521.34 | -2,587.11 | -392.40 | -300.58 | |



| Net Cash from/ (used in) Financing Activities | ₹ in Lakh | 679.86 | -520.65 | -1,176.59 | 4,286.76 | -2,643.43 | -2,136.94 |
|---|-----------|----------|---------------|---------------|----------|-----------|-----------|
| No of Customers | | 49 | 48 | 46 | N.A. | N.A. | N.A. |
| Revenue From Top 10 Customers | ₹ in Lakh | 19,010.5 | 18,180.6 7 | 18,020. 63 | N.A. | N.A. | N.A. |



| Indicator | Units | Damodar I | ndustries Li | mited | Rajapalayam Mills Limited | | | |
|---|-----------|-----------|--------------|-----------|---------------------------|-----------|------------|--|
| Years | | FY'24 | FY'23 | FY'22 | FY'24 | FY'23 | FY'22 | |
| Total Income | ₹ in Lakh | 74,058.62 | 69,645.56 | 91,136.09 | 87,579.86 | 88,231.85 | 70,525.97 | |
| Total Revenue from Operation | ₹ in Lakh | 71,538.26 | 68,278.88 | 90,861.49 | 85,855.86 | 86,189.43 | 68,965.47 | |
| Current Ratio | Multiple | 1.15 | 1.29 | 1.55 | 1.04 | 1.08 | 1.08 | |
| Debt Equity Ratio | Multiple | 3.31 | 4.12 | 4.46 | 2.23 | 2.44 | 1.96 | |
| Debt Service Coverage Ratio | Multiple | 1.73 | 0.88 | 1.49 | 0.72 | 1.09 | 1.08 | |
| EBDITA | ₹ in Lakh | 5,756.63 | 5,071.96 | 8,167.93 | 16,480.47 | 15,995.89 | 17,009.81 | |
| Operating EBDITA Margin | in % | 8.05 | 7.43 | 8.99 | 19.20 | 18.56 | 24.66 | |
| Profit after tax | ₹ in Lakh | 521.96 | 79.67 | 1,835.44 | 2,830.30 | 4,238.23 | 3,827.92 | |
| Net profit Ratio | in % | 1.15 | 0.00 | 0.02 | 3.00 | 6.00 | 11.00 | |
| Return on Equity | in % | 0.04 | 0.01 | 0.17 | 6.00 | 9.00 | 10.00 | |
| Return on Capital Employed | in % | 0.16 | 0.11 | 0.19 | 6.00 | 6.00 | 21.00 | |
| Net Cash from/ (used in) Operating Activities | ₹ in Lakh | 7,011.17 | 5,969.24 | 4,585.27 | 14,845.76 | -4,564.52 | 366.66 | |
| Net Cash from/ (used in) Investing Activities | ₹ in Lakh | -410.18 | -1,314.43 | 36.57 | -4,626.70 | 30,354.41 | -15,202.42 | |



| Net Cash from/ | | | | | | | |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| (used in) Financing | ₹ in Lakh | -6,215.27 | -4,367.49 | -4,514.63 | 10.228.87 | 34,880.28 | 14,931.17 |
| Activities | | | | | 10,220.07 | | |

Source: Annual Reports of the respective companies

Notes:

- (a) Total income includes revenue from operation and other income
- (b) Current Ratio is a liquidity ratio that measures our ability to pay short-term obligations (those which are due within one year) and is calculated by dividing the current assets by current liabilities
- (c) Debt- equity ratio is calculated by dividing total debt by total equity. Total debt represents long term and short-term borrowings. Total equity is the sum of equity share capital and other equity.
- (d) Debt service coverage ratio is calculated by EBITDA divided by (Principal + Interest)
- (e) EBITDA means Earnings before interest, taxes, depreciation and amortization expense, which has been arrived at by obtaining the profit before tax/ (loss) for the year and adding back finance costs, depreciation, and amortization expense.
- (f) EBITDA margin is calculated as EBITDA as a percentage of total income.
- (g) Net Profit for the year represents the restated profits of our Company after deducting all expenses.
- (h) Net Profit margin is calculated as restated profit & loss after tax for the year divided by total income
- (i) Return on Equity is calculated as Profit for the year, as restated, attributable to the owners of the Company for the year divided by net worth of the Company at the end of year.
- (j) Return on capital employed calculated as Earnings before interest and taxes divided by average capital employed (average capital employed calculated as average of the aggregate value of total equity, total debt of the current and previous financial year).

Threats & Challenges

Key Threats & Challenges Facing the Industry

Two of the major threats facing the domestic cotton yarn manufacturing industry is the price volatility & availability of cotton yarn, as well as increasing competition from synthetic textile products. In addition, the



growing focus on sustainability & increasing scrutiny on environmental issues are also causing some challenges, however those can be at best termed as temporary roadblocks.

- o Raw Material Scenario: Raw material (cotton) cost is the single biggest cost component in yarn manufacturing and is estimated to account for more than half of the total yarn production cost. Consequently, any deviation in cotton price will have a significant impact on the operations of yarn manufacturers. Although domestic production of cotton is one of the largest in the world, several domestic & international factors have an impact on the product pricing. For example, the recent political unrest in Bangladesh have impacted the textile industry as a whole, and it is believed to have also impacted cotton as well as yarn pricing. Similarly, factors like uneven climatic conditions that impact the cotton yield, any supply chain disruptions, and import/export variations all have an impact cotton supply and in turn its pricing.
- Competition from Synthetic Textiles: Cotton textile products faces competition from synthetic textiles owing to the lower cost and some superior attributes of the later. Globally synthetic textile is growing at a faster rate than cotton textiles because of attributes ranging from lower price to specific functionalities (like design & better fitment for the fast fashion industry, durability, quicker drying time, superior wrinkle resistance). Although cotton textile continues to be a preferred choice in India, their dominance is eroding as more and more customers are opting for the functionality offered by synthetic textiles.



Below are few more challenges:

Regulatory Compliance:

Environmental regulations, and labor laws increase operational challenges. Meeting compliance standards requires additional investment, particularly for small and mid-sized manufacturers.

Global Competition:

Countries like China, Bangladesh, and Vietnam offer lower production costs due to government incentives, cheaper labor, and advanced technology. Indian textile manufacturers struggle to match their efficiency and pricing in global markets.

Trade Barriers & Currency Fluctuations:

Export restrictions, tariffs, and changing trade policies affect India's cotton yarn exports. Additionally, currency fluctuations create uncertainty in international pricing, impacting competitiveness.

Rising Production Costs:

Increasing wages, energy costs, and expensive logistics reduce profit margins. Higher transportation expenses and inefficient infrastructure further add to the cost burden for manufacturers.

Sustainability Concerns:

Growing demand for eco-friendly cotton and compliance with global sustainability standards increase production costs.

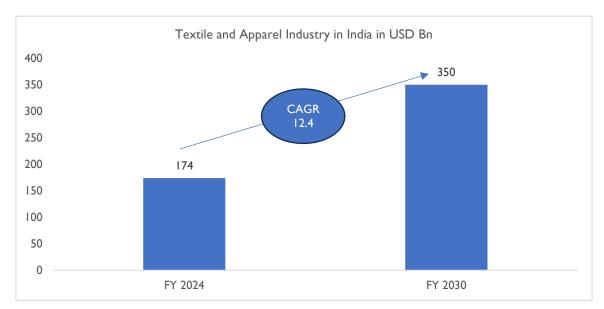


Growth Forecast

Expected Growth in Indian Textile Industry

India's textile industry plays a crucial role in the global textile and apparel trade, supported by rising per capita income and a large working population. Contributing 4.5% to global trade, the sector benefits from a well-developed value chain and strong craftsmanship, enabling exports to over 100 countries. It provides employment to over 45 million people and produces approximately 22 billion garments annually. The market is expected to grow significantly, reaching \$350 billion by 2030, up from the current \$174 billion. To accelerate this expansion, the government has introduced the PM MITRA Park Scheme, allocating INR 4,445 crore to develop an integrated textile value chain from spinning to manufacturing. The Indian textile market currently ranks fifth globally, with a projected growth rate of 15-20% over the next five years. The sector serves as a vital link between agriculture and industry, supporting the cultivation of natural fibers like cotton and silk.

To further strengthen the industry, the government has launched several initiatives, including Kasturi Cotton, a branding and traceability program aimed at promoting Indian cotton in both domestic and international markets. This initiative involves key stakeholders across the supply chain, from farmers and spinning mills to textile manufacturers and retailers. Additionally, schemes like the Production-Linked Incentive (PLI) Scheme encourage the production of MMF-based apparel and technical textiles. To enhance workforce skills, the Samarth Scheme has been introduced, providing structured training programs to create sustainable employment opportunities in the textile sector.



Source: Invest India, D&B Research and Estimates

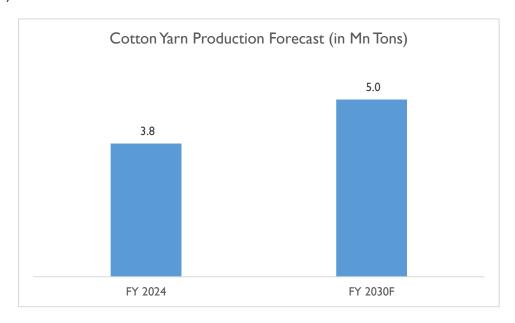
Demand for textile production, from domestic as well as export markets, is expected to grow strong in the coming years. Higher disposable income and shift in consumption pattern is driving the domestic market. In



addition, growing importance of India as a major textile manufacturing hub which have helped in the growth of Indian textile sector would continue to fuel its growth.

Expected Growth in Cotton Yarn Demand in India

Cotton textiles has been the dominant textile segment in India, and it is expected to retain its preeminent position as textile material of choice in the coming years too. Thus, the domestic demand for cotton yarn is expected to remain strong, both from domestic market as well as exports. Accordingly, the domestic production of cotton yarn is expected to grow at a faster rate in the coming years, and annual production is expected to touch nearly 5 million tons by FY 2030, up from the current level of nearly 3.8 million tons (as on FY 2024).



Source: D&B Research and Estimates

