



# Industry Report on Corrugated Boxes Industry in India

October 2025

Prepared for

Udaan Paper Industries Limited



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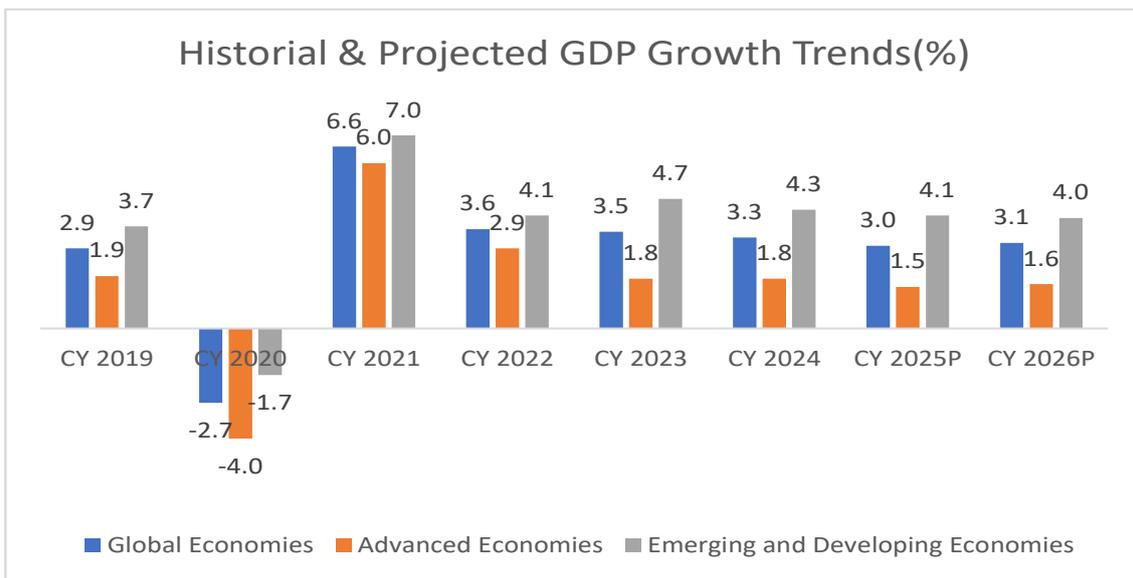
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## Global Macroeconomic Scenario

### Global GDP Growth Pattern

The global economy, which recorded GDP growth at 3.3% in CY 2024, is expected to show moderation by growing at 3.0% in CY 2025. This marks the slowest expansion since 2020 and reflects a -0.3%point downgrade from January 2025 forecast. Moreover, the projection for CY 2026 has also reduced to 3.1%. This slowdown is majorly attributed due to 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 projected to slow down from 3.3% in CY 2024 to 3.0% in CY 2025.

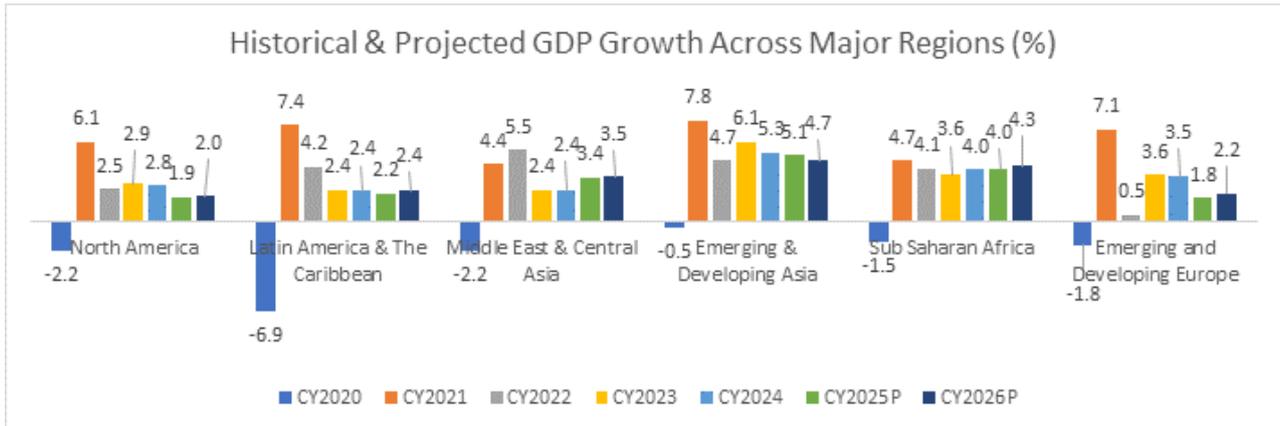


Source – IMF Global GDP Forecast Release July 2025, P-Projected

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.)

### Economic Growth Trends Across Key Economies

GDP growth across major regions exhibited a mixed trend between 2022-23, with GDP growth in many regions including North America, Emerging and Developing Asia, and Emerging and Developing Europe slowing further in 2024. In 2025, GDP growth rate in Emerging and Developing Asia (India, China, Indonesia, Malaysia, etc.) is expected to moderate further to 5.1% from 5.3% in the previous year, while in the North America, it is expected to moderate to 1.9% in CY 2025 from 2.8% in CY 2024. Similarly in Emerging and Developing Europe is expected to moderate further to 1.8% from 3.5% in the previous year.

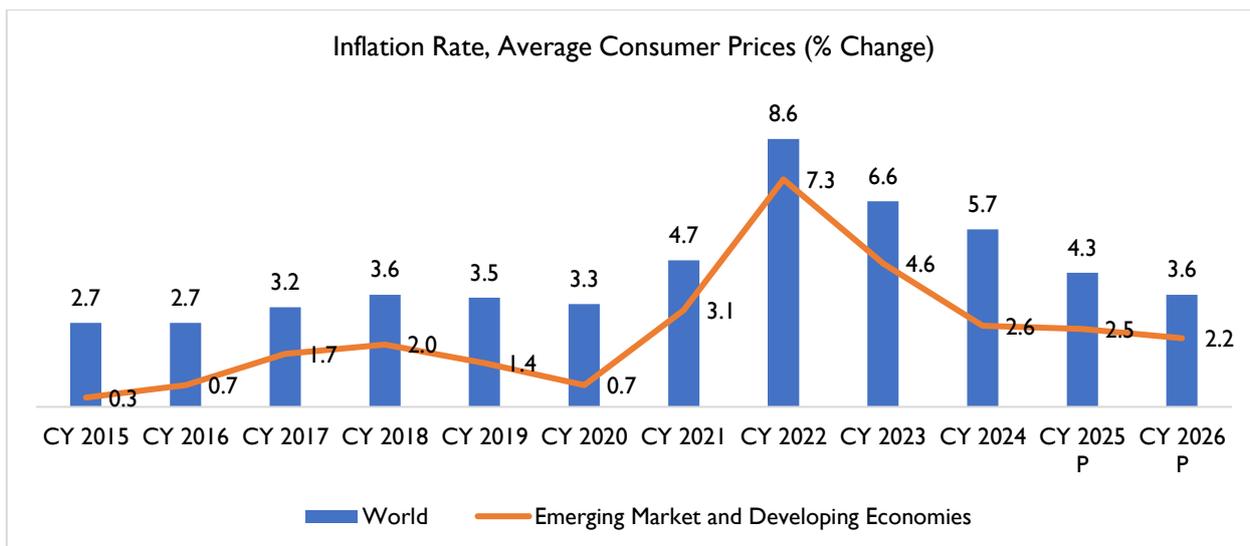


Source-IMF World Economic Outlook July 2025 update; P-Projected

Except Middle East & Central Asia, all other regions like Emerging and Developing Asia, Emerging and Developing Europe, Latin America & The Caribbean, Sub Saharan Africa and North America, are expected to record a moderation in GDP growth rate in CY 2025 as compared to CY 2024. Further, growth in the United States is expected to come down at 1.9% in CY 2025 from 2.8% in CY 2024 due to lagged effects of monetary policy tightening, gradual fiscal tightening, and a softening in labour markets slowing aggregate demand.

### Global Inflation Scenario

The global inflation scenario has undergone significant fluctuations over the past decade, shaped by pandemic disruptions, supply chain challenges, energy price shocks, and monetary policy adjustments. Between CY 2015 and CY 2019, global inflation remained relatively stable, averaging between 2.7% and 3.6%, while emerging and developing economies maintained moderate inflation levels of 0.3% to 2.0%, reflecting controlled price environments and steady global trade flows. However, the onset of the COVID-19 pandemic in 2020 triggered economic disruptions, pushing inflation in emerging markets down to 0.7%, even as the world average stayed at 3.3%, largely cushioned by fiscal interventions in advanced economies.



Source: International Monetary Fund

A major shift occurred in CY 2021 and CY 2022, when global inflation surged sharply due to post-pandemic recovery, rising commodity prices, and the Russia-Ukraine conflict that disrupted energy and food supplies. Inflation spiked to 8.6% globally in 2022, with emerging and developing economies reaching 7.3%, nearly converging with inflation rates in advanced economies, a rare occurrence in recent history. This parity reflected how global price pressures, especially in food and fuel, affected both developed and emerging markets almost equally.

By CY 2023 and CY 2024, inflationary pressures began to ease as supply chains stabilised and monetary tightening took effect. Global inflation moderated to 6.6% in 2023 and further to 5.7% in 2024, while emerging markets saw a sharper decline from 4.6% to 2.6%, indicating stronger stabilisation in developing economies compared to advanced ones. The projected figures for CY 2025 and CY 2026 suggest continued normalisation, with global inflation expected to fall to 4.3% and 3.6%, respectively, and emerging market inflation stabilising at 2.5% and 2.2%.

Overall, the data highlights that inflationary trends have become more synchronised across the world, particularly during and after the pandemic period. Emerging and developing economies, which traditionally faced higher inflation due to structural factors, have now converged with advanced economies, reflecting both improved monetary discipline and global economic interconnectedness.

## Global Consumption Pattern

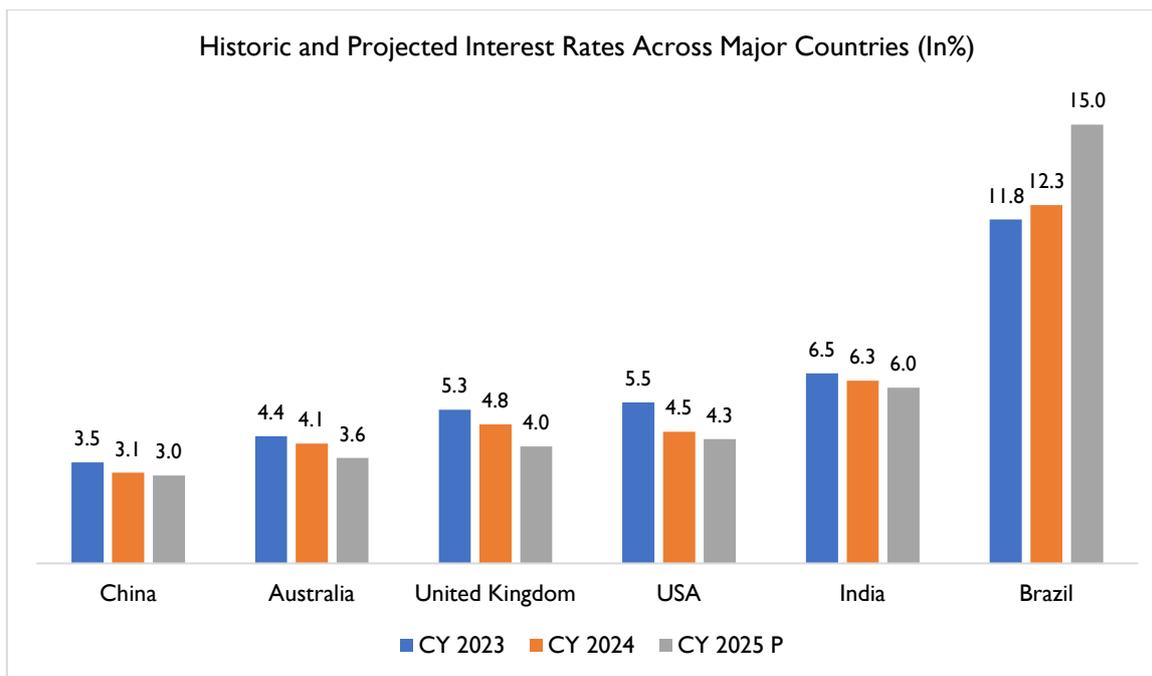
Global consumption patterns over the period from 2020 to 2025 have been shaped by a combination of economic pressures, technological advancements, and changing consumer preferences. Despite elevated interest rates in many regions, consumer spending has demonstrated resilience. In advanced economies like the U.S., real personal consumption expenditures showed moderate growth, reflecting steady demand for durable goods and services even amid global economic slowdowns. At the same time, emerging markets have experienced rising urbanisation and the expansion of the middle class, driving increased demand for a wide variety of goods and services. However, income inequality and infrastructure gaps in these regions continue to influence consumption patterns.

Shifts in consumer behaviour have also become evident. Across the world, consumers are increasingly prioritising value, quality, and sustainability over mere affordability. Purchases are more influenced by environmental consciousness, social responsibility, and personal well-being. This trend is particularly visible in sectors such as food, fashion, and technology, where sustainably produced or ethically sourced products are seeing growing demand. Technological advancements have further reshaped consumption patterns. Artificial intelligence, automation, and digital platforms are enabling personalised services, improving convenience, and creating new channels for engagement between businesses and consumers.

These technologies allow companies to better anticipate consumer preferences and adapt their offerings accordingly, reinforcing a trend toward more informed and value-driven consumption. Looking forward, global consumption is expected to continue evolving, with sustainability, digital integration, and long-term value orientation playing a central role. Policymakers and businesses must adapt to these structural changes to meet the demands of modern consumers, balancing affordability, quality, and ethical considerations in an increasingly interconnected market.

## Global Interest Rate

Global interest rates in 2025 reflect a gradual easing from the aggressive monetary tightening seen over the past two years, as inflationary pressures moderate and central banks seek to balance growth with price stability. In the United States, the policy rate is projected at **4.3% in 2025**, down from **5.5% in 2023**, indicating a cautious shift toward supporting economic activity while keeping inflation in check. The **United Kingdom** and **Australia** are following a similar trend, with projected rates of **4.0%** and **3.6%**, respectively, signalling a move toward normalization after elevated rates in 2023-2024. In Asia, **China** continues with a relatively accommodative stance, with rates at **3.0%**, aiming to stimulate domestic demand and counter slowing growth.



Source: International Monetary Fund, Global Rate

Among emerging markets, **India** and **Brazil** continue to maintain higher rates due to domestic macroeconomic conditions. India’s policy rate is projected at **6.0%**, reflecting the Reserve Bank of India’s approach to anchoring inflation expectations while supporting robust domestic demand. Brazil stands out with the highest rate among major economies at **15.0%**, as its central bank addresses persistent inflationary pressures and currency volatility. Overall, the global interest rate environment in 2025 is transitioning toward a more balanced phase, combining moderation in advanced economies with selective stability in emerging markets. This evolving scenario is expected to improve liquidity conditions globally, support investment recovery, and facilitate sustainable economic growth across regions.

### Global Trade Flow

In early August, the U.S. implemented a new tariff policy aimed at reshaping its trade relationships. A baseline tariff of 15% now applies to imports from countries with which the U.S. runs a trade deficit, while a lower 10% rate is set for those with a trade surplus. However, some nations face even steeper tariffs, such as Canada, which saw a 35% rate imposed despite rescinding its Digital Services Tax. These changes followed a series of trade deals, including a major agreement with the EU covering autos and semiconductors, and another with Japan, which committed to investing USD 550 billion in the U.S. and purchasing 100 Boeing aircraft. Meanwhile, the U.S. continues to negotiate with other countries and plans to introduce sector-specific tariffs, particularly targeting various consumables and enterprise segments.

On the global economic front, the IMF’s July update to its World Economic Outlook echoed the risks to growth remain tilted to the downside. Although improved financial conditions and lower-than-expected U.S.



tariff impacts led to a slight upward revision in global growth forecasts, uncertainty has increased since April. Central banks in the U.S., EU, and UK have held interest rates steady, with the U.S. Federal Reserve maintaining rates at 4.25–4.50% amid expectations of two rate cuts by the end of 2025. In Europe, economic performance was mixed in Q2 2025, with Germany and Italy contracting slightly, while Spain and France posted modest growth. Political instability also persists in parts of Africa and Southeast Asia, with unrest in the DRC and Kenya, and a fragile truce between Cambodia and Thailand. Meanwhile, Bulgaria is set to join the Eurozone in January 2026, and Canada is working on internal trade reforms, including infrastructure initiatives between provinces.

Additionally, overall world merchandise trade volume growth is anticipated to slow from 2.8% in 2024, to 2.4% in 2025 and 0.5% in 2026. The projection for global GDP growth is set at 2.7% for 2025 and at 2.6% for 2026. While the 2025 merchandise trade forecast has been revised upwards from the April and August projections, the downgrade for 2026 results in a similar overall impact over the two-year horizon. This indicates that the tariff impact has shifted into 2026, with the slight improvement reflecting that some inventory build-up in early 2025--particularly of durable goods--will not be fully reversed in 2026.

### Global Economic Outlook

The global macroeconomic environment remains shaped by divergent regional trends and continued geopolitical and policymaking uncertainties. A wave of new U.S. tariffs, mostly effective from August 7, has shaken markets and raised costs for global trade. On August 1, the U.S. announced higher tariff rates for countries from which it imports goods, with most of the rates effective from August 7. A 15% rate will act as a baseline floor for countries with which the U.S. has a trade deficit; a 10% rate applies for those with which the U.S. has a trade surplus. However, there are some countries that are subject to higher U.S. tariffs.

In North America, the United States continues to engage in trade negotiations with multiple countries and has announced plans to introduce sector-specific tariffs, targeting industries such as copper and pharmaceuticals. However, talks with Canada have stalled, despite Canada's decision to withdraw its Digital Services Tax in an effort to ease tensions. As a result, the U.S. imposed a 35% tariff on Canadian goods that do not meet USMCA compliance standards, effective August 1. This move has further strained bilateral relations and added complexity to the regional trade landscape.

By August 7, the U.S. had announced increased tariffs of 15-50% on Asian economies, with most rates around 20%. Although these tariffs are lower than the levels announced in April, they remain higher than those applied to most Western counterparts, impacting exporters such as Taiwan Region (20%) and India (25%, with the U.S. saying this could rise to 50% at the end of August). Moreover, on July 28, the US imposed a 15% tariff on most EU imports under a new trade agreement, impacting Nordic countries such as Denmark, Finland, and Sweden. Key exemptions include aircraft parts and semiconductor equipment, while steel and aluminum continue to face 50% tariffs.

Tariffs and their unpredictable application have weighed on consumer and business sentiment, sunk global stock markets, raised recession risks, and made a global slowdown more likely. Our latest Global Business Optimism Insights report for indicates a further decline in business optimism as firms continue to grapple with trade-related policy uncertainty and its broader economic implications. Export-driven sectors reported sharp declines in optimism. Financial risk perceptions remain elevated as businesses contend with high borrowing costs and persistent inflation expectations. More broadly, the uncertainty is reflected in delayed capital expenditure and a pullback in hiring.

Tariffs have begun to exert pressure on central banks by contributing to inflationary pressures and increasing financial market volatility. Central banks are adjusting forward guidance and policy frameworks and may begin to consider the likelihood of softer growth being a bigger priority than high inflation by starting to cut interest rates to support economies. For businesses, this uncertainty translates into unpredictable cost structures, fluctuating credit availability, and the management of operational costs through diversified supply networks.

Our latest Global Business Optimism Insights report reveals a further decline in business optimism, though at a more moderate pace than in the prior quarter, as businesses continued to grapple with trade-related policy uncertainty and its broader economic implications. Export-driven sectors such as automotives, electricals, and metals saw sharp declines in optimism, particularly in the U.S., Mexico, South Korea, and Japan, where rising tariffs and shifting trade policies have fueled cost pressures and demand volatility. Financial risk perceptions remain elevated.

### Global Growth Projection

At broader level, the global economy is expected to experience a slowdown in 2025, with GDP growth projected to decline to 3.0%, down from 3.3% in 2024. This deceleration reflects persistent inflationary pressure, geopolitical uncertainties and tightened monetary policies. However, a slightly recovery is anticipated in 2026, with growth projected to improve to 3.1%. Global inflation is expected to decline steadily, to 4.2% in 2025 and to 3.6% in 2026. Inflation is projected to converge back to the target earlier in advanced economies, reaching 2.2% in 2026, whereas in emerging market and developing economies, it is anticipated to decrease to 4.6% during the same period.

Trade tariffs function as a supply shock for the countries imposing them, leading to a decrease in productivity and an increase in unit costs. Countries subject to tariffs experience a negative demand shock as export demand declines, placing downward pressure on prices. In each scenario, trade uncertainty introduces an additional layer of demand shock since businesses and households react by delaying investment and spending, and this impact could be intensified by stricter financial conditions and heightened exchange rate volatility. Moreover, Global trade growth is expected to slow down in 2025 to 1.7%. This forecast reflects increased tariff restrictions affecting trade flows and, to a lesser extent, the waning effects of cyclical factors that have

underpinned the recent rise in goods trade. Geopolitical tensions as seen in the past such as the wars in Ukraine and the Middle East could exacerbate inflation volatility, particularly in energy and agricultural commodities.

## Indian Macroeconomic Scenario

India emerged as one of the fastest growth economies amongst the leading advanced economies and emerging economies. In CY 2024, even amidst geopolitical uncertainties, particularly those affecting global energy and commodity markets, India continues to remain one of the fastest growing economies in the world and is expected to grow by 6.4% in CY 2025.

| Country        | CY 2020 | CY 2021 | CY 2022 | CY 2023 | CY 2024 | CY 2025 P | CY 2026 P |
|----------------|---------|---------|---------|---------|---------|-----------|-----------|
| India          | -5.8%   | 9.7%    | 7.6%    | 9.2%    | 6.5%    | 6.4%      | 6.4%      |
| China          | 2.3%    | 8.6%    | 3.1%    | 5.4%    | 5.0%    | 4.8%      | 4.2%      |
| United States  | -2.2%   | 6.1%    | 2.5%    | 2.9%    | 2.8%    | 1.9%      | 2.0%      |
| Japan          | -4.2%   | 2.7%    | 0.9%    | 1.4%    | 0.2%    | 0.7%      | 0.5%      |
| United Kingdom | -10.3%  | 8.6%    | 4.8%    | 0.4%    | 1.1%    | 1.2%      | 1.4%      |
| Russia         | -2.7%   | 5.9%    | -1.4%   | 4.1%    | 4.3%    | 0.9%      | 1.0%      |

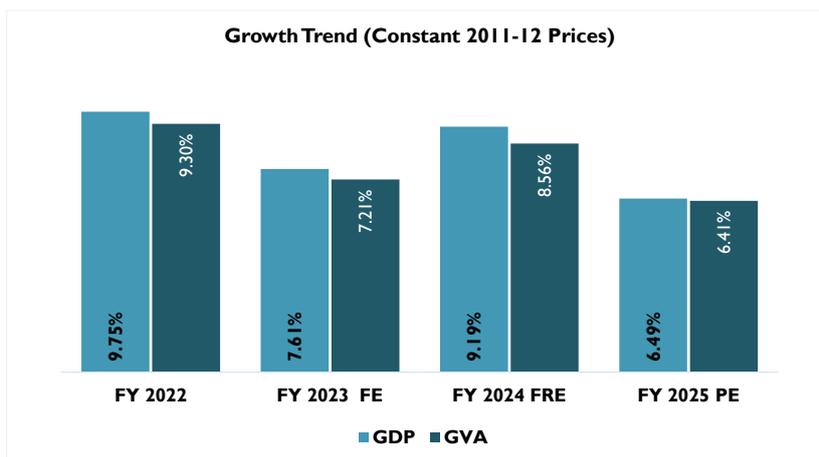
Source: World Economic Outlook, July 2025, P-Projected

The Government stepped spending on infrastructure projects to boost the economic growth had a positive impact on economic growth. The annual growth in capital expenditure of the central government moderated to 7.27% in FY 2025 against the average of 26.52% in the previous two fiscal which translated in moderation GDP growth in 2024 to 6.5% against 9.2% in the previous calendar year.

In the Union Budget 2025-2026, the government announced INR 11.21 billion capex on infrastructure (10.12% higher than previous year revised estimates) coupled with INR 1.5 trillion in interest-free loans to states. This has provided much-needed confidence to the private sector and is expected to attract the private investment and support India's economic growth in the current year.

### Historical Growth Trend

As per the latest estimates, India's GDP at constant prices is estimated to grow to INR 187.96 trillion in FY 2025 (Provisional Estimates) with the real GDP growth rates estimated to be 6.5% for FY 2025. Similarly, real Gross Value Added (GVA) growth stood is estimated to have moderated to 6.4% in FY 2025. Even amidst global economic uncertainties, India's economy exhibited resilience supported by robust consumption and government spending.

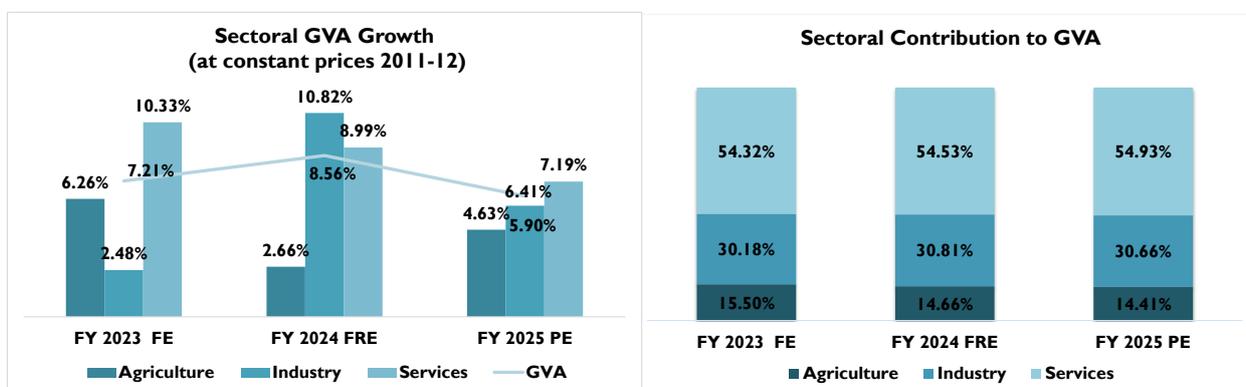


Source: Ministry of Statistics & Programme Implementation (MOSPI), National Account Statistics: FY2025.

FE is Final Estimates, FRE is First Revised Estimate and PE is Provisional Estimates

### Sectoral Contribution to Economic Growth

Sectoral analysis of GVA reveals that the industrial sector experienced a moderation in FY 2025, recording a 5.90% y-o-y growth against 10.82% year-on-year growth in FY 2024. Within the industrial sector, growth moderated across sub sector with mining, manufacturing, and construction activities growing by 2.69%, 4.52%, and 9.35% respectively in FY 2025, compared to 3.21%, 12.30%, and 10.41% in FY 2024. Growth in the utilities sector too moderated to 6.03% in FY 2025 from 8.64% in the previous year. The industrial sector’s contribution to GVA moderated marginally from 30.81% in FY 2024 to 30.66% in FY 2025.



Source: Ministry of Statistics & Programme Implementation (MOSPI)

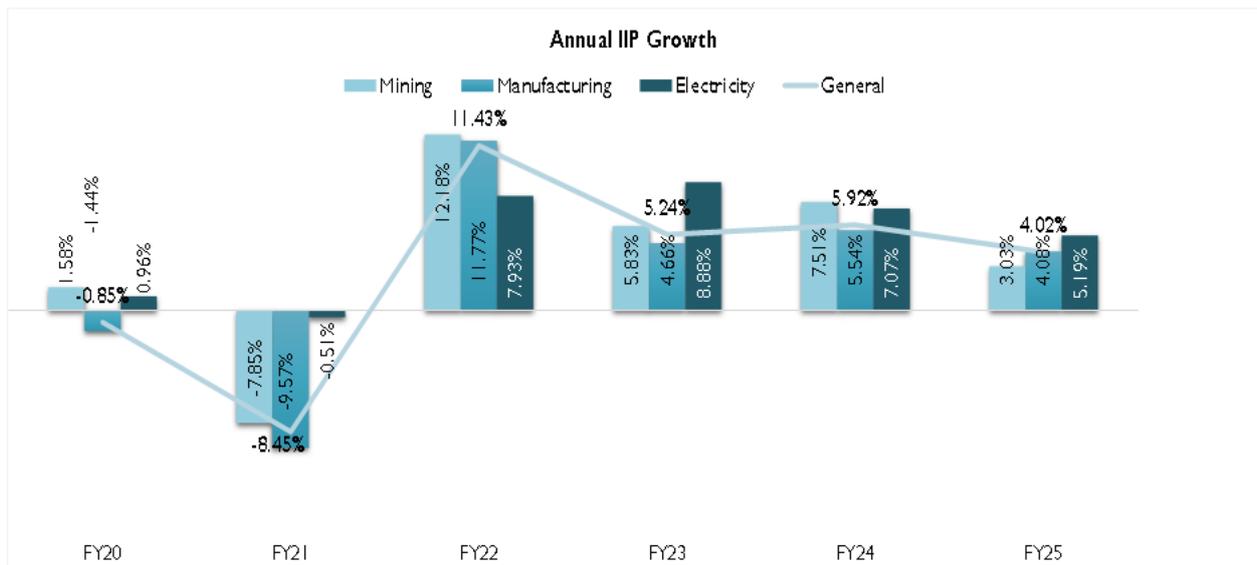
FE is Final Estimates, FRE is First Revised Estimate and PE is Provisional Estimates

The services sector continued to be the main driver of economic growth, although its pace moderated. It expanded by 7.19% in FY 2025 from 8.99% in FY 2024. The services sector retained its position as the largest contributor to GVA, rising from 54.32% in FY 2023 to 54.53% in FY 2024, with a further increase to 54.93% in FY 2025.

The agriculture sector saw an acceleration, with growth increasing from 2.66% in FY 2024 to 4.63% in FY 2025. However, its contribution to GVA declined marginally from 14.66% in FY 2024 to 14.41% in FY 2025. Overall, Gross Value Added (GVA) growth moderated to 6.41% in FY 2025 from 8.56% in FY 2024.

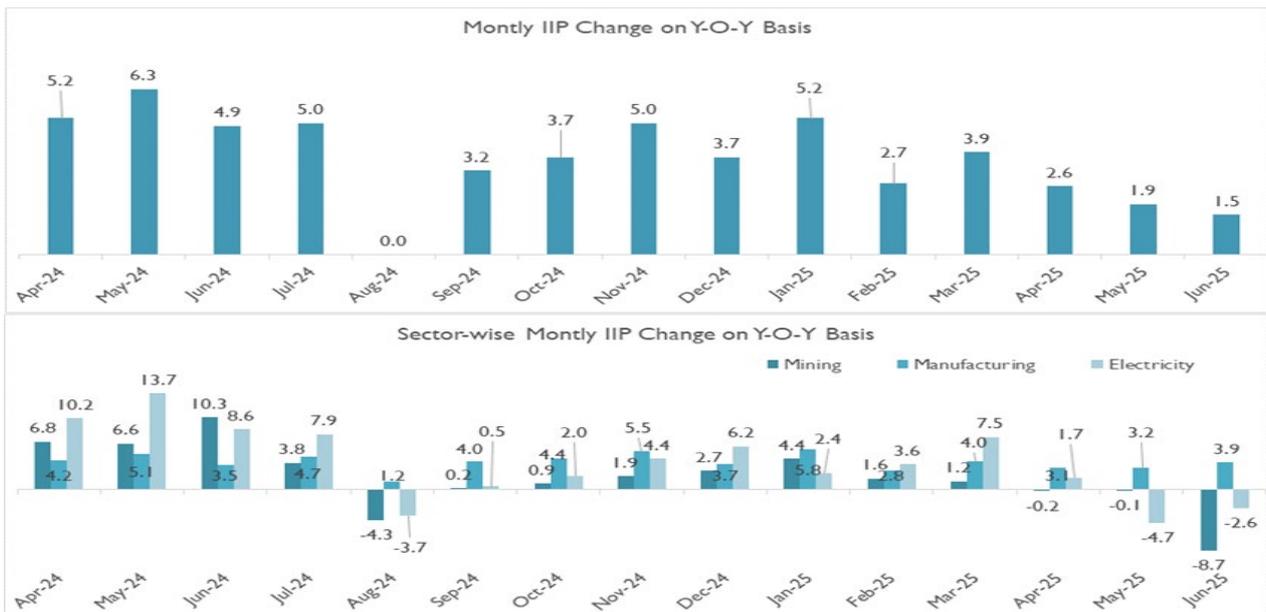
Industrial Activity in India

Industrial sector performance as measured by IIP index exhibited moderation in FY 2025, recording a 4.02% y-o-y growth against 5.92% increase in the previous year. The manufacturing index showed moderation and grew by 4.08% in FY 2025 against 5.54% in FY 2024. Mining sector index too moderated and exhibited a growth of 3.03% in FY 2025 against 7.51% in the previous years while the Electricity sector Index, also witnessed moderation of 5.19% in FY 2025 against 7.07% in the previous year.



Source: Ministry of Statistics & Programme Implementation (MOSPI)

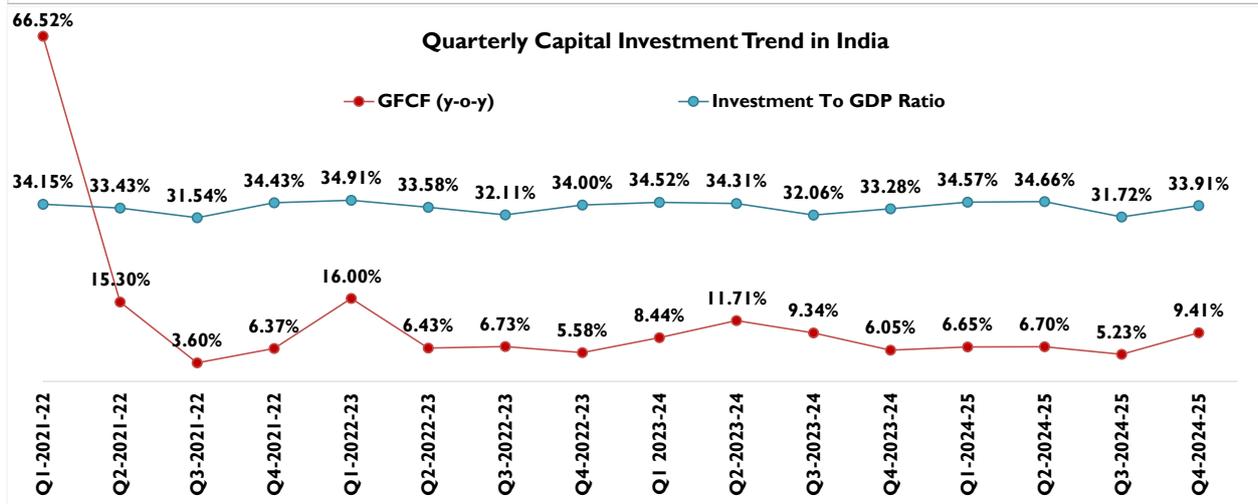
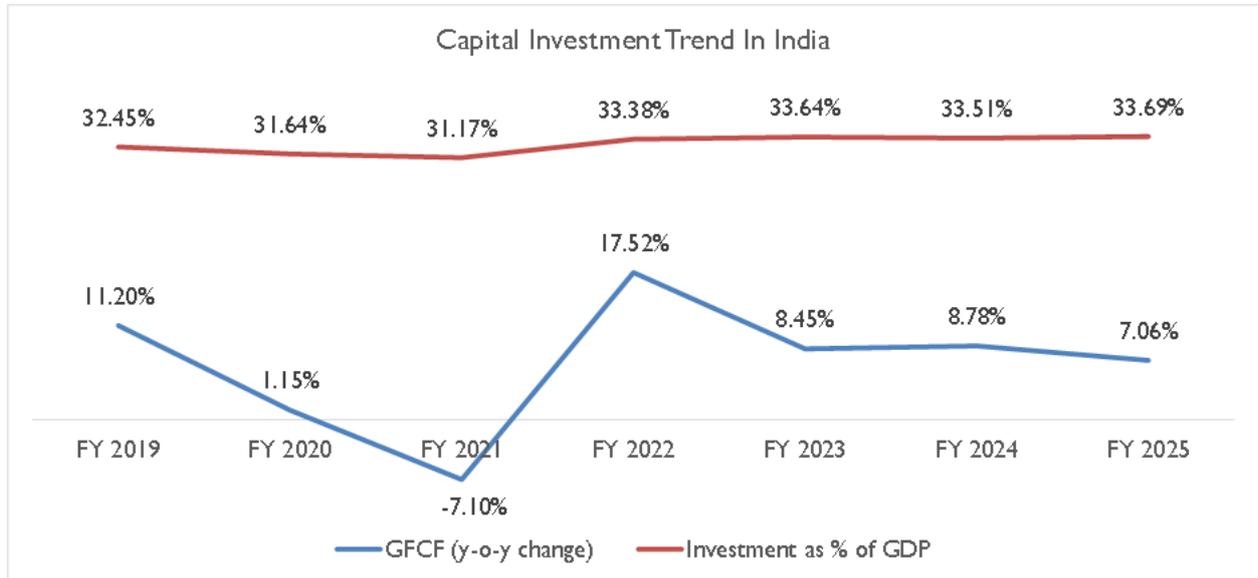
The IIP growth rate for the month of June 2025 is 1.5% which was 1.9% in the month of May 2025. The growth rates of the three sectors, Mining, Manufacturing and Electricity for the month of May 2025 are (-)8.7%, 3.9% and (-)2.6% respectively.



Source: Ministry of Statistics & Programme Implementation (MOSPI)

Investment & Consumption Scenario

Other major indicators such as Gross fixed capital formation (GFCF), a measure of investments, has shown fluctuation during FY 2025 as it registered 7.06% year-on-year growth against 8.78% yearly growth in FY 2024, taking the GFCF to GDP ratio measured to 33.69%.

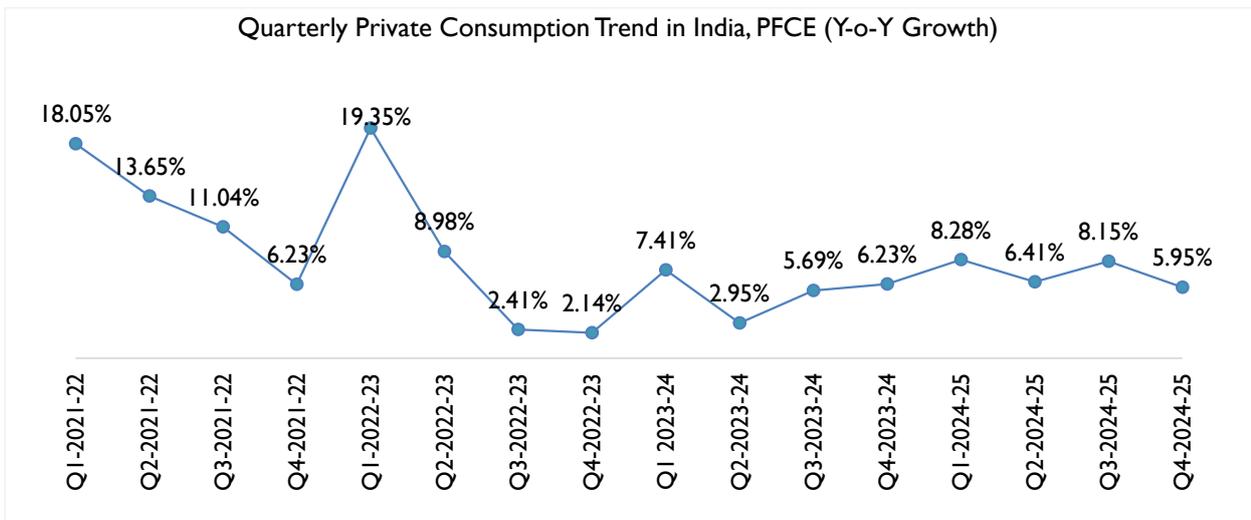
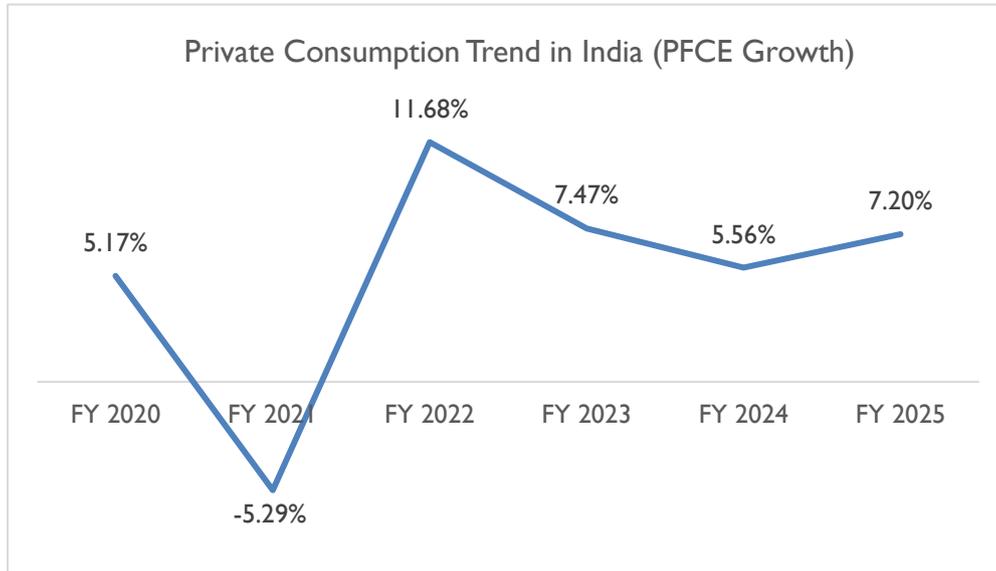


Source: Ministry of Statistics & Programme Implementation (MOSPI)

On quarterly basis, GFCF exhibited a fluctuating trend in quarterly growth over the previous year same quarter. In FY 2024, the growth rate moderated to 6.05% in March quarter against the previous two quarter as government went slow on capital spending amidst the 2024 general election while it observed an improvement in Q1 FY 2025 by growing at 6.65% against 6.05% in the previous quarter and moderated in the subsequent two quarter. On yearly basis, the growth rate remained lower compared to the same quarter in the previous year during FY 2025. The GFCF to GDP ratio measured 33.91% in Q4 FY 2025.

Private Consumption Scenario

Private Final Consumption Expenditure (PFCE) a realistic proxy to gauge household spending, observed growth in FY 2025 as compared to FY 2024. However, quarterly data indicated some improvement in the current fiscal as the growth rate improved over the corresponding period in the last fiscal.

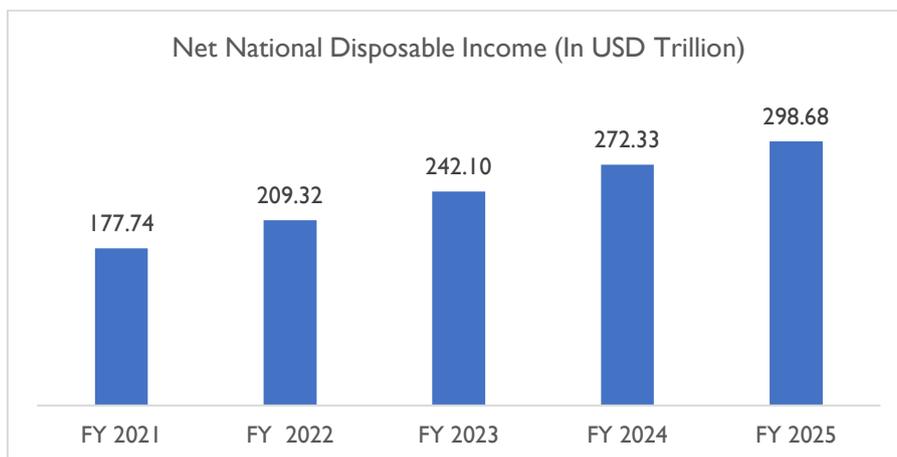


Sources: MOSPI



Key Demographic Indicators

**Disposable income:** The Net National Disposable Income (NNDI) represents the total income available to the nation for consumption and savings after accounting for transfers and taxes. The below chart highlights the steady year-on-year growth in India’s NNDI from FY 2021 to FY 2025, reflecting improving economic activity and rising household income levels.



Source: Ministry of Statistics and Programme Implementation

The graph shows a steady increase in Net National Disposable Income (NNDI) from FY 2021 to FY 2025, rising from USD 177.74 trillion in FY 2021 to USD 298.68 trillion in FY 2025. This represents a cumulative growth of approximately 68% over the five-year period, indicating a consistent upward trend in the income available to residents for consumption and savings. The year-on-year growth is relatively uniform, with notable increments between FY 2022- FY 2023 (USD 32.78 trillion) and FY 2024- FY 2025 (USD 26.35 trillion), suggesting improving economic conditions and increased household earning capacity over time.

**Consumer spending:** The Average Monthly Per Capita Expenditure (MPCE) in India has shown a steady increase across both rural and urban sectors since 2011-12, reflecting rising household consumption and improved purchasing power. While urban MPCE remains higher than rural, the gap has gradually narrowed over time, indicating faster growth in rural consumption levels.

| Trend in level of Consumption since 2022-12: All India |  |            |            |
|--|--|------------|------------|
| Sector   | Average MPCE (RS.) over different period |            |            |
|  | FY 2011-12 (68 <sup>th</sup> round)      | FY 2022-23 | FY 2023-24 |
| Rural  | 1430                                     | 3773       | 4122       |
| Urban  | 2630                                     | 6459       | 6996       |

|                                      |      |      |      |
|--------------------------------------|------|------|------|
| <b>Difference as % of Rural MPCE</b> | 83.9 | 71.2 | 69.7 |
|--------------------------------------|------|------|------|

Source: Press Information Bureau Government of India

The trend in consumption, measured through Average Monthly Per Capita Expenditure (MPCE), shows a significant increase across both rural and urban India since FY 2011-12. Rural MPCE rose from INR 1,430 in 2011-12 to INR 4,122 in FY 2023-24, reflecting nearly a threefold growth over the period. Urban MPCE also exhibited strong growth, increasing from INR 2,630 in FY 2011-12 to INR 6,996 in FY 2023-24. This indicates rising purchasing power and higher household expenditure in both sectors over the last decade.

However, the urban-rural gap in consumption, measured as the difference in MPCE relative to rural levels, has slightly narrowed over time. While urban MPCE was 83.9% higher than rural MPCE in FY 2011-12, it reduced to 69.7% in FY 2023-24. This suggests that rural consumption is growing at a faster pace than urban consumption, indicating gradual convergence in living standards and improved rural affordability over the last decade

### Inflation Scenario

The inflation rate based on India's Wholesale Price Index (WPI) exhibited significant fluctuations across different sectors from January 2024 to July 2025. The annual rate of inflation based on All India Wholesale Price Index (WPI) number is (-) 0.58% (provisional) for the month of July, 2025 (over July, 2024). Negative rate of inflation in July 2025 is primarily due to increase in prices of manufacture of food products, electricity, other manufacturing, chemicals and chemical products, manufacture of other transport equipment and non-food articles etc.

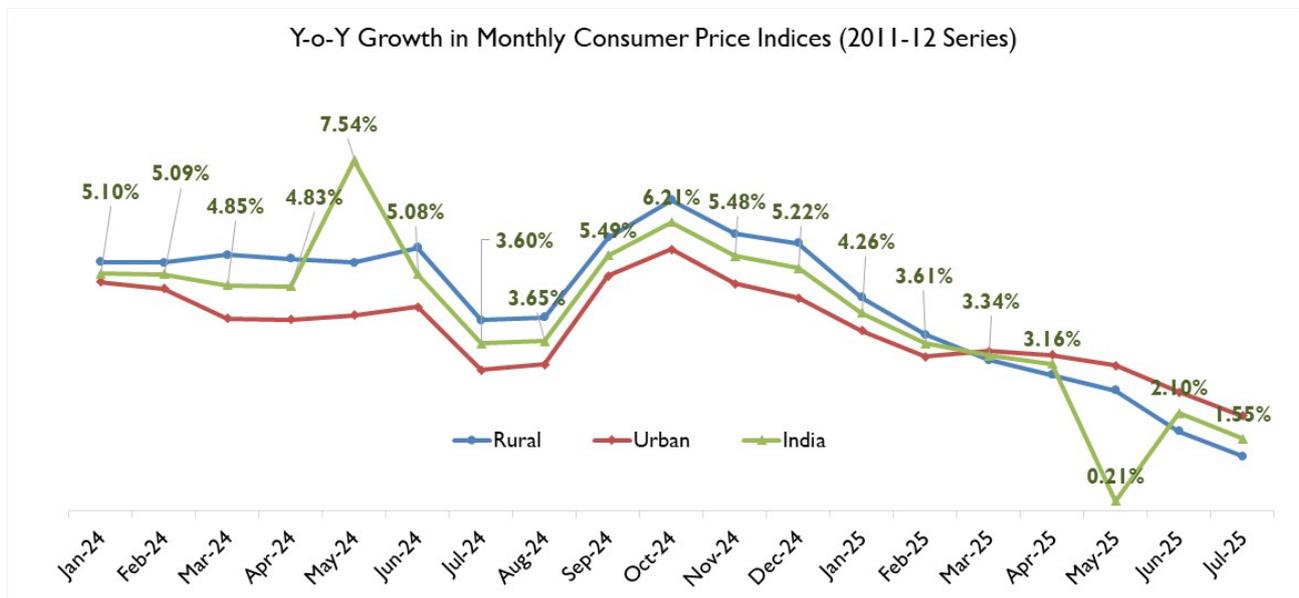
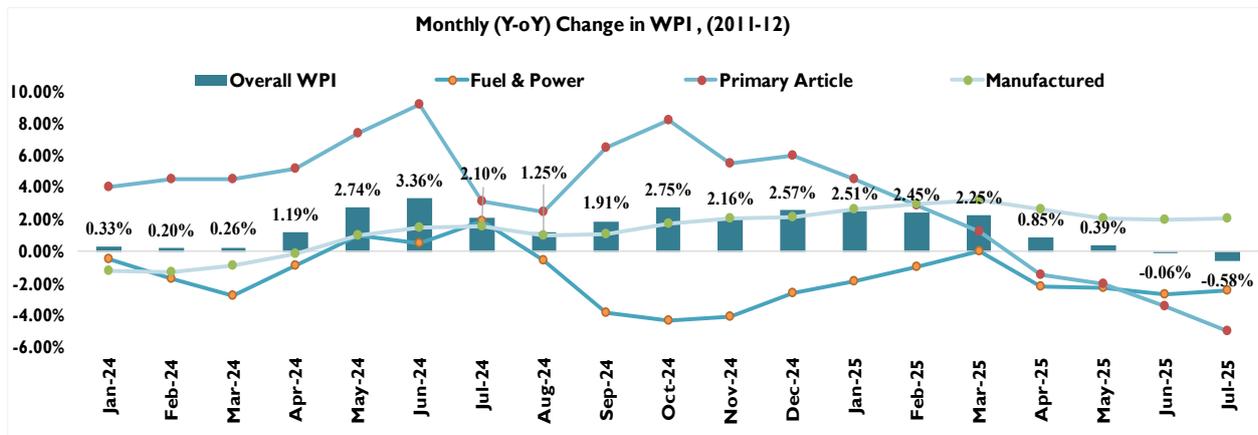
By July 2025, Primary Articles (Weight 22.62%), - The index for this major group increased by 1.18 % from 185.8 (provisional) for the month of June 2025 to 188.0 (provisional) in July, 2025. Price of Crude Petroleum & Natural Gas (2.56%), non-food articles (2.11%) and food articles (0.96%) increased in July, 2025 as compared to June, 2025. The price of minerals (-1.08%) decreased in July, 2025 as compared to June, 2025.

Moreover, power & fuel, the index for this major group increased by 1.12% from 143.0 (provisional) for the month of June, 2025 to 144.6 (provisional) in July, 2025. The price of mineral oils (1.98%) increased in July, 2025 as compared to June, 2025. Price of coal (-0.44%) and electricity (-0.36%) decreased in July, 2025 as compared to June, 2025.

Furthermore, Manufactured Products (Weight 64.23%), The index for this major group declined by 0.14% from 144.8 (provisional) for the month of June, 2025 to 144.6 (provisional) in July, 2025. Out of the 22 NIC two-digit groups for manufactured products, 9 groups witnessed an increase in prices, 9 groups witnessed a decrease in prices and 4 groups witnessed no change in prices. Some of the important groups that showed month-over-month increase in prices were other manufacturing; other transport equipment; motor vehicles, trailers and semi-trailers; other non-metallic mineral products and furniture etc. Some of the groups that



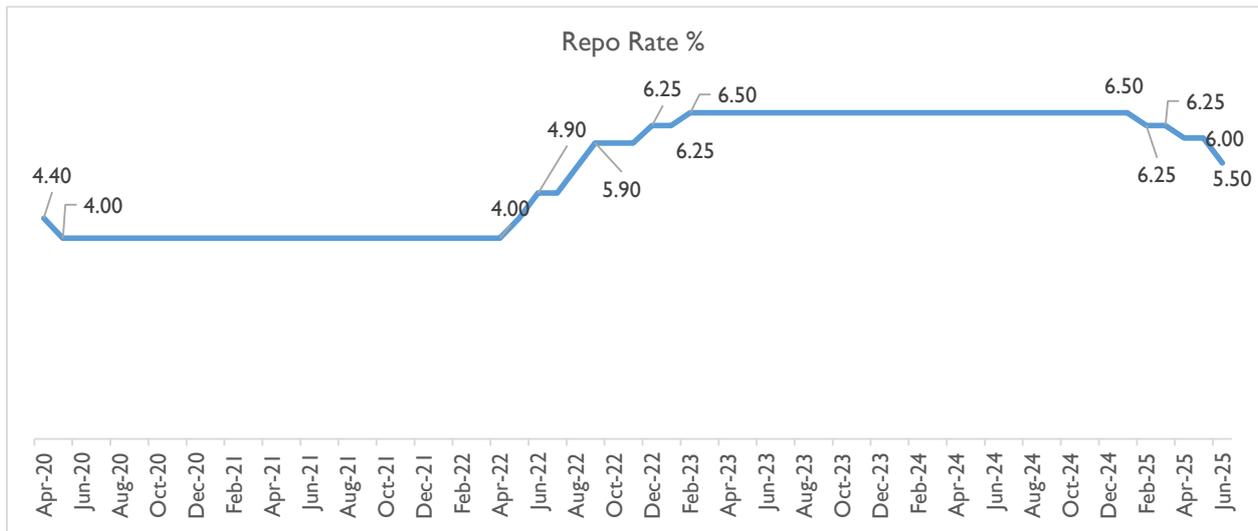
witnessed a decrease in prices were manufacture of basic metals; fabricated metal products, except machinery and equipment; food products; chemicals and chemical products and paper and paper products etc in July, 2025 as compared to June, 2025.



Source: MOSPI, Office of Economic Advisor

Retail inflation rate (as measured by the Consumer Price Index) in India showed notable fluctuations between January 2024 and July 2025. Overall, the national CPI inflation rate moderated to 1.55% by July 2025, indicating a gradual easing of inflationary pressures across both rural and urban areas. Rural CPI inflation peaked at 6.68% in October 2024, declining to 1.18% in July 2025. Urban CPI inflation followed a similar trend, rising to 5.62% in October 2024 and then dropping to 2.05% in July 2025. CPI measured above 6.00% 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 and 8 Feb 2023 while it held the rate steady at 6.50 % till January 2025. On 6<sup>th</sup> June 2025, RBI reduced the repo rate by 50 basis points which currently stands at 5.50%.





Sources: CMIE Economic Outlook

### Growth Outlook

The Union Budget 2025-26 has laid the foundation for sustained growth by balancing demand stimulation, investment promotion and inclusive development. Inflation level is reaching within the central bank's target; the RBI may pursue further monetary easing that will support growth. The medium-term outlook is bright, fueled by the emphasis on physical and digital infrastructure spending.

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.

The external sector remains resilient, and key external vulnerability indicators continue to improve.

However, tariff-related uncertainty is likely to weigh on exports and investment, prompting us to cut our CY26 GDP growth forecast to 6.4%.

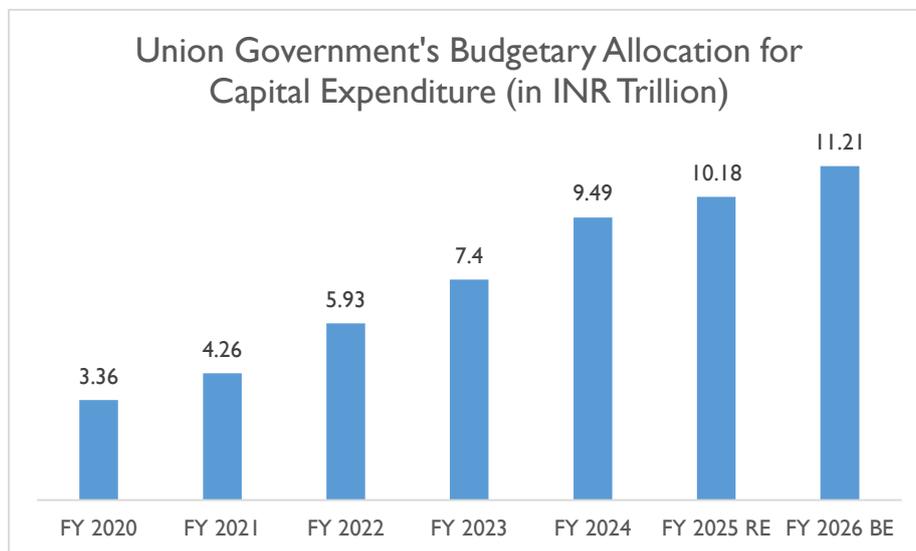
### Factors Supporting Growth

#### Government focus on infrastructure development

Infrastructure development has remained recurring theme in India's economic development. As India aims to grow to a USD 5 trillion economy by 2027, Construction sector that include Infrastructure construction will be critical for boosting economic growth as it is the key growth enabler for several other sector. Infrastructure development provides impetus to other sectors like cement, bitumen, iron and steel, chemicals, bricks, paints, tiles, financial services among others. A unit increase in expenditure in construction sector has a multiplier effect on other sectors with a capacity to generate income as high as five times in other sectors.

The sector enjoys intense focus from the Government which is well reflection in higher budgetary allocations. To push the infrastructure development, government has also announced higher budgetary allocation, various arrangement for raising funds through road asset monetization plan and converting of NHAI’s existing InvIT into a public one is also planned. With economic targeting to reach USD 5 trillion economy by 2027, demand for various infrastructure facilities such as power, cargo movement, passenger movement is likely to grow which necessitate steady capacity addition in infrastructure facilities.

The launch of flagship policies like National Infrastructure Pipeline (NIP), and PM Gati Shakti plan have provided the coordination & collaboration that was lacking earlier. Both NIP and PM Gati Shakti are ambitious billion-dollar plans that aim to transform India’s infrastructure, elevating it to the next level. These projects are expected to improve freight movement, debottleneck the logistics sector, and improve the industrial production landscape, which would provide the incremental growth in GDP.



Union Budget, Government of India; RE – Revised Estimates ; BE – Budgeted Estimates

**Development of Domestic Manufacturing Capability**

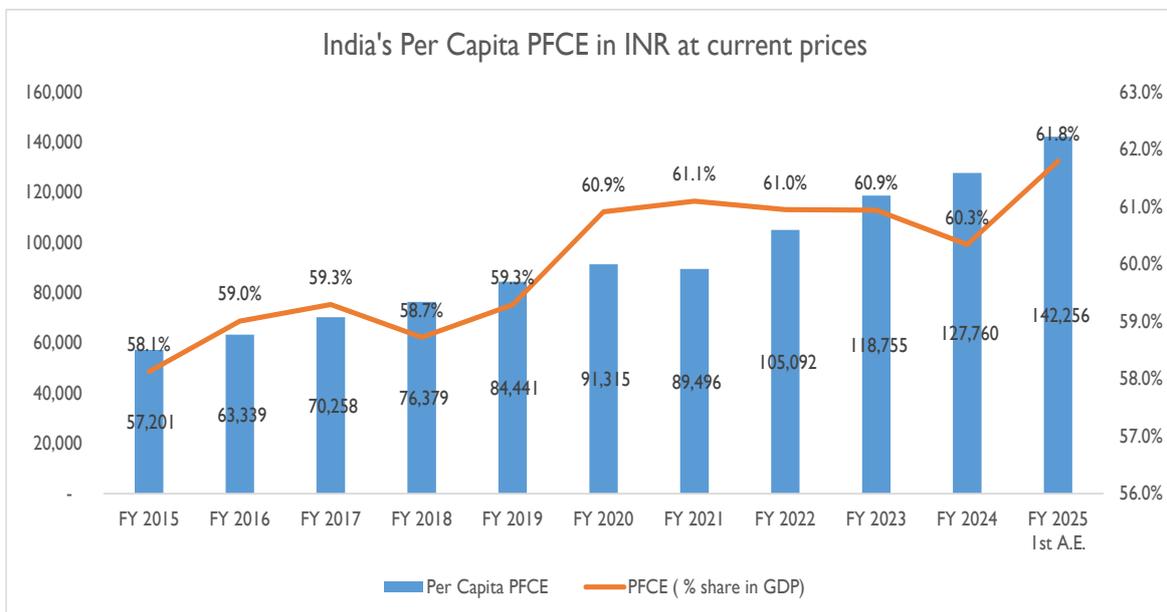
The Government launched Production Linked Incentive (PLI) scheme in early 2020, initially aimed at improving domestic manufacturing capability in large scale electronic manufacturing and gradually extended to other sectors. At present it covers 14 sectors, ranging from medical devices to solar PV modules. The PLI scheme provides incentives to companies on incremental sales of products manufactured in India. This incentive structure is aimed to attracting private investment into setting up manufacturing units and thereby beef up the domestic production capabilities. The overall incentives earmarked for PLI scheme is estimated to be INR 2 trillion. If fully realizing the PLI scheme would have the ability to add nearly 4% to annual GDP growth, by way of incremental revenue generated from the newly formed manufacturing units.



### Strong Domestic Demand

Domestic demand has traditionally been one of the strong drivers of Indian economy. After a brief lull caused by Covid-19 pandemic, the domestic demand is recovering. Consumer confidence surveys by Reserve Bank / other institutions are points to an improvement in consumer confidence index, which is a precursor of improving demand. India has a strong middle-class segment which has been the major driver of domestic demand. Factors like fast paced urbanization and improving income scenario in rural markets are expected to accelerate domestic demand further.

This revival is perfectly captured by the private final consumption expenditure (PFCE) metric. The PFCE at current prices is on steady rise from FY 2022 onwards. Between FY 2015-25, PFCE in India has improved by nearly 2.5 times its share in GDP has increased from 58.1% to about 61.8% in FY 2025 (as per the first advance estimates).



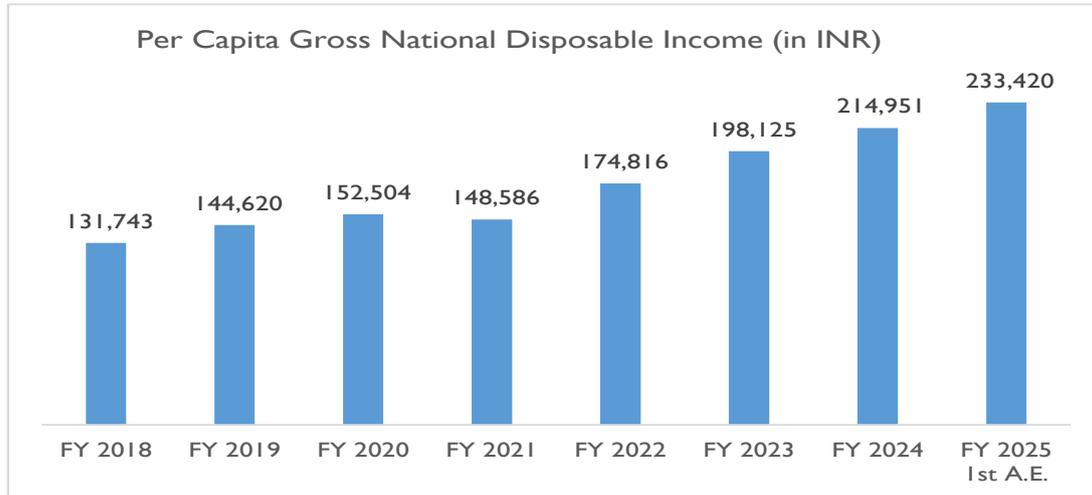
Source: Ministry of Statistics & Programme Implementation (MOSPI)

There are two factors that are driving this domestic demand: One the large pool of consumers and second the improvement in purchasing power.

- The share of middle class increased from nearly 14% in 2005 to nearly 30% in 2021 and is expected to cross 60% by 2047<sup>1</sup>. This expanding middle class household segment is fuelling India’s growth story and would continue to play a key role in propelling India’s economic growth.
- Consumer driven domestic demand is majorly fuelled by this growth in per capita income. As per National Statistics Office (NSO) As per National Statistics Office (NSO), India’s per capita net national income (at constant prices) stood at INR 106,744 in FY 2024 against INR 99,404 in FY 2023 and INR

<sup>1</sup> As per the survey conducted by People Research on India’s Consumer Economy. Households with annual income in the range of INR 5 – 30 lakh is considered as middle-class households.

87,586 in FY 2018. This increase in per capita income has impacted the purchasing pattern as well as disposable income. The disposable income during the FY 2018-25 has increased from INR 131,753 to INR 233,420, increasing at CAGR 8.5% while in FY 2025 it is estimated to grow at 8.59% on year-on-year basis in FY 2025 against 8.49% in FY 2024.



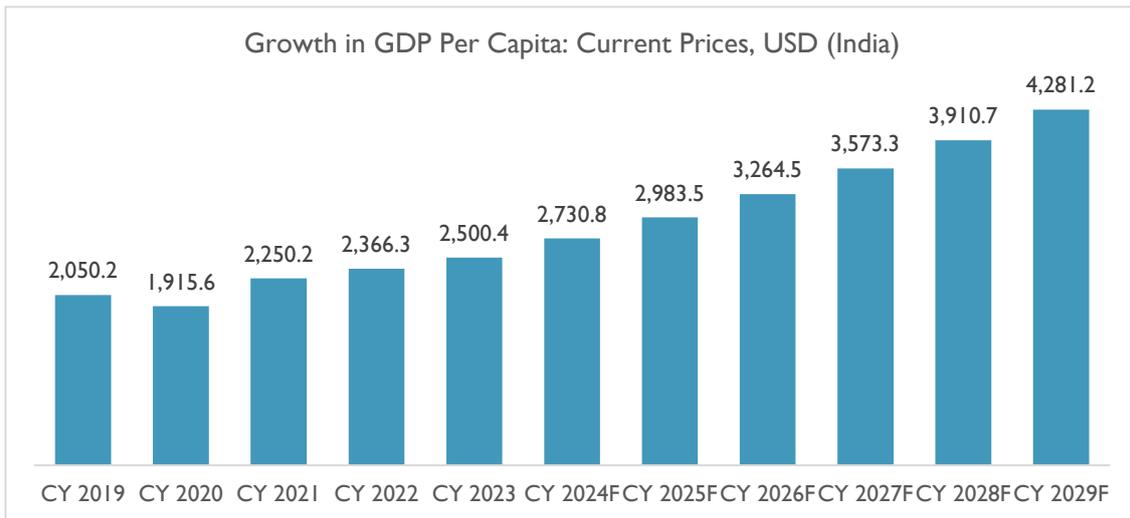
Source: Ministry of Statistics & Programme Implementation (MOSPI)

### India's Per capita GDP trends

India is poised to become the world's third-largest economy with a projected GDP of USD 5 trillion within the next three years, driven by ongoing reforms. As one of the fastest-growing major economies, India currently holds the position of the fifth-largest economy globally, following the US, China, Japan, and Germany. By 2027-28, it is anticipated that India will surpass both Germany and Japan, reaching the third-largest spot.

This growth is bolstered by a surge in foreign investments and a wave of new trade agreements with India's burgeoning market of 1.4 billion people. The aviation industry is witnessing unprecedented orders, global electronics manufacturers are expanding their production capabilities, and suppliers traditionally concentrated in southern China's manufacturing hubs are now shifting towards India.

To achieve its vision of becoming the world's third-largest economy by 2027-28, India will need to implement transformative industrial and governmental policies. These policies will be crucial for sustaining the consistent growth of the nation's per capita GDP over the long term.

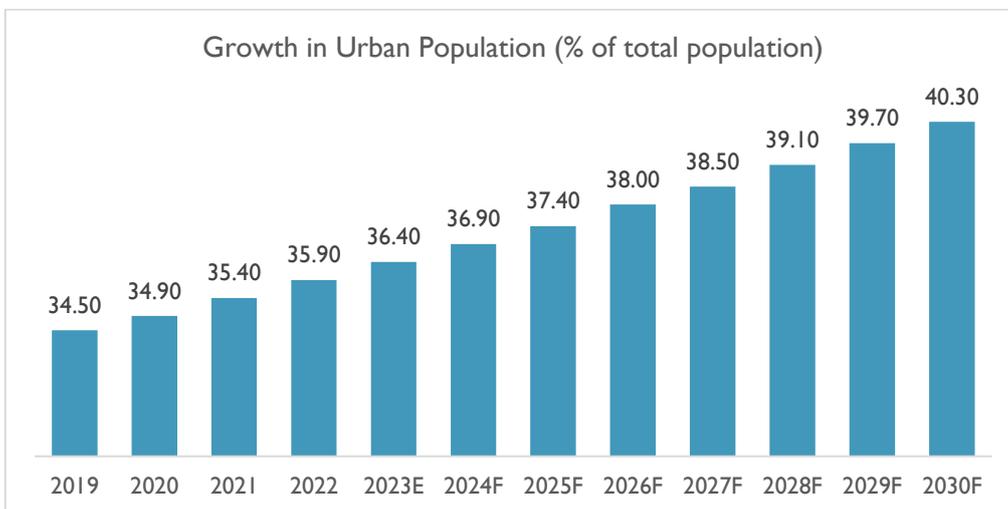


Source: IMF ; F- Forecasted

From CY 2024-29, India’s per capita GDP is projected to grow at a compound annual growth rate of 9.4%. This growth will be driven by the service sector, which now accounts for over 50% of India's GDP, marking a significant shift from agriculture to services.

**Increasing Urbanization**

As per the handbook of urban statistics 2022, India's urban population has been on a steady rise, with urban dwellers accounting for over 469 million in 2021, is projected to soar to over 558 million by 2031 and further exceed to 600 million by 2036.



Source: World Bank <sup>2</sup> D&B Research and Estimates, F – Forecasted

The share of urban population in total population has been quickly escalating. In 2019, 34.5% of the total population was urban. By 2023, this is estimated to have reached to 36.4%, showing an increment of 2.1% in a span of four years. The share of urban population is further forecasted to cross 40% by 2030. This increase

<sup>2</sup><https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?end=2022&locations=IN&skipRedirection=true&start=1960&view=chart>



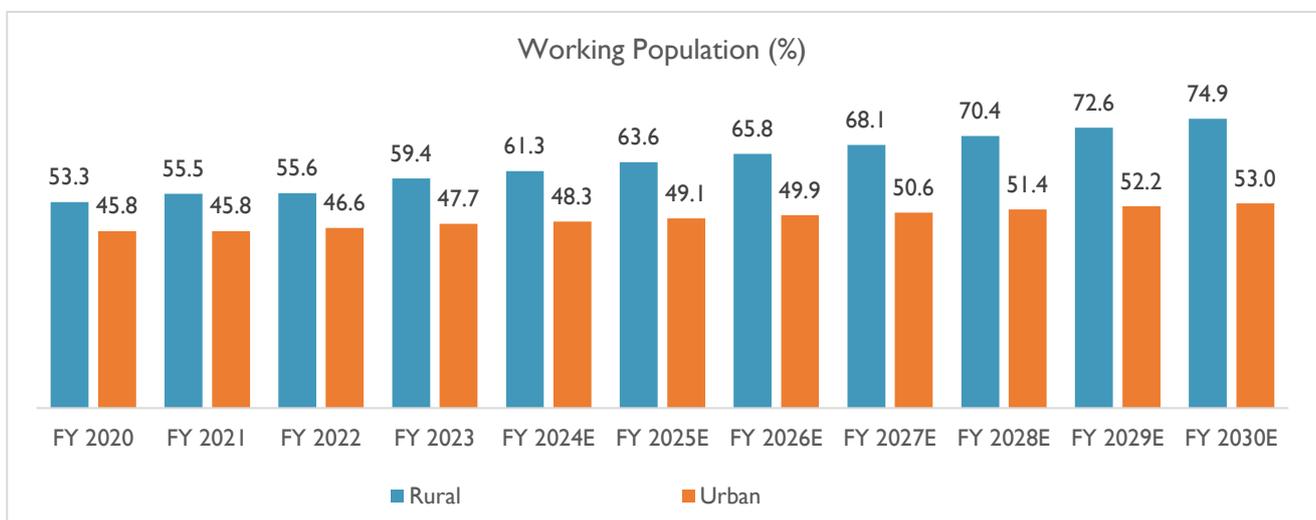
in urban population is set to demand drastic changes in infrastructure development. Cities are a major driver for the construction industry. With cities expanding rapidly, there will be an increased need for improved housing, water supply, sewage systems, and electricity. Urban planning will need to account for higher population densities, necessitating the development of smart cities with integrated technology for efficient management of resources and services.

The Smart Cities Mission targeted at 100 cities is aimed at improving the quality of life through modernized/technology driven urban planning. This transformation will also require significant investment in public health, education, and recreational facilities to enhance the quality of urban living. The surge in urban population will also propel demand for improvement in multimodal transport infrastructure for freight and passenger travel requirement.

### Rural Vs Urban Working Population Age Group

As India continues to experience economic growth and development, the working population in both rural and urban areas is increasing. In case of urban population, this growth is marked from a share of 45.8% in FY20 to 47.7% in FY23, whereas in rural areas, it grew from 53.3% in FY20 to 59.4% in FY23.

This growth is driven by a combination of factors, including demographic changes, economic policies, and the expansion of various industries. The rise in employment opportunities across sectors such as agriculture, manufacturing, services, and information technology has contributed to the overall increase in the working population, thereby fostering economic stability and enhancing the standard of living for many Indians.



Source: Periodic Labour Force Survey (PLFS) Annual Report 2022-2023, D&B Research and Estimates

In urban areas, the working population is growing rapidly due to the proliferation of jobs in sectors like IT, finance, retail, and healthcare. Additionally, the development of infrastructure, such as improved transportation networks and housing, has made urban centers more accessible and desirable for the working population. In rural areas, the working population remains substantial, primarily due to the dominance of the agricultural sector.

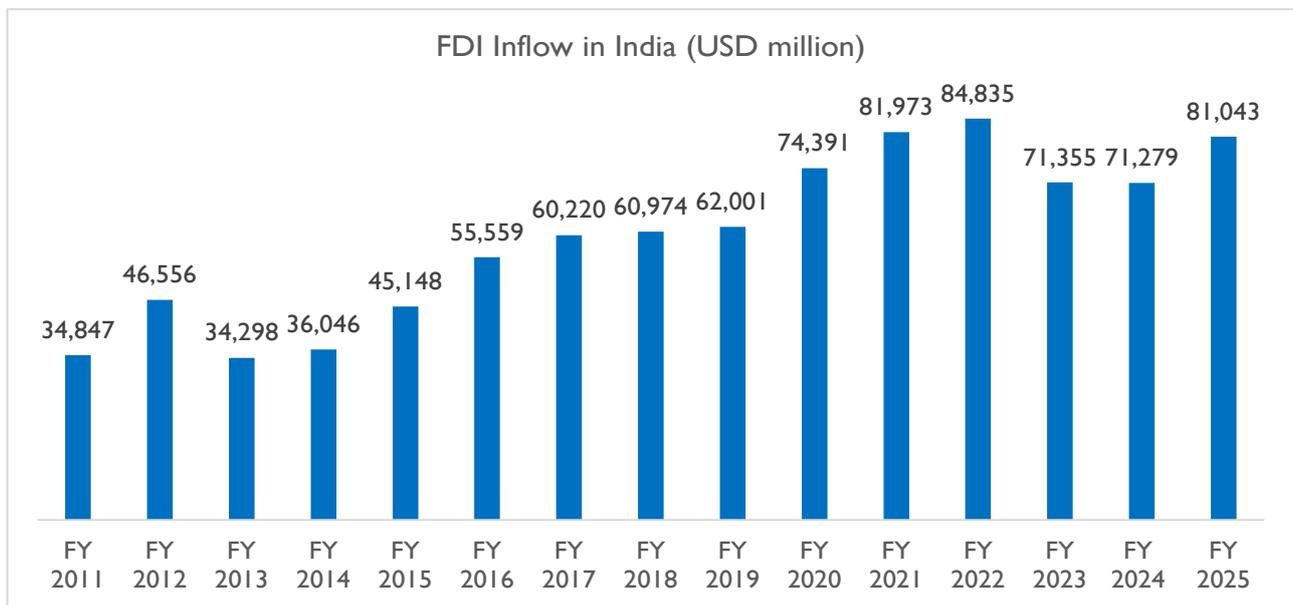
Government initiatives aimed at rural development, such as improved access to education and skill development programs, have also played a crucial role in enhancing employment prospects in these regions. The dominance of the rural working population over their urban counterparts can be attributed to the agricultural sector's labor-intensive nature ensures a consistent demand for human labor despite advancements in mechanization, sustaining employment rates in rural areas.

**Foreign Direct Investment Trend in India**

FDI inflow in India has observed a steady increase between FY 2013 till FY 2022 while it witnessed a decline of 15% in FY 2023 and of -0.1% in FY 2024 due to several factors, including the ongoing conflict between Russia and Ukraine, changes in US monetary policy, and other global uncertainties.

However, the country has received substantial FDI inflow between from April 2011-March 2025. This increasing FDI can be attributed to the new investment facilitation measures like the National Single-Window System (NSWS), which streamlines the approval and clearance process for investors, entrepreneurs, and businesses sectoral along with PLI schemes, emerging growth prospects in tier-2 and tier-3 cities.

Further, tax compliance for startups and foreign investors have been simplified where the Income Tax Act, 1961 has been amended in 2024 to abolish angel tax and to reduce income tax rate chargeable on income of a foreign company.



Sources: Department for Promotion of Industry and Internal Trade

As per World Investment report 2025, India ranking improved by one position to rank 15<sup>th</sup> place for global FDI destinations, attracting USD 27.6 billion as an FDI destination in 2024, up from 16<sup>th</sup> in 2023.

India ranked as the 4<sup>th</sup> largest recipient of greenfield projects with 1,080 greenfield projects in 2024 announcements, as per the World Investment Report 2025.

## Industry Overview

### Indian Packaging Industry and Role of Corrugated Boxes

India's packaging industry has become a critical enabler of economic growth, driven by rising consumerism, increased urbanization, and expansion in sectors such as food processing, pharmaceuticals, personal care, and e-commerce. With its strategic position in the global supply chain, India has emerged as a preferred manufacturing and packaging destination due to its cost-efficiency, skilled labour force, and strong domestic consumption.

The sector is evolving rapidly, moving from traditional packaging to modern, technology-enabled, and sustainable solutions. Innovations in materials, automation in packaging lines, and digitization in design and logistics have transformed packaging from a functional necessity to a strategic business differentiator. Demand for safe, traceable, and environment-friendly packaging is reshaping investment trends across the industry.

Within this dynamic ecosystem, **corrugated boxes** serve as an essential component of **rigid packaging**, widely adopted for secondary and tertiary packaging needs. Their importance lies not just in structural protection but also in cost-effectiveness, recyclability, and ease of handling. Corrugated boxes are indispensable in transporting goods across long distances, particularly in the context of India's growing e-commerce and organized retail landscape.

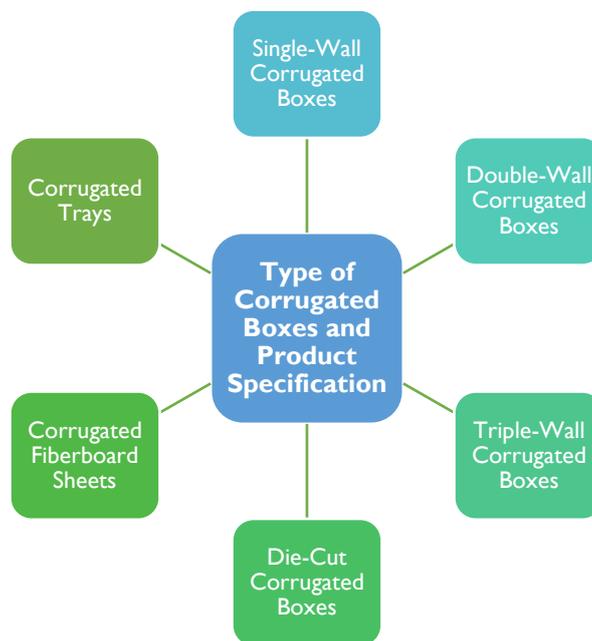
### Role of Corrugated Boxes in Indian Packaging Sector:

- Widely used across key industries including Fast-moving consumer goods (FMCG), pharmaceuticals, electronics, agriculture, and retail for shipping and warehousing.
- Serve as the primary secondary and tertiary packaging medium, offering stackability, shock resistance, and branding flexibility.
- Support sustainability goals by being recyclable, biodegradable, and increasingly made with eco-friendly raw materials.
- Benefit directly from the rise in e-commerce and logistics infrastructure, which demand durable and lightweight packaging.
- Enable cost optimization in packaging and distribution, especially for mass-volume manufacturers and exporters.

## Overview of Corrugated Boxes

Corrugated boxes are one of the most widely used packaging solutions globally due to their versatility, strength, and cost-effectiveness. Constructed using a fluted corrugated sheet sandwiched between two flat linerboards, these boxes offer superior cushioning and protection, making them ideal for transporting a wide range of goods. Their customizable nature allows manufacturers to adapt designs according to the shape, size, and fragility of the contents, catering to diverse packaging requirements across industries. Corrugated packaging is particularly favoured in logistics and shipping due to its ability to withstand pressure, stacking, and environmental stress during handling and transit.

## Type of Corrugated Boxes and Product Specification



### 1. Single-Ply Corrugated Boxes

These boxes consist of one fluted layer between two linerboards. They are lightweight, economical, and offer adequate protection for non-fragile items. Single-ply boxes are widely used for:

- E-commerce packaging for clothing, books, and accessories
- Food delivery containers and retail cartons
- General household and office supplies

### 2. Double-Ply Corrugated Boxes

Constructed with two layers of fluting and three linerboards, these boxes offer higher durability and better resistance to external pressure and moisture. They are suitable for:

- Industrial and heavy-duty packaging

- Fragile goods like glassware, electronics, and tools
- Local and regional shipping of mid- to high-weight items

### 3. Triple-Ply Corrugated Boxes

The strongest variant, triple-ply boxes include three fluted layers and four linerboards, offering exceptional strength and puncture resistance. They are ideal for:

- Export packaging and bulk shipping
- Industrial machinery and high-value items
- Long-distance logistics under harsh conditions

### 4. Die-Cut Corrugated Boxes

Custom-designed using die-cutting technology, these boxes offer precision in shape and dimension. They are tailored for branding and specific product needs, and commonly used for:

- Retail and shelf-ready packaging
- Electronic devices and promotional kits
- High-end consumer goods requiring aesthetic appeal

### 5. Corrugated Trays

Open-top trays designed for easy access, display, and ventilation. These are especially useful for:

- Agricultural produce like fruits and vegetables
- Bottled beverages and dairy products
- Point-of-sale displays in supermarkets and stores

### 6. Corrugated Fibreboard Sheets

These are flat sheets without forming a box, primarily used for cushioning, layering, and protection. Applications include:

- Palletized cargo separation
- Fragile item insulation inside larger boxes
- Custom internal packaging structures

## Types of corrugated boxes categorized based on their Layer Structure

### Product Portfolio for 5 Ply and 7 Ply Corrugated boxes

Both 5-ply and 7-ply boxes are typically manufactured as Regular Slotted Containers (RSC) but are also produced as die-cut custom corrugated boxes to meet specific, high-precision packaging requirements for leading brands across FMCG, electronics, and pharmaceuticals. They are increasingly required to be made from eco-friendly materials to align with industry sustainability standards.

### Description of “Ply” and its Correlation to Corrugated Boxes

In the packaging industry, the term “ply” refers to the number of layers of paperboard used in the construction of corrugated boxes. Each layer contributes to the overall strength, durability, and cushioning properties of the box. Corrugated boxes are typically made of two types of layers: flat linerboard and corrugated (fluted) paper. The combination of these layers creates a strong, lightweight, and protective packaging solution.

Multi-ply corrugated boxes like 5-ply and 7-ply represent the heavy-duty segment of the market, designed for maximum strength and protection in demanding logistics environments.

### Specific Details About the Thickness of 5 Ply and 7 Ply Corrugated Boxes

#### 5-Ply Corrugated Boxes (Double Wall):

**Structure:** A 5-ply corrugated box consists of five layers: two outer flat linerboards and three inner layers of corrugated fluted paper. This configuration enhances the box’s ability to withstand high impacts, compression, and other stresses during shipping and handling. The thickness of a 5-ply corrugated box is a crucial factor in its performance. The fluted layers, present between the flat linerboards, create air pockets that act as a cushion, absorbing shocks and protecting the contents. The exact thickness of a 5-ply corrugated box can vary depending on the type of fluting used (e.g., A-flute, B-flute, C-flute, etc.), but it generally ranges between 6mm to 7mm. The strength of a 5-ply corrugated box is derived from its multi-layered construction. Each layer adds to the box’s overall rigidity and ability to protect the contents from external forces. This makes 5 ply corrugated boxes ideal for packaging heavy, fragile, or valuable items that require extra protection during transit.

**Applications:** Its multi-layered structure ensures optimal protection for products, making it a preferred choice in various industries. Key applications include general industrial supplies, home appliances, large electronics, heavy machinery parts, and consolidated bulk shipments where stacking performance is critical.

#### 7-Ply Corrugated Boxes (Triple Wall):

**Structure:** These boxes feature seven layers: three outer linerboards and four inner fluted layers. They are the thickest and strongest among common corrugated boxes, with a thickness ranging from 9mm to 10mm. 7 ply boxes are used for extremely heavy or delicate items that need maximum protection during long-

distance or international shipping. They are available with various flute combinations (e.g., A+A Flute for enhanced cushioning, B+B Flute for maximum stacking compression).

**Applications:** These are the ultimate solution for heavy-duty materials and extremely fragile items. They are engineered to handle the toughest transportation and storage challenges. Specific applications include packaging heavy industrial equipment and components, shipping large and expensive fragile items (like glass or specialized auto parts), and use in highly stressed logistics environments like international shipping and bulk exports.

### Corrugated Flute Types (Flute Grades)

Corrugated flute grades determine the strength, cushioning, and compression resistance of packaging, allowing for various customization options. Below is a breakdown of different flute profiles:

#### 1. A-Flute (1/4" Thick)

•The largest flute size, offering the highest protection and cushioning properties. It provides superior compression and stacking strength, making it ideal for fragile items and heavy-duty packaging.

#### 2. B-Flute (1/8" Thick)

A thin yet strong flute type, known for excellent puncture and crush resistance. B-Flute is commonly used for dividers, padding, and general-purpose packaging, offering a smooth surface for high-quality printing and die-cutting.

#### 3. C-Flute (3/16" Thick)

A versatile flute grade that balances crush resistance, stacking strength, and printability. It is widely used in shipping boxes and packaging for glassware, dairy, and furniture products.

#### 4. E-Flute (1/16" Thick)

A thinner flute option, often used as an alternative to folding cartons. Despite its smaller thickness, E-Flute provides good compression strength and crush resistance, making it suitable for cosmetics, ceramics, fragile glass items, and premium packaging. It also offers a flat surface ideal for high-quality printing.

#### 5. F-Flute (1/32" Thick)

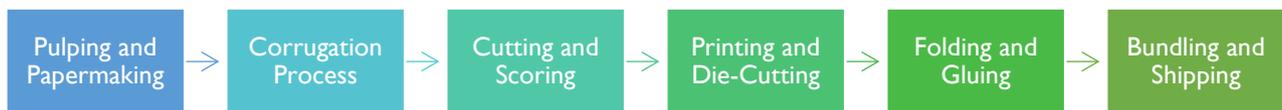
A lightweight and smooth-surfaced flute designed for high-quality printing applications. Commonly used in clamshell packaging in the fast-food industry (particularly in the U.S.), it is also widely used in retail and specialty packaging in Europe.

### Product Specifications:

- Material: Kraft paper, recycled paper, or virgin fibreboard.

- Flute Types: A, B, C, E, and F flutes (varying thickness for strength and cushioning).
- Weight Capacity: Ranges from lightweight to over heavy-duty.
- Customization: Available in different sizes, printing designs, coatings (waterproof, fire-resistant), and branding options.

## Manufacturing Process



### 1. Pulp and Papermaking

- Raw Material Preparation: Trees, primarily softwoods like pine and fir, are harvested. The wood is debarked and chipped into small pieces.
- Pulping: Wood chips are processed to extract fibres, creating pulp. This can be achieved through mechanical grinding or chemical methods.
- Paper Formation: The pulp is spread onto screens, drained of water, pressed, and dried to produce rolls of paper, which will serve as the linerboards and corrugated medium.

### 2. Corrugation Process

- Heating and Fluting: The corrugated medium is passed through heated corrugating rolls, forming the characteristic fluted pattern.
- Adhesion: Starch-based adhesive is applied to the tips of the flutes, and the first linerboard is pressed onto them, forming a single-faced corrugated sheet.
- Double-Facing: The exposed flute tips of the single-faced sheet receive adhesive, and the second linerboard is added, creating a double-faced corrugated board.

### 3. Cutting and Scoring

- Trimming: The continuous corrugated board is trimmed to the desired width using slitters.
- Scoring: Crease lines are added to facilitate easy folding during box assembly.

### 4. Printing and Die-Cutting

- Printing: If required, the boards are printed with branding or handling instructions using flexographic printers.
- Die-Cutting: Custom shapes and features, such as handles or unique openings, are cut using die-cutting machines.

### 5. Folding and Gluing

- Folding: The cut and scored boards are folded into box shapes along the crease lines.

- **Gluing/Stitching:** The manufacturer's joint is sealed using adhesive, tape, or staples to ensure structural integrity.

## 6. Bundling and Shipping

- **Bundling:** Finished boxes are flattened and bundled together for efficient handling.
- **Shipping:** Bundles are palletized and transported to customers for final assembly and use.

### Product Application in end user industry

Corrugated boxes have become indispensable across a wide range of industries due to their versatility, durability, cost-efficiency, and eco-friendly nature. Their applications span from lightweight retail packaging to heavy-duty industrial transport. Below is an overview of how various end-user sectors leverage corrugated packaging to enhance their operations:

#### 1. Fast-Moving Consumer Goods (FMCG)

- **On-the-Go Consumption:** With lifestyle shifts, there's a growing trend of individuals consuming products like food, beverages, and pharmaceuticals while on the move, fuelling demand for convenient and portable packaging solutions, with flexible plastics and compact corrugated packaging formats emerging as key beneficiaries. Corrugated boxes offer protection and stackability for smaller, on-the-go product formats, making them ideal for distribution.
- **Convenience Shopping:** A shift towards single-person living, especially among younger demographics, has led to more frequent grocery shopping in smaller quantities for staples and food products. In contrast, categories like daily essentials and personal care see demand for larger packs. Corrugated boxes support both trends by accommodating varied packaging sizes and offering ease in transport, storage, and retail display, thereby boosting convenience store retailing and packaging diversity.
- **E-commerce Growth:** The rapid expansion of online retail has significantly increased the need for durable and lightweight packaging. Corrugated boxes are preferred due to their strength, stackability, cushioning ability, and cost-effectiveness, playing a critical role in ensuring product safety during transit and supporting the e-commerce supply chain.
- **Sustainability Concerns:** Growing environmental awareness has led to a shift toward recyclable and biodegradable packaging. Corrugated boxes, being recyclable and made from renewable resources, align well with consumer and regulatory sustainability goals, further boosting their adoption.

#### 2. Food & Beverage

- **Health Consciousness:** Rising demand for packaged healthy foods and beverages such as organic, portion-controlled, and nutritional products requires safe, secure, and versatile packaging.

Corrugated boxes meet these needs by providing strength, protection, and scalability for retail and wholesale distribution.

- **Technological Advancements:** New packaging technologies like bio-based plastics and barrier coatings complement corrugated packaging by enabling hybrid solutions that are lightweight and sustainable. Corrugated boxes remain essential for outer packaging, providing stability and protection for innovative inner packs.
- **Emphasis on Hygiene and Safety:** Consumers increasingly demand packaging that maintains hygiene and prevents contamination. Corrugated boxes offer sturdy, tamper-evident packaging that reduces risk of damage or exposure, particularly in transit and storage.
- **Customization and Branding:** Corrugated boxes can be easily customized with branding, enabling food and beverage companies to enhance shelf appeal and customer engagement, making them a valuable marketing tool as well as a protective medium.

### 3. Fruits & Vegetables

- **Application of Processing and Packaging Hurdles:** Hurdle technology in fresh-cut produce requires packaging that can maintain freshness and safety. Corrugated boxes with moisture-resistant coatings and breathable designs support these needs while preserving product integrity.
- **Protection During Transit:** Corrugated boxes offer excellent cushioning and shock absorption, reducing spoilage and physical damage of delicate produce during long-distance transportation.
- **Ventilation Features:** Custom-designed corrugated boxes with ventilation holes help regulate temperature and humidity, essential for preserving freshness of fruits and vegetables, thereby minimizing waste and improving shelf life.

### 4. Pharmaceuticals

- **Specialized Functional Packaging:** Corrugated boxes for pharmaceuticals are often tailored to comply with stringent industry standards. They can withstand sterilization processes and act as a reliable barrier against contamination or chemical migration.
- **Cold Chain Compatibility:** Temperature-sensitive products such as vaccines, biologics, and certain drugs require corrugated boxes equipped with insulation layers or thermal inserts. These features help maintain product efficacy and regulatory compliance throughout the cold chain.
- **Product Integrity and Safety:** Corrugated packaging protects pharmaceutical products from environmental and physical damage. Their durability and tamper-evident design help ensure secure delivery from the manufacturing facility to the end user.

## 5. Textile

- **Protection from Dust and Damage:** Textile products such as garments, fabrics, and home furnishings require packaging that shields them from dirt, moisture, and handling damage. Corrugated boxes offer clean, rigid, and secure containment for these purposes.
- **Efficient Stacking and Storage:** For both retail and wholesale distribution, textiles benefit from flat-packed or rolled packaging. Corrugated boxes provide space-efficient storage while protecting fabric texture and color from external elements.
- **Bulk Packaging Flexibility:** From small retail shipments to bulk industrial consignments, corrugated boxes can be customized in size and strength, making them ideal for varied textile products including readymade garments, linens, and upholstery.

## 6. Others (Electronics, Industrial Equipment, E-commerce, etc.)

- **Electronics:** Corrugated boxes with anti-static coatings and inserts are used to protect sensitive electronic components and gadgets from static discharge, shock, and vibration during shipment.
- **Industrial Equipment:** Heavy-duty corrugated boxes are preferred for industrial tools, parts, and machinery components due to their high burst strength and customizable interior fitments for secure loading.
- **E-commerce Packaging:** Corrugated packaging remains a mainstay of e-commerce logistics due to its versatility, cushioning capability, and ability to be custom printed with branding or product information, enhancing both customer experience and supply chain efficiency.
- **Retail Displays and Promotional Packaging:** Corrugated boxes are also used to create attractive, branded POP (point-of-purchase) displays for promotional campaigns across industries, combining visual impact with structural support.

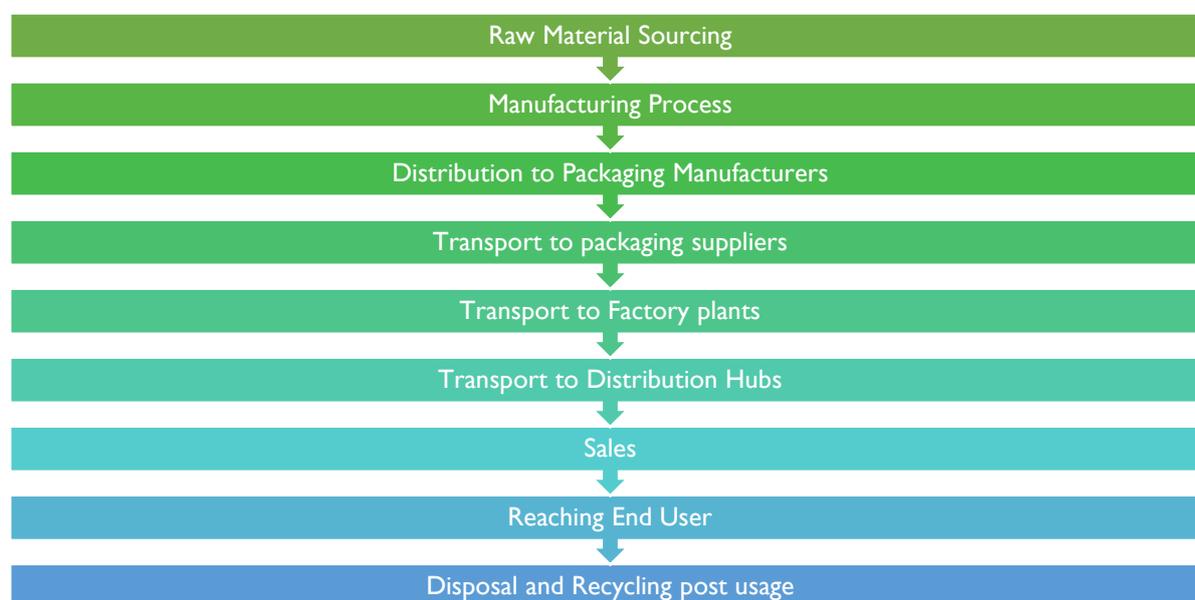
## Ecosystem Overview and Industry Value Chain for Corrugated Boxes

The ecosystem of the corrugated packaging industry in India is characterized by a high number of MSMEs, growing modernization, and strong government support. The industry is fragmented, with thousands of MSMEs registered under corrugated paper, paper board, and paper board containers manufacturing. Of these, the vast majority are Micro and Small enterprises. Currently, the Indian Corrugated Case Manufacturers' Association (ICCMA) represents the voice of approximately 7,000+ semi-automatic units and 600+ automatic corrugated packaging plants across the country. The industry identified 19 Corrugated Paper Board/Packaging clusters across the country, under MSME Development Institutes (MSME-DIs) for various interventions under the schemes of Office of DC (MSME) for their growth and sustainability.

The ecosystem including raw material sourcing plants to distributors and end users' industry is adapting to modern demands through advanced printing technologies (digital printing, flexography) for high-quality, customized branding, especially for FMCG and e-commerce. There is a continuous push for lightweight yet durable packaging with reduced basic weight, to reduce freight costs while maintaining structural integrity. Manufacturing innovations are also extending to cater newer design concepts like display boxes and the integration of technologies such as bar-coding and QR codes for enhanced supply chain visibility.

### Value Chain for Corrugated Boxes

The value chain for corrugated boxes in India can be broken down into a multi-stage process, starting with raw material collection and ending with the disposal or recycling of the final product.



**Raw Material Sourcing (Paper Industry):** The primary raw material is Kraft paper, which forms the linerboard (smooth sheets) and the medium (fluting/arched layer). A significant portion of this paper is sourced from recycled paper, reflecting the industry's sustainability focus. India's paper industry faces

challenges in meeting the entire demand, especially for high-strength Kraft, which sometimes necessitates imports. Other crucial raw materials include adhesives (starch-based corrugation glue) and stitching wire.

**Manufacturing (Corrugation Units):** The manufacturing process takes place across thousands of corrugated packaging units, largely dominated by Small and Medium-sized Enterprises (SMEs). This stage involves converting the raw paper into corrugated board by bonding the linerboard and the fluting medium. This majorly includes corrugation processing by adhesion and double facing techniques, followed by cutting and scoring to facilitate ease during box assembly. The manufacturing process then is ceased by custom printing, folding and gluing to ensure structural integrity for the final box. The customization is done to cater the current demand for die-cut boxes, multi-color printed white top boxes, and custom packaging by different industry segments, requiring investment in advanced machinery and printing technologies.

**Distribution and Sales:** Finished corrugated boxes are distributed different packaging manufacturers and suppliers and factory plants for meeting different storage requirements, followed by transport to distribution hubs to reach the network of local suppliers and distributors or directly to end-users. With the growth of the organised sector, the market is still being dominated by the unorganised sector (local manufacturers/ginners) across niche industry segments.

**End-User Industries:** Corrugated boxes are a universal packaging solution. The major consuming sectors in India include Fast-Moving Consumer Goods (FMCG), which is the dominant segment, followed by Chemicals and Pharmaceuticals, Light and Electrical Products, Automobiles, and, most significantly, the rapidly growing e-commerce sector. They are also used extensively for packaging agricultural products like fruits, vegetables, and eggs, and for exports (textiles, processed foods, etc.).

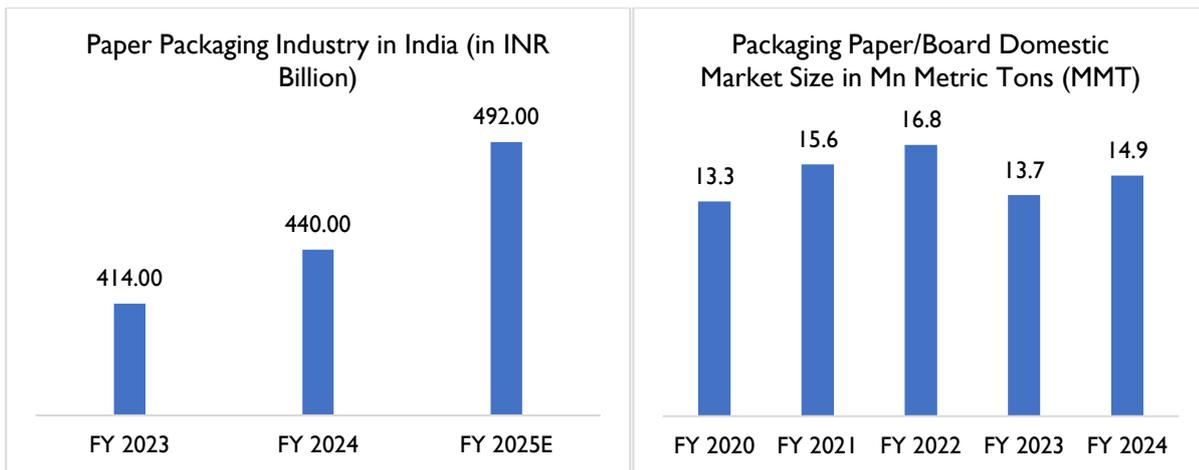
**Disposal and Recycling:** Corrugated boxes are highly valued for their recyclability. After use, boxes enter the solid waste stream, where they are collected and re-processed by the paper industry, effectively completing a closed-loop value chain. Regulations on solid waste disposal and increasing emphasis on recyclability are pushing the industry towards environment-friendly corrugated materials.

## Market Scenario: Paper Packaging Sector in India

### India's paper packaging sector

India's paper packaging sector continues to expand steadily, supported by the strong performance of end-user industries such as e-commerce, FMCG, and pharmaceuticals. The country's packaging paper and paperboard consumption reached around **14.9 million metric tons (MMT)** in FY 2024, recovering from **13.7 MMT** in FY 2023 after a temporary slowdown caused by post-pandemic inventory corrections, global supply disruptions, and elevated input costs.

The rebound reflects renewed consumption momentum, rising urbanization, and a growing emphasis on sustainable materials. Notably, packaging paper now constitutes nearly **65% of India's total paper and paperboard market**, underscoring its importance as a driver of the domestic pulp and paper industry. Demand has also been bolstered by a surge in eco-friendly preferences, technological innovations in recyclable packaging, and the growth of new-age sectors such as quick commerce and health-focused consumer goods.



Source: Indian Paper Manufacturers Association (IPMA), D&B Secondary Research Estimates

In monetary terms, the paper packaging industry is projected to grow from **INR 414 billion in FY 2023 to INR 492 billion by FY 2025**, representing a healthy **CAGR of roughly 9%**. This growth trajectory is underpinned by expanding demand for sustainable and regulation-compliant packaging, as companies increasingly substitute plastic with biodegradable paper-based alternatives to meet ESG and government sustainability mandates.

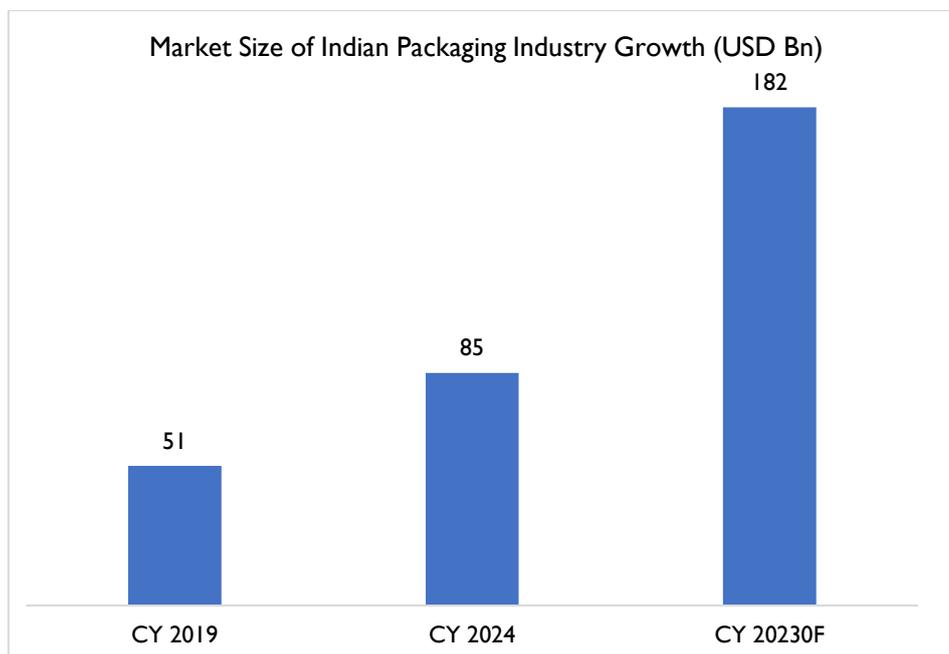
The proliferation of e-commerce and organized retail particularly across India's Tier 2 and Tier 3 cities has sharply increased the consumption of corrugated boxes, cartons, and paper bags. Concurrently, domestic manufacturers are investing in automation, design optimization, and capacity upgrades, improving efficiency and responsiveness to market needs. Together, these structural shifts are positioning India's paper packaging segment as one of the most dynamic and high-growth components within the broader packaging ecosystem.

## Market Scenario: Food Service Industry in India

### Market Size Growth in India

India ranks as the world's third-largest economy in Public Private Partnership (PPP) terms and the fifth largest in terms of GDP. The substantial economic size has created fresh business prospects globally, particularly in the packaging industry. The Indian packaging sector, witnessing significant growth, benefits from its presence across various industrial segments and the evolving trade landscape, including the rise of e-commerce and organized retailing. This demand is further supported by India's robust logistics and warehousing infrastructure, emphasizing the crucial role of packaging in preserving product integrity during transit, supported by robust logistics and distribution networks.

The packaging industry in India has emerged as a key sector within the country's economy and is increasingly becoming a global hub for packaging solutions. Currently ranked as the **5th** largest sector in India's economy, the industry has demonstrated consistent growth over the years and holds immense potential, particularly in the export market. It is estimated that Indian packaging industry accounts for approximately 10 to 15% of the global packaging industry. According to the Packaging Industry Association of India (PIAI), the India Packaging Market, valued at USD 50.5 billion in CY 2019, is estimated to have reached USD 85 billion by CY 2024, experiencing a compounded annual growth rate of 11% from CY 2019 to CY 2024.



Source: Packaging Industry Association of India (PIAI), D&B Research

India offers a cost advantage, with food processing and packaging expenses up to **40%** lower compared to certain European regions. Coupled with an abundant supply of skilled labour, this makes the country an attractive destination for investment and manufacturing in the packaging domain. The demand for packaging solutions is being driven by the expansion of various user segments, including **processed foods, beverages,**



**textiles, pharma and others.** With these industries witnessing significant growth, the packaging sector is poised for further development and expected to reach USD 182 billion (registering average annual growth of 13.5% between 2024-2030), offering ample opportunities for both domestic and international investors.

Among the diverse packaging formats, **corrugated boxes** hold a significant share within the **rigid packaging segment**, acting as a backbone for safe, efficient, and cost-effective product movement. These boxes are widely used in **secondary and tertiary packaging**, especially for bulk goods, fragile items, and e-commerce deliveries. Known for their **durability, recyclability, and lightweight nature**, corrugated boxes are a preferred choice across sectors such as **Fast-moving consumer goods (FMCG), pharmaceuticals, electronics, agriculture, textiles, and industrial goods.**

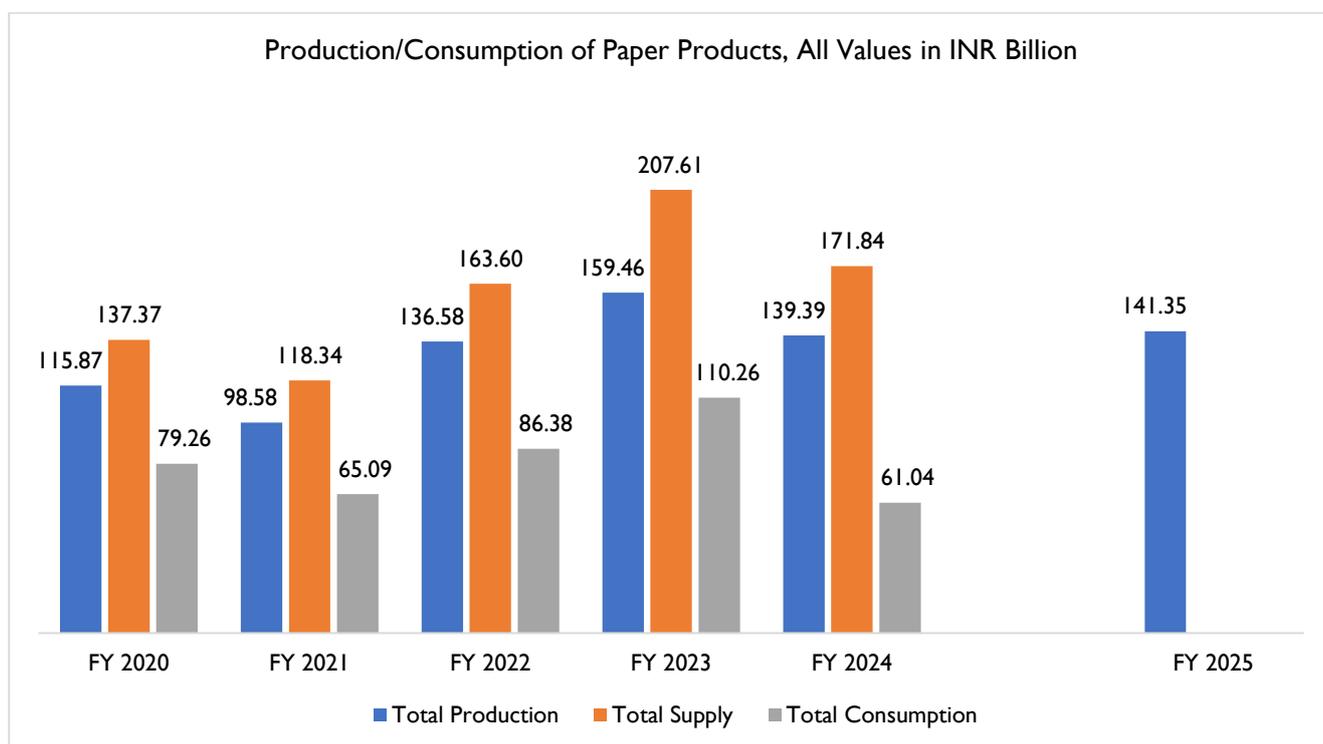
The rise of **e-commerce** and **organized retailing** in India has directly fueled the demand for corrugated boxes, as companies seek protective solutions to ensure product safety through long-distance transportation and last-mile delivery. According to industry estimates from the **Federation of Corrugated Box Manufacturers of India (FCBM)**, the country produces over **10 billion square meters of corrugated board annually**, and the market is estimated to be valued at around **USD 10–14 billion as of 2023**. As packaging demand continues to surge, corrugated box manufacturers are investing in **automated production lines, sustainable raw materials, and design customization** to meet the evolving expectations of brand owners and logistics partners.

With end-user sectors such as **Fast-moving consumer goods (FMCG), food processing, pharmaceuticals, and electronics** projected to grow steadily over the next decade, the corrugated packaging segment is poised for robust expansion. Furthermore, with increasing environmental consciousness, many companies are **substituting plastic and Styrofoam packaging with corrugated fibreboard**, creating new opportunities for innovation in eco-friendly box design. As a result, the corrugated box industry is set to play a pivotal role in supporting India's transition to a more sustainable and resilient packaging ecosystem.

### Production growth trend of paper product in India

The Indian paper industry has witnessed substantial shifts in production, supply, and consumption trends over recent fiscal years. As a critical component of the manufacturing sector, paper production responds dynamically to domestic demand and international trade patterns. This chapter explores the growth trends in paper product production in India, analysing fluctuations across financial years, and drawing correlations with export growth and consumption patterns.

The data presented in the graph illustrates India's paper production trajectory from FY 2020 to FY 2025. A steady increase in production is evident across most years:



Source: Centre for Monitoring Indian Economy (CMIE)

- **FY 2020:** Total production stood at **115.87 lakh tonnes**.
- **FY 2021:** A slight increase to **118.34 lakh tonnes** despite challenges posed by the COVID-19 pandemic.
- **FY 2022:** Production surged to **136.58 lakh tonnes**, reflecting industry recovery.
- **FY 2023:** Marked the **highest production** in the observed period at **159.46 lakh tonnes**, driven by strong market recovery and export demand.
- **FY 2024:** A notable **dip to 139.39 lakh tonnes** was recorded.
- **FY 2025 (estimated):** Production is projected to rise again to **141.35 lakh tonnes**, indicating renewed growth momentum.

➤ **Export Growth as a Production Driver:** Exports serve as a crucial indicator of production scale. Export data validates the production growth trend:

- In **FY 2023**, paper exports totalled **5,73,627.30 tonnes** valued at **INR97,351.30 million**.
- In **FY 2024**, exports further increased to **6,10,612.30 tonnes**, with a value of **INR1,10,799.10 million**.

This **6.5% increase in export quantity** and over **13.8% growth in export value** underlines robust international demand. As exports rise, producers scale up production capacities to meet both domestic and global requirements, reinforcing the upward trajectory.

➤ **Dip in FY 2024 and Reasons:** Despite the general growth trend, FY 2024 witnessed a **production decline to 139.39 lakh tonnes** from the previous year's **159.46 lakh tonnes**. This dip could be attributed to:

- **Raw material supply disruptions** due to global logistic issues and inflationary pressures.
- **Increased energy and input costs**, impacting the profit margins of paper mills.
- **Regulatory constraints** and environmental compliance obligations slowing operational output.
- **Post-COVID correction**, with demand normalization leading to temporary production adjustments.

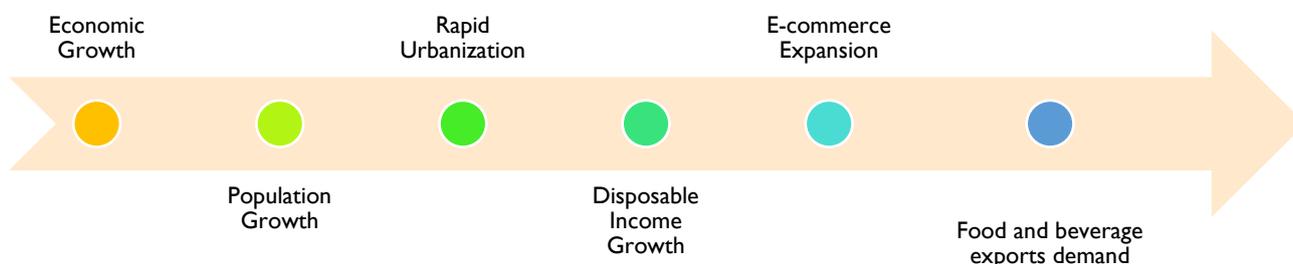
➤ **Recovery and Outlook:** Following the decline, FY 2025 shows signs of **production recovery to 141.35 lakh tonnes**, indicating the industry's resilience. Factors supporting this rebound include:

- **Export growth**, compelling producers to enhance capacity.
- **Improved supply chain conditions** and price stability.
- **Policy support and modernization** of manufacturing infrastructure.
- **Rising domestic demand** from packaging, e-commerce, and education sectors.

The Indian paper industry's production trend reflects a generally upward growth trajectory, driven by a combination of rising exports and recovering domestic demand. Though FY 2024 posed challenges leading to a temporary dip, the quick recovery projected in FY 2025E underscores industry adaptability. Strengthened by increasing international demand, especially for sustainable and high-quality paper products, India's paper production is well-positioned for continued growth in the coming years.

## Demand Drivers

Analysis of key factors driving the demand for overall corrugated boxes product usage in India



### ➤ Economic Growth

The rising economic growth is expected to propel the growth of the corrugated industrial box market going forward. Due to factors like increased manufacturing activities, booming e-commerce, and global trade expansion, rising economic growth is expected to drive higher demand for corrugated industrial boxes for packaging and shipping. In May 2025, according to the Investment Information and Credit Rating Agency (ICRA), based in India, India’s GDP growth was 6.9% for the March 2024 quarter and 6.3% for FY 2024–25, slightly below the NSO’s earlier forecast of 6.5%. In the first three quarters, growth stood at 6.5% (June), 5.6% (September), and 6.2% (December). To meet the NSO’s annual target, Q4 growth would need to hit 7.6%, higher than ICRA’s estimate. Therefore, the rising economic growth is driving the growth of the corrugated industrial box market.

### ➤ Population Growth

The growing population is expected to propel the growth of the corrugated industrial box market going forward. Due to factors like improved healthcare, better sanitation, increased food production, and declining mortality rates, the population is growing rapidly, especially in developing regions with limited access to family planning. According to the Government of India Press Information Bureau, in April 2023, India’s population reached 1,425.8 million, matching and then surpassing China to become the world’s most populous country. Representing nearly 17% of the global population, India stood at the forefront of demographic prominence. By 2024, the population had further increased to approximately 1,441 million, underscoring its continued growth and global significance. Therefore, the growing population is driving the growth of the corrugated industrial box market.

➤ **Rapid Urbanization**

The rapid urbanization is expected to propel the growth of the corrugated industrial box market going forward. Due to factors like industrialization, rural-urban migration, better job opportunities, improved infrastructure, education access, and globalization, India has experienced rapid urbanization, accelerating city growth and population concentration. According to the Economic Times India, a financial newspaper and website based in India, in January 2025, between FY 2022 and FY 2025, India's urban population surpassed 500 million, marking a significant demographic shift. Projections indicate that over 40% of the population will reside in urban areas by FY 2030E.

Urban regions are increasingly vital to the economy, contributing approximately 70% of the GDP. To support this growth, the government is emphasizing sustainable urban development through initiatives like the Pradhan Mantri Awas Yojana, infrastructure enhancements, and climate-resilient planning, particularly in tier 2 and tier 3 cities. Therefore, rapid urbanization is driving the growth of the corrugated industrial box market.

➤ **Disposable Income Growth**

The rising disposable income is expected to propel the growth of the corrugated industrial box market going forward. Due to factors such as economic growth, job creation, technological advancements, urbanization, and government policies, rising disposable income results from increased earnings, improved productivity, and enhanced living standards. According to ICED under NITI Aayog, India's per capita income increased steadily from INR 94.54k in FY 2022 to INR 99.40k in FY 2023 and further to INR 106.74k in FY 2024. This growth reflects a positive trend with a compound annual growth rate (CAGR) of approximately 6.3%, indicating improving economic conditions and rising living standards during this period. Therefore, the rising disposable income is driving the growth of the corrugated industrial box market.

➤ **E-commerce Expansion:**

The growing e-commerce is expected to propel the growth of the corrugated industrial box market going forward. Due to factors like increasing internet penetration, smartphone usage, convenient payment options, wide product variety, faster delivery services, and changing consumer preferences, e-commerce has experienced rapid and sustained growth globally. In January 2024, the International Trade Administration (a U.S. government trade agency) highlighted e-commerce as one of the fastest-growing markets worldwide. India's e-commerce market, valued at USD46.2 billion in FY 2020, is projected to grow at an 18.29% CAGR, reaching USD136.47 billion by FY 2026E. Therefore, the growing e-commerce is driving the growth of the corrugated industrial box market.

➤ **Food and beverage exports demand:**

The increasing demand for food and beverage exports is expected to propel the growth of the corrugated industrial box market going forward. Due to factors like growing global population, rising disposable incomes, an expanding middle class, changing dietary preferences, improved supply chains, and enhanced quality standards, there is an increasing demand for food and beverage exports worldwide.

In January 2025, according to PIB (Press Information Bureau), a government agency based in India, between FY 2022 and FY 2025, India aims to achieve USD100 billion in combined exports from the food & beverage, agriculture, and marine sectors, growing at 14-15% annually. In FY 2022, exports reached USD50 billion. The government supports 100% FDI and promotes sustainability, innovation, and organic farming to boost growth further.

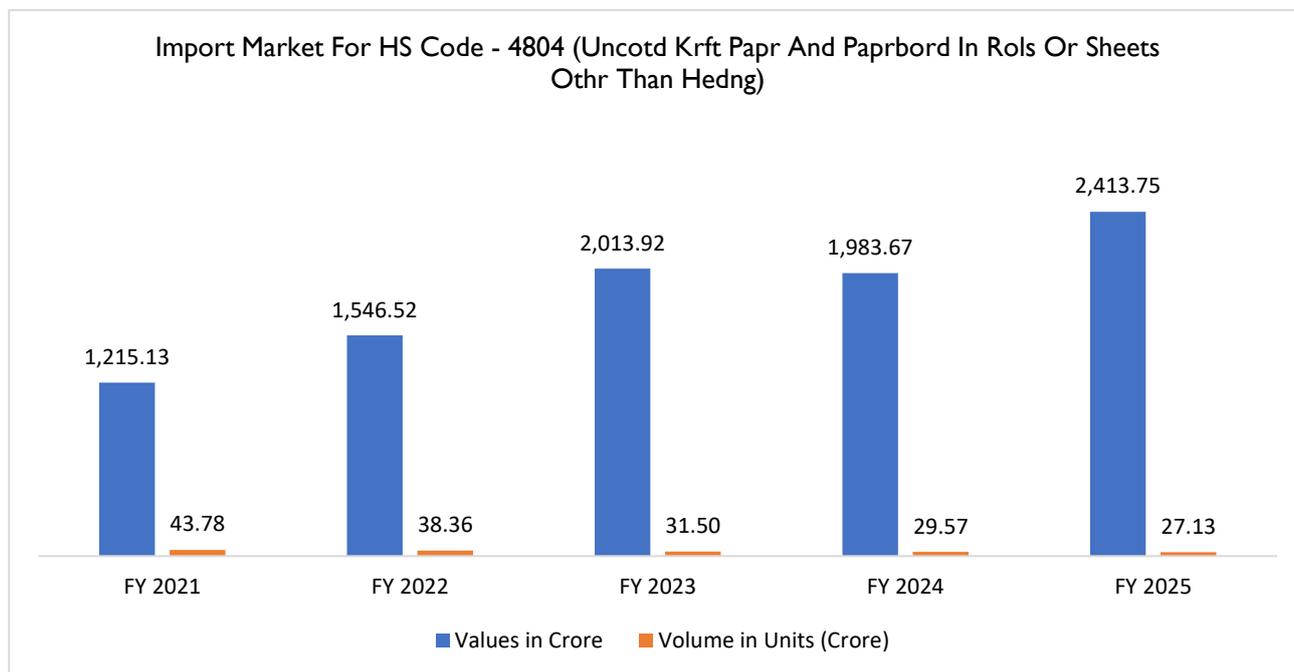
➤ **Shifting consumer behaviour and enterprise needs:**

Consumer demands are forcing a fundamental shift in the role of a corrugated box, moving it beyond a mere transport container to a part of the product and brand experience. The primary drivers are the rapid growth of e-commerce, the emergence of a large, growing middle class with higher disposable income, and the expansion of the organized retail sector. These macro trends are compelling industries like food processing, pharmaceuticals, and electronics to place increasing emphasis on attractive and hygienic packaging that is also lightweight and easy to dispose of.

Input Supply scenario of key raw material: Domestic Availability of Kraft paper and its Import

Kraft paper, an essential raw material for packaging and corrugated box manufacturing, plays a critical role in various industries including electronic consumers, fast-moving consumers goods logistics, and manufacturing. In India, kraft paper is primarily produced using recycled fibre sourced from both domestic and imported wastepaper. Although the country has a substantial kraft paper manufacturing base, the industry continues to face challenges in achieving self-sufficiency in raw material availability. These challenges include limited access to quality wastepaper, rising input costs (such as energy, water, and chemicals), and regional disparities in manufacturing capacities.

A major development impacting domestic supply is the growing export demand from China. From January 1, 2021, China enforced a complete ban on the import of wastepaper to curb environmental degradation. As a result, Chinese paper mills have turned to importing recycled kraft paper pulp rolls and semi-processed paper from countries like India. This policy shift has led to a sharp increase in India's kraft paper exports to China. While this trend has benefited Indian exporters in terms of increased revenue, it has created a significant shortage of raw material for the domestic corrugated industry. The redirection of kraft paper inventory to China has driven up domestic prices and caused disruptions in supply to local manufacturers, adding pressure on India's packaging sector.



The trade data for HS Code 4804, which covers uncoated kraft paper and paperboard in rolls or sheets other than heading 4801, reveals a rising trend in import values alongside a steady decline in import volumes. In FY 2021, India imported kraft paper worth INR 1,215.13 crore with a volume of 43.78 crore units. This import value steadily increased to INR 2,013.92 crore in FY 2023 and is projected to reach INR 2,413.75 crore in FY 2025. Conversely, import volumes declined from 43.78 crore units in FY 2021 to a projected 27.13 crore

units by FY 2025. This divergence between value and volume indicates rising global prices or a shift towards higher-value, better-quality kraft paper. It also suggests a growing cost burden on Indian manufacturers, who are forced to rely on imports to bridge the gap in domestic supply.

Overall, while India has emerged as a significant player in the global kraft paper market, especially due to rising demand from China, the domestic industry is facing a tightening supply scenario. High export demand, combined with declining import volumes and rising costs, underscores the urgent need to scale up and modernize domestic kraft paper manufacturing capacities. Without adequate policy and industry support, the continued export pressure could hamper the competitiveness and growth potential of India's corrugated and packaging sectors.

## Regulatory landscape

Analysis of key regulatory factors that is impacting the packaging and corrugated boxes usage in packaging sector in India



### ➤ **Plastic Waste Management Rules (2016, Amended in 2021 & 2024)**

The Plastic Waste Management (PWM) Rules, introduced in 2016 and later amended in 2021 and 2024, are a cornerstone of India’s regulatory approach to combating plastic pollution. These rules aim to ensure environmentally sound plastic waste handling by promoting reduction, reuse, and recycling. A critical component of the PWM Rules is the enforcement of Extended Producer Responsibility (EPR), which mandates producers to manage the plastic waste generated from their products.

This regulation has significantly influenced the packaging landscape, as businesses seek recyclable and sustainable alternatives to plastic. Corrugated boxes, being recyclable and biodegradable, have seen a surge in demand, especially from e-commerce, FMCG, and consumer goods sectors. Companies are now adopting corrugated packaging to not only comply with these regulations but also to align with consumer preferences for eco-friendly solutions.

### ➤ **Single-Use Plastic (SUP) Ban (Effective July 1, 2022)**

The ban on single-use plastics, effective from July 1, 2022, was implemented through the amendment to the PWM Rules in 2021. It targets plastic items with low utility and high littering potential, such as straws, cutlery,

and plastic packaging films. The objective of the ban is to reduce environmental degradation and promote the adoption of sustainable alternatives.

This has created a significant opportunity for paper-based and corrugated packaging products to replace plastic in various applications. The packaging sector has responded swiftly, with many businesses shifting to corrugated fibreboard cartons, paper cups, and moulded fibre containers. This regulatory push has been instrumental in reshaping market demand, favouring biodegradable and recyclable materials like corrugated board.

#### ➤ **Food Safety and Standards (Packaging) Regulations, 2018**

Issued by the Food Safety and Standards Authority of India (FSSAI), the Food Safety and Standards (Packaging) Regulations, 2018, aim to ensure the safety and hygiene of packaging materials used for food products. These regulations prohibit the use of newspapers and recycled paper for direct contact with food and mandate the use of food-grade paper and safe coatings. There are also stringent restrictions on the presence of hazardous chemicals in food packaging.

As a result, the packaging industry has seen a shift toward coated and laminated corrugated boxes that meet food safety standards. Additionally, biodegradable materials such as kraft paper and bagasse-based containers have gained traction, replacing plastic trays and takeaway boxes. Corrugated boxes are now widely used in fast food, ready-to-eat meals, and delivery services due to their compliance with these regulations and consumer preference for safer packaging.

#### ➤ **National Logistics Policy (NLP), 2022**

The National Logistics Policy (NLP) 2022 was introduced to enhance the efficiency and sustainability of India's logistics sector. One of its core objectives is to promote sustainable and returnable transport packaging solutions. The policy emphasizes the use of recyclable materials and encourages innovations in packaging that can support reverse logistics and reduce waste. Consequently, there has been an uptick in the use of durable corrugated fibreboard for pallets and shipping boxes.

High strength kraft paper boxes are increasingly being used in supply chains for industrial goods, electronics, and retail. The policy has also stimulated the development of returnable corrugated packaging systems, helping businesses reduce packaging waste and transportation costs while complying with the government's sustainability goals.

#### ➤ **Make in India Initiative (Launched in 2014)**

The Make in India initiative, launched in 2014, is a flagship policy aimed at promoting domestic manufacturing and attracting foreign investment across multiple sectors, including packaging. By encouraging local production and offering infrastructure development and financial incentives, the initiative supports the growth of indigenous packaging industries.

This has directly benefited the corrugated box manufacturing sector by increasing demand for locally made packaging materials across industries such as electronics, FMCG, e-commerce, and automotive. Moreover, reduced reliance on imports and policy support for capacity expansion have enabled Indian corrugated box manufacturers to modernize their operations, adopt automation, and enhance product quality, thereby positioning themselves competitively in both domestic and export markets.

### ➤ **Environmental Certifications and Quality Standards**

Compliance with global environmental and quality certifications is another regulatory factor influencing the corrugated packaging industry. Certifications such as the Forest Stewardship Council (FSC), Sustainable Forestry Initiative (SFI), and Programme for the Endorsement of Forest Certification (PEFC) are vital for ensuring that paper used in corrugated box production is sourced sustainably.

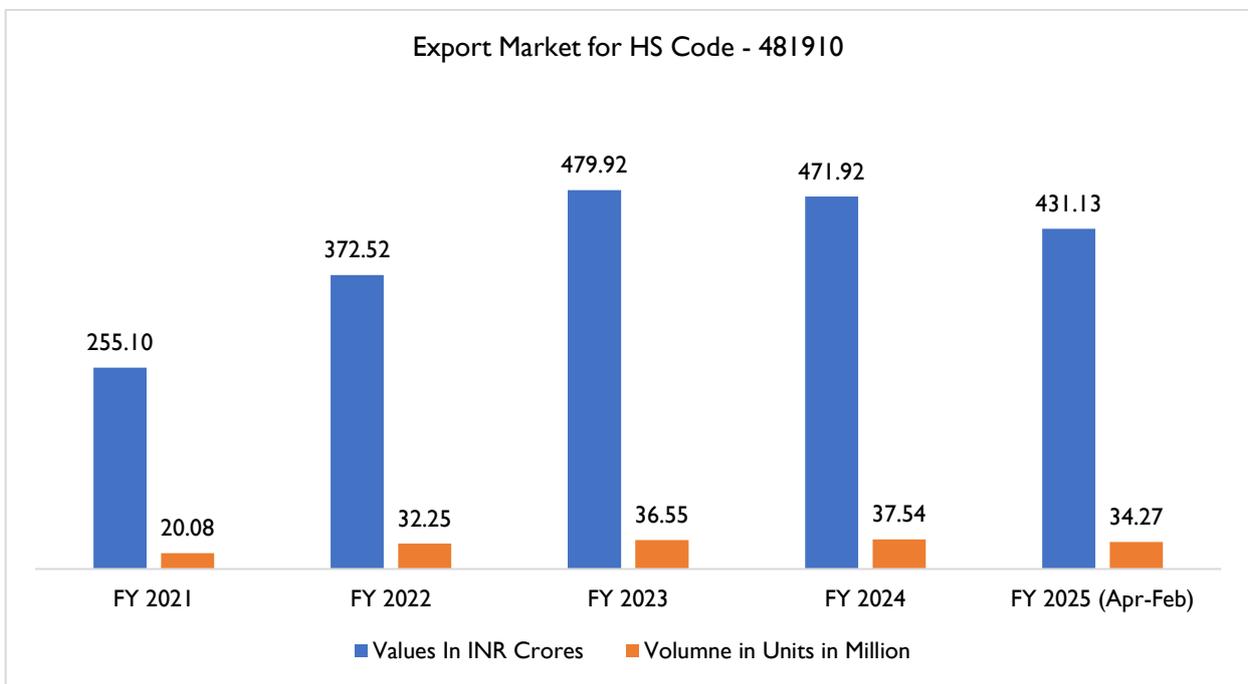
Additionally, adherence to ISO 9001 standards for quality management enhances operational efficiency and product consistency. These certifications are especially important for exporters and multinational clients who require proof of environmentally responsible sourcing and high-quality manufacturing practices. Indian manufacturers adopting such certifications are better positioned to meet global market requirements, differentiate themselves in the market, and build consumer trust.

India's regulatory environment is playing a crucial role in transforming the packaging industry, especially in accelerating the adoption of corrugated boxes as a sustainable alternative to plastic. From stringent plastic waste management and food safety standards to logistics reforms and industrial policies, the regulatory framework is compelling businesses to innovate and invest in eco-friendly packaging. Corrugated boxes, being recyclable, biodegradable, and adaptable to various use cases, have emerged as a key solution in this shift. The continued alignment of packaging practices with evolving regulations will not only help companies ensure compliance but also unlock new market opportunities and strengthen their sustainability credentials.

## Trade scenario

### Annual export of corrugated boxes from India & last 5-year growth trend

The global export demand for cartons, boxes, and cases made of corrugated paper and paperboard (HS code 481910) has exhibited variable trends over the past five years. From FY 2020–21 to FY 2024–25 (April–December), the export market for the corrugated boxes industry in India has experienced periods of strong growth, disruptions caused by the COVID-19 pandemic, and recent phases of stabilization. This analysis explores the key drivers behind these changes, including advancements in manufacturing technology, shifting consumer preferences for sustainable and protective packaging, and challenges within global supply chains. It also highlights emerging trends and future outlooks shaping the trajectory of India’s corrugated boxes sector in the global market.



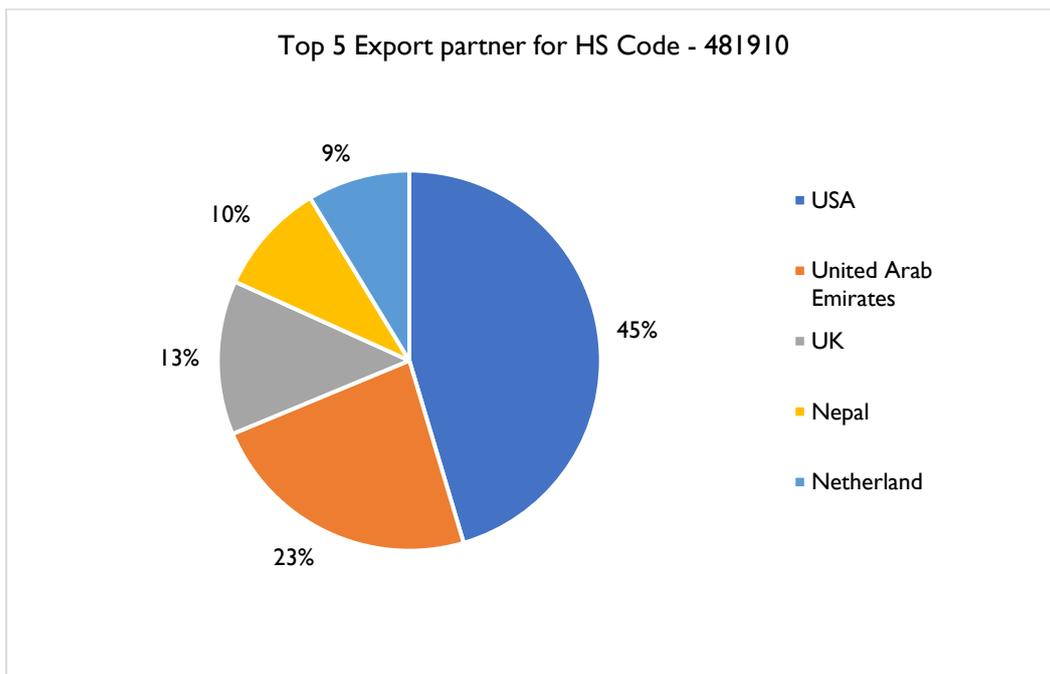
Source: Directorate General of Foreign Trade (DGFT)

The export market under **HS Code 481910** witnessed a strong growth trajectory from **FY 2021 to FY 2023**, driven by post-pandemic recovery and rising global demand. In FY 2021, exports were relatively low at INR 255.10 crores with 20.08 million units, largely due to COVID-19 disruptions. However, as global trade resumed, FY 2022 saw a sharp rise in both value and volume INR 372.52 crores and 32.25 million units respectively reflecting pent-up demand and improved production capacity. FY 2023 continued this momentum with the highest export value of INR 479.92 crores and a volume of 36.55 million units. The steeper increase in value compared to volume suggests a rise in unit prices, likely due to better product mix, improved margins, or favourable currency rates.

In FY 2024, the market showed signs of stabilization as the export value slightly dipped to INR 471.92 crores despite volume increasing to 37.54 million units. This indicates possible pricing pressure, increased

competition, or a shift towards lower-priced variants. For FY 2025 (Apr–Feb), the export value already stands at INR 431.13 crores with 34.27 million units shipped, suggesting that the year may close near FY 2024 levels. The minor decline in volume may reflect seasonal factors or export strategy adjustments, but the sustained value indicates resilience and continued international demand. Overall, the market has matured post-COVID with stabilized growth, adapting to evolving global trade dynamics.

Top 5 export markets /countries



Source: Directorate General of Foreign Trade (DGFT)

➤ **USA Largest Exporter of Corrugated Paperboard Cartons (INR 9.34 Crores, 45%)**

The USA leads the global export market for corrugated cartons and paperboard packaging with a 45% share. Over recent years, US exports have shown steady growth due to the country’s well-established paper and pulp industry and innovation in sustainable packaging. The rise of e-commerce and increasing demand for durable, eco-friendly packaging solutions across retail and industrial sectors continue to drive export volumes. The USA’s robust logistics network supports efficient global distribution, reinforcing its dominant exporter status.

➤ **United Arab Emirates Key Regional Export Hub (INR 4.78 Crores, 23%)**

The UAE accounts for 23% of global exports in this category, positioning itself as a vital regional exporter and re-export center. Its strategic location bridging Asia, Africa, and Europe allows the UAE to serve diverse markets effectively. The export trend has been upward due to heavy investments in packaging industries and world-class port infrastructure, especially Jebel Ali Port. Growth in food, pharmaceutical, and consumer goods packaging demand, coupled with free trade zones and export-friendly policies, supports continuous export expansion.

➤ **United Kingdom Consistent Exporter with Focus on Quality (INR 2.69 Crores, 13%)**

The UK holds a 13% share of the export market for corrugated cartons and paperboard cases, with relatively stable export volumes in recent years. Despite challenges posed by Brexit-related supply chain shifts, demand remains strong, especially within pharmaceutical, luxury goods, and consumer product sectors. The UK's packaging industry emphasizes sustainable and customized solutions, helping maintain export competitiveness mainly within Europe and Commonwealth countries.

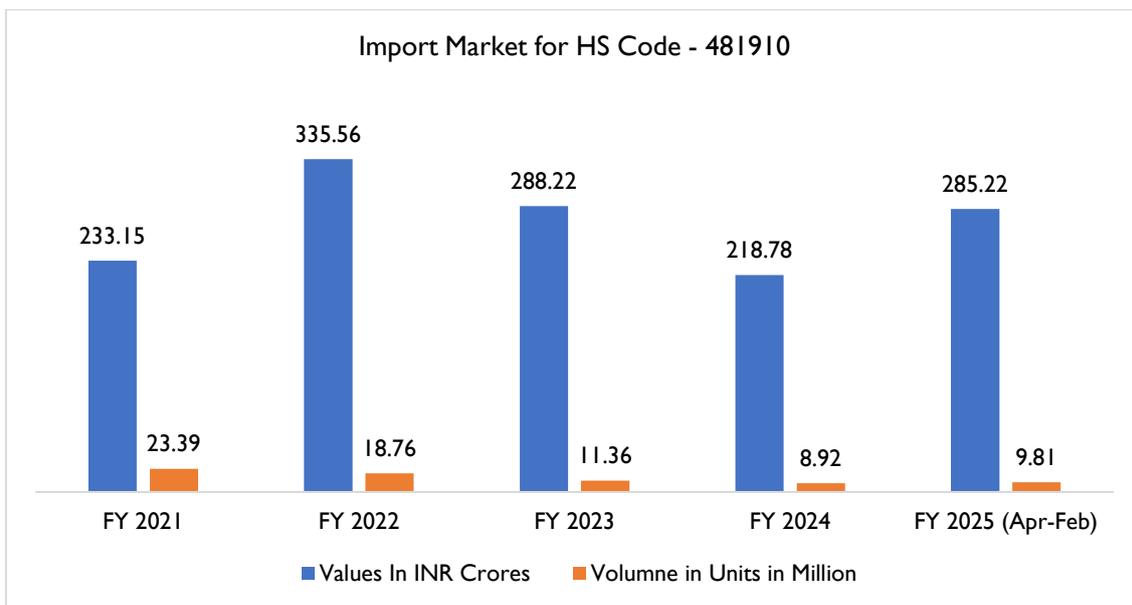
➤ **Nepal Emerging Exporter in Regional Markets (INR 1.95 Crores, 10%)**

Nepal represents a growing exporter with a 10% share, showing an upward export trend fuelled by increasing domestic manufacturing capacity. Demand from neighbouring countries such as India and Bangladesh has expanded, aided by Nepal's competitive labour costs and government incentives for packaging exports. Focus on agro-product packaging and small-scale industries has helped Nepal build a foothold in regional markets, with gradual improvements in infrastructure supporting export growth.

➤ **Netherlands European Logistics and Innovation Hub (INR 1.78 Crores, 9%)**

The Netherlands captures 9% of the export market, benefiting from its position as a European logistics hub anchored by the Port of Rotterdam. Export volumes have been steady, supported by advanced packaging technology and a strong orientation toward sustainable solutions. Dutch exports focus on serving European and global markets with high-quality and environmentally friendly packaging. Integration with European supply chains and continuous investment in packaging innovation sustain stable export performance.

Annual import of corrugated boxes from India & last 5-year growth trend



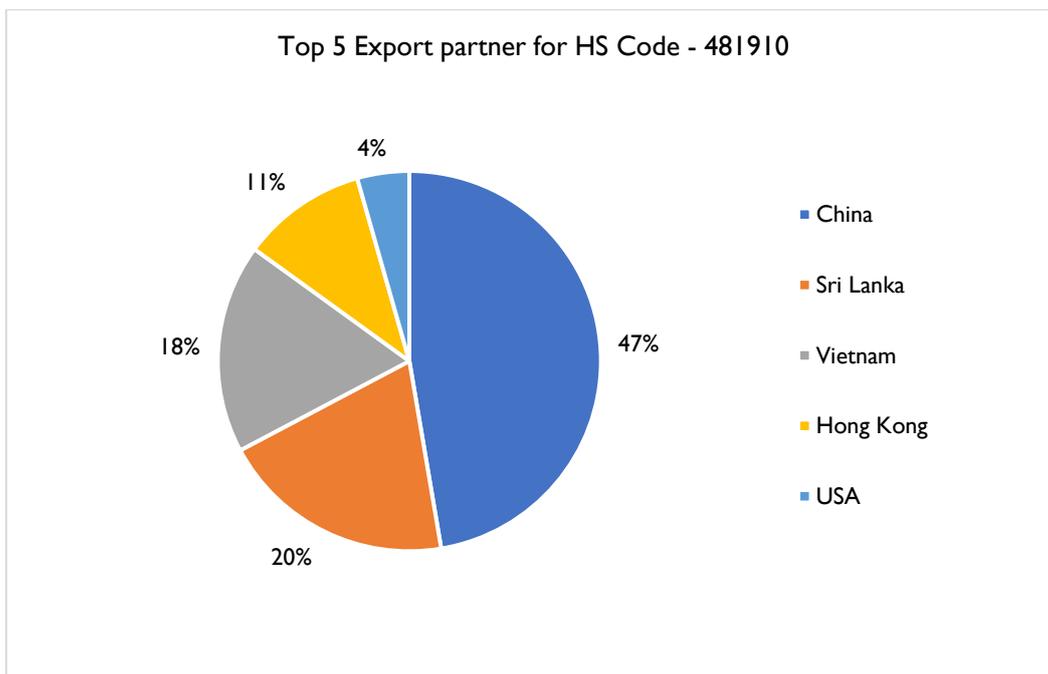
Source: Directorate General of Foreign Trade (DGFT)

The import market for HS Code - 481910 has exhibited a dynamic growth trend over the observed fiscal years. In terms of value (INR Crores), imports saw a significant surge from INR 233.15 Crores in FY 2021 to a peak of INR 335.56 Crores in FY 2022. Following this peak, there was a consistent decline in value through FY 2023 (INR 288.22 Crores) and FY 2024 (INR 218.78 Crores). However, the market shows signs of recovery in FY 2025 (Apr-Feb), with import values rebounding to INR 285.22 Crores.

Conversely, the import volume (Units in Million) presents a different picture, showing a general downward trend from FY 2021 (23.39 Million units) to FY 2024 (8.92 Million units), with only a slight increase to 9.81 Million units in FY 2025 (Apr-Feb). This divergence, particularly the decrease in volume during FY 2022 despite a sharp increase in value, indicates a substantial rise in the per-unit price of the imported goods. Several factors could be impacting these trends. The most prominent factor appears to be price inflation or increased cost of goods for HS Code - 481910, as evidenced by the rising value amidst declining or stagnant volumes. This could be attributed to global supply chain disruptions, increased raw material costs, or higher freight charges.

Additionally, shifts in domestic demand or potential changes in local production capabilities might explain the overall decrease in import volume over the years. Economic conditions, such as exchange rate fluctuations or changes in industrial consumption patterns, could also contribute to the observed volatility. The recent recovery in import value in FY 2025 suggests a potential stabilization of market conditions or a renewed demand for these specific goods, possibly at higher price points.

Top 5 import partners/countries



Source: Directorate General of Foreign Trade (DGFT)

➤ **China Largest Importer of Corrugated Paperboard Cartons (INR 11.66 Crores, 47%)**

China is the largest importer of corrugated cartons and paperboard packaging, accounting for nearly half of the total imports in this category. This strong import position is driven by China’s vast manufacturing and export-oriented economy, which relies heavily on high-quality packaging materials to support its massive production of consumer goods, electronics, and e-commerce shipments. Over recent years, imports have steadily increased due to rising domestic consumption, growth in export manufacturing, and an emphasis on improved packaging standards to meet both environmental regulations and consumer expectations. The expanding logistics and retail sectors also boost demand for imported corrugated packaging materials.

➤ **Sri Lanka Significant Regional Importer (INR 4.89 Crores, 20%)**

Sri Lanka holds a strong 20% share as an importer of corrugated cartons, primarily to support its growing manufacturing and export sectors, including apparel, tea packaging, and consumer goods. The country’s import trend has been rising, reflecting increased demand for quality packaging to cater to export markets, especially in Europe and North America. The government’s push for industrial development and export diversification also supports increased imports of packaging materials.

➤ **Vietnam Growing Import Market for Packaging (INR 4.38 Crores, 18%)**

Vietnam has emerged as a fast-growing importer with an 18% share, fuelled by rapid industrialization, expanding manufacturing hubs, and rising export volumes in electronics, footwear, and processed foods. The trend shows consistent import growth as domestic industries upgrade their packaging to meet international

quality and sustainability standards. Vietnam's growing e-commerce sector and consumer market further amplify the need for imported corrugated cartons and paperboard packaging.

➤ **Hong Kong Strategic Importer and Re-exporter (INR 2.61 Crores, 11%)**

Hong Kong accounts for 11% of imports, serving as a strategic trading hub where many imported packaging materials are re-exported to China and other Asian markets. Its role as a free port and international logistics center supports a stable import trend. Additionally, Hong Kong's significant retail and manufacturing sectors contribute to steady domestic demand for corrugated packaging. The import trend remains relatively stable, reflecting its status as a regional distribution point.

➤ **USA Smaller Import Share but Important Market (INR 1.0 Crores, 4%)**

The USA holds a smaller import share at 4%, as it has a strong domestic manufacturing base for corrugated cartons. However, imports remain necessary to supplement supply, especially for specialized, innovative, or sustainable packaging products. The trend shows moderate import growth aligned with rising demand in e-commerce, retail, and industrial packaging sectors. The US market's focus on eco-friendly packaging solutions also drives selective importation of high-quality corrugated materials.

Overall, the global trade of corrugated cartons and paperboard packaging is strongly influenced by manufacturing capabilities, regional consumption growth, and increasing environmental standards driving demand for sustainable packaging solutions. This market is expected to continue evolving as countries strengthen their packaging industries and adapt to changing trade patterns and consumer preferences.

## Threats & Challenges

Key Threats facing the corrugated boxes industry in India:

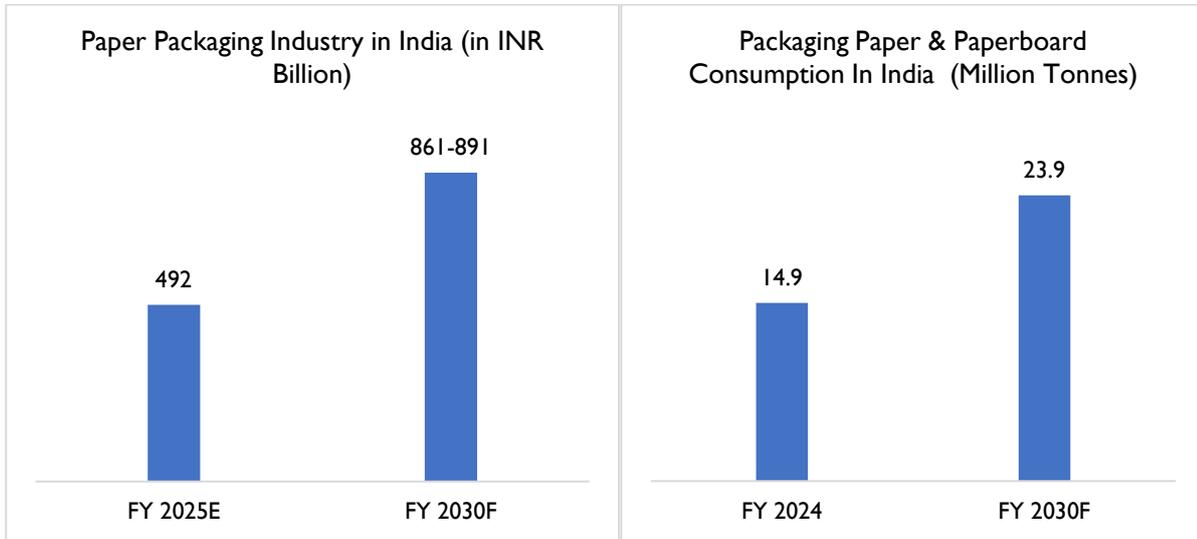


Challenges facing the corrugated boxes industry in India:



## Growth Outlook

### Paper Packaging Industry



Source: Indian Paper Manufacturers Association (IPMA), D&B Secondary Research Estimates

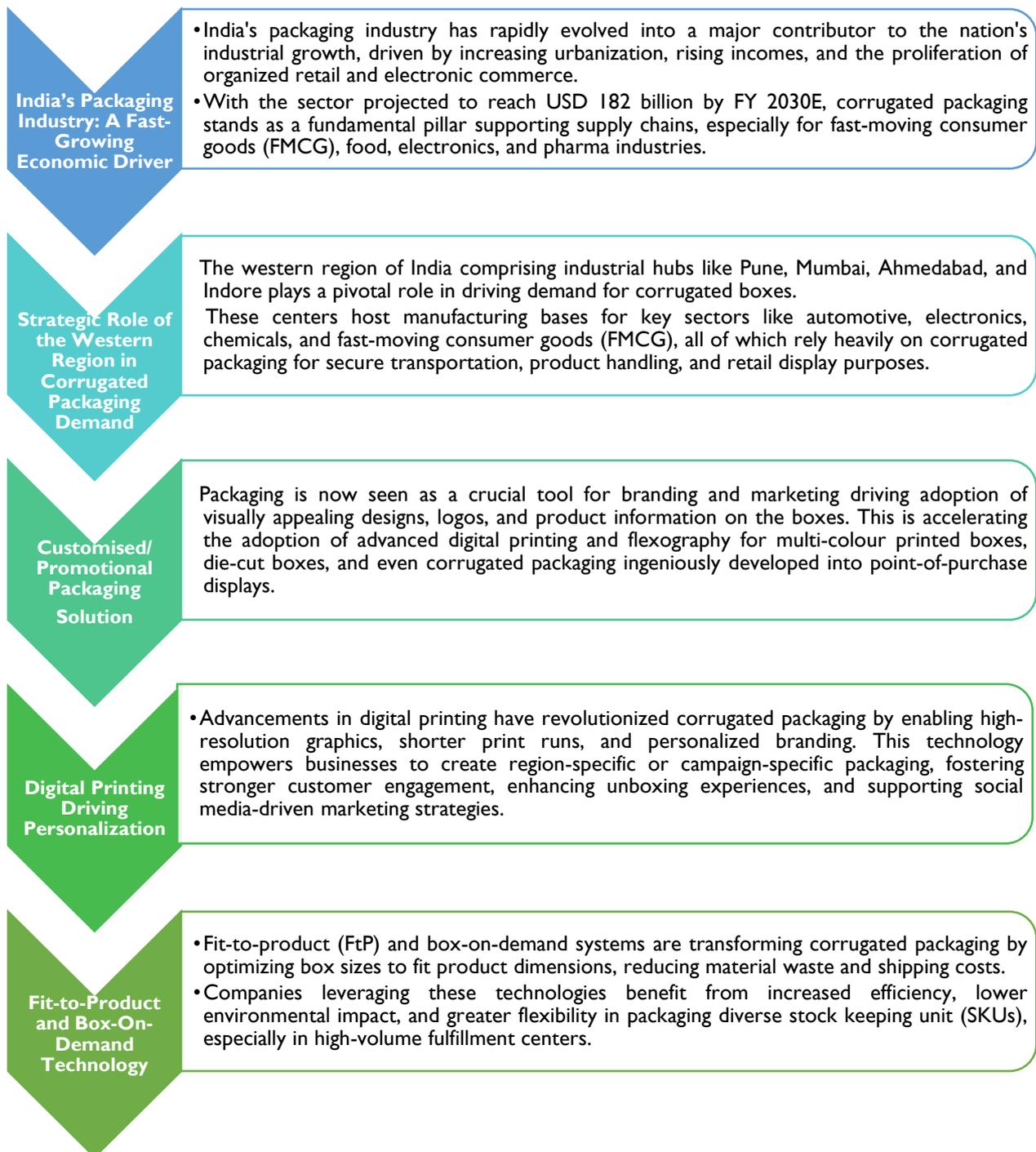
India’s paper packaging industry is poised for strong growth over the medium term, driven by the rapid transition toward sustainable and recyclable packaging materials. The country’s **packaging paper and paperboard consumption is projected to rise from 14.9 million tonnes in FY 2024 to 23.9 million tonnes by FY 2030**, reflecting a **CAGR of 8.2%**. This growth momentum is supported by the increasing penetration of organized retail, e-commerce expansion across Tier 2 and Tier 3 cities, and the continued substitution of plastic with paper-based alternatives. Moreover, growing consumer awareness of environmental concerns, rising disposable incomes, and heightened regulatory focus on sustainability are reshaping the packaging ecosystem. Together, these structural trends underscore the shift toward a circular economy, where paper and paperboard are gaining preference for being biodegradable, renewable, and compliant with environmental norms.

In value terms, the paper packaging market is expected to expand from INR 492 billion in FY 2025 to INR 868 billion by FY 2030, translating to a CAGR of 12%. This robust trajectory highlights how sustainability mandates and brand-led ESG commitments are becoming major growth enablers. Businesses across FMCG, food & beverage, pharmaceuticals, and e-commerce sectors are increasingly adopting paper-based packaging to align with global best practices and regulatory frameworks limiting single-use plastics. In addition, ongoing capacity expansions, digital printing technologies, and automation investments among domestic manufacturers are enhancing product quality and efficiency. As India’s overall paper market grows at a steady 7.5% CAGR through FY 2030, the paper packaging segment is set to outpace the broader industry, emerging as one of the most dynamic and high-potential areas within India’s manufacturing and consumer goods value chain.

The corrugated packaging industry in India is witnessing strong growth driven by multiple converging factors. The rapid expansion of e-commerce and retail, particularly across Tier II and III cities, has spurred massive demand for lightweight, customizable corrugated boxes. Rising consumption in FMCG, electronics, and consumer durables fuelled by urbanization and higher disposable incomes further strengthens market volumes. Government initiatives promoting eco-friendly packaging under EPR guidelines and bans on single-use plastics are accelerating the shift from plastic to recyclable corrugated materials.

In parallel, industrial expansion through “Make in India” and PLI schemes, coupled with increasing exports, is supporting steady demand for durable shipping boxes. Technological advancements such as **automated corrugation lines and flexographic printing** have enhanced quality and cost efficiency, making Indian manufacturers globally competitive. Additionally, the growing emphasis on hygienic, tamper-proof, and sustainable packaging in food, beverage, and pharmaceutical sectors continues to reinforce corrugated boxes as a preferred packaging choice across industries.

## Key Market Trends Shaping the Corrugated Boxes industry growth



**Sustainable and Eco-friendly packaging Initiative**

- There is a significant and increasing demand for eco-friendly packaging options driven by heightened awareness among consumers about the harmful impact of using non-biodegradable packaging materials is strengthening the growth of the market
- Corrugated boxes are naturally positioned to meet this demand, as they are often made from recycled paper and are easily biodegradable/recyclable. This aligns with national efforts to promote sustainability and lower the carbon footprint.
- Government initiatives actively promote recyclable and plastic-free solutions, reinforcing this shift.

**Requirement for Strength and Safety**

The exponential growth of the e-commerce and parcel delivery segment requires packaging that ensures safe product delivery over long distances. Consumers expect their products to arrive undamaged, driving demand for superior box strength, crush resistance, and robust stacking capabilities. This leads to increased demand for multi-ply boxes (5-ply and 7-ply) for higher load-bearing capacity and protection of fragile or heavy goods (electronics, industrial parts, etc.).

**Increasing adoption of water resistant and anti micro biological coating on corrugated boxes**

- Adoption of water resistant and anti micro biological coating on corrugated boxes is expected to expand further especially to meet the need of the food and beverage (F&B) industry and pharma sector. Corrugated boxes with water resistant and anti micro biological coating offers improved safety, resistance to bacterial infection, and keep the food fresh and taste intact for a long period of time.

**Consolidation in plant operations, Techlogical Advancement & increasing collaboration with international suppliers**

- With over 600 automated plants and approximately 7,000 semi automatic plant, Indian Corrugated boxes industry is largely fragmented in nature as it comprises of many small inefficient plants. Going forward, the industry is expected to see consolidation towards large scale units to meet the growing demand for high volume and achieve higher cost competitiveness. Additionally, companies are working on integrating AI and IOT in their manufacturing process to ensure better quality control and achieve optimized production process. The industry is also expected to witness increasing collaboration of local manufacturer for advance machine procurement from international suppliers from China, Taiwan and other asian countries.

Projected demand scenario for corrugated boxes in India

Here is the expected growth in major end-user Industries for Packaging:

|  |   |
|--|---|
| <p><b>Food Processing Market</b></p>                   | <p>The Indian food processing industry is poised for substantial growth, driven by increasing consumer demand, urbanization, and government initiatives. Valued at USD 307.2 billion in 2022, the market is projected to reach USD 470 billion by FY 2028, reflecting a CAGR of 9.5% from FY 2023 to FY 2028. Over the next three years, this sector is expected to witness accelerated expansion due to advancements in food technology, rising investments, and an increasing shift toward packaged and ready-to-eat food products.</p>                               |
| <p><b>Food &amp; Beverage Packaging Market</b></p>     | <p>The food and beverage packaging sector, a critical component of the broader packaging industry, is experiencing steady growth. Currently valued at USD 33.7 billion in FY 2023, the market is projected to reach USD 46.3 billion by FY 2028. The demand surge is attributed to increasing consumption of packaged foods, evolving consumer preferences, and stricter regulations on food safety and sustainability. The next three years will see innovations in eco-friendly and smart packaging solutions, further fuelling industry growth.</p>                  |
| <p><b>Healthcare Industry</b></p>                      | <p>India's healthcare sector is expanding at a rapid pace, driven by rising healthcare expenditures, increasing medical infrastructure, and technological advancements. The market, valued at USD 372 billion in FY 2023, is on track to reach USD 638 billion by FY 2025. This growth is fuelled by a growing population, higher insurance penetration, and the rising prevalence of chronic diseases. The pharmaceutical and medical packaging industry is expected to benefit significantly from this upward trend.</p>  |
| <p><b>Fast-Moving Consumer Goods (FMCG) Market</b></p> | <p>The Indian fast-moving consumer goods sector is experiencing a robust expansion, having reached USD 121.8 billion in FY 2023. With an impressive CAGR of 27.9% from FY 2021 to FY 2027, the market is expected to reach USD 615.87 billion. The increasing demand for personal care, household products, and packaged foods is driving this growth. Over the next three years, digital transformation and e-commerce penetration will further accelerate market expansion.</p>   |
| <p><b>Beauty &amp; Personal Care Market</b></p>        | <p>The Indian Beauty and Personal Care (BPC) market, valued at over USD 5 billion in FY 2023, is projected to reach over USD 28 billion by FY 2030E, constituting 7% of the total Indian e-commerce market. Indian BPC startups have collectively raised over USD 1 billion in funding between FY 2014 and the first half of 2024. With more than 68 funded startups, BPC is a highly sought-after segment in Indian e-commerce, ranking third after fashion (100+ funded startups) and Food &amp; Beverage (150+ funded startups) in terms of investment interest.</p> |
| <p><b>E-commerce Market</b></p>                        | <p>The Indian Electronics-commerce sector continues to expand rapidly, with its market size increasing from USD 83 billion in FY 2022 to an expected USD 185 billion by FY 2026. The next three years will be crucial for the sector as digital adoption, improved logistics, and increasing internet penetration drive market expansion.</p>   |

Note: The above-mentioned data is given for Calendar year (CY)



India's packaging industry is witnessing robust growth, driven by the rapid expansion of end-user sectors such as food processing, healthcare, fast-moving consumer goods, electronic-commerce, and beauty & personal care. Increasing urbanization, rising disposable incomes, evolving consumer preferences, and technological advancements are fuelling demand for innovative, sustainable, and smart packaging solutions. The food & beverage segment, in particular, is benefiting from the growing popularity of ready-to-eat meals and eco-friendly packaging. Meanwhile, the healthcare sector is increasing demand for safe and compliant pharmaceutical packaging, and the fast-moving consumer goods (FMCG) and beauty sectors are pushing innovations in premium and functional packaging. The rise of e-commerce is further amplifying the need for secure and efficient packaging formats across the board.

The rapid growth of these end-user industries is directly driving the expansion of the corrugated boxes market in India. With the food processing industry projected to reach USD 470 billion by 2028 and the food & beverage packaging sector set for significant growth, the demand for cost-effective, recyclable, and sturdy packaging is rising sharply. Corrugated boxes, known for their durability and environmental friendliness, are increasingly preferred for the transport and storage of processed and ready-to-eat food products. Similarly, India's healthcare sector, expected to reach USD 638 billion by FY 2025, is driving demand for reliable packaging solutions that meet regulatory and safety standards.

Moreover, the fast-moving consumer goods (FMCG) market projected to exceed USD 615 billion by FY 2027 along with the booming electronic-commerce and beauty & personal care industries, is accelerating the need for efficient and scalable corrugated packaging. The Indian e-commerce market alone, expected to reach USD 180 billion by FY 2026, heavily relies on corrugated boxes to ensure safe, tamper-proof deliveries. As startups and brands place increasing emphasis on consumer experience and sustainability, corrugated boxes are becoming integral to modern supply chains, supporting both environmental goals and customer satisfaction across sectors.

## Competitive Landscape

The Indian packaging industry is witnessing robust growth, spurred by increasing consumer demand, accelerated industrial activity, and the rapid expansion of key sectors such as food & beverages, pharmaceuticals, and e-commerce. This growth trajectory has intensified market competition, with a wide array of participants including global conglomerates, domestic manufacturers, and niche service providers. Among the most dynamic segments is the corrugated boxes industry, which has become integral to supporting the surging demand for sturdy, lightweight, and cost-effective packaging solutions across various end-user industries.

Sustainability and regulatory compliance are reshaping the competitive landscape, with growing emphasis on eco-friendly alternatives and government mandates targeting single-use plastics. Companies are responding by investing in recyclable, biodegradable, and lightweight materials, particularly in the corrugated packaging segment, which naturally aligns with these goals due to its recyclable nature. Innovations in smart packaging featuring technologies such as (Radio-frequency identification Description) RFID tags, tamper-evident seals, and Quick Response (QR) codes are gaining traction, especially for high-value and traceable goods. Firms that can successfully integrate these technologies with traditional packaging formats like corrugated boxes are emerging as strong competitors in the evolving market.

The exponential rise in e-commerce has placed corrugated packaging at the forefront of demand, given its durability, printability, and ability to be customized at scale. Businesses are increasingly seeking corrugated solutions that offer not just protection during transit but also branding and unboxing experiences for consumers. As a result, companies that provide tailored, scalable corrugated packaging with features like water-resistant coatings and high-barrier liners are better positioned to capture market share. Investments in automation, digital printing, and sustainable raw material sourcing are key differentiators, enabling players to deliver high-volume, high-quality products at reduced lead times.

However, entering the Indian packaging industry particularly the corrugated segment comes with substantial challenges. High capital investment is required to establish modern, automated manufacturing units, especially with growing demand for precision-cut, multi-ply corrugated boards. Compliance with complex environmental and quality standards demands not only financial resources but also technical know-how. The presence of well-established brands with loyal customer bases and integrated supply chains makes market penetration difficult for new entrants. Additionally, staying competitive requires continuous innovation, skilled manpower, and efficient logistics factors that create significant entry barriers and define the industry's intensely competitive nature.

## Company Profile- Udaan Paper Industries Limited

### Company Overview:

Udaan Paper Industries Limited is engaged in the manufacturing of corrugated, paper-based packaging products. With more than three decades of industry experience, Headquartered in Pithampur, Madhya Pradesh, with an additional manufacturing unit in Kanpur, Uttar Pradesh. Udaan produces a range of packaging materials including printed boxes, die-cut boxes, partition boxes, and master cartons, serving clients in over 26 cities across India. The company emphasizes timely delivery, cost-effective production, and maintaining quality standards through in-house processes and logistics support via a fleet of 52 vehicles.

Udaan's manufacturing infrastructure includes a 150,000 sq. ft. plant in Pithampur and a 50,000 sq. ft. plant in Kanpur, each equipped with advanced machinery and tools. The Pithampur unit houses a 5-ply automatic corrugation plant with a capacity of 80 tons per day, alongside multi-colour flexo printers, slotters, die-cutters, folder gluers, and dedicated lab equipment. Similarly, the Kanpur unit features a 3-ply automatic corrugator with zero flute crushing and double-profile capabilities, supported by two-color printer slotters and lab machines for compression and strength testing. Both facilities have in-house glue kitchens and testing laboratories to monitor critical quality parameters like bursting strength, compression, moisture content, and Cobb value.

Udaan holds ISO certifications for both manufacturing units, reflecting its commitment to quality management and process control. The company's core values integrity, accountability, and customer commitment are integrated into its strategy of maintaining round-the-clock service and delivering cost-efficient solutions nationwide. Udaan also ensures safety with complete fire equipment and pest control systems in place across both plants. Its laboratory and testing setup are configured for real-time monitoring to ensure products meet durability and performance standards.

The company's operations are supported by structured processes and a trained workforce with practical industry knowledge. Udaan continually works toward improving its service delivery through efficient resource management and maintaining clean, organized, and eco-conscious production environments. By aligning its practices with evolving market demands and quality standards, Udaan maintains consistency in fulfilling client requirements across a range of packaging needs.

### Product & Services Offerings:

#### I. Printed Boxes:

- Description: High-quality printed packaging containers.
- Applications: Garments, toys, shoes, and various other products.

- Features: Excellent compression strength and crush resistance, Supports brand recognition, Enhances the shopping/shipping experience.

## 2. Die-Cut Boxes:

- Description: Customized cut corrugated boxes.
- Applications: Gift items, shoes, delicate products.
- Material: Superior-grade corrugated paper.
- Feature: High tearing and compression strength.

## 3. Master Cartons:

- Description: Large, lightweight corrugated cartons.
- Applications: Bulk shipping and freight consolidation.
- Features: Durable and environment-friendly, Can handle heavy weights, Available in customized shapes and sizes.

## 4. Partition Boxes:

- Description: Boxes with internal compartments.
- Applications: Glassware, ceramics, crystal products.
- Features: Superior-quality raw materials, Prevents product contact and damage, Ensures product safety during shipping.

## Key Customer Segments Served:

- **Garment Industry:** Products Used- Printed boxes
- **Footwear and Shoe Industry:** Products Used- Printed boxes, die-cut boxes
- **Toy Industry:** Products Used- Printed boxes
- **Gift and Specialty Item Retailers:** Products Used- Die-cut boxes, partition boxes
- **Glass, Ceramic, and Crystal Product Companies:** Products Used- Partition boxes
- **Bulk Goods and Freight Companies:** Products Used- Master cartons
- **Industrial and Manufacturing Companies:** Products Used- Master cartons, die-cut boxes
- **Nationwide Logistics and Distribution Networks:** Support Infrastructure- Udaan has 52 vehicles, 24×7 delivery service, and operates across more than 26 cities in India.

**Key Strengths:**

- **Extensive Industry Experience:** With over 30 years of experience, Udaan leads the corrugated packaging industry, delivering consistent quality and building a trusted reputation in the market.
- **Robust Infrastructure Across Two Units:** Their facilities in Pithampur (150,000 sq. ft.) and Kanpur (50,000 sq. ft.) are fully equipped with in-house capabilities, enabling high-volume, quality production with advanced machinery.
- **Advanced Plant & Machinery:** Udaan operates fully automated corrugators, high-speed flexo printers, folder gluers, and well-equipped testing labs to ensure product strength, durability, and performance.
- **Strong Logistics and Delivery Network:** With a dedicated fleet of 52 vehicles and 24/7 nationwide service, Udaan ensures timely delivery and efficient logistics, enhancing customer satisfaction.
- **Diverse and Customized Product Range:** They offer a wide variety of packaging solutions including printed boxes, die cut boxes, master cartons, and partition boxes tailored to client needs and product specifications.
- **Commitment to Quality and Customer Satisfaction:** Udaan emphasizes continuous quality improvement, on-time delivery, and customer-centric service, which are backed by ISO-certified manufacturing units and a values-driven team.

| Company Profile                     | Business Overview  |
|-------------------------------------|--|
| <p><b>Perfectpac Ltd</b></p>        | <p>Established in 1972, Perfectpac Limited is a packaging solutions provider headquartered in New Delhi, India. The company specializes in manufacturing corrugated fibreboard containers and expanded polystyrene products, catering to various industries across northern India. Perfectpac expanded its operations in 2006, by setting up an automatic corrugated plant in Greater Noida, enhancing its production capabilities.</p> <p>The company employs advanced machinery, such as high-speed corrugators and automatic folder gluers, to meet diverse packaging requirements efficiently. Under the leadership of Managing Director Sanjay Rajgarhia, Perfectpac continues to focus on delivering timely and reliable packaging solutions to its clients.</p> <p><b>Installed Capacity (in MTPA)-</b> 100 tonnes per day (TPD), (36,500 tonnes per annum (MTPA)).</p> <p><b>Key Product Offerings:</b> 3/5 Ply Boards, Regular Slotted Cartons, Heavy-Duty Boxes with Top Lid, Multicolor Boxes, Multi-Layered Trays, Large Shippers, Slip Sheet Pallets, Fitments, Die-Cut Self-Locked Cartons, Waterproof Coated Boxes.</p> <p><b>Key Customer Segments Served:</b> Pharmaceutical Industry, Food &amp; Beverage Sector, E-commerce and Retail, Consumer Goods Manufacturers, Industrial and Heavy-Duty Applications</p>  |
| <p><b>Worth Peripherals Ltd</b></p> | <p>Worth Peripherals Limited, established in 1996, is a manufacturer of corrugated packaging solutions based in Indore, Madhya Pradesh, India. The company specializes in producing various types of corrugated boxes, including regular slotted containers, die-cut boxes, multi-color boxes, and honeycomb partitions. These products cater to industries such as fast-moving consumer goods (FMCG), pharmaceuticals, chemicals, beverages, and textiles. Worth Peripherals operates manufacturing units in Pithampur, Dhar district, equipped with automated machinery capable of multi-color printing.</p> <p>The company emphasizes sustainable practices by utilizing recycled kraft paper in its products. Worth Peripherals focuses on delivering packaging solutions that meet the specific needs of its clients across various sectors. Its multi-color printing technology enhances packaging aesthetics and supports branding requirements.</p> <p><b>Installed Capacity (in MTPA)-</b> 45,000 TPA</p> <p><b>Key Product Offerings:</b> Regular Slotted Containers (RSC), Die-Cut Corrugated Boxes/Trays, Multi-Colour Corrugated Boxes, Z Sleeve, I/Honeycomb Partitions.</p> <p><b>Key Customer Segments Served:</b> Fast-Moving Consumer Goods (FMCG) Companies, Textile Industry, Retail and Display Packaging, Electronics and Fragile Goods Manufacturers, Industrial and Bulk Goods Suppliers</p> |



**G K P Printing & Packaging Ltd**

G. K. P. Printing & Packaging Ltd., established in 1994, is a public limited company headquartered in Palghar, Maharashtra. The company specializes in manufacturing a diverse range of packaging products, including cardboard boxes, corrugated boxes, display boxes, mailer boxes, labels, stickers, tags, inserts, leaflets, and mono cartons. These products cater to various sectors such as pharmaceuticals, electronics, chemicals, food, garments, steel utensils, and fast-moving consumer goods (FMCG). The company's manufacturing facilities are equipped with advanced machinery, including rotary machines, partition cutters, board cutters, creasing machines, and box stitching equipment, enabling the production of customized packaging solutions. G. K. P. Printing & Packaging Ltd. serves a broad client base across various industries, including liquor, garment exports, retail, steel utensils, pharmaceuticals, playing cards, prints, record management, engineering, confectionery, and FMCG sectors.

**Installed Capacity (in MTPA)-** Approximately 200 MT. Additionally installed capacity of 300 MT monthly, and are currently converting around 200 MT (3,600 metric tons per annum (MTPA))

**Key Product Offerings:** Coloured Corrugated Boxes, Corrugated Packaging Boxes, Corrugated Paper Boxes, Customised Corrugated Boxes, Corrugated Boxes with Partition, White Corrugated Boxes, Printed Corrugated Boxes.

**Key Customer Segments Serviced:** Garment Exports, Steel Utensils, Playing Cards, Liquor Industry, Pharmaceuticals, Toys, Printers, Engineering, Confectionery, Fast-Moving Consumer Goods (FMCG)

Financial Analysis:

| Particular                        | Unit           | Udaan Paper Industries Limited |             |             | Perfectpac Limited   |             |             |
|-----------------------------------|----------------|--------------------------------|-------------|-------------|----------------------|-------------|-------------|
|                                   |                | As at end for Fiscal           |             |             | As at end for Fiscal |             |             |
|                                   |                | Fiscal 2025                    | Fiscal 2024 | Fiscal 2023 | Fiscal 2025          | Fiscal 2024 | Fiscal 2023 |
| Revenue From Operations           | ₹ in INR Crore | 64.57                          | 48.85       | 44.13       | 113.46               | 101.12      | 99.93       |
| EBITDA                            | ₹ in INR Crore | 10.80                          | 9.05        | 2.12        | 6.63                 | 7.53        | 6.17        |
| EBITDA Margin                     | in %           | 16.73%                         | 18.53%      | 4.81%       | 5.85%                | 7.44%       | 6.18%       |
| PAT                               | ₹ in INR Crore | 3.35                           | 3.69        | -1.41       | 3.15                 | 3.98        | 2.83        |
| PAT Margin                        | in %           | 5.18%                          | 7.56%       | -3.19%      | 2.78%                | 3.94%       | 2.83%       |
| Operating Cash Flow               | ₹ in INR Crore | 7.22                           | 2.91        | -0.94       | 4.07                 | 8.62        | 6.99        |
| Net Worth                         | ₹ in INR Crore | 9.43                           | 6.80        | 3.11        | 37.53                | 35.03       | 31.69       |
| Debt Equity Ratio                 | Multiple       | 3.67                           | 4.00        | 8.04        | 0.02                 | 0.02        | 0.10        |
| Return ON Equity (RoE)            | in %           | 35.49%                         | 54.27%      | -45.30%     | 8.40%                | 11.37%      | 8.94%       |
| Return On Capital Employed (RoCE) | in %           | 18.53%                         | 16.39%      | 0.55%       | 11.57%               | 15.29%      | 11.67%      |
| Return On Asset (RoA)             | in %           | 5.77%                          | 8.42%       | -4.57%      | 6.32%                | 8.53%       | 6.26%       |
| Capital Employed                  | ₹ in INR Crore | 43.99                          | 34.01       | 28.11       | 38.19                | 35.89       | 34.77       |
| Total borrowing                   | ₹ in INR Crore | 34.56                          | 27.21       | 25.00       | 0.66                 | 0.86        | 3.08        |
| Interest Coverage Ratio           | Multiple       | 2.74                           | 2.18        | 0.09        | 25.85                | 22.09       | 10.17       |

| Particular                        | Unit           | Worth Peripherals Ltd. |             |             | G.K.P Printing & Packaging Ltd. |             |             |
|-----------------------------------|----------------|------------------------|-------------|-------------|---------------------------------|-------------|-------------|
|                                   |                | As at end for Fiscal   |             |             | As at end for Fiscal            |             |             |
|                                   |                | Fiscal 2025            | Fiscal 2024 | Fiscal 2023 | Fiscal 2025                     | Fiscal 2024 | Fiscal 2023 |
| Revenue From Operations           | ₹ in INR Crore | 194.71                 | 173.96      | 212.72      | 30.12                           | 28.20       | 56.07       |
| EBITDA                            | ₹ in INR Crore | 25.79                  | 26.12       | 28.19       | 2.40                            | -0.67       | 1.93        |
| EBITDA Margin                     | in %           | 13.25%                 | 15.02%      | 13.25%      | 7.98%                           | -2.37%      | 3.44%       |
| PAT                               | ₹ in INR Crore | 15.80                  | 15.89       | 18.04       | 0.85                            | -1.77       | 0.86        |
| PAT Margin                        | in %           | 8.12%                  | 9.14%       | 8.48%       | 2.83%                           | -6.29%      | 1.53%       |
| Operating Cash Flow               | ₹ in INR Crore | 16.68                  | 9.14        | 30.15       | 1.07                            | 1.35        | 1.32        |
| Net Worth                         | ₹ in INR Crore | 173.69                 | 158.29      | 142.82      | 22.40                           | 21.55       | 23.33       |
| Debt Equity Ratio                 | Multiple       | 0.00                   | 0.01        | 0.01        | 0.09                            | 0.12        | 0.00        |
| Return ON Equity (RoE)            | in %           | 9.10%                  | 10.04%      | 12.63%      | 3.80%                           | -8.23%      | 3.68%       |
| Return On Capital Employed (RoCE) | in %           | 12.07%                 | 13.37%      | 16.18%      | 6.29%                           | -5.58%      | 5.73%       |
| Return On Asset (RoA)             | in %           | 8.42%                  | 9.03%       | 11.17%      | 2.35%                           | -5.18%      | 2.30%       |
| Capital Employed                  | ₹ in INR Crore | 174.40                 | 159.74      | 144.78      | 24.40                           | 24.17       | 23.39       |
| Total borrowing                   | ₹ in INR Crore | 0.71                   | 1.45        | 1.96        | 1.99                            | 2.62        | 0.06        |
| Interest Coverage Ratio           | Multiple       | 60.82                  | 195.09      | 230.76      | 2.25                            | -3.24       | 8.51        |

Note: For All companies' standalone balance sheet is considered.

| Parameter                  | Formula  |
|----------------------------|--|
| EBITDA                     | PBT + Finance Cost + Depreciation  |
| EBITDA Margin              | EBITDA/Revenue from Operations   |
| PAT Margin                 | PAT /Revenue from Operations   |
| Net worth                  | Shareholder Equity   |
| Debt Equity Ratios         | Short term Borrowing +Long Term Borrowing/Shareholder Equity                       |
| Return on Capital Employed | PBT + Finance Cost /Shareholder Equity + Short term Borrowing +Long Term Borrowing |
| Return on Equity           | PAT /Shareholder Equity  |
| Return On Asset (RoA)      | PAT/Total Asset  |
| Interest Coverage Ratio    | EBIT/Finance Cost  |
| Capital Employed           | Shareholder's Equity + Long Term Borrowings + Short Term Borrowings                |