Report on Indian Construction Industry

March 2025

Disclaimer

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Global Macroeconomic Scenario

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

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

Global headline inflation is set to fall from an estimated 6.8% in CY 2023 to 5.8% in CY 2024 and to 4.4% in CY 2025. This fall is swifter than anticipated across various areas, amid the resolution of supply-related problems and tight monetary policies. Reduced inflation mirrors the diminishing impact of price shocks, particularly in energy, and their subsequent influence on core inflation. This decrease also stems from a relaxation in labour market pressure, characterized by fewer job openings, a slight uptick in unemployment, and increased labour availability, occasionally due to a significant influx of immigrants.

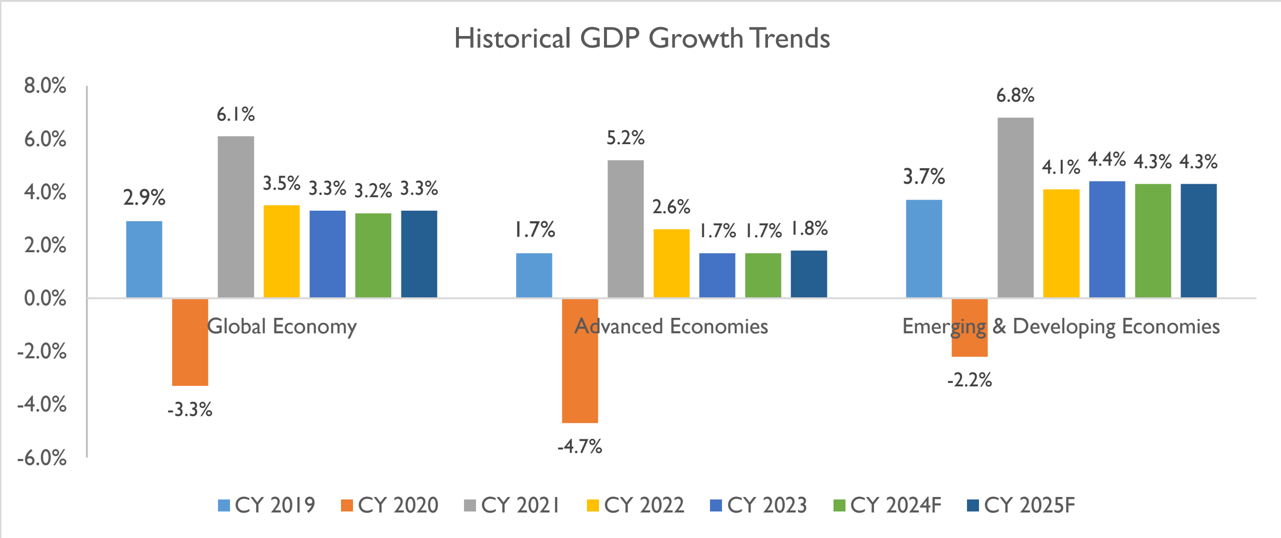
Global GDP Growth Scenario

The global economy started to rise from its lowest levels after countries started to lift the lockdown in 2020 and 2021. The lockdown was a key factor as it affected economic activities resulting in a recession in the year CY 2020, as the GDP growth touched -3.3%.

In CY 2021 disruption in the supply chain affected most of the advanced economies as well as low-income developing economies. The rapid spread of Delta and the threat of new variants in mid of CY 2021 further increased uncertainty in the global economic environment.

Global economic activities experienced a sharper-than-expected slowdown in CY 2022. One of the highest inflations in decades, seen in 2022, which forced most of the central banks to tighten their fiscal policies. Russia's invasion of Ukraine affected the global food supply resulting in a further increment in the cost of living.

Further, despite initial resilience earlier in 2023, marked by a rebound in reopening and progress in curbing inflation from the previous year's highs, the situation remained precarious. Economic activity lagged its pre-pandemic trajectory, particularly in emerging markets and developing economies, leading to widening disparities among regions. Numerous factors are impeding the recovery, including the lasting impacts of the pandemic and geopolitical tensions, as well as cyclically driven factors such as tightening monetary policies to combat inflation, the reduction of fiscal support amidst high debt levels, and the occurrence of extreme weather conditions. As a result, global growth declined from 3.5% in CY 2022 to 3.3% in CY 2023.

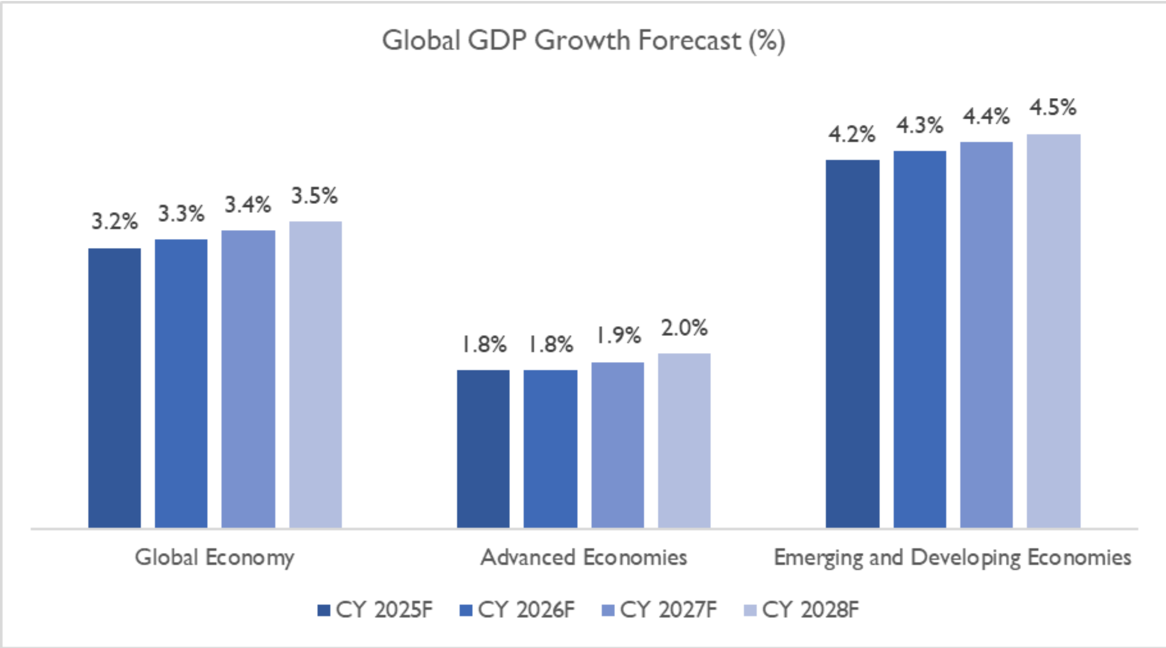


Source – IMF Global GDP Forecast Release July 2024

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.)

In the current scenario, global GDP growth is estimated to have recorded a moderate growth of 3.3% in CY 2023 as compared to 3.5% growth in CY 2022. While high inflation and rising borrowing costs are affecting private consumption, on the other hand, fiscal consolidation is affecting government consumption.

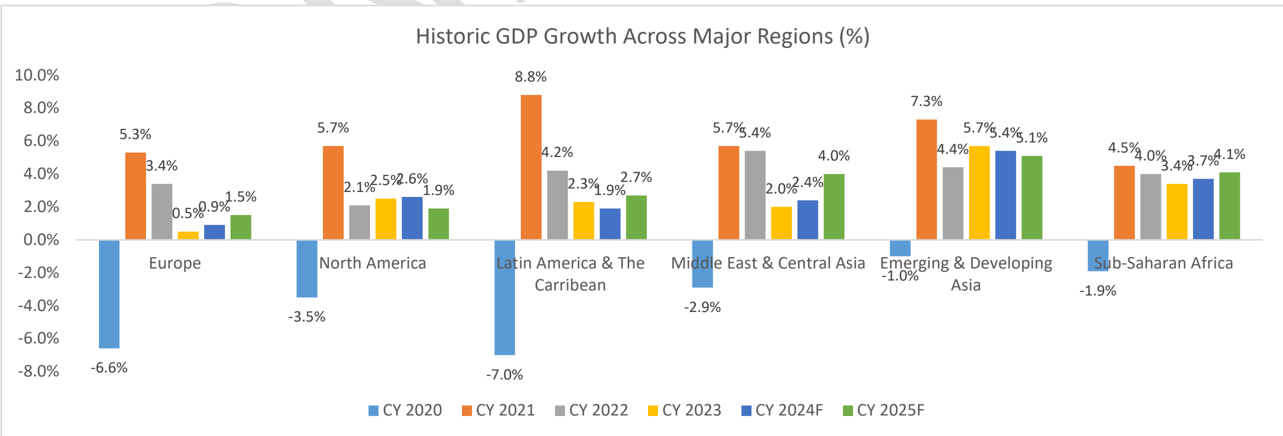
Slow growth in developed economies will affect the GDP growth in CY 2024 and global GDP is expected to record a flat growth of 3.2% in CY 2024. The crisis in the housing sector, bank lending, and industrial sectors are affecting the growth of global GDP.-After touching the peak in 2022, inflationary pressures slowly eased out in 2023. This environment weighs in for interest rate cuts by many monetary authorities.



Source – IMF Global GDP Forecast Release 2024, D&B Estimates

GDP Growth Across Major Regions

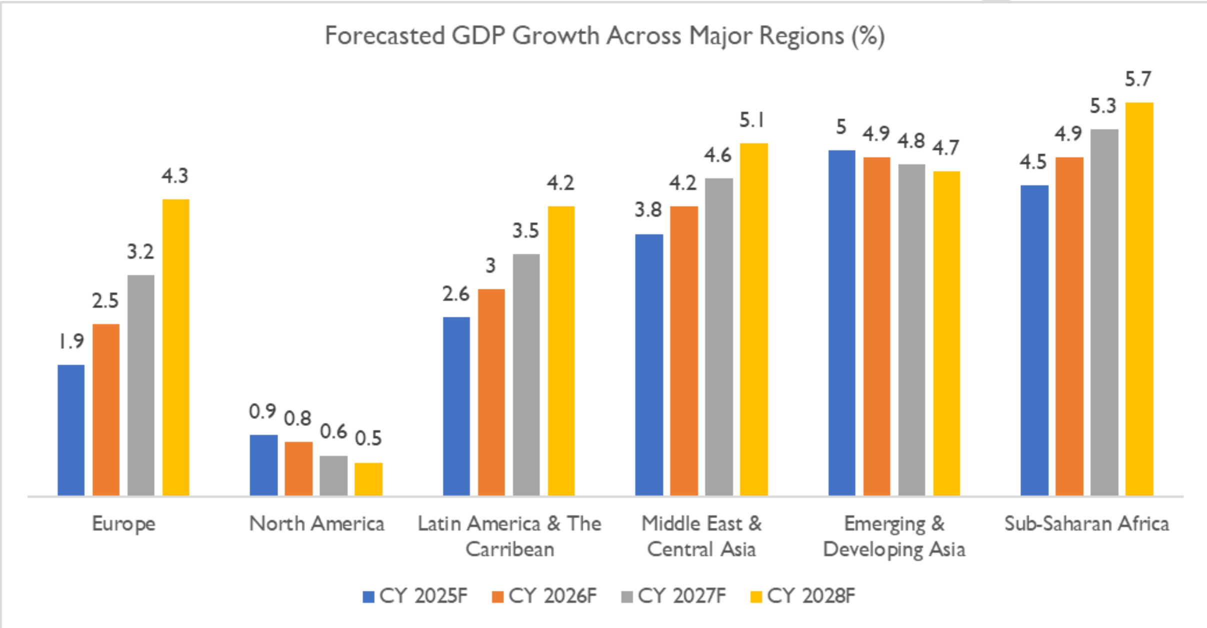
GDP growth of major regions including Europe, Latin America & The Caribbean, Middle East & Central Asia, and Sub-Saharan Africa, were showing signs of slow growth and recession between 2020 – 2023, but leaving Latin America & The Caribbean, 2024 is expected to show resilience and growth. Meanwhile, GDP growth in Emerging and Developing Asia (India, China, Indonesia, Malaysia etc.) is expected to decrease from 5.4% in CY 2023 to 5.2% in CY 2024, while in the United States, it is expected to decrease from 2.5% in CY 2023 to 2.1% in CY 2024.



Source-IMF World Economic Outlook July 2024 update.

Except for Emerging and Developing Asia, Latin America & The Caribbean and the United States, all other regions are expected to record an increase in GDP growth rate in CY 2024 as compared to CY 2023. GDP growth in Latin America & The Caribbean is expected to decline due to negative growth in Argentina. Further, growth in the United States is expected to come down at 2.1% in CY 2024 due to lagged effects of monetary policy tightening, gradual fiscal tightening, and a softening in labour markets slowing aggregate demand.

Although Europe experienced a less robust performance in 2023, the recovery in 2024 is expected to be driven by increased household consumption as the impact of energy price shocks diminishes and inflation decreases, thereby bolstering real income growth. Meanwhile, India and China saw greater-than-anticipated growth in 2023 due to heightened government spending and robust domestic demand, respectively. Sub-Saharan Africa's expected growth in 2024 is attributed to the diminishing negative impacts of previous weather shocks and gradual improvements in supply issues.



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

Global Economic Outlook

At the midpoint of the year, so far in 2024 we have seen divergence in outcomes and prospects around the world in terms of economic growth, inflation, and policy responses. On balance, global short-term economic prospects have improved over the course of the year. We expect this momentum to continue through the second half of 2024 and into 2025 as inflation eases further and monetary policy continues to loosen, supporting steady growth. Macroeconomic risks, in our view, have become more balanced.

The U.S. has performed better than other developed economies, particularly those in Europe where the consumer sentiment has been relatively weak – though the picture in Europe has been varied. A sustained recovery in tourism this year has boosted the economies of Greece and Spain, whereas Germany, France, and Italy have been held back by the slower recovery of manufacturing. Nonetheless, the European Central Bank (ECB) lowered the three key interest rates in June – for the first time since September 2019 – which will support stronger regional growth.

Growth in the Chinese Mainland has held up well so far this year despite challenges from the property market amid ongoing rebalancing, and the export cycle is supporting growth in the rest of Asia. In Latin America, larger economies, such as Brazil and Mexico, tend to be performing more moderately than smaller economies, such as Chile and Peru, indicating slower regional growth overall.

Globally, industrial production has been relatively sluggish because of restrictive trade policies, persistent supply chain disruptions, high interest rates, and anaemic growth. We expect industrial production to gather steam later this year and into 2025 on the back of a gradual recovery in global trade, stimulated by stronger domestic demand for goods.

Policy responses have diverged so far this year and are set to remain so in the near term. Central banks have begun rate cutting cycles in several developed economies, including the Eurozone, Canada, Sweden, and Switzerland. However not every economy has followed suit. Disinflation has not been as predictable as it was in 2023, and underlying price pressures mean inflation is likely to remain bumpy this year – hence, policy will remain more restrictive than was anticipated at the start of the year. With relatively stronger economic growth and stickier inflation, the timing of the first interest rate cut by the U.S. Federal Reserve (the Fed) and the onward path of interest rates remains ambiguous.

The global economy is showing signs of stabilizing, yet growth will remain subdued this year before picking up pace in 2025. We forecast global growth of around 2.5% in 2024, half a percentage point softer than in the decade following the financial crisis. The weaker outlook reflects fiscal consolidation, lagged tight monetary policy, restrictive trade policies, and elevated levels of geopolitical uncertainty. Looking ahead to 2025, global growth is likely to pick up slightly to 2.8% as the impact of these factors declines and stronger growth becomes more entrenched.

Emerging economies look set for softer growth in general this year. On a regional basis, growth is likely to be markedly slower in Eastern Europe, but only slightly softer in Asia Pacific and Latin America, with growth only moderately slower in key economies such as the Chinese Mainland, India, and Brazil. Outcomes in developed economies are also mixed but largely remain subdued because of tight policy settings.

India Macroeconomic Analysis

GDP Growth Scenario

India's economy showed resilience with GDP growing at 8.2% in CY 2023. The GDP growth in CY 2023 represents a return to pre pandemic era growth path. 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.

Country	Real GDP Growth (CY 2023)	Projected GDP Growth (CY 2024)	Projected GDP Growth (CY 2025)
India	8.20%	7.00%	6.50%
China	5.20%	5.00%	4.50%
Russia	3.60%	3.20%	1.50%
Brazil	2.90%	2.10%	2.40%
United States	2.50%	2.60%	1.90%
Japan	1.90%	0.70%	1.00%
Canada	1.20%	1.30%	2.40%
Italy	0.90%	0.70%	0.90%
France	1.10%	0.90%	1.30%
South Africa	0.70%	0.90%	1.20%
United Kingdom	0.10%	0.70%	1.50%
Germany	-0.20%	0.20%	1.30%

Source: World Economic Outlook, July 2024

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

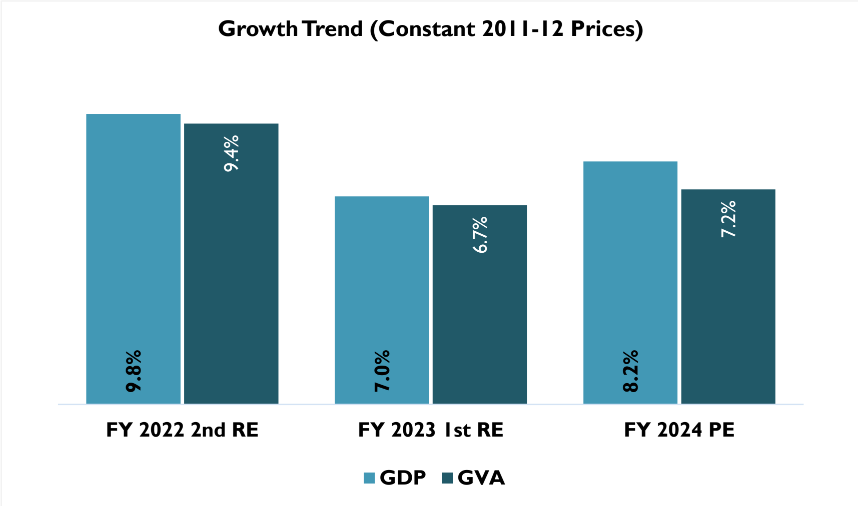
Countries have been arranged in descending order of GDP growth in 2023).

There are few factors aiding India's economic recovery – notably its resilience to external shocks and rebound in private consumption. This rebound in private consumption is bringing back the focus on improvements in domestic demand, which together with revival in export demand is a precursor to higher industrial activity. Already the capacity utilization rates in Indian manufacturing sector are recovering as industries have stepped up their production volumes. As this momentum sustains, the country may enter a new capex (capital expenditure) cycle. The universal vaccination program by the Government has played a big part in reinstating confidence among the population, in turn helped to revive private consumption.

Realizing the need to impart external stimuli, the Government stepped up its spending on infrastructure projects which in turn had a positive impact on economic growth. The capital expenditure of the central government increased by 37.4% increase in capital expenditure (budget estimates), to the tune of INR 10 trillion in the Union Budget 2023-2024. The announcement also included a 30% increase in financial assistance to states at INR 1.3 trillion for capex. The improvement was accentuated further as the Budget 2024-2025 announced an 11.1% increase in the capital expenditure outlay at INR 11.11trillion, constituting 3.4% of the GDP. This has provided much-needed confidence to the private sector, and in turn, attracted private investment.

On the lending side, the financial health of major banks has witnessed an improvement which has helped in improving the credit supply. With capacity utilization improving, there would be demand for credit from the corporate sector to fund the next round of expansion plans. The banking industry is well poised to address that demand. Underlining the improving credit scenario is the credit growth to the micro, small, and medium enterprise (MSME) sector as the credit outstanding to the MSME sector by scheduled commercial banks in the fiscal year 2024 grew by 14% to INR 10.31 trillion compared to INR 9.02 trillion as on 24 March 2023. The extended Emergency Credit Linked Guarantee Scheme (ECLGS) by the Union Government has played a major role in improving this credit supply.

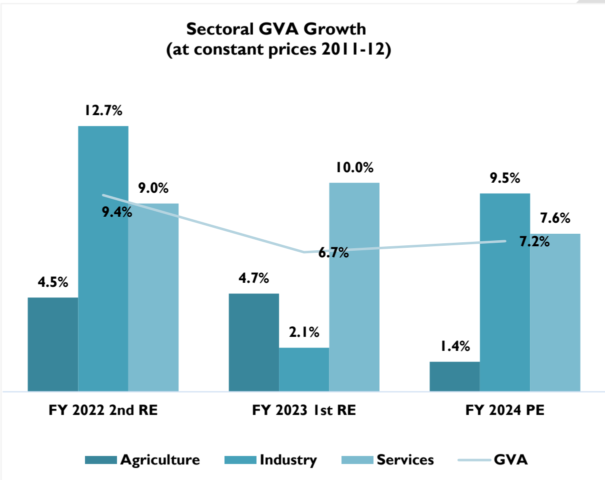
As per the provisional estimates 2023-24, India's GDP in FY 2024 grew by 8.2% compared to 7.0% in the previous fiscal on the back of solid performances in manufacturing, mining, and construction sectors. The year-on-year increase in growth rate is also partly due to by a strong growth in investment demand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

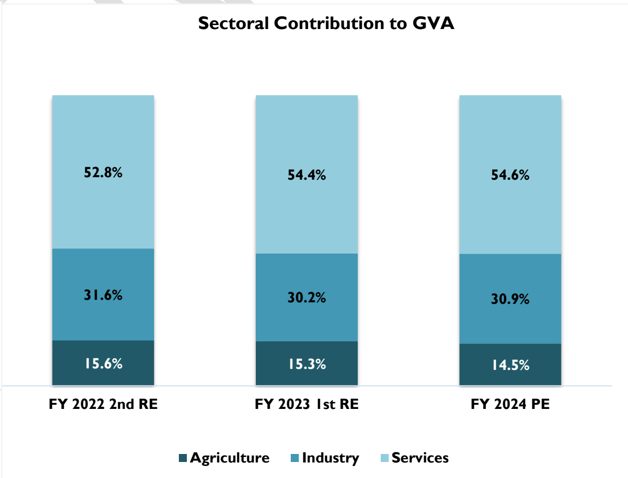


Source: Ministry of Statistics & Programme Implementation (MOSPI), National Account Statistics, 2023-24

RE stands for Revised Estimates, SAE stands for Second Advance Estimates

Sectoral Contribution to GVA and annual growth trend





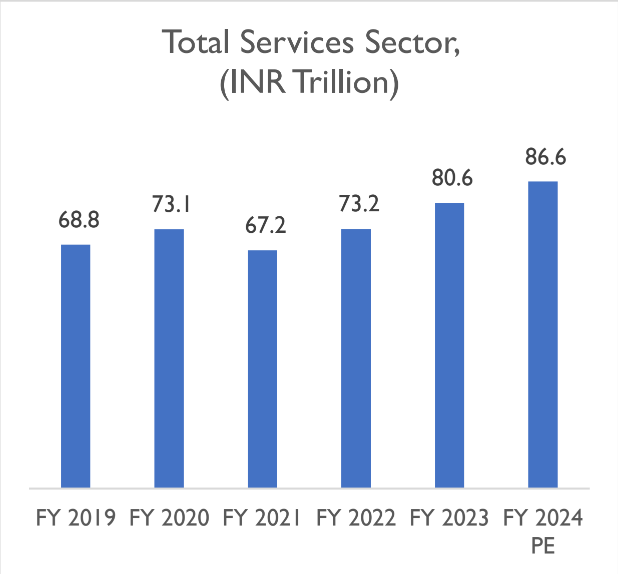
Source: Ministry of Statistics & Programme Implementation (MOSPI)

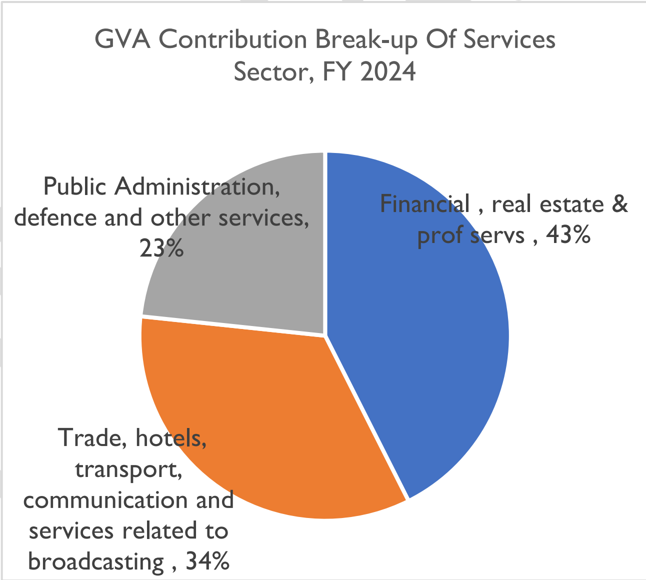
Sectoral analysis of GVA reveals industrial sector recovered sharply registering 9.5% y-o-y increase in FY 2024 against 2.1% in the previous fiscal. In the industrial sector, growth across major economic activity such as mining, manufacturing and construction sector rose significantly and it registered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

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

Expansion in Service Sector

Services sector is a major contributor to the country's overall economic growth. In absolute terms, services sector GVA has increased from INR 68.78 trillion in FY 2019 to INR 86.6 trillion in FY 2024 (as per the provisional estimated), registering a CAGR of nearly 5%. Within Services sector, the GVA by financial, real estate and professional services-the largest contributing segment observed 6.3% CAGR while Public Administration, defence and other services[1] observed 4.5% CAGR and Trade, hotels, transport, communication, and services related to broadcasting witnessed 3.1% CAGR between FY 2019-24.





Sources: MOSPI, CMIE Economic Outlook and Dun & Bradstreet Research Estimates [2]

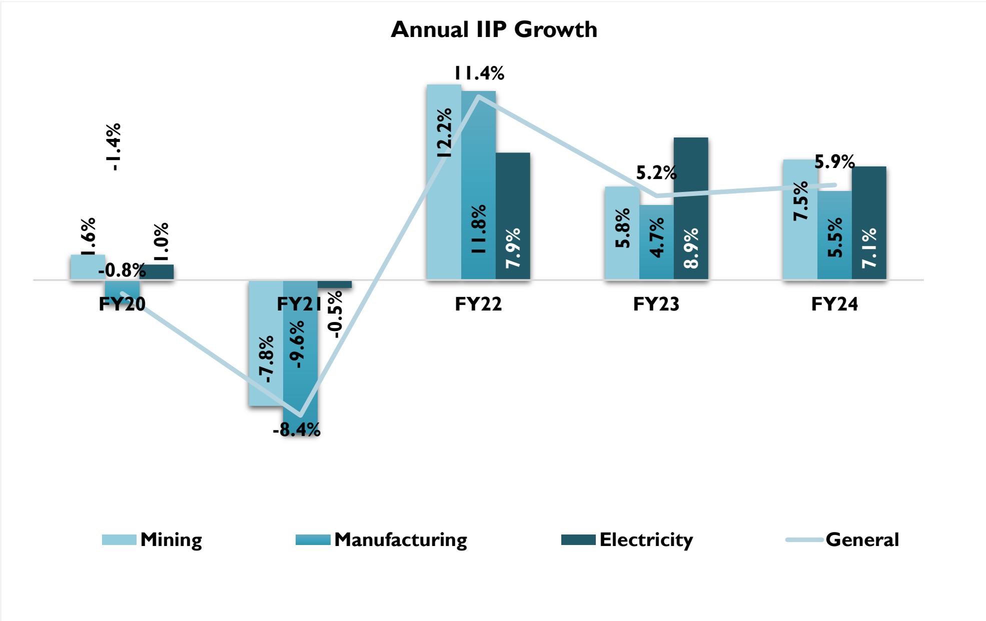
India's HSBC Services Purchasing Managers' Index**,** an important indicator to track service sector performance, measured 60.3 in July 2024 against 60.5 in the previous month. Since August 2021, the services sector has consistently remained above the threshold of 50, which distinguishes growth from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

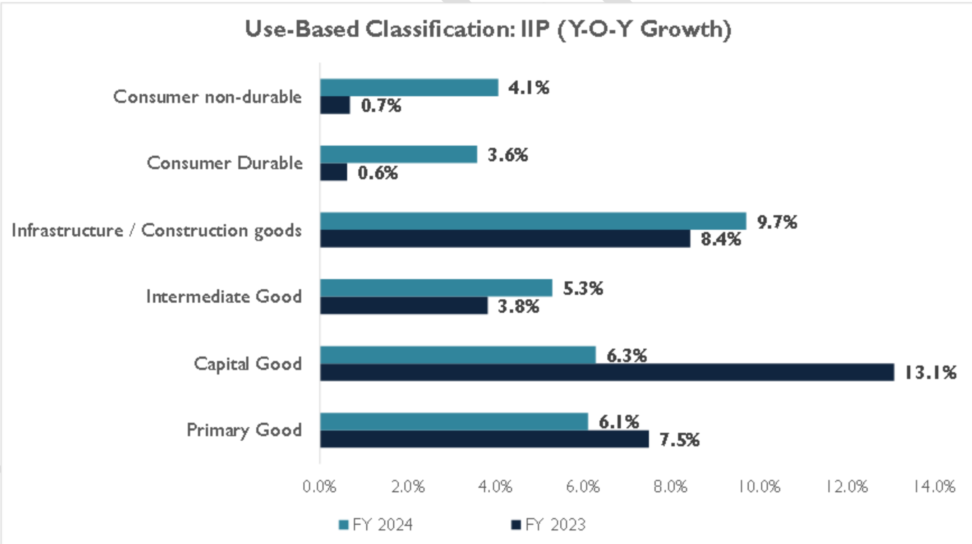
IIP Growth

Industrial sector performance as measured by IIP index; in FY 2024 it is growing at 5.9% (against 5.2% in FY 2023). Previously IIP index exhibited temporary recovery in FY 2022 from the low of Covid induced slowdown in industrial growth during FY 2020 and FY 2021. Manufacturing index, with 77.6% weightage in overall index, grew by 5.5% in FY 2023 against 4.7% y-o-y growth in FY 2022 while mining sector index too

[1] Other services include Education, Health, Recreation, and other personal services.
[2] Projection as Based on CMIE Growth rate till FY 2029 and FY 2030 is based on Dun & Bradstreet assumption.

grew by 7.5% against 5.8% in the previous years. Mining & manufacturing both shown improvement according to previous except the Electricity sector Index, witnessed an improvement of 7.1% against 8.9% in the previous year.

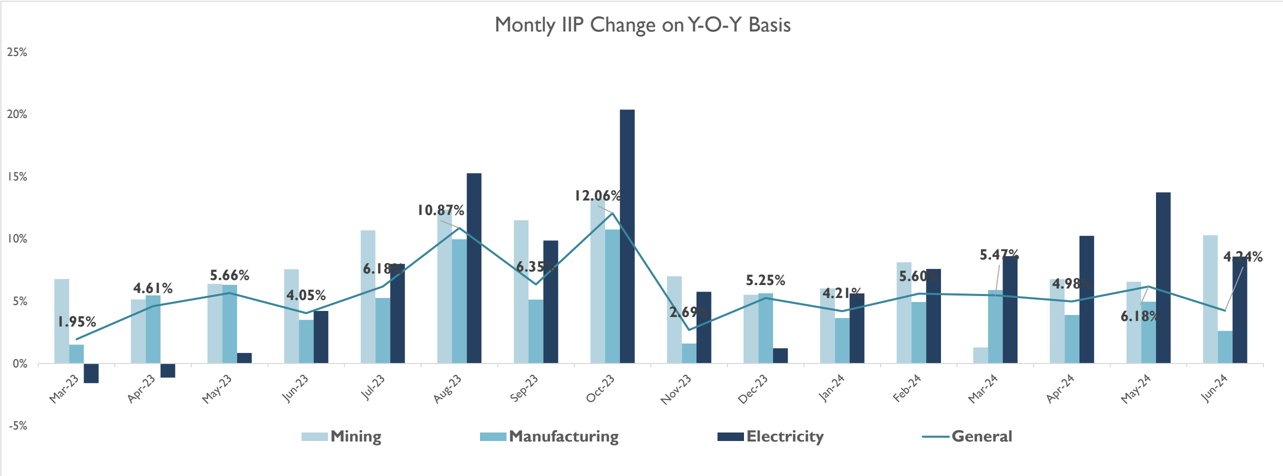




Source: Ministry of Statistics & Programme Implementation (MOSPI)

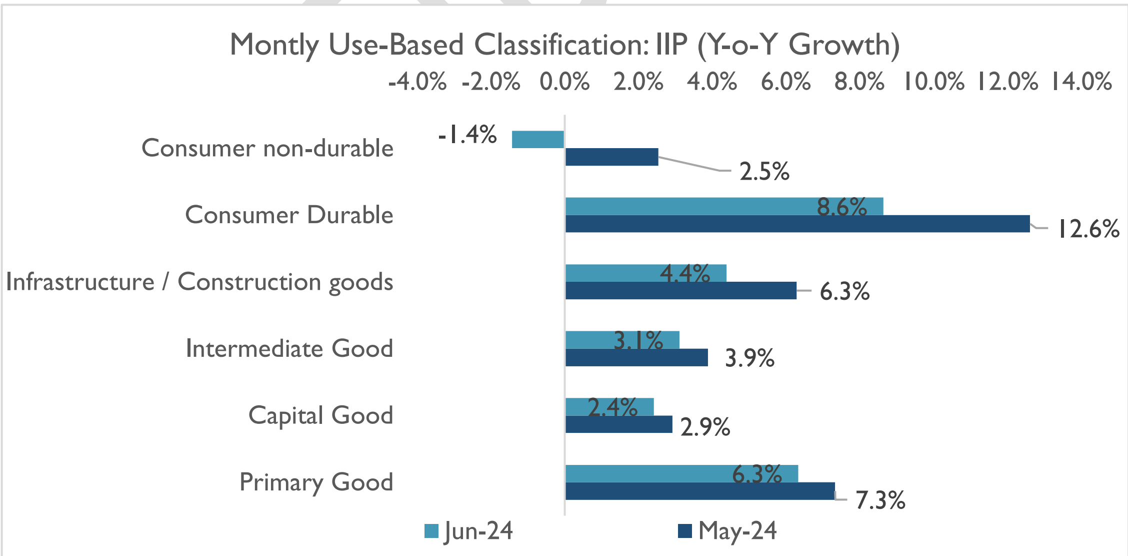
As per the use-based classification, most of the segments has shown growth for FY 2024 as compared to FY 2023. Capital good and primary goods were segments which faced less growth as compared to previous year. The contracting IIP data points towards adverse operating business climate as global headwinds,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

Monthly IIP Growth Trend



Source: Ministry of Statistics & Programme Implementation (MOSPI)

In the current fiscal FY 2025, the monthly IIP measured index has reported steady improvement over the last fiscal. However, the IIP index slowed to a 5-month low and just grew by 4.24% y-o-y in June against 6.18% in the previous month on the back of slowing growth in the manufacturing section. In June 2024, the manufacturing index growth slowed to 2.6% against 6.3% y-o-y growth in June 2023 and 5% in May 2023 while the electricity sector index and mining index exhibited substantial improvement and they grew by 8.6% and 10.3% in June 2024 against 0.9% and 6.4% growth in April 2023, respectively.

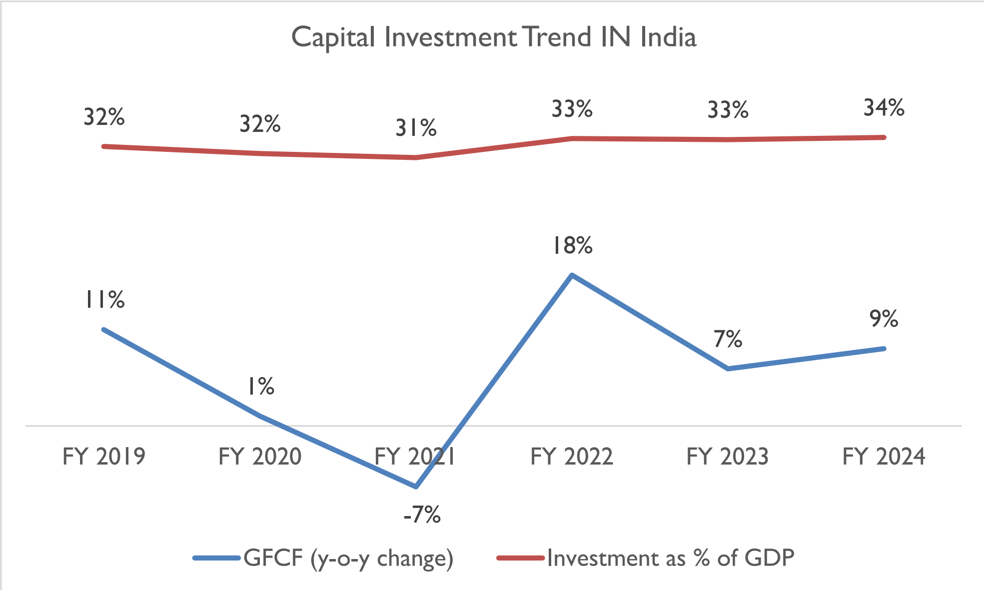


Sources: MOSPI

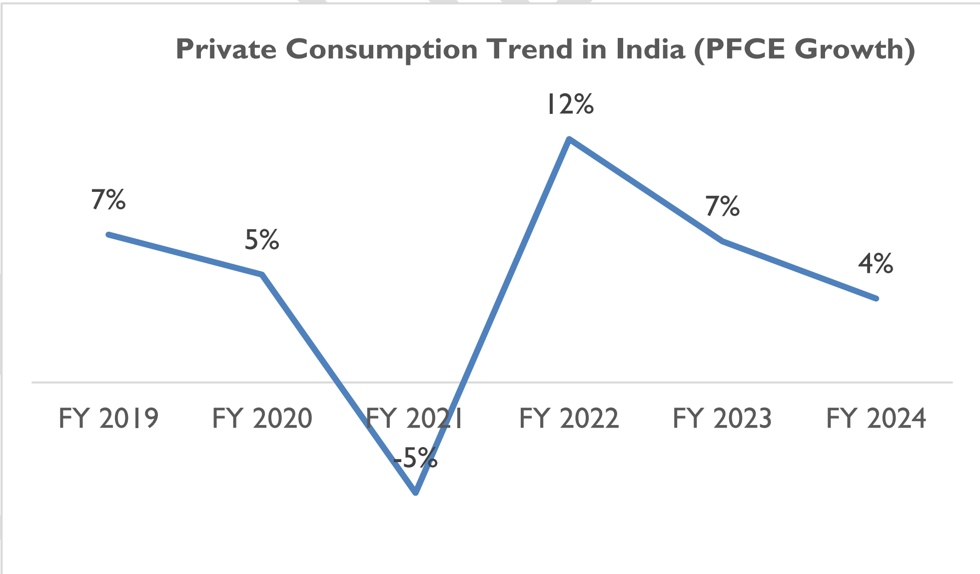
As per the use-based classification, growth in all segments slowed in June 2024 as compared to the previous month. Consumer non-durable declined by 1.4% in June 2024 against 2.5% increase in the previous month. In May 2024, all segments showed a substantial increase in growth.

Investment & Consumption Scenario

Other major indicators such as Gross fixed capital formation (GFCF), a measure of investments, gained strength during FY 2024 as it grew by 9% on a y-o-y basis against 7% yearly growth in the previous fiscal, while GFCF to GDP ratio measured an all-time high settled higher at 34%.



Sources: MOSPI

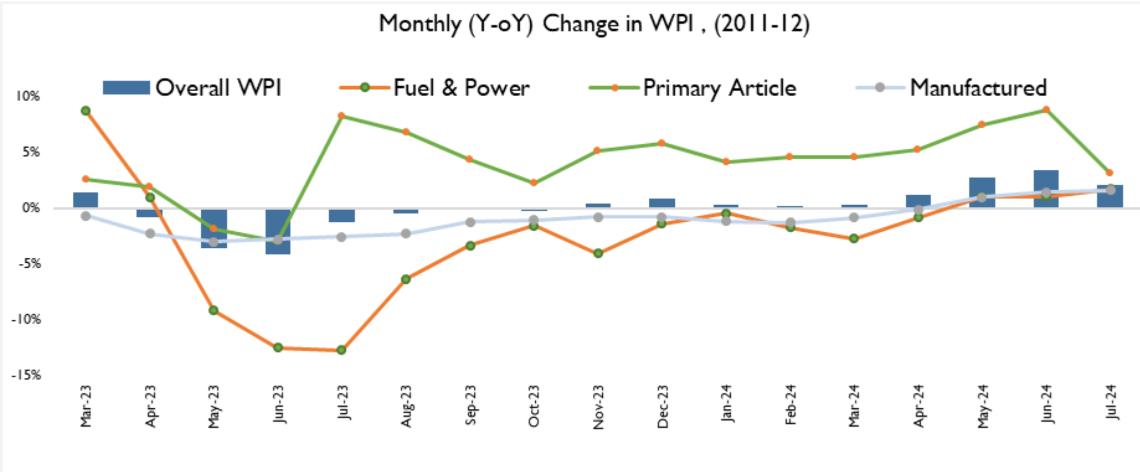


Sources: MOSPI

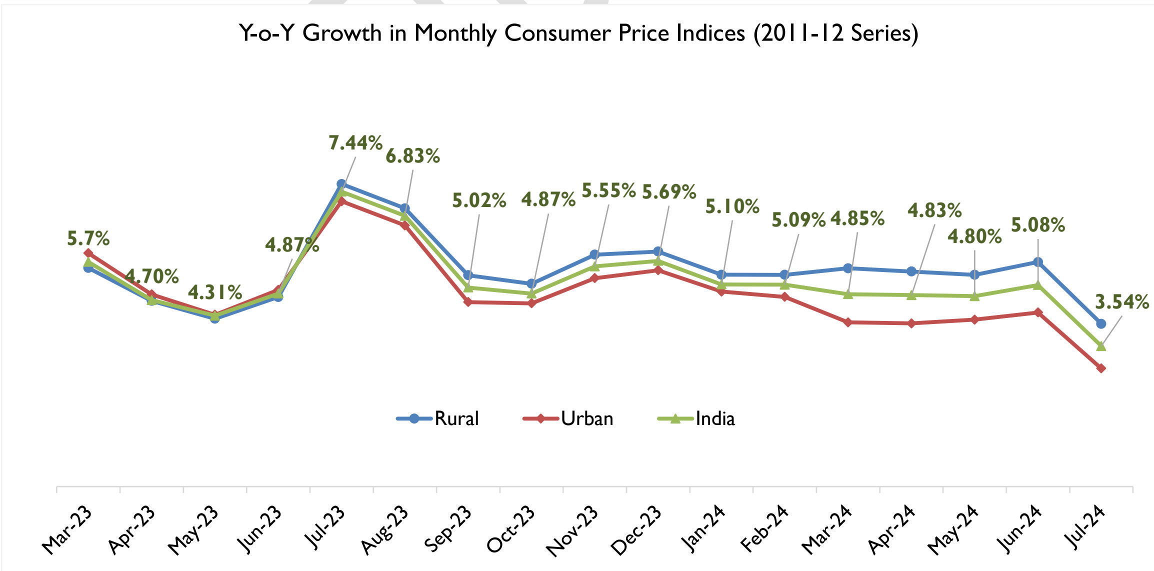
Private Final Expenditure (PFCE) a realistic proxy to gauge household spending, observed decelerated and registered 4% y-o-y growth in FY 2024 against 7% in FY 2023.

Inflation Scenario

The inflation rate based on India's Wholesale Price Index (WPI) exhibited significant fluctuations across different sectors from March 2023 to July 2024. Overall WPI saw a sharp decline to -1.2% in July 2023, primarily driven by steep drops in Fuel & Power and Manufactured Products, reflecting reduced global demand and falling input costs. However, a recovery was noted by June 2024, with WPI reaching 3.4%, supported by a strong rise in Primary Articles and a rebound in Fuel & Power prices. By July 2024, while Primary Articles growth moderated to 3.1%, the WPI remained positive at 2.0%, indicating stabilization in the market after earlier volatility.



Source: MOSPI, Office of Economic Advisor.



Source: CMIE Economic Outlook

Retail inflation rate (as measured by the Consumer Price Index) in India showed notable fluctuations between March 2023 and July 2024. Rural CPI inflation peaked at 7.63% in July 2023, before declining to

4.10% in July 2024. Urban CPI inflation followed a similar trend, rising to 7.20% in July 2023 and then dropping to 2.98% in July 2024. Overall, the national CPI inflation rate increased to 7.44% in July 2023 but moderated to 3.54% by July 2024, indicating a gradual easing of inflationary pressures across both rural and urban areas over the period. CPI measured below 6% tolerance limit of the central bank since September 2023. As a part of an anti-inflationary measure, the RBI has hiked the repo rate by 250 bps since May 2022 to the current 6.5% while it has been holding the rate at 6.5% since 8 Feb 2023.

India's Growth Outlook

India's economy has exceeded expectations, registering an 8.2% growth in FY24. High-frequency indicators such as automobile sales, e-way bills, cargo traffic, and exports signal sustained growth momentum into Q2 FY25. However, the rural demand outlook is tied to the monsoon, where inconsistent rainfall could impact the agriculture sector and inflation. The government is proactively boosting grain storage capacity to mitigate these risks. On the credit front, the Reserve Bank of India (RBI) has kept the policy rate unchanged, with inflation expected to average around 5% in FY25. Despite stable policy rates, lending rates may rise due to the incomplete transmission of earlier hikes, while strong credit growth in the private sector suggests potential capacity expansion. Supply-side challenges persist, particularly in food storage infrastructure. The government has launched a massive initiative to enhance grain storage capacity by 70 million tonnes over the next five years. The recent long-term agreement for operating Iran's Chabahar Port is also set to bolster trade and supply chain resilience.

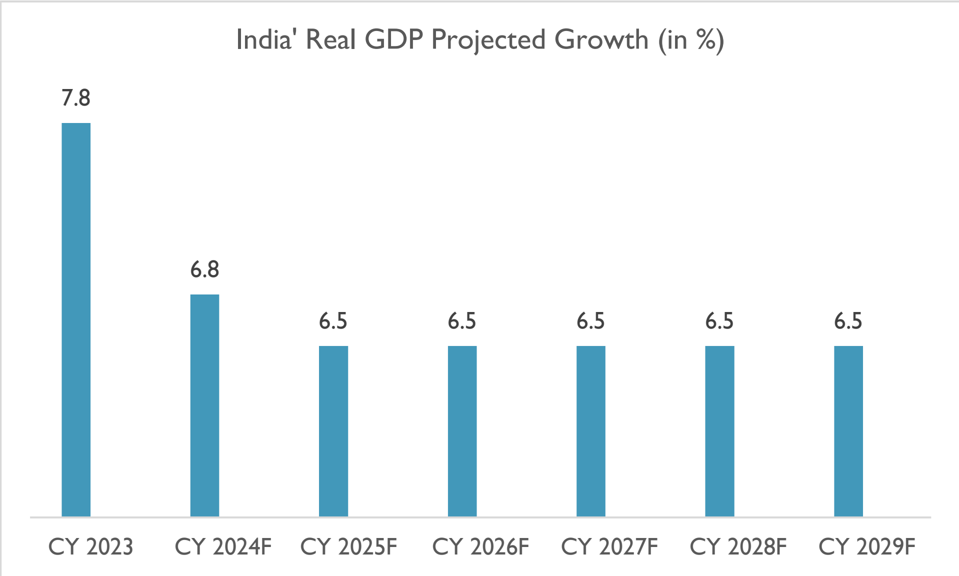
In terms of trade, India's recent agreements, particularly with the European Free Trade Association (EFTA) and Oman, are opening new markets and opportunities for exports. The proposed mega-distribution hub in the UAE by 2025 will further support India's global trade ambitions, particularly in Africa, Europe, and the US.

Politically, the continuation of the National Democratic Alliance (NDA) government signals sustained reforms, with optimism around labour and land reforms. The government is also taking steps to control retail inflation by managing food prices and import duties. The external environment remains cautious, with geopolitical tensions, particularly in Gaza, posing potential risks to global stability.

Overall, India's short-term growth outlook remains positive, underpinned by strong domestic demand, proactive government measures, and expanding global trade relationships, despite some challenges in the rural economy and supply chain infrastructure.

India's Projected Economic Growth

Looking ahead to 2024, India's projected GDP growth of 6.8% in 2024 stands out as the fastest among major emerging markets, significantly outpacing China's 4.6%, and Brazil's 2.2%. This robust growth trajectory is expected to sustain at 6.5% annually from 2025 to 2029, reflecting strong economic fundamentals and continued momentum.



Source: IMF

This decent growth momentum in near term (CY 2024) is accompanied by a slowdown in inflation, as well as various other factors in the medium to long term that will support the economy. These include enhancements in physical infrastructure, advancements in digital and payment technology, improvements in the ease of doing business and a higher quality of fiscal expenditure to foster sustained growth.

On the demand side, improving employment conditions and moderating inflation are expected to stimulate household consumption. Further, the investment cycle is gaining traction, propelled by sustained government capital expenditure, increased capacity utilization and rising credit flow. Additionally, there are positive signs of improvement in net external demand, as reflected in the narrowing merchandise trade deficit. Despite the supply disruptions, exports clocked positive y-o-y growth in December 2023 and January 2024.

From uplifting the underprivileged to energizing the nation's infrastructure development, the Government has outlined its vision to propel India's advancement and achieve a 'Viksit Bharat' by 2047 in the interim budget announced on 1st Feb 2024. Noteworthy positives in the budget include achieving a lower-than-targeted fiscal deficit for FY2024 and setting a lower-than expected fiscal deficit target for FY2025, proposing dedicated commodity corridors and port connectivity corridors, providing long-term financing at low or nil interest rates to the private sector to step up R&D (Research & Development) in the sunrise sectors.

Achieving a reduced fiscal deficit of 5.8% in FY2024 and projecting a lower than-anticipated fiscal deficit of 4.9% as announced in the interim budget in July 2024 for the current fiscal year (FY 2025) are positive credit outcomes for India. This showcases the country's capability to pursue a high-growth trajectory while adhering to the fiscal glide path. There has been a significant boost to capital expenditure for two consecutive years; capital expenditure – which is budgeted at 3.4% of GDP (INR 11.1 trillion/USD 134 billion) for fiscal year 2024-25 – is at a 21-year high (3.3% of GDP in fiscal year 2023-24. The enhancement of port connectivity, coupled with the establishment of dedicated commodity corridors (energy, mineral and cement), is poised to enhance manufacturing competitiveness. This strategic move aims to fulfil India's export targets and reduce logistics costs.

India's optimistic economic outlook is underpinned by its demographic dividend, which brings a substantial workforce that boosts labor participation and productivity. The burgeoning middle class and urbanization contribute to increased domestic consumption, driven by rising incomes and purchasing power. Extensive investments in infrastructure, encompassing roads, railways, ports, and digital connectivity, are enhancing productivity and efficiency, with government initiatives like the Smart Cities Mission and PM Gati Shakti creating a conducive growth environment. This digital transformation, catalyzed by initiatives such as Digital India, is fostering a tech-driven economy marked by enhanced internet penetration, digital payments, and e-governance, thereby fueling growth in sectors like fintech, e-commerce, and digital services. The push to position India as a global manufacturing hub through Make in India and PLI (Production Linked Incentive) schemes is further boosting industrial output, exports, and domestic production capabilities. Compared to other major emerging markets facing demographic and economic challenges, India's combination of demographic strengths, policy reforms, and strategic initiatives positions it as a standout performer and a significant driver of global economic growth in the foreseeable future.

Some of the key factors that would propel India's economic growth.

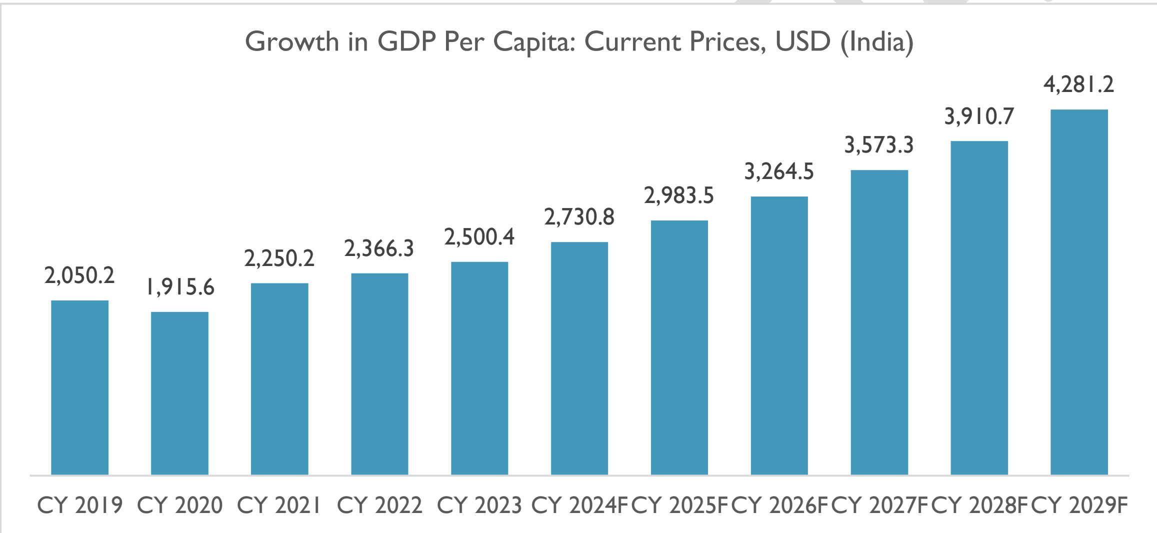
Strong Domestic Demand

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 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. PFCE as a percentage of GDP increased to 58% during FY 2022 and FY 2023 while in FY 2024 it settled at 56%. There are two factors that are driving this domestic demand: One the large pool of consumers and second the improvement in purchasing power. As per National Statistics Office (NSO), India's per capita net national income (at constant prices) stood at INR 1.06 lakhs in FY 2024 against 99,404 in FY 2023 and 87,623 in FY 2018. This increase in per capita income has impacted the purchasing pattern as well as disposable spending pattern in the country. Consumer driven domestic demand is majorly fueled by this growth in per capita income.

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

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.

Digitization Reforms

Ongoing digitization reforms and the resultant efficiency gains accrued would be a key economic growth driver in India in the medium to long term. Development of digital platforms has helped in the seamless roll out of initiatives like UPI (Unified Payments Interface), Aadhaar based benefit transfer programs, and streamlining of GST (Goods and Services Tax) collections. All of these have contributed to improving the economic output in the country. Some of the key factors that have supported the digitization reforms include – the growth in internet penetration in India together with drop in data tariffs, growth in smartphone penetration, favorable demographic pattern (with higher percentage of tech savvy youth population) and

India's strong IT (Information Technology) sector which was leveraged to put in place the digital ecosystem. All these factors are expected to remain supportive and continue to propel the digitization reforms in India.

Increased adoption of digital technology and innovation, inclusive and sustainable practices, business-friendly and transparent regulations, and heightened corporate research and development (R&D) investments will further bolster the country's growth. These factors will collectively support employment growth across both private and public sectors, including micro, small, and medium enterprises (MSMEs).

Construction Industry in India

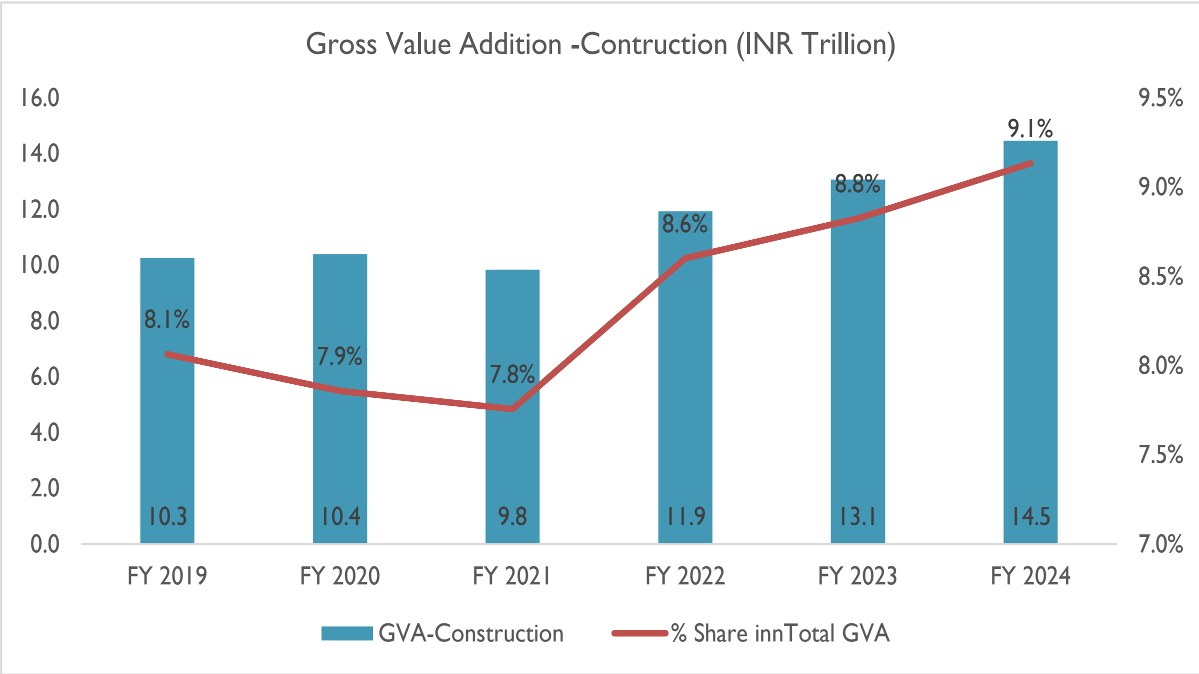
Key Highlights of Indian Construction Sector

The construction sector is a key component of the Indian economy with linkages across more than 250+ sub sectors. Construction, the second largest economic activity in India (after agriculture) contributes around ~9.1% to the national GDP. Further, India is poised to become the third largest construction market in the next 2-3 years on the back of stable economic growth as the real estate sector has emerged to be a critical engine in the country's growth story. The construction sector, along with the output generated from real estate services and ownership of dwellings, contributes nearly 14.3% to the economy's total output (at constant prices) in FY 2023.

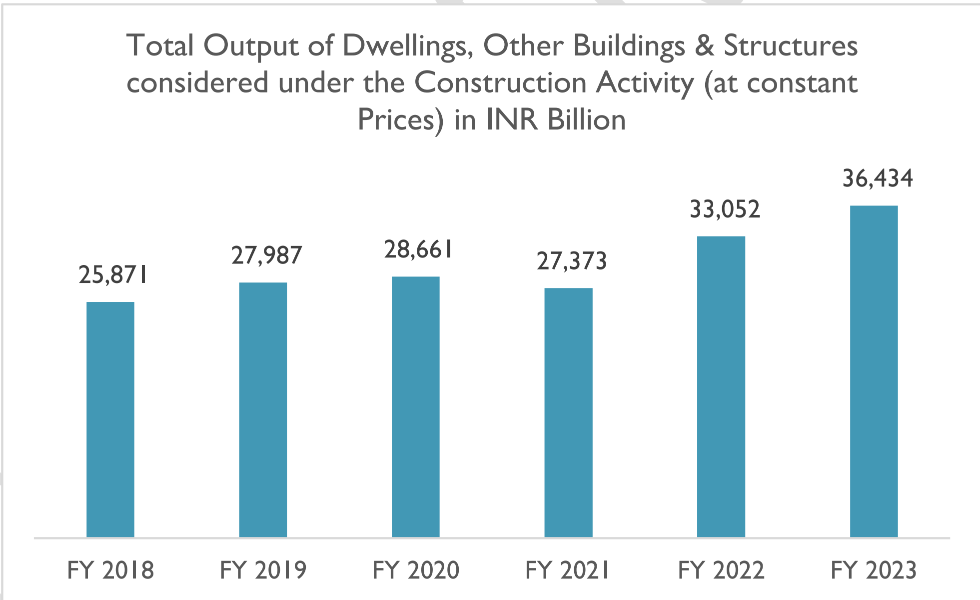
It is the second largest employment generator in India with nearly 71 million people in 2023 which is expected to cross 100 million by 2030. The booming construction industry is a significant job creator, directly employing millions of workers across various disciplines like engineering, construction, architecture, and skilled labor. Additionally, the sector indirectly supports numerous job opportunities in associated industries like manufacturing, transportation, and logistics. High employability of the sector is due to chain of backward and forward linkages that the sector has with other sectors of the economy. It provides impetus to other manufacturing sectors like cement, bitumen, iron and steel, chemicals, bricks, paints, tiles 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.

Construction Sector Growth Trend

The construction sector contribution to national economy has steady improved over the years and by FY 2024 it is estimated to account for nearly 9.1% of national Gross Value Added (GVA). In actual terms, the GVA by construction sector reached approximately INR 14.5 trillion in FY 2024, registering.



Source: Ministry of Statistics & Programme Implementation (base year 2011-12)



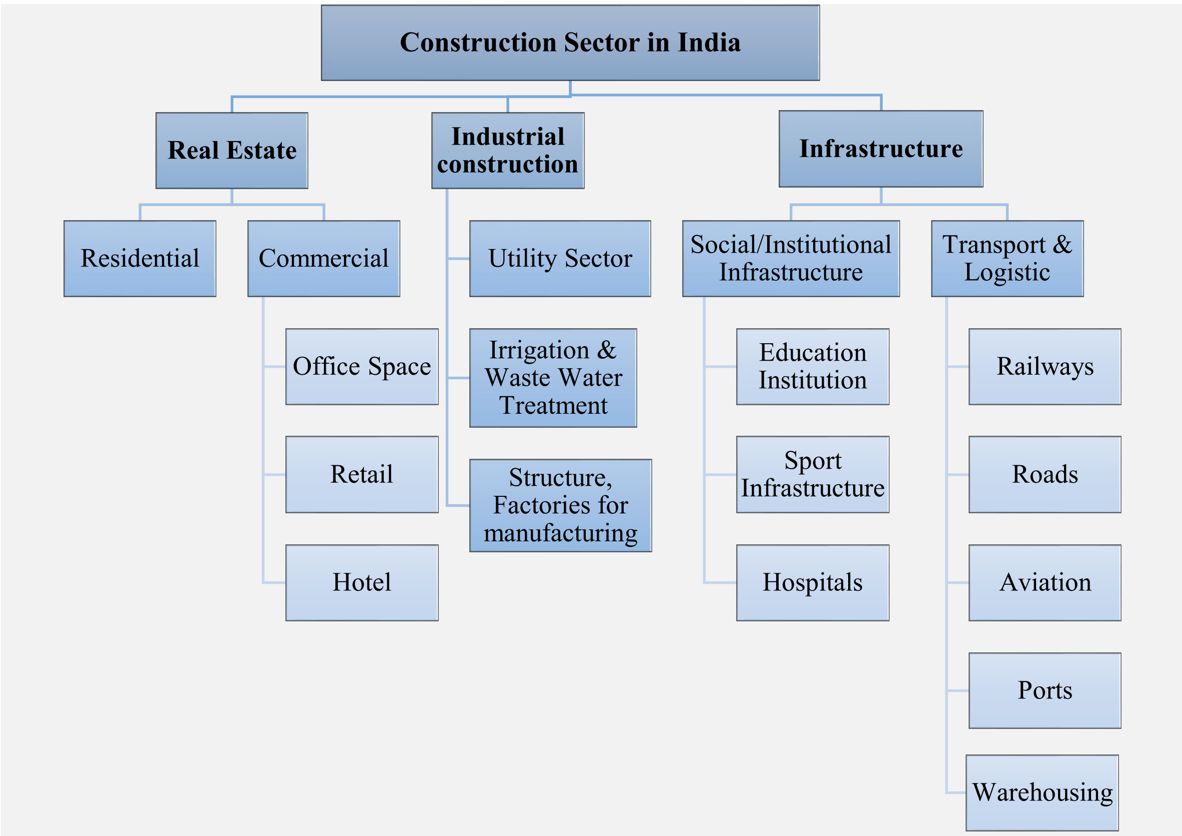
Sources: National Account Statistics 2024 by MOSPI

Market Segment of Indian Construction Industry:

Construction sector is one of the major segments that drives an economy. Construction projects are often categorized based on their scale, the types of structures being built, and the purpose of the project.

The sector is broadly divided into real estate, industrial, and infrastructure development. Real estate includes residential, commercial, retail, and hospitality projects that meet the growing demand for living and business spaces. Industrial construction focuses on manufacturing facilities and utility projects, such as irrigation and wastewater treatment, which support economic activities. Furthermore, according to the "Harmonized

Master List of Infrastructure Sub-sectors" published by the Ministry of Finance, Infrastructure segment is segmented as transport and logistics segment and Social and Commercial Infrastructure. Together, these sectors contribute significantly to economic growth and enhance the quality of life across the nation.



Various Segment of Construction Sector (INR Bn)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	CAGR	% Share FY 2023
Residential (Dwellings)	5,112	5,833	5,565	5,189	5,789	6,476	5%	18%
Non-Residential Buildings	11,045	11,956	11,435	10,939	14,938	15,608	7%	43%
Other Buildings & Structures	20,759	22,154	23,096	22,185	27,263	29,959	8%	82%
Roads & Bridges	2,014	1,991	2,267	2,227	2,299	2,586	5%	7%
Other Structures & Land Improvements	7,701	8,207	9,394	9,018	10,025	11,765	9%	32%

Other plantation & Mineral Exploration	606	446	390	281	258	187	-20.9%	1%
Dwellings, Other Buildings & Structures	**25,871**	**27,987**	**28,661**	**27,373**	**33,052**	**36,434**	7%	100%

Source: Dun & Bradstreet Desk Research

As per National Account Statistics 2024, the output value of construction sector grew at 7% CAGR between FY 2018-23 while in term of contribution, other building and structures accounts which include institutional construction account for majority share contributing 82% of the total output value in FY 2023, followed by the commercial construction (non-residential) which contributed 42% share.

Increasing construction output is based on increased government spending on infrastructure, The government has identified infrastructure as a priority sector to bolster GDP growth. Various reforms have been introduced from time to time to attract investment in infrastructure. Infrastructure sector was opened to private participation post-liberalization in 1991 and currently up to 100% FDI under automatic route is allowed in most sectors/activities. Under this route, no permission from the Central Government is required for FDI inflow, but the same is subject to applicable laws/regulations, security and other conditions. However, participation was low due to high upfront capital investment, long gestation period, and uncertain returns in investment. Public Private Partnership (PPP) project mode was introduced to circumvent this hurdle.

Also, 100% FDI under automatic route is allowed in construction-development projects which would include development of townships, construction of residential/commercial premises, roads or bridges, hotels, resorts, hospitals, educational institutions, recreational facilities, city and regional level infrastructure, townships.

India has emerged as a safe investment destination in the last decade. The construction development segment (townships, housing, built-up infrastructure and construction-development projects) is the seventh largest FDI recipient with its share in total FDI inflows standing at nearly 4% (at the end of March 2024) and cumulatively amounted to INR 3,407 billion from Apr 2000 – March 2024.

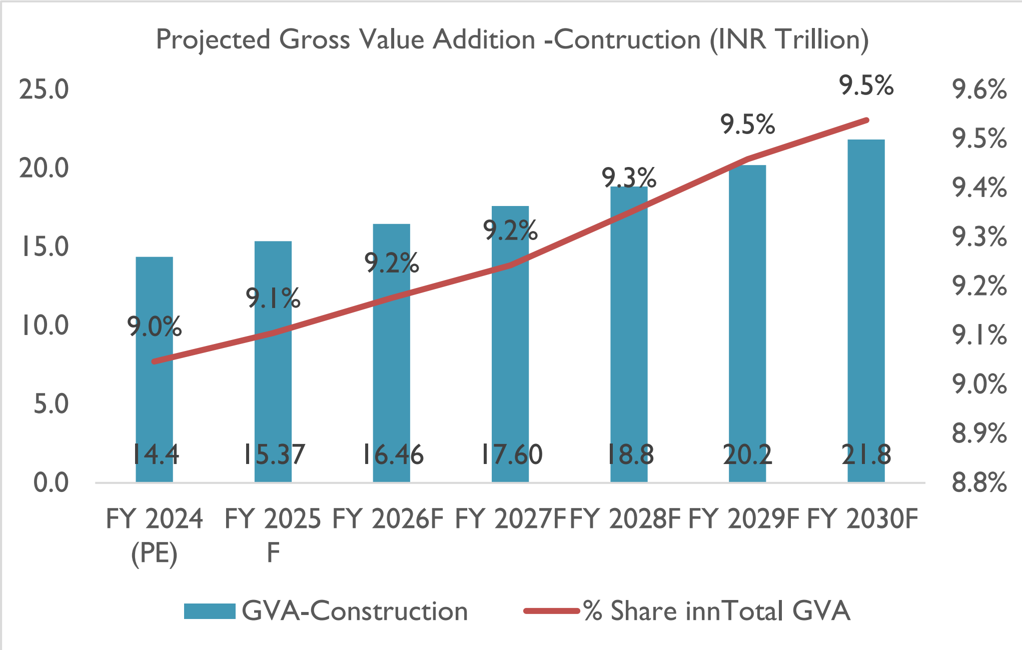
Segment	FY 2021 INR Bn	FY 2022 INR Bn	FY 2023 INR Bn	FY 2024 INR Bn	Cumulative FDI From Apr 2000-March 2024 INR Bn
Construction Development *Townships, housing, built-up infrastructure and construction-development projects*	31.17	9.32	11.96	21.13	1,313.21
Construction (Infrastructure) Activities	582.40	241.78	135.88	350.76	2,395.55

The Indian government's ambitious National Infrastructure Pipeline and PM Gati Shatkti program two of the flagship government programs that would herald the next phase of growth in infrastructure development in India. Both the flagship policies outline ambitious programs that entails investments of billons of dollar, and construction projects of the scale that has never been attempted before. Apart from the mega projects, the focus on improving coordination between implementing agencies and steps to remove project delays are also noteworthy. Together these two flagship policies provide favourable demand scenario for the EPC services in India.

Growth Outlook

As the Indian economy expands, people have more money to spend, driving demand for new homes, office spaces, and retail outlets. This fuels construction activity across various segments. A robust economy attracts domestic and foreign investments in infrastructure projects like power plants, transportation networks, and industrial parks. This translates into significant construction contracts and boosts the industry. Growth in sectors like IT, e-commerce, and manufacturing creates a need for specialized commercial spaces, warehouses, and production facilities, further stimulating construction.

Consequently, India's construction market is expected to be the second largest globally by 2030, with construction sector GVA expected to grow to INR 21.8 trillion, projected to grow at 7.2% CAGR between FY 2024-30. Separately, projections by the United Nations indicate that India's population will reach 1.64 Bn by 2047, with 51% living in urban centres. A growing young population migrating to cities creates a demand for new housing units, student accommodation, and rental properties. This puts pressure on existing infrastructure and necessitates construction of new schools, hospitals, and public transportation systems. Thus, acknowledging the fact that good infrastructure is critical to support overall economic growth, infrastructure remains a thrust area for the government. The Government plans to develop smart cities with improved infrastructure, sustainable living spaces, and efficient waste management systems. The construction sector is set to witness a robust growth, driven by higher budgetary allocation on infrastructure on yearly basis and flagship infrastructure projects like NIP, PM Gati Shakti, Smart Cities, Swachh Bharat Mission, and metro rail expansions.



Sources: Forecast Based on CMIE Projection till FY 2029, For FY 2030, Dun & Bradstreet has assumed 7.1% GVA growth based on projected y-o-y between FY 2025-29, Figures are on Constant Prices

Additionally, the Government initiatives like Pradhan Mantri Awas Yojana (PMAY) incentivize the construction of affordable housing units for low-income families. This creates a new segment of demand and promotes inclusive growth in the industry.

On policy side, the government is streamlining regulations and processes to make it easier for companies to invest in construction projects. Efforts to simplify environmental clearances and land acquisition are expected to overcome previous delays. This fosters a more business-friendly environment and attracts new players to the sector.

The downside risk to sector includes slowed credit flow from banks and rupee depreciation affecting costs. Nevertheless, the sector's long-term prospects remain strong, supported by government initiatives such as the National Infrastructure Pipeline and PM Gati Shakti project, which will boost construction activity.

So, EPC growth prospects in the country remains intact on the back of substantial government infrastructure planned in major end user industries under National Infrastructure Pipeline and recently announced PM gati Shakti project.

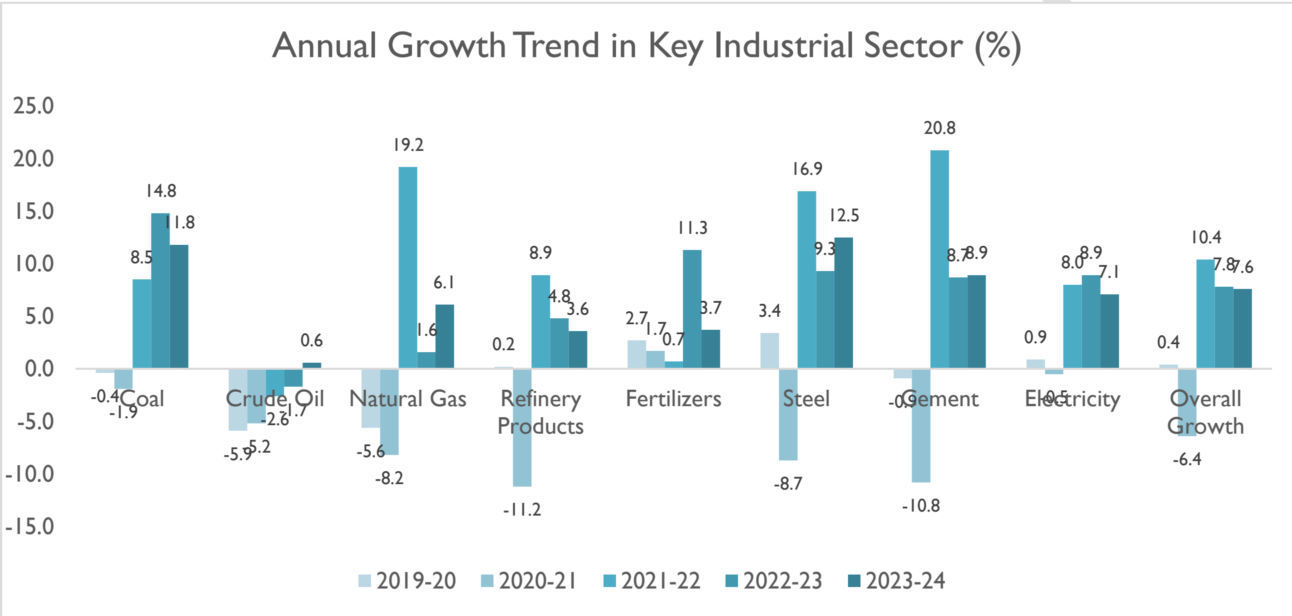
The Engineering, Procurement, and Construction (EPC) model is revolutionizing India's construction industry by streamlining project delivery and enhancing efficiency. By consolidating design, procurement, and construction under a single contract, EPC contracts reduce complexity and improve coordination, leading to cost control and timely project completion. This approach has accelerated infrastructure development, particularly in projects like highways and power plants, and attracted foreign investment, fostering modernization and global competitiveness. The adoption of advanced technologies such as BIM, IoT, and AI, alongside government initiatives like the National Infrastructure Pipeline and renewable energy targets, further supports growth. However, challenges including regulatory hurdles, and a skilled labour shortage remain, necessitating ongoing adjustments to fully leverage the benefits of the EPC model. Overall, the EPC model is poised to significantly impact India's construction sector, driving efficiency and innovation while contributing to the country's infrastructure goals.

Industrial Construction

India's industrial landscape is undergoing a transformative journey, fuelled by ambitious government initiatives like "Make in India" and rapid economic growth. Amidst this transformation, the industrial construction segment stands as a key driver, laying the foundation for factories, power plants, logistics hubs, and other crucial infrastructure. This immense potential attracts both domestic and global players, leading to a vibrant and competitive landscape. Government spending on infrastructure development, rising automation in manufacturing, and expansion of sectors like chemicals, pharmaceuticals, and electronics fuel the demand for state-of-the-art industrial facilities are translating in rising construction activity in the industrial construction sector.

Growth Trend in Key Industrial Sector

The overall growth of the industrial sector in India has exhibited a dynamic pattern over the past several years, reflecting both challenges and recoveries across various industries. Starting with a modest growth of 0.4% in 2019-20, the sector faced significant setbacks during the pandemic, resulting in a steep decline of -6.4% in 2020-21. However, a robust recovery began in subsequent years, with growth rates of 10.4% in 2021-22 and 7.8% in 2022-23. In 2023-24, the sector continued to grow at 7.6%, driven by increased government investments, infrastructure development, and a shift towards sustainable energy sources. This upward trajectory underscores the resilience of the industrial sector as it adapts to changing economic conditions



and positions itself for future growth.

Source - Department for Promotion of Industry and Internal Trade Office of the Economic Adviser

Coal: The coal sector has seen a significant rebound from previous declines, with growth rates improving dramatically from -0.4% in 2019-20 to 11.8% in 2023-24. This recovery is primarily driven by rising energy demands and governmental initiatives aimed at boosting domestic coal production. The strong performance in recent years reflects efforts to ensure energy security and reduce dependence on imports, positioning coal as a critical component of India's energy mix.

Crude Oil: Crude oil production has faced persistent challenges, registering negative growth for multiple years, with a low of -5.9% in 2019-20. Although it stabilized to 0.6% growth in 2023-24, the sector remains under pressure from global price fluctuations and production limitations. Efforts to enhance domestic output and reduce import reliance are ongoing, but the sector's recovery is still tentative and closely linked to international market dynamics.

Natural Gas: The natural gas sector experienced severe contractions, particularly in 2020-21, with growth plummeting to -8.2%. However, it rebounded sharply with 19.2% growth in 2021-22, reflecting significant investments in infrastructure and a shift toward cleaner energy sources. By 2023-24, growth stabilized at 6.1%, indicating a robust recovery trajectory as the country increasingly relies on natural gas for energy and industrial use.

Refinery Products: The refinery products sector has shown volatility, highlighted by a sharp decline of -11.2% in 2020-21. Since then, it has gradually recovered, with growth recorded at 3.6% in 2023-24. The sector's fluctuations are largely tied to changing fuel demands and the overall economic environment, but recent improvements suggest a recovery as the economy reopens and consumption increases.

Fertilizers: Fertilizer production has displayed a resilient performance, recovering from modest growth in earlier years. It grew by 11.3% in 2022-23 and maintained a healthy 3.7% in 2023-24. This growth is largely driven by government support for agricultural inputs and initiatives to enhance food security. The sector's stability is crucial for supporting India's agricultural productivity and rural economy.

Steel: The steel industry has seen impressive growth, particularly with 20.8% in 2021-22, driven by increased construction and infrastructure projects. After maintaining strong growth at 12.5% in 2023-24, the sector continues to benefit from government initiatives and a rising demand for steel in various industries. Its robust performance reflects the vital role of steel in India's economic development.

Cement: Cement production has shown a positive growth trend, recovering from a decline of -10.8% in 2020-21 to 8.9% in 2023-24. This recovery is fueled by ongoing infrastructure projects and increasing housing demands, making cement a key player in the construction sector. The consistent growth in cement production indicates its critical importance in supporting urbanization and development across the country.

Electricity: Electricity generation has maintained steady growth, rising from 0.9% in 2019-20 to 7.1% in 2023-24. This growth is driven by rising energy demands across industrial and residential sectors. The sector's performance underscores the importance of ensuring a reliable energy supply to support economic activities

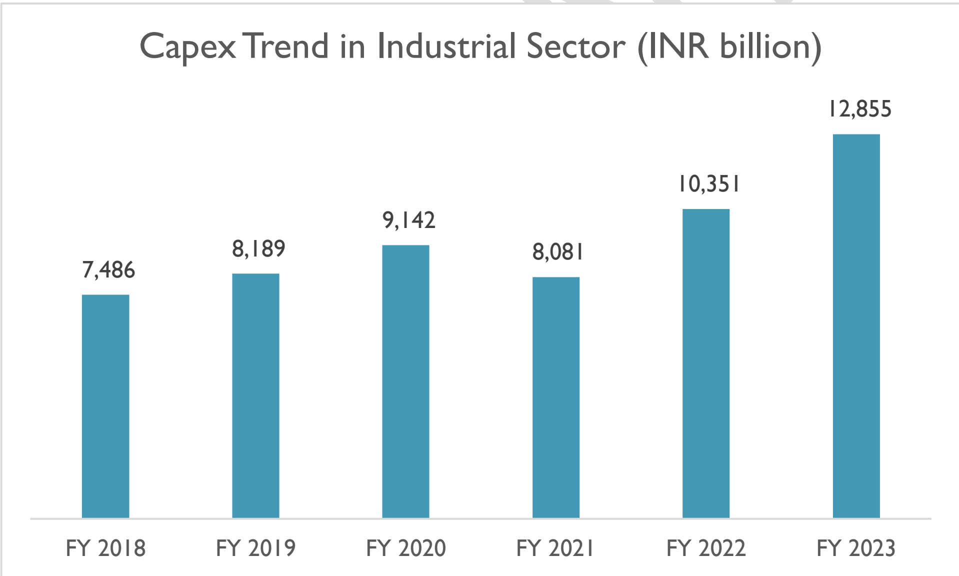
and improve overall quality of life in India, highlighting the ongoing need for investment in energy infrastructure.

Source - Department for Promotion of Industry and Internal Trade Office of the Economic Adviser

In August 2024, the combined Index of Eight Core Industries declined by 1.8% compared to August 2023. Notably, coal production fell by 8.1%, while crude oil output decreased by 3.4%. Natural gas production also saw a decline of 3.6%. Conversely, steel and fertilizer production recorded positive growth, with steel increasing by 4.5% and fertilizers by 3.2%. Cumulatively, from April to August 2024, coal production increased by 6.5%, natural gas by 2.6%, and petroleum refinery products by 1.7% compared to the same period last year. Cement production decreased by 3.0%, and electricity generation fell by 5.0%. Overall, the sector reflects a mixed performance across various industries amid fluctuating growth rates.

Mapping the growth of the Indian Industrial Construction

The capex in industrial sector[3] measured in terms of GFCF has observed 11% CAGR growth, increasing from INR 7,486 billion to INR 12,855 billion.



Sources: National Account Statistic 2024

The China Plus One strategy is an approach adopted by companies and countries to diversify their supply chains away from excessive reliance on China as a manufacturing and sourcing hub. The strategy emerged as a response to various factors, including rising labour costs in China, geopolitical tensions, trade uncertainties, and the need to mitigate risks associated with being overly dependent on a single country for production and sourcing.

[3] GFCF in manufacturing taken as a proxy to reflect industrial sector construction

India, being one of the largest economies in the world and home to a vast workforce and diverse manufacturing capabilities, has been actively leveraging the China Plus One strategy to attract investments and businesses looking to diversify their supply chains away from China.

Key Demand Drivers

Economic Factors

Rising Domestic Consumption: The growth of India's middle class, which is expected to reach 580 million by 2025, is significantly driving domestic consumption. With rising disposable incomes, there is an increasing demand for a variety of consumer goods, compelling manufacturers to enhance their production capabilities. As a result, businesses are investing heavily in new factories and industrial facilities to meet this demand. This trend is not only boosting domestic manufacturing but also necessitating substantial industrial construction projects across the country to accommodate increased production needs.

Export Potential: India's youthful demographic, with over 65% of its population under the age of 35, provides a distinct advantage in the global market. This demographic is increasingly skilled and cost-competitive, attracting foreign manufacturers looking to diversify their supply chains. The surge in foreign direct investment (FDI) has been notable, with inflows rising from USD 45.15 billion in 2014-2015 to a record high of USD 84.84 billion in 2021-22. This influx drives the establishment of new production facilities and logistics hubs, creating a growing demand for industrial construction as companies seek to tap into both domestic and international markets.

Globalization and Trade Agreements: India's involvement in 13 free trade agreements (FTAs) and ongoing negotiations with countries like the U.K., Canada, and the European Union underscores its commitment to enhancing trade opportunities. These agreements facilitate smoother access to global markets, prompting local manufacturers to increase production capabilities. As companies scale their operations to leverage these trade opportunities, the demand for robust industrial infrastructure—including manufacturing plants and logistics facilities—grows significantly, further stimulating industrial construction activity.

Technological Advancements: The integration of advanced technologies, including automation and Industry 4.0 initiatives, is revolutionizing India's manufacturing landscape. As companies increasingly adopt these technologies to enhance production efficiency, there is a pressing need for modern production facilities that can support sophisticated processes. This shift necessitates substantial investments in upgrading existing infrastructure and developing new industrial spaces, thereby driving demand for specialized industrial construction projects that cater to the needs of high-tech manufacturing operations.

Government Initiatives

Make in India: The "Make in India" initiative aims to transform India into a global manufacturing hub by promoting domestic production across 25 key sectors, including textiles, chemicals, and electronics. By providing incentives such as tax breaks and streamlined regulatory processes, the program has attracted significant investment and increased manufacturing output. This initiative has created substantial demand for industrial infrastructure, as companies seek to establish or expand manufacturing units to take advantage of these benefits, thus fueling industrial construction projects nationwide.

Production Linked Incentive Scheme (PLI): The Production Linked Incentive Scheme represents a strategic commitment by the Indian government, with an outlay of INR 1.97 trillion (over USD 26 billion) announced in the Union Budget 2021-22 for 14 key manufacturing sectors. This financial support incentivizes companies to increase production levels, particularly in sectors like electronics, pharmaceuticals, and automobiles. By attracting global players and stimulating domestic production, the PLI scheme significantly drives the demand for industrial construction, as businesses invest in building or upgrading manufacturing facilities to qualify for these incentives.

Infrastructure Development: The Indian government's massive investments in infrastructure, including highways, ports, railways, and power grids, create an enabling environment for industrial growth. Improved logistics and connectivity enhance the operational efficiency of industrial zones, making them more attractive to businesses. As these infrastructure developments progress, they lead to increased demand for new manufacturing units and warehouses, driving a corresponding rise in industrial construction activities that support these enhanced capabilities.

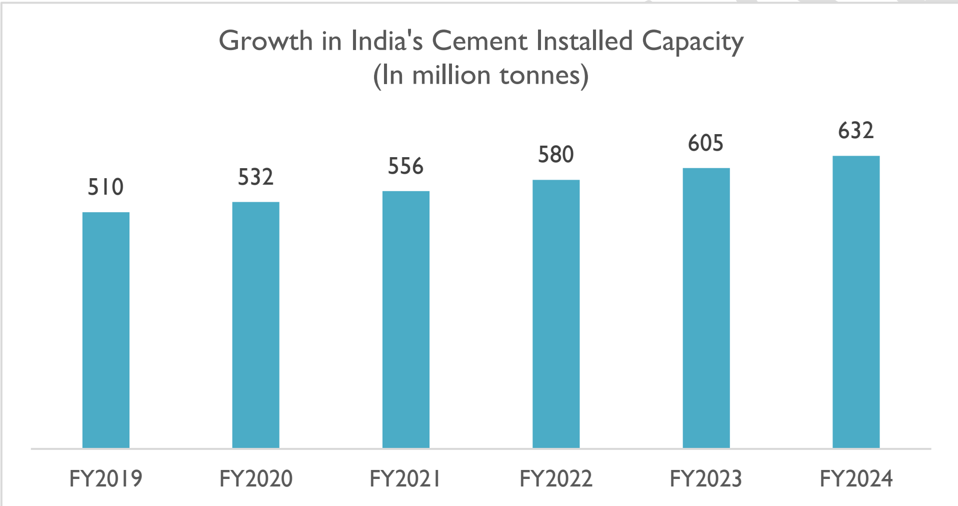
Skill Development Programs: Initiatives like "Skill India" and "Make in India Skill Development Centers" are crucial for addressing skill gaps in the workforce. These programs aim to train millions of individuals in various technical skills necessary for modern manufacturing processes. By ensuring a steady supply of skilled labor, these initiatives facilitate the establishment of new industrial units, which, in turn, generates increased demand for industrial construction to accommodate the growth of these facilities and ensure they are staffed with qualified personnel.

Business-Friendly Reforms: The Indian government has implemented numerous reforms since 2014 aimed at simplifying regulations and reducing bureaucratic hurdles, making it easier for companies to establish and operate in India. The ease of doing business has improved significantly, as evidenced by India's rise in the World Bank's Ease of Doing Business rankings. This pro-business environment attracts both domestic and international investments, leading to an increase in industrial infrastructure projects as firms seek to capitalize on favorable conditions for growth.

Access to Free Trade Agreements: India's strategic engagement in free trade agreements (FTAs) not only enhances its trade opportunities but also positions the country as an attractive destination for global manufacturers. The signing of 13 FTAs and ongoing negotiations signal a commitment to improving market access for businesses. As companies look to establish production bases in India to leverage these trade benefits, the demand for industrial construction rises to create the necessary facilities for manufacturing and logistics. This trend aligns with India's broader economic goals of boosting manufacturing capabilities and increasing exports, making industrial construction a vital component of its economic strategy.

Cement Sector in India

Cement production in India traces its roots back to 1914 when the first cement plant was established in Gujarat. The industry underwent a significant transformation in 1991 when it was delicensed, paving the way for remarkable expansion and modernization. As of 2024, India has emerged as the world's second-largest cement producer, contributing approximately 10% of the global annual cement output, a testament to its substantial growth and global competitiveness.



Source – D&B Research Estimates

From FY 2019 to FY 2024, India saw a substantial increase in installed cement capacity, which rose from 510 million metric tonnes (MMT) to 632 MMT, achieving a CAGR of 4.4%. This growth in capacity reflects the industry's response to the rising demand for cement driven by ongoing infrastructure projects, urbanization, and government initiatives aimed at enhancing connectivity and urban development. However, despite these advancements, the industry has faced fluctuations in capacity utilization. For instance, capacity utilization declined from 81% in FY 2009 to a low of 56% in FY 2021, largely due to the adverse impacts of the COVID-19 pandemic, which disrupted construction activities. Fortunately, by FY 2024, capacity utilization has improved to approximately 66%, signalling a recovery as demand rebounds.

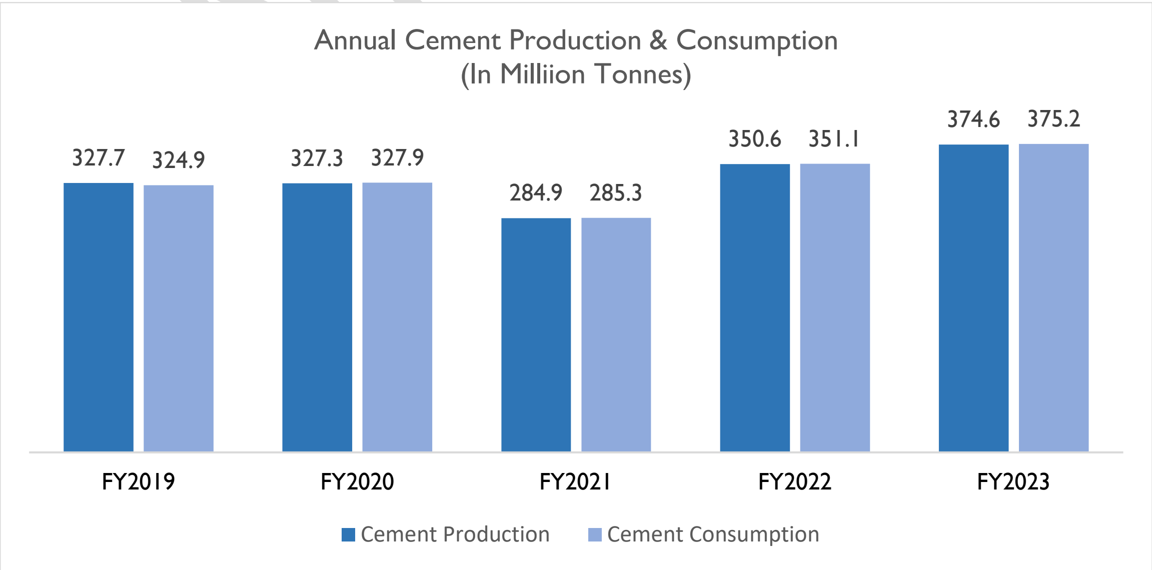
One of the critical challenges the Indian cement industry has faced over the past decade is a supply-demand imbalance. The excessive addition of capacity outpaced the actual demand, resulting in a decline in utilization rates. The top 20 companies in the Indian cement market contribute to around 70% of total production, indicating a concentrated market structure that can influence pricing and supply dynamics. This concentration also reflects the competitive landscape, where established players leverage economies of scale and advanced technologies to enhance operational efficiency.

Despite being the second-largest producer globally, India's per capita cement consumption remains relatively low, estimated at 250 to 270 kilograms, compared to the global average of 500 to 550 kilograms. This significant discrepancy highlights substantial growth potential for the sector, as increasing urbanization and infrastructure development in India are likely to drive up consumption levels. Projections suggest that the Indian cement industry may add an additional 150-160 MMT of capacity by FY 2028, potentially bringing the total installed capacity to around 782-792 MMT. This anticipated growth is supported by ongoing government initiatives aimed at enhancing infrastructure, such as the National Infrastructure Pipeline, which aims to invest trillions in various projects.

In conclusion, the Indian cement industry is not only a pivotal contributor to the nation's economy but also a key player in fulfilling the infrastructure demands of a rapidly urbanizing society. With ample room for growth in per capita consumption and substantial future capacity expansions on the horizon, the industry is well-positioned to continue its trajectory of growth in the coming years.

Historical Growth in India's Cement Production:

Cement production followed a similar growth trajectory with capacity, increasing from 327.7 million tonnes to 374.6 million tonnes during FY2019 to FY2023, with a CAGR of 3.3%. Furthermore, according to the industry estimates, as of FY 2024, production has reached at 433 million tonnes and as per the geography Rajasthan, Andhra Pradesh, Karnataka, Madhya Pradesh, and Tamil Nadu are the leading states in cement production capacity, collectively accounting for over 49% of the nation's output. These states not only have significant production capabilities but also house the highest limestone reserves, essential for cement manufacturing. India boasts a total of 227.58 billion tonnes of limestone reserves, with Karnataka (25%), Andhra Pradesh (13%), Rajasthan (13%), Meghalaya (10%), and Gujarat (10%) holding the majority.



Source – D&B Research Estimates

Furthermore, consumption of cement in India has mirrored the trends observed in production, with a compound annual growth rate (CAGR) of 2% from FY 2019 to FY 2023. This growth has seen consumption rise from 324.9 million tonnes in FY 2019 to 375.2 million tonnes in FY 2023. Notably, the first half of FY 2023 experienced a robust 10% growth in consumption, driven by strong demand from both the real estate and infrastructure sectors. It is anticipated that consumption will remain steady in the second half of FY 2023, supported by continued activity in these sectors. The increase in housing projects and substantial government spending on infrastructure development have been key factors propelling cement consumption throughout the year.

Power Sector in India

Electricity demand in India has grown exponentially on the back of rapid urbanization, and large-scale industrialization. The two factors have increased the pool of consumers, as well as increased the per head unit consumption. This developing demand landscape have led to a rapid scale up in generation sector – with capacity addition happening across thermal, hydroelectric, nuclear, and renewable energy.

India is heavily investing in massive infrastructure projects. This substantial increase in infrastructure development spending in India is set to drive the demand for transmission and distribution of power in the country. With the government nearly tripling its infrastructure spending to Rs.11.1 lakh crore (US$ 134 billion), equivalent to approximately 3.6% of GDP, compared to previous years, there will be a significant boost in the construction of highways, railways, airports, and smart cities.

Furthermore, the continuation of the interest-free loan to state governments for infrastructure investment for an additional year, amounting to Rs. 75,000 crores incentivizes the states to undertake complementary policy actions and invest in infrastructure development. In addition, the establishment of the Urban Infrastructure Development Fund (UIDF) utilizing the priority sector lending shortfall to create urban infrastructure in Tier 2 and Tier 3 cities, with an annual outlay of Rs. 10,000 crore, further contributes to the demand for electricity.

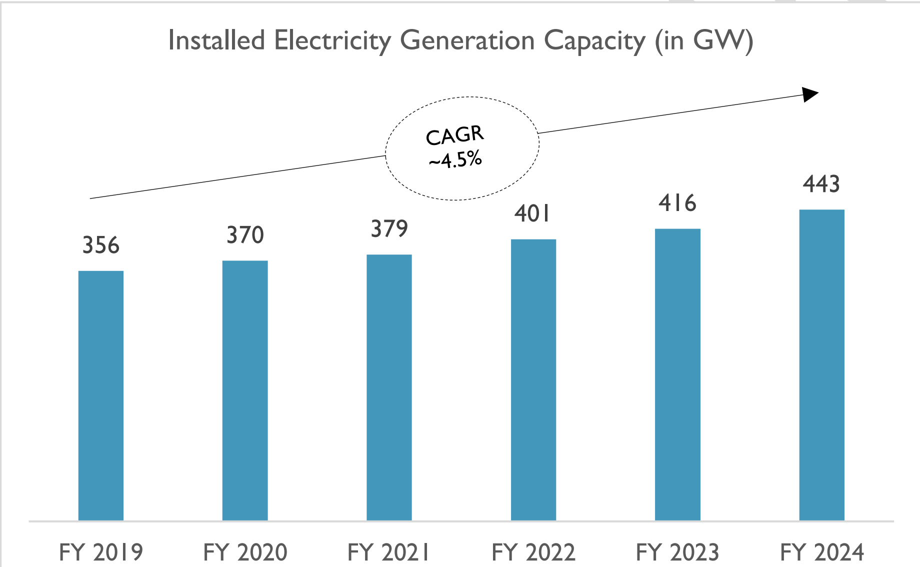
As a result of the increased infrastructure spending and the implementation of various initiatives, there will be a surge in the demand for transmission and distribution infrastructure across the country. Upgrading and expanding the transmission lines, transformers, and distribution networks will be essential to ensure that the power generated from these new infrastructure projects can be effectively distributed to the end-users. The reinforcement of the transmission and distribution infrastructure will enable the reliable and efficient supply of electricity, meeting the increased demands arising from the country's infrastructure development endeavours.

Installed Capacity

India's power sector is characterized by a diverse mix of energy sources, with a significant reliance on thermal power and a growing emphasis on renewable energy sources (RES). The installed capacity of the country, is

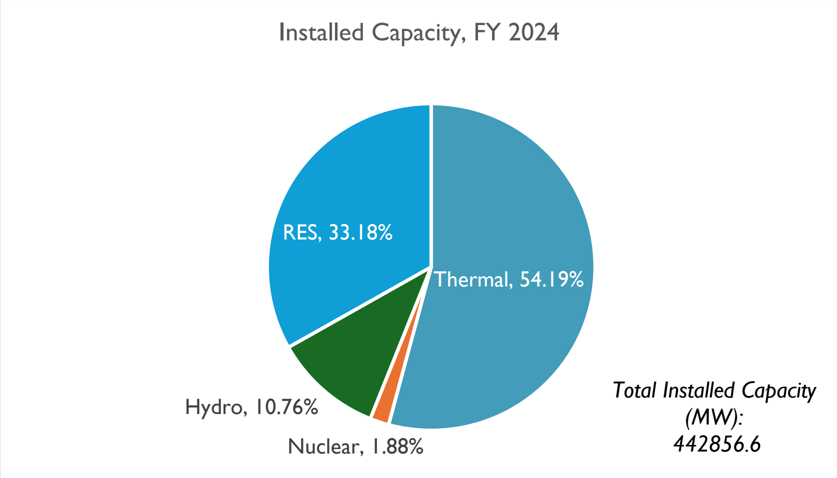
442.83 gigawatts (GW), reflects a substantial investment in various power generation technologies. Among these, Thermal constitutes the largest share, accounting for ~54% of the total installed capacity. This dominance underscores the continued reliance on fossil fuels, such as coal and natural gas, to meet the country's substantial electricity demand.

India's installed electricity generation capacity grew steadily from 356 GW in FY 2019 to 443 GW in FY 2024, reflecting a Compound Annual Growth Rate (CAGR) of 4.5%. This consistent increase highlights the country's efforts to expand its energy infrastructure to meet rising demand. Notable annual growth occurred between FY 2022 and FY 2024, with the capacity reaching 416 GW in FY 2023 and 443 GW in FY 2024. The growth is driven by investments in both conventional and renewable energy, supporting India's energy security and diversification goals.



Source: Central Electricity Authority, Ministry of Power

Renewable energy sources, including solar, wind, and biomass, represent ~33% of the installed capacity, highlighting India's commitment to expanding its clean energy infrastructure. Hydro power contributes ~11% to the installed capacity, while nuclear power plays a minor role, constituting only ~2%. This distribution indicates a strong foundation in conventional energy sources, with a significant and growing segment devoted to renewables.

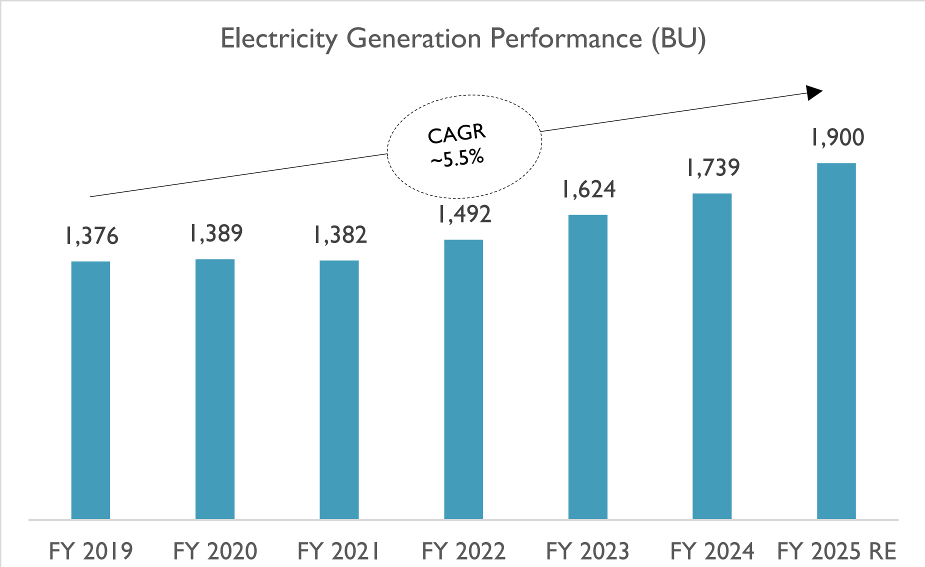


Source: Central Electricity Authority

India's power sector is evolving, with a growing emphasis on renewable energy sources and a continued reliance on thermal power. The shift towards greater renewable energy generation reflects the country's commitment to sustainable development while addressing the challenges of balancing energy demand with environmental goals.

Generation Capacity

India's electricity generation performance has demonstrated a steady and growth trend over recent fiscal years, reflecting an expanding capacity and increasing demand for electricity. The generation performance, measured in billion units (BU), shows a clear upward trajectory from FY 2019 to FY 2024, with an overall Compound Annual Growth Rate (CAGR) of 5.5%. In FY 2019, the total electricity generation was 1,376 BU. This figure experienced a modest increase to 1,389 BU in FY 2020 and then slightly rose to 1,382 BU in FY 2021. A more significant rise was observed in FY 2022, where generation reached 1,492 BU. The growth continued into FY 2023, with generation reaching 1,624 BU, and the latest data for FY 2024 shows a further increase to 1,739 BU.



Source: Ministry of Power

The projected generation for FY 2025 is estimated to be 1,900 BU, indicating a continued upward trend. This projection suggests a sustained growth in electricity generation, driven by increasing energy needs and expanding generation capacities. The CAGR of 5.5% highlights a robust and consistent growth rate in electricity generation. This growth can be attributed to various factors, including improvements in power generation infrastructure, higher utilization of existing capacity, and the addition of new generation projects. It also reflects the country's ongoing efforts to meet the rising electricity demand driven by population growth, urbanization, and economic development.

The steady increase in electricity generation performance underscores the effectiveness of India's energy policies and investment in the power sector. As the generation figures rise, they also indicate a positive impact on the country's energy security and economic development. Continued investments in both conventional and renewable energy sources are likely to support this growth trend and further enhance the electricity generation capacity. The electricity generation performance reveals a strong and positive trend, reflecting India's expanding power sector and its ability to meet growing electricity demand. The consistent growth in generation capacity is indicative of a well-functioning energy sector poised to support the country's future development needs.

Dairy Sector in India

The dairy sector in India has seen substantial growth over the years, propelled by effective policy measures. As a result, India has become the world's largest milk-producing nation, achieving an annual production of 230.58 million tonnes in 2022-23, compared to 222.07 million tonnes in 2021-22, reflecting a growth rate of 3.83%. According to the FAO Dairy Market Review (2023), India contributes 24.11% of the world's total milk production. The per capita availability of milk in India has reached 459 grams per day in 2022-23, significantly higher than the global average of 323 grams per day.

Dairying serves as a vital secondary source of income for millions of rural families in India, playing a crucial role in providing employment and income-generation opportunities, particularly for women and marginal farmers. Most milk in the country is produced by small and marginal farmers, as well as landless laborers. The livestock sub-sector, which includes dairying, contributes about 5.50% of India's total Gross Value Added (GVA) and 30.23% of the GVA from agriculture and allied sectors. India's dairy market is characterized by a mix of organized and unorganized players. About 37% of the milk produced is either consumed at the producer level or sold to non-producers in rural areas, while the remaining 63% is available for sale to organized and unorganized sectors. The organized sector includes government agencies, milk cooperatives, producer companies, and private players, offering a fair and transparent system for milk collection. On the other hand, the unorganized sector comprises local milkmen, dudhias, and contractors, often lacking price uniformity and posing a higher risk of milk adulteration.

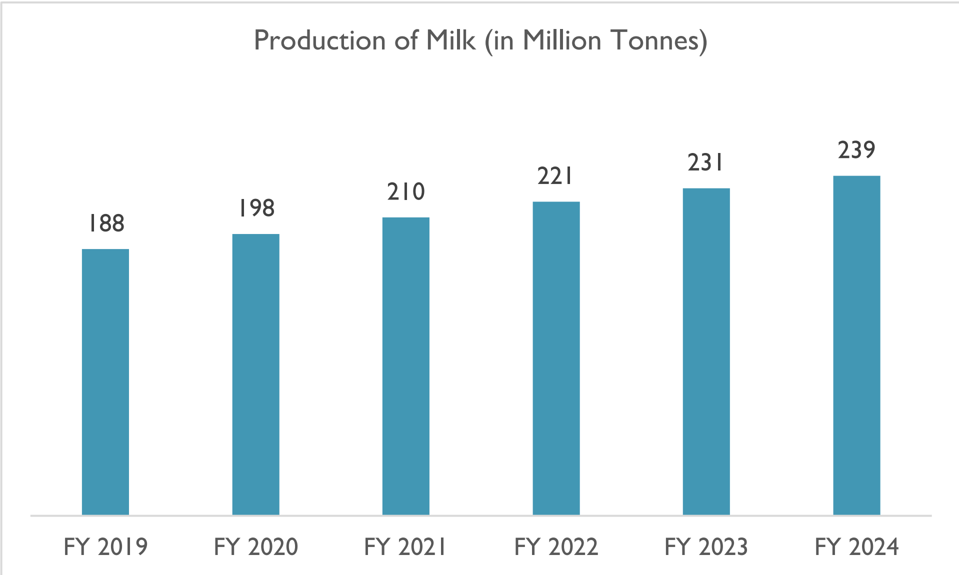
The demand for milk in India is driven by factors such as population growth, urbanization, and rising per capita income. Changing food habits, lifestyle shifts, and the increasing availability of dairy products through organized retail chains further contribute to the rising consumption of milk and milk products. Milk serves as a primary source of animal protein for the largely vegetarian population of the country, making it an integral part of the Indian diet.

India's cooperative sector plays a significant role in the dairy industry, operating through a three-tier structure: village cooperative societies, district unions, and state federations. Village cooperative societies are modeled on the Anand pattern, where producers sell milk to the society and receive payments based on milk quality. District unions process and market milk, while state federations oversee the marketing and support of member unions. As of 2023-24, there are 22 milk federations/apex bodies, 240 district cooperative milk unions, and 24 milk producer organizations, covering around 2.3 lakh villages and benefiting approximately 1.8 crore dairy farmers. In addition to cooperatives, Milk Producer Companies (MPCs) have emerged as significant contributors to the dairy sector. Facilitated by NDDB Dairy Services, these companies have a membership of around 10.06 lakh milk producers, primarily women and smallholder farmers. Together, these MPCs procured about 46.75 lakh kilograms of milk per day in 2023-24 and recorded a gross turnover of approximately INR 9,417 crore.

Market Scenario

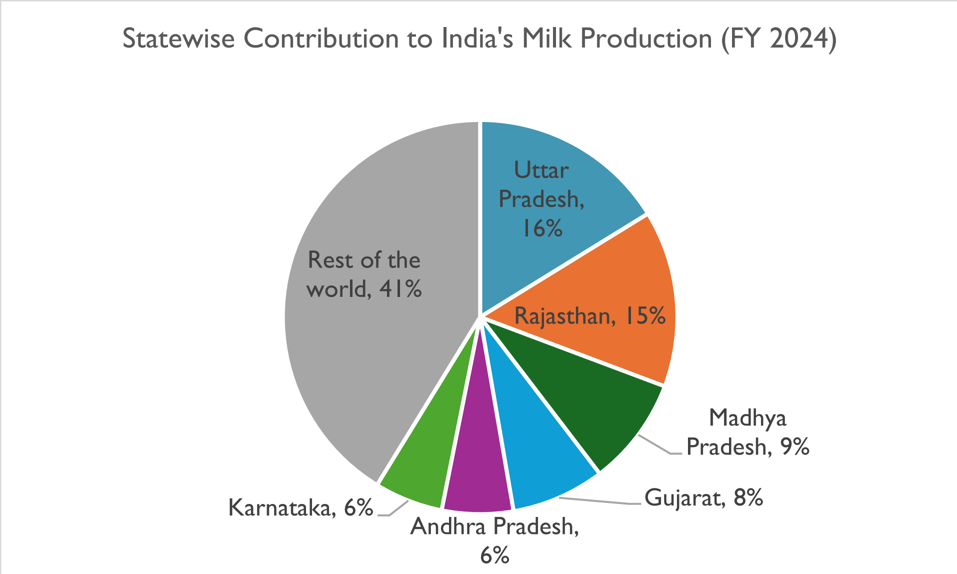
India has firmly established itself as the world's largest milk producer, with a total milk production of 230.58 million tonnes in 2022-23, a figure that is nearly 50% higher than that of the United States and more than three times the output of China. This places India at the forefront of the global dairy industry, also making it the largest producer of value-added milk products. Over the past decade, the dairy sector in India has experienced remarkable growth, further solidifying the country's position as a leader in milk production.

In 2022-23, India maintained its global leadership in total milk production, accounting for the highest production figures worldwide. The country's milk production saw an increase of 3.83% compared to the previous year (2021-22). Per capita milk availability stands at 459 grams per day. The average yield per animal per day is 8.55 kg for exotic/crossbred cattle and 3.44 kg for indigenous/non-descript cattle. The production from exotic/crossbred cattle increased by 3.75%, while indigenous/non-descript cattle saw a 2.63% rise in milk output. Additionally, milk production from buffaloes also saw an increase of 3.69% compared to the previous year.



Source: DAHD, National Dairy Development Board

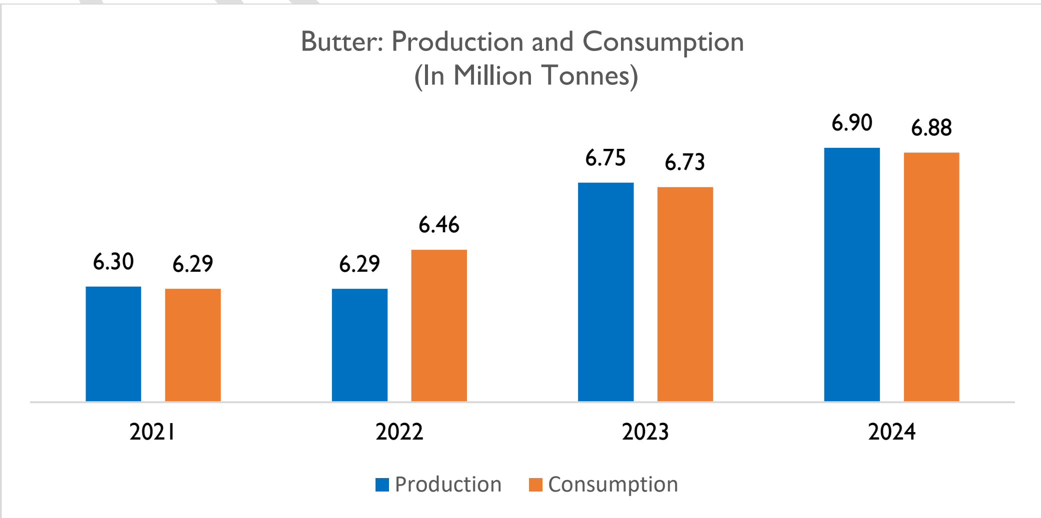
India's milk production has demonstrated a steady growth trajectory over the years, showcasing its robust and resilient dairy sector. In FY 2019, milk production stood at 188 million tonnes and has consistently increased year-on-year, reaching 231 million tonnes in FY 2023. This upward trend continued in FY 2024, with milk production achieving a record 239 million tonnes. Such sustained growth highlights India's position as the largest milk producer in the world, driven by a mix of technological advancements, policy interventions, and increased demand.



Source: DAHD, National Dairy Development Board

In FY 2024, Uttar Pradesh emerged as the leading contributor to India's milk production, accounting for 38,780 thousand tonnes, which is 16% of the total production. Rajasthan followed closely, contributing 34,733 thousand tonnes (15%). Madhya Pradesh secured the third position with a production of 21,326 thousand tonnes (9%), followed by Gujarat at 18,312 thousand tonnes (8%). Southern states such as Andhra Pradesh and Karnataka also made significant contributions, producing 13,994 thousand tonnes (6%) and 13,463 thousand tonnes (6%), respectively. The remaining 41% of the milk production is attributed to other states and regions across the country.

The dominance of certain states in milk production reflects the impact of regional policies, favourable climatic conditions, and the prevalence of large-scale dairy farming practices in these areas. The data also underscores the need for focused development efforts in underperforming regions to balance milk production across the country.



Source: USDA Foreign Agriculture Service

The butter segment in India has demonstrated consistent growth in both production and consumption over recent years. In 2021, butter production stood at 6.30 million tonnes, closely aligning with consumption levels of 6.29 million tonnes. This trend of near equilibrium continued in subsequent years, with production increasing to 6.50 million tonnes in 2022 and consumption reaching 6.46 million tonnes. By 2023, production rose further to 6.75 million tonnes, with consumption slightly trailing at 6.73 million tonnes. The upward trajectory persisted in 2024, with butter production reaching 6.90 million tonnes and consumption closely matching at 6.88 million tonnes. This reflects the robust demand for butter in the domestic market and the sector's ability to meet growing consumer needs.

Capital Expenditure in Industrial Sector:

Cement Industry:

The current capex trends in the cement industry indicate a significant expansion phase, with numerous projects announced across various regions in India. This influx of investment, marked by a variety of new cement plants and grinding units, reflects the growing demand for cement, driven by factors such as urbanization, government infrastructure initiatives, and rising construction activity. As companies like Ambuja, ACC, and Ultratech invest heavily in new units, this capital infusion is poised to bolster the industrial construction sector. Enhanced cement production capacity will not only support ongoing and upcoming infrastructure projects but also catalyze job creation and economic growth. Consequently, the cement industry's expansion is critical to meeting the escalating demands of infrastructure development, aligning with India's ambition to become a USD 5 trillion economy by 2025.

Company Name	Project Name	Cost (Rs.million)	Project Status	Industry Group	Ownership Group	Project Type
A C C LTD.	Chorgadi (Rewa) Clinker Unit Project (by Adani)	NA	Announced	Cement	Adani Group	New Unit
ADANI PORTS & SPECIAL ECONOMIC ZONE LTD.	Guna Cement Grinding Unit Project	NA	Announced	Cement	Adani Group	New Unit
AMBUJA CEMENTS LTD.	Madukkarai, Kattupalli and Tuticorin Cement Grinding Units Projects (3 Manufacturing Units)	35000	Announced	Cement	Adani Group	New Unit
AMBUJA CEMENTS LTD.	Motia (Godda) Cement Grinding Unit Project	10000	Announced	Cement	Adani Group	New Unit

AMBUJA CEMENTS LTD.	Motipur (Muzaffapur) Cement Plant Project	NA	Announced	Cement	Adani Group	New Unit
AMBUJA CEMENTS LTD.	Ramannapet (Yadari Bhuvanagiri, Telangana) Cement Plant Project	14000	Announced	Cement	Adani Group	New Unit
AMBUJA CEMENTS LTD.	Uttarakhand New Cement Grinding Unit Project	14000	Announced	Cement	Adani Group	New Unit
AMBUJA CONCRETE NORTH PVT. LTD.	Babra Bakipur (Farukhnagar) Standalone Grinding Unit (Cement) Plant Project	10590	Announced	Cement	Adani Group	New Unit
AMBUJA CONCRETE NORTH PVT. LTD.	Bornar (Jalgaon) Cement Grinding Unit Project	14000	Announced	Cement	Adani Group	New Unit
AMBUJA CONCRETE NORTH PVT. LTD.	Cuttack Cement Grinding Unit Project	14000	Announced	Cement	Adani Group	New Unit
BHUSHAN POWER & STEEL LTD.	Sambalpur (Odisha) Cement Grinding Unit Project (For Shiva Cement-Subsidary of JSW Cement)	3583.4	Announced	Cement	Private (Indian)	New Unit
BIRLA CORPORATION LTD.	Badnagar, Ujjain (MP) Cement Plant Project	35000	Announced	Cement	Birla M.P. Group	New Unit
ECO CEMENT PANNA PVT. LTD.	Panna Cement Production Plant Project	20000	Announced	Cement	Private (Indian)	New Unit

J K LAKSHMI CEMENT LTD.	Surat Grinding Unit Project (Brownfield Expansion)	2250	Announced	Cement	Hari Shankar Singhania Group	New Unit
MADHYA PRADESH POWER GENERATING CO. LTD.	Sarni (Satpura Thermal Power Station) Clinker Grinding Unit Project	NA	Announced	Cement	State Govt. - Commercial Enterprises	New Unit
O S R CEMENT PVT. LTD.	Chandrapur Cement Plant Project	3689.8	Announced	Cement	Private (Indian)	New Unit
R C C P L PVT. LTD.	Prayagraj (UP) Greenfield Grinding Unit Project	4000	Announced	Cement	Birla M.P. Group	New Unit
ULTRATECH CEMENT LTD.	Kasrak and Salpur Nawadia (Shahjahanpur) Standalone Cement Grinding Unit Project	6850	Announced	Cement	Birla Aditya Group	New Unit
Total	NA	**186963.2**	NA	NA	NA	NA

Source: CMIE Cape

Power Industry:

The Indian power sector is witnessing a surge in capital expenditure, driven by the country's growing energy demands and its commitment to sustainable energy solutions. Investments are flowing into various segments, including renewable energy generation, grid modernization, and transmission infrastructure. This capex push is fueled by government initiatives, private sector participation, and international collaborations, aiming to enhance power generation capacity, improve grid stability, and integrate renewable energy sources. As India strives to achieve its ambitious renewable energy targets and ensure reliable power supply for its burgeoning economy, the power sector's capex trends are crucial for its transformation into a sustainable and robust energy ecosystem. The Indian government with its Union Budget 2025 highlighted schemes with investment of more than INR 1,000 crore in power projects, namely the nuclear power projects (revised estimate – INR 1,500 crore), solar power grid (revised estimate – INR 1,300 crore) etc.[4]

Sr. No.	Project name[5]	Company name	Output
1	Singrauli Expansion, Madhya Pradesh[6]	Mahan Energen Limited (MEL), a subsidiary of Adani Power Limited (APL) has proposed expansion of its **existing 1200 MW (2x600 MW) power plant** at Singrauli, Madhya Pradesh by addition of 1600 MW (2X800 MW).	NA
2	Banka Power Project	Abhijeet Group	2,640 MW
3	Ghatampur Thermal Power Station	Neyveli Uttar Pradesh Power Limited	1,980 MW
4	Buxar Thermal Power Plant	SJVN	1,320 MW
5	Jawaharpur Super Thermal Power Station	Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited	1,320 MW
6	Lanco Vidarbha Thermal Power Plant	Lanco	1,320 MW
7	Raigarh project (VISA Power)	NA	1,200 MW

[4] Union Budget Glance FY 2025

[6] Adani Power Upcoming Power Plants

8	Tori Power Project	Essar Power Ltd	1,200 MW
9	Chandwa Power Project	Abhijeet Group	1,080 MW
10	Angul Monnet Power Company Limited	NA	1,050 MW
11	Panki Thermal Power Station	Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited	660 MW
12	Yadadri Thermal Power Plant	NA	NA

Source: OpenInfraMap

Dairy Industry:

The Indian dairy sector is experiencing a significant phase of capital expenditure, with investments directed towards expanding processing capacities, modernizing dairy farms, and enhancing cold chain infrastructure. This capex trend is driven by the rising demand for milk and dairy products, coupled with government initiatives promoting dairy development and empowering rural communities. Dairy companies are investing in automation, technology upgrades, and quality control measures to cater to evolving consumer preferences and ensure food safety standards. As India continues to be the world's largest milk producer and consumer, the dairy sector's capex expenditure plays a vital role in enhancing productivity, improving supply chain efficiency, and meeting the nutritional needs of a growing population.

Company Name	Project Name	Cost (Rs.million)	Project Status	Ownership Group	Project Type
KARNATAKA MILK FEDERATION	Jamkhandi Milk Powder Production Unit Project	250	Announced	Co-operative Sector	New Unit
URALUNGAL LABOURCONTRACT CO-OP. SOCIETY LTD.	Kozhikode High-tech Dairy Plant Project	300	Announced	Co-operative Sector	New Unit

TAMIL NADU CO-OPERATIVE MILK PRODUCERS' FEDN. LTD.	Salem Dairy Whitener Manufacturing Plant Project	1000	Announced	Co-operative Sector	New Unit
PUNJAB STATE CO-OP. MILK PRODUCER'S FEDERATION LTD.	Verka Automatic Curd & Lassi Plant Project	1230	Announced	Co-operative Sector	New Unit
GUJARAT CO-OP. MILK MKTG. FEDN. LTD.	Baghpat Milk Plant Project	8000	Announced	Co-operative Sector	New Unit
KARNATAKA MILK FEDERATION	Belagavi Mega Dairy Project	NA	Announced	Co-operative Sector	New Unit
KARNATAKA MILK FEDERATION	Vijayapura Ice-Cream Production Unit Project	NA	Announced	Co-operative Sector	New Unit
Total	NA	**10780**	NA	NA	NA

Source: CMIE Capex

Infrastructure Construction in India

The infrastructure construction segment in India is a key driver of economic growth and national development. It encompasses the development and maintenance of essential infrastructure, playing a crucial role in:

- Connecting people and places: Efficient transportation networks facilitate movement of goods and people, boosting trade and commerce.
- Stimulating economic activity: Infrastructure projects create jobs, attract investments, and spur development across various sectors.
- Improving quality of life: Access to clean water, sanitation, and reliable electricity enhances living standards and promotes overall well-being.

The infrastructure construction is classified into transport and logistic infrastructure which comprises of the development of the roads, highways, railways, airports, ports, and other related facilities.

Key Segments of Infrastructure Construction classified as into

a. **Transport & Logistics that include:**

- **Roads & Highways**: India has a road network spanning approximately 6.6 million kms, making it the second largest in the world. This network – which comprises of national highways, state highways, district roads, and rural road – carries approximately 65% of country's freight traffic and nearly 90% of passenger traffic. However, it needs significant expansion and upgrades. The government initiatives like Bharatmala Pariyojana and Sagarmala aim to improve connectivity and logistics efficiency.
- **Railways:** The Indian Railways network is the fourth largest globally, undergoing modernization with dedicated freight corridors and high-speed rail projects. The modernization of railway stations in India encompasses a wide range of initiatives aimed at enhancing infrastructure, amenities, and services to provide passengers with a world-class travel experience. This includes the construction of modern waiting halls, waiting rooms, restrooms, and passenger lounges equipped with amenities such as Wi-Fi connectivity, charging points, and digital display boards providing real-time information about train schedules and arrivals. Additionally, efforts are underway to improve accessibility for passengers with disabilities by installing ramps, elevators, and other facilities to ensure equitable access to railway services.
- **Airports:** Expansion and modernization of airports to cater to growing air traffic and promote regional connectivity. India plans to build and upgrade over 100 airports, expanding air connectivity and catering to growing passenger demand.
- **Ports**: With a coastline of approximately 7,517 km, India's coastline offers immense potential for port development, facilitating international trade and boosting maritime connectivity. India has 12 major ports and approximately 200 minor ports as of July 2024. Indian ports handle 95% of the total

international trade volume of the country where the 12 major ports of India handled 53% of the total cargo and the minor ports accounted for 47% of the cargo traffic in FY2024. Various initiatives are being taken by central bodies to improve maritime transport in India by reducing turnaround time, enhance operational efficiency, improve capacity utilization, increase inland waterways, and lower costs. Sagar Mala Project and Maritime India Vision 2030 are few of the largest sector specific policies being implemented across the country aimed at bringing India to the forefront of the global maritime transport.

b. **Social & Institutional Infrastructure include below:**
   - **Education**
   - **Sport Infrastructure:**
   - **Hospitals**

Mapping the role of Infrastructure Construction In Economic Development

Logistic industry is a backbone of the economy, providing efficient and cost-effective transportation of good from the point of origin to that of consumption and a critical component to support economic growth. Initially focused on transportation, it now encompasses fleet operations, storage, warehousing, supply chain solutions, and value-added services. The sector provides livelihood to over 22 million people and improving the sector would have a cascading effect on the country's exports growth. Growth in volume of freight movement from major manufacturing segments such as cements, metals, retail, auto, textiles, pharma, and consumer goods, determine growth of logistics services.

Major Highlight

- **Indian freight and logistics market is estimated reach USD 317.26 billion in 2024**[7].
- **India successfully ascended from the 44th to the 38th position in the World Bank's Logistics Performance Index (LPI) 2023, demonstrating notable progress.**
- **Logistic cost in India currently stands between 7.8-8.9% of GDP, intriguingly closer to a level seen in developed nations.**

Transport Sector in India is a very extensive system comprising different modes of transport like roads, railways, aviation, inland waterways, shipping, and pipeline that facilitates easy and efficient movement of freight/cargo movement across the country. Transportation of goods takes place through various modes such as roadways, railways, waterways, airways. **As per the transport in logistics, roads have the largest percentage share of 73% followed by rail (18%), water (5%), and air (5%).**

Over the past nine years, the country has seen a significant expansion in its transportation infrastructure, reflecting a broader commitment to economic development. The national highway network has expanded by

[7] LogiMAT India.

60% to 145,240 km, with ambitious plans to reach 200,000 km by 2025. The Indian Railways has significantly upgraded its capacity, with new trains such as Vande Bharat and a dramatic increase in railway track construction from 1,452 km/year to 5,243 km/year. Air travel has also surged, with the number of airports planned to increase to 220 airports by 2025. Additionally, the government's focus on operationalizing 23 waterways by 2030 and developing 35 Multi-Modal Logistics Parks underscores its commitment to enhancing transportation infrastructure.

The transportation sector's growth is supported by substantial investments, with the Union government allocating 3.3% of the GDP towards infrastructure in FY24. The India Investment Grid (IIG) database highlights around INR 69 trillion worth of projects, predominantly in roads and highways, followed by railways and urban public transport. Private sector involvement is significant, with Build-Operate-Transfer (BOT) and Hybrid Annuity Mode (HAM) projects through Public-Private Partnerships (PPP) accounting for around 27% of the National Monetization Pipeline (NMP).

This massive expansion in modern transportation facilities such as airports, railways, and logistics parks require advance and sophisticated engineering driving the demand from constructions services.

Key Demand Drivers of the Infrastructure Construction Industry in India

- **Economic Growth and Development Goals**: India's ambition to transform into a USD 26 trillion economy by 2023 and achieve a USD 5 trillion economy by 2025 underscores the urgent need for robust infrastructure development. The government's commitment to enhancing physical infrastructure is critical in facilitating economic activities, boosting productivity, and attracting investments across various sectors.
- **Government Initiatives and Policies**: The Indian government has launched several initiatives aimed at bolstering infrastructure development. The Gati Shakti national master plan, with an investment of USD 1.3 trillion, aims to implement systemic reforms in infrastructure, enhancing efficiency and reducing costs. Additionally, programs like "Smart Cities Mission" and "Housing for All" are directly driving demand for infrastructure projects, facilitating urban development and improving living standards.
- **Investment in Infrastructure**: Significant investments from both domestic and international sources are pivotal for infrastructure growth. For instance, Saudi Arabia's intention to invest up to USD 100 billion in various sectors within India—including energy, petrochemicals, and infrastructure—demonstrates the global interest in India's infrastructure potential. Such investments are essential for developing transportation, utilities, and urban infrastructure.
- **Focus on Allied Sectors**: The infrastructure sector serves as a catalyst for allied sectors such as housing, construction, and urban development. Improved infrastructure directly boosts these sectors by facilitating the efficient movement of goods and enhancing connectivity, which in turn drives demand for further construction projects and developments.

- **Evolving Demographics and Urbanization**: Rapid urbanization and changing demographics in India create a pressing need for improved infrastructure. As more people migrate to urban areas, the demand for housing, transportation, sanitation, and digital services increases. Addressing these needs is essential for ensuring quality of life and promoting sustainable urban growth.
- **Public-Private Partnerships (PPPs)**: The government's push for public-private partnerships in infrastructure projects has opened avenues for investment and expertise from the private sector. This collaborative approach enables the efficient execution of large-scale projects, ensuring timely delivery and better quality, which further stimulates infrastructure development.
- **Sustainability and Environmental Considerations**: With evolving environmental standards and a growing emphasis on sustainability, there is an increasing demand for infrastructure that meets green building practices and promotes renewable energy solutions. This shift toward sustainable infrastructure is essential for long-term economic growth and resilience against climate change.
- **Comprehensive Infrastructure Development**: The government's focus is expanding beyond traditional sectors such as transportation and utilities to encompass a wider range of infrastructure needs, including housing, water, sanitation, and digital infrastructure. This holistic approach ensures that all aspects of infrastructure development are addressed, thereby driving comprehensive economic growth and improving the overall quality of life.

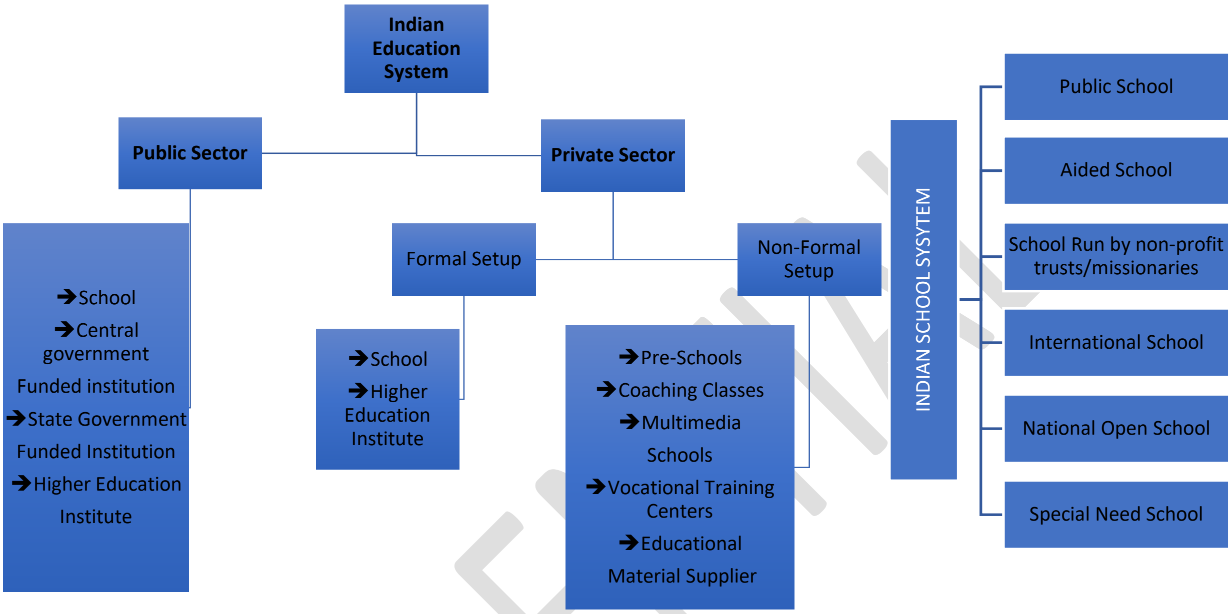
In summary, the infrastructure construction industry in India is poised for significant growth, driven by a combination of government initiatives, economic aspirations, demographic changes, and the need for sustainable development. As these demand drivers continue to evolve, they will play a crucial role in shaping the future landscape of India's infrastructure sector.

Institutional Construction:

India's burgeoning population and economic growth necessitate is a thriving institutional construction segment. This segment caters to the development of facilities crucial for public well-being and national progress, encompassing healthcare, hospitality, and education sectors. Some examples of institutional infrastructure construction include schools' infrastructure, University buildings, Hospitals, and sports facilities.

Indian Education Sector

India has a significant presence in the global education industry. With a population of 580 million people aged between 5 to 24 years, India has massive potential in the education sector. The education system in India is diverse and renowned worldwide, consisting of both public and private institutions, and divided into formal and informal sectors. As of November 25, 2022, India had 1,072 universities, and over 250 million students attending schools, making it the country with the highest number of school-going students. The education sector in India was estimated to be worth USD 173 billion in FY 2023. Public institutions are government-run and offer free education up to a certain level, while private institutions charge tuition fees and are usually considered to provide better quality education.



Education is a crucial sector in India, with school education being a significant portion of the Indian education system. Primary school is officially defined as starting at six years of age, and compulsory education includes education from ages 6-14, up to secondary education. However, school education, beginning from informal sectors like kindergarten, caters to students between the ages of 3-17. Over the years, the education sector in India has undergone significant changes. Schools are divided into primary, secondary, and higher secondary categories.

Capex Trend in the Education Sector in India

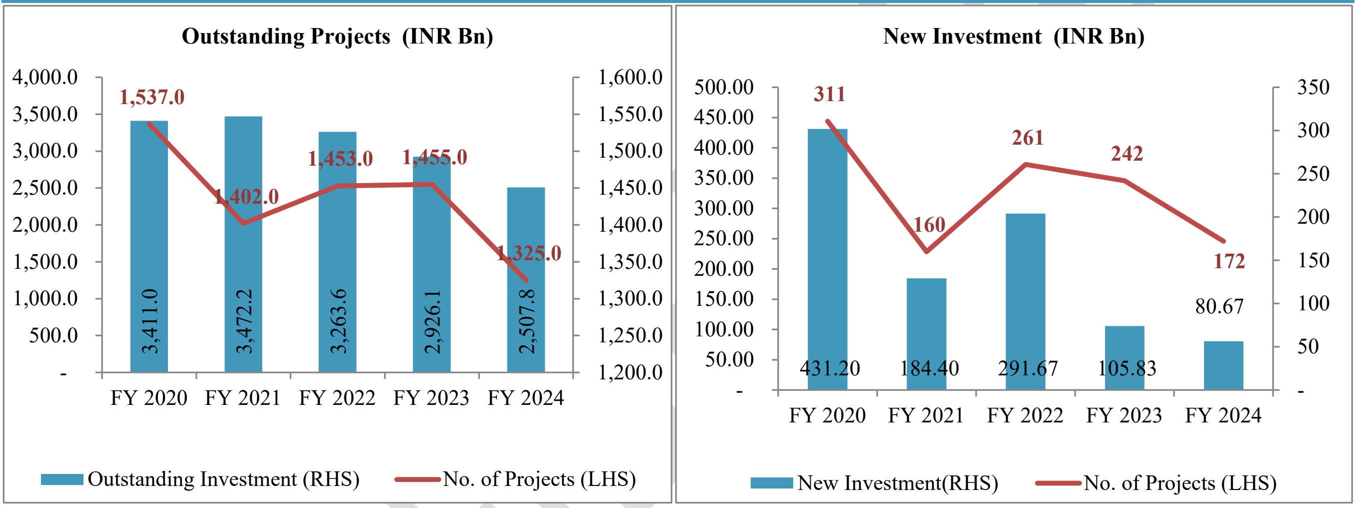
India's education sector stands at the forefront of global significance, fueled by its demographic advantage as the world's largest population in the 5-24 age group, numbering 580 million. With a pivotal role in the global education industry, India possesses an extensive network of higher education institutions. In FY24(up to Sep 2023), the count of colleges reached 49,385, a notable increase from 43,796 in FY21 and 42,343 in FY20[8]. Similarly, the number of universities in India reached 1,196 in FY24, a significant rise from 760 in FY15. Notably, the education sector attracted USD 9.2 billion in Foreign Direct Investment from April 2000 to March 2023. The Union Budget for 2023-2024 allocated a historic INR 1.12 lakh crore (USD 13.5 billion),

[8] UGC, India Ratings and Research FY19 Outlook

reflecting an 8.2% increase, highlighting the government's commitment to fostering educational development for national progress.

The Indian education sector is experiencing substantial development, backed by the robust investment earmarked in the sector. As on year ending FY 2024, the outstanding investment in the education sector stood at INR 2,507.8 billion spread across 1,325 projects while 172 new projects envisaging worth INR 80.67 billion was earmarked announced during FY 2024. These announcements, spearheaded by the Central Government and State governments, underscore a concerted effort to enhance the infrastructure of the Education sector. The announcements are geared towards establishing new units, showcasing a commitment to expanding Education Infrastructure facilities across the country.[9]

Investment Trend in Education



Sources: CMIE Capex

At the central level, the Government of India, through entities like the Ministry of Health & Family Welfare, and Ministry of Tribal Affairs, has made 2 announcements. These announcements uniformly aim at establishing new units, reflecting the dedication to advancing Education infrastructure.

On a regional basis, state governments have announced 62 projects and state government statutory bodies announced one project. Out of 62 state government project announcements Bihar is leading with 11 projects. State Governments of Himachal Pradesh, Delhi, Andra Pradesh, Maharashtra, Karnataka, J&K, Rajasthan, Punjab, Nagaland and West Bengal, and have also announced projects in the Education sector for the development of new units.

In conclusion, the robust surge in announcements and the significant growth in educational institutions underscore a transformative phase in India's education sector. The collective commitment from both public and private entities, coupled with a substantial increase in colleges and universities, sets the stage for a brighter future in shaping the educational landscape of the country. As these initiatives materialize, they

[9] CMIE Capex

promise to empower the youth and contribute to the nation's intellectual capital, fostering progress and innovation.

Indian Healthcare Industry

The Indian healthcare sector renowned for its dynamic growth potential and diverse components was estimated to value at an impressive USD 216 billion in FY23. This sector is projected to nearly double to an estimated USD 454 billion by FY28, representing a robust compound annual growth rate of 16%.

The demand for healthcare services in India is projected to increase significantly due to several key factors, including rising income levels, an aging population, growing health awareness, and a shift towards preventive healthcare. One major driver of this growth is the low cost of medical services in India, which has made the country a leading destination for medical tourism, drawing patients from around the globe. In addition, India has become a hub for research and development (R&D) activities for international companies, thanks to its relatively low cost of clinical research.

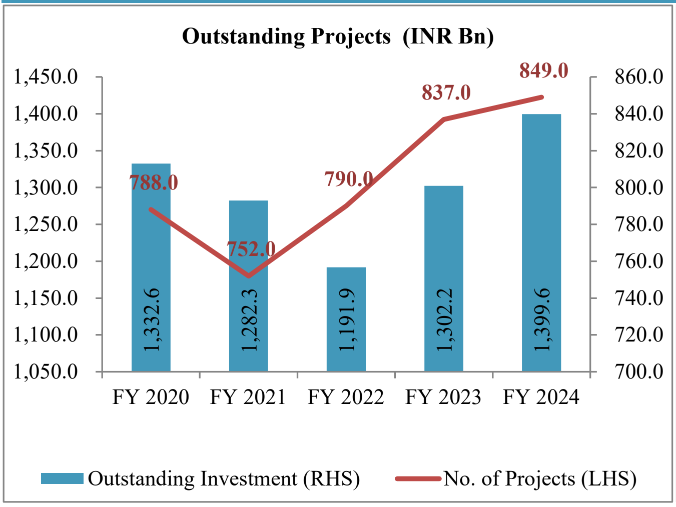
Several supportive policies have also contributed to the growth of the healthcare sector. The Indian government has implemented favorable policies to encourage foreign direct investment (FDI) and provide tax benefits, creating a conducive environment for growth. These policies, combined with the promising growth prospects of the sector, have attracted substantial investments from private equity (PE) firms, venture capitalists (VCs), and foreign players. Overall, the Indian healthcare sector is poised for robust growth, driven by increasing demand, competitive cost advantages, and supportive government policies.

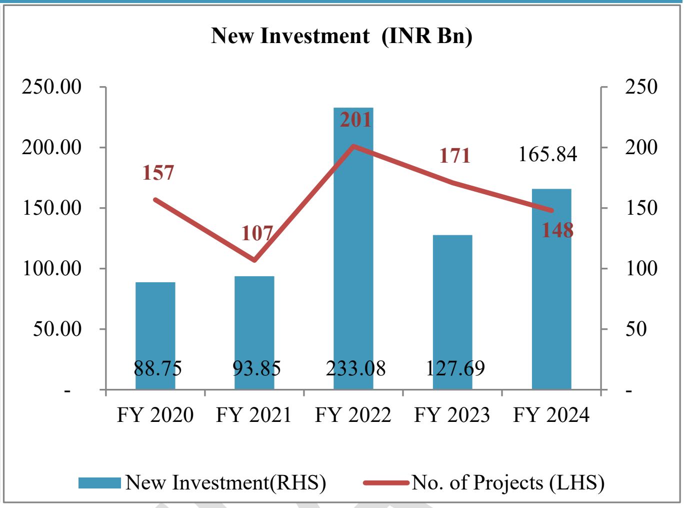
Capex Trend in Healthcare Sector in India

The Indian healthcare sector, integral to socio-economic progress, demonstrates robust growth through increased capital expenditure and strategic investments. India's hospital sector is witnessing a surge in capital expenditure, which reached its highest in a decade during FY23 and is expected to continue in FY24. Private equity firms are actively acquiring significant stakes in established hospitals, showcasing a sustained trend. In FY24, India's healthcare budget increased marginally to USD 10.76 billion from USD 10.40 billion in FY23, constituting 2.1% of the GDP. This sector's resilience and adaptability are evident in increased investments and strategic initiatives, positioning it for continued development. India is enhancing healthcare infrastructure by establishing hospitals in remote areas and implementing innovative solutions like solar power in regions lacking grid connectivity. The northeast region has witnessed substantial development, with 7,588 Health and Wellness Centres (HWCs) established as of February 28, 2023.

The sector is experiencing substantial development, marked by a noteworthy 148 new project announcements during FY 2024 envisaging investment worth INR 165. 84 Bn.

Investment Trend in Healthcare Services





Sources: CMIE Capex

These announcements, spearheaded by the Central Government, state governments, and private Indian companies, with an effort to enhance medical education infrastructure in the country.

At the central level, the Government of India, through entities like the Ministry of Health & Family Welfare, Ministry of Aayush, and Employees State Insurance Corporation, has made 5 announcements. Notably, all these announcements focus on the development of new healthcare units in specific areas, emphasizing the strategic approach taken by the central government to bolster healthcare services.

Private Indian companies, comprising significant players such as Modi Enterprises Ltd., Manipal Health Enterprises Private Ltd, and Narayana Healthcare Private Ltd, have contributed significantly, making 16 announcements. These announcements uniformly aim at establishing new healthcare units, reflecting the private sector's dedication to advancing healthcare infrastructure. The noteworthy contributions extend to renowned groups like Apollo, Brigade, DLF, and HGC, making 6 announcements for the development or extension of healthcare units.

On a regional basis, state governments and state government statutory bodies have collectively announced 22 projects, with Uttar Pradesh, Assam, and Telangana leading the way with four projects each. Maharashtra, Karnataka, Andhra Pradesh, and Himachal Pradesh have also announced many projects. Out of the 32 projects, 25 are dedicated to establishing new healthcare units, reinforcing the commitment of states towards expanding healthcare access, while the remaining projects focus on the extension or modification of existing facilities. This collective effort by various entities reflects a holistic and collaborative approach towards the advancement of the healthcare sector in India.

Threat & Challenges of the Construction Sector

Delay in Project Execution

Major impediments can be attributed to procedural formalities in land acquisition, obtaining environment, foreign and wildlife clearances, clearance from Railways (for over bridge and under bridge construction) and delays in financial closure. There are numerous government agencies involved from which clearances/approvals/permissions are required to be obtained before the utilities can be shifted or relocated. This takes a great deal of time. There are cumbersome procedures involved and sometimes the relevant laws and regulations are also not very clear.

As per the report published by Ministry of Statistics and Programme Implementation (MoSPI), 449 infrastructure projects, each requiring an investment of INR 1.5 billion or more, experienced cost overruns totalling INR 5,010 billion as of March 2024. This represents an 18.65% increase over the original implementation cost. Of the 1,873 projects monitored, 779 are delayed, with 202 of these projects facing delays of 1-12 months, 181 delayed by 13-24 months, 277 by 25-60 months, and 119 by more than 60 months. The average delay across these projects is approximately 36 months. The total original cost of these projects was INR 26,875.3 billion, while the anticipated completion cost is now INR 31,888.5 billion. To date, INR 17,116.4 billion has been spent, which is about 53.68% of the projected total cost. Delays are attributed to various factors, including land acquisition issues, delays in obtaining environmental clearances, and infrastructure support challenges. Additionally, COVID-19 lockdowns, delays in project financing, changes in project scope, and equipment supply issues have also contributed to the setbacks. The report also notes that many projects lack updated cost estimates and revised commissioning schedules, indicating that the extent of delays and cost overruns may be under-reported.

Budget Constraint of the Developer

Construction companies primarily depend upon debt for project funding. Infrastructure projects typically have long gestation period and with high breakeven period. Multiple construction projects in India have been facing approval and execution delays leading to cost and time over runs. These delays have pushed breakeven period even further affecting the revenue visibility from infra projects. On same times, with high outstanding borrowing and declining revenue has been denting players profitability, which in many cases has translated into surging losses too. Thus, the unfavorable market condition has brought large numbers of projects on standstill that has blocked the investment made earlier. This has affected balance sheet of banks with high NPA and as majority of the companies in the sector have high debt on books and banks are cautious in further lending. This has led to liquidity crunch affecting further investment needed for completion of the projects.

Complex Legal and Regulatory Framework

Infrastructure projects in India face significant challenges due to a complex web of approvals and regulatory requirements spanning from pre-tendering to post-construction. Political and regulatory risks, such as unpredictable policy changes, delays in approvals, and potential governmental non-compliance with financial commitments, can impede project progress and deter private investment. The fragmented nature of India's transport policy which spanning roads, railways, shipping, and airways further complicates planning and regulatory oversight, impeding efficient intermodal linkages and cohesive investment strategies.

Additionally, the legal and regulatory environment for urban development is marked by restrictive land use policies, poorly structured public-private partnerships, and fragmented responsibilities among various agencies, which discourages private capital and complicates project execution and urban development.

Lack of Accountability by City Leaders

Municipal governance in Indian cities often suffers from a lack of accountability. Elected mayors typically have short terms and limited authority, which undermines cohesive planning and implementation of infrastructure projects. This contributes to poor governance, planning, and transparency.

These challenges collectively impact the efficiency and effectiveness of infrastructure development in India, necessitating comprehensive reforms and improved management strategies to overcome obstacles and enhance project outcomes.

Government Measure to Address the Challenges in the Construction Sector

Apart from increasing infrastructure spending, several measures have been introduced in the last four years to combat such challenges that leads to project delays and cost overrun. Single window clearance of project, faster clearance, increase in threshold limited for appraising project from INR 5 to 10 Bn to attracted new investment, close monitoring and strict timelines are major in steps to improve the overall health of the sector.

On financing front, the government has introduced innovative project implementation models (HAM & TOT), securitization of toll revenue, adopting the Infrastructure Investment Trusts route and other innovative financing options, using LIC and long-term pension funds etc. have been explored to attract fresh capital in infra projects.

The government remained focus to streamline overall operating environment with series of reform including launch of GST, introduction of Insolvency and Bankruptcy Code one to address the concern of banking industry and scrapping of FIPB, amongst several other. Along with announcing new projects, due monitoring has been initiated for timely execution of existing projects and close the stalled projects.

Competitive Scenario

The Indian construction industry is characterized by a highly fragmented and competitive landscape, with numerous players, including large firms and small contractors, operating across various segments such as residential, commercial, industrial, and infrastructure. This fragmentation stems from a significant presence of domestic firms, leading to intense rivalry among competitors. Companies strive to differentiate themselves through cost efficiency, quality, and innovation.

Low entry barriers encourage new firms to enter the market, intensifying competition. Larger companies enjoy advantages like economies of scale and better access to financing, enabling them to undertake more complex projects. Diversification can help mitigate risks associated with cyclical demand, though excessive diversification may dilute expertise. Furthermore, external factors, including regulatory challenges and socio-political conditions, play a crucial role in influencing project execution within the industry.

- **Sectoral Segmentation**: The construction industry consists of various segments, each with its own competitive dynamics. Residential construction is driven by urbanization and housing demand, while commercial construction benefits from tourism and business growth. Infrastructure construction, supported by public-private partnerships, focuses on transportation and utilities. Each segment presents unique challenges and opportunities that influence competitive strategies.
- **Intense Price Competition**: The construction sector is characterized by fierce competition among numerous players, both local and international. Companies strive to win contracts by underbidding each other, leading to lower profit margins and a race to the bottom. This intense competition forces companies to optimize their costs and seek innovative methods to deliver projects efficiently.
- **Low Barriers to Entry**: New entrants face minimal obstacles when entering the construction industry, primarily due to low capital requirements. Many firms can lease construction equipment rather than purchase it outright and hire workers on a contractual basis, allowing them to start operations quickly and economically. This ease of entry results in a crowded marketplace.
- **Cyclicity in the Business & External Factors**: The construction industry experiences cyclical demand driven by external factors like economic conditions, government spending, and investment trends in real estate and infrastructure. Periods of high demand often lead to increased competition, while downturns can lead to project delays and increased financial pressure on companies, resulting in a boom-and-bust cycle. Construction companies are significantly influenced by local socio-political, legal, and regulatory environments. These external factors can create challenges that affect project timelines and costs. Companies that lack a deep understanding of local conditions and regulations may encounter delays, legal issues, and increased costs, which can jeopardize project success.
- **Large Business Size Offers Competitive Advantages**: Larger construction firms have distinct advantages over smaller competitors, including the ability to bid on larger and more complex projects that tend to be more profitable. They also enjoy better access to financing, which aids in operational stability and growth. Furthermore, larger companies can leverage economies of scale to negotiate better terms with suppliers and enhance their competitive position.
- **Bargaining Power of Buyers**: Buyers, particularly government entities, possess significant bargaining power due to the availability of multiple contractors. This leverage compels firms to enhance their offerings and adopt competitive pricing strategies, further intensifying competition in the industry.

- **Technological Advancements**: The adoption of modern technologies, such as Building Information Modeling (BIM) and prefabrication techniques, enhances operational efficiency and project delivery times. Firms that successfully integrate these innovations gain a competitive edge by reducing costs and improving quality. Additionally, the focus on sustainability prompts many companies to adopt green building practices, differentiating them further in the market.

The competitive landscape of the Indian construction industry is shaped by a combination of low entry barrier, price competition, technological advancements, and sectoral diversity. As companies navigate this environment, those that prioritize innovation and sustainability are likely to emerge as leaders in the evolving construction sector.

Profiling of Competitors

Company Name	Overview
Power Mech Projects Limited	**Headquarter:** Hyderabad, India **Founding Year:** 1999 Power Mech Projects Limited, based in Hyderabad, India, is an infrastructure-construction company with a global presence, specializing in power and infrastructure sectors. Established in 1999 by S. Kishore Babu, the company is known for its commitment to quality, safety, and timely delivery. With a workforce of 15,000 direct and 25,000 indirect employees and an extensive fleet of equipment, Power Mech manages operations across up to 55 sites simultaneously, handling over 4,00,000 MT annually. Over the years, the company has executed diverse projects in challenging environments, including Ultra Mega Power Projects, Super Critical and Sub Critical Thermal Power Plants, Hydro Electric Projects, and Waste Heat Recovery Systems. Its expertise spans Erection, Testing, and Commissioning of BTG and BOPs, plant Operation and Maintenance, Repairs, and Civil Works. Power Mech has established subsidiaries such as Power Mech Industri Private Limited in Noida, Power Mech Projects LLC in Oman, MAS Powermech Arabia in Saudi Arabia, and GTA Powermech Nigeria Limited, enhancing its international footprint across more than ten countries.
Gannon Dunkerley & Co., Ltd.	**Headquarter:** New Delhi, India **Founding Year:** 1924 Gannon Dunkerley & Co., Ltd. (GDCL), is a distinguished construction organization operating across India and internationally, undertaking a wide spectrum of engineering projects for both public and private sector clients. Renowned for its contributions to infrastructure and industrial development, GDCL has executed diverse projects including roads, highways, bridges, railways, metro systems, airports, power plants, oil refineries, steel and cement plants, and other industrial facilities. The company has also delivered landmark real estate and high-rise building projects, encompassing residential complexes, commercial spaces, IT buildings, hospitals, and institutional structures. Through its specialized

	Water Management Division, GDCL has undertaken environmental projects such as water and effluent treatment plants, irrigation systems, and sewage treatment facilities. Additionally, its Material Handling Division supplies and installs baggage conveyors for airports nationwide, while the Pre-stressed Concrete Railway Sleeper Unit in Odisha contributes significantly to Indian Railways. With IMS certifications in quality, environmental management, and occupational health safety, GDCL has completed over 3,000 projects, emphasizing quality, cost efficiency, and adherence to timelines. The company operates through regional divisions in Delhi, Mumbai, Hyderabad, and Kolkata, ensuring comprehensive service delivery as a trusted General/EPC contractor.
Ayoki Fabricon Private Limited	**Headquarter:** Pune, India **Founding Year:** 1984 Ayoki Fabricon Private Limited, is a globally recognized construction solutions provider specializing in the fabrication, erection, and commissioning of industrial plants and systems. With a robust workforce of over 7,000 professionals deployed across various global projects and a core team of 700 engineers, supervisors, and safety officers, Ayoki offers end-to-end solutions with a focus on quality and safety. The company's expertise spans sectors including cement manufacturing, power plants, boilers, sugar plants, material handling systems, and other industrial installations. Headquartered in Pune, India, Ayoki is known for its innovative and timely project execution, maintaining high engineering standards and client satisfaction. The company's global footprint and commitment to delivering safe and high-quality solutions underscore its reputation as a trusted partner in industrial construction.

Peer Benchmarking

Power Mech Projects Limited

Key Indicators (INR Million)	FY 2024	FY 2023	FY 2022
Revenue from Operations	40,595	35,321	26,311
EBITDA	5,021	4,103	2,979
PAT	2,406	2,093	1,410
EBITDA Margin (%)	12%	12%	11%
PAT Margin (%)	6%	6%	5%
ROA	7%	7%	6%
ROCE	30%	26%	22%
Net Worth	18,071	12,264	9,936
Long-term Debt	2,741	1,904	1,921
Debt Equity Ratio	0.88	1.41	1.50
Return on Equity	13%	17%	14%

Gannon Dunkerley & Co., Ltd.

Key Indicators (INR Million)	FY 2024	FY 2023	FY 2022
Revenue from Operations	10,627	15,370	16,206
EBITDA	-1,591	937	1,034
PAT	-1,194	60	181
EBITDA Margin (%)	-15%	6%	6%
PAT Margin (%)	-11%	0.4%	1%
ROA	-5%	0.2%	1%
ROCE	-41%	12%	13%
Net Worth	4,415	5,605	5,564
Long-term Debt	0	0	13
Debt Equity Ratio	5.76	5.11	3.75
Return on Equity	-27.0%	1.1%	3.3%

Ayoki Fabricon Private Limited

Key Indicators (INR Million)	FY 2023	FY 2022
Revenue from Operations	4,385	4,803
EBITDA	383	429
PAT	130	178
EBITDA Margin (%)	9%	9%
PAT Margin (%)	3%	4%
ROA	3%	4.3%
ROCE	9%	11%
Net Worth	1,228	1,109
Long-term Debt	838	947
Debt Equity Ratio	2.45	2.76
Return on Equity	10.6%	16.0%

Note: Financials of Ayoki Fabricon Pvt Ltd is available only till FY 2023

The Indian construction industry continues to be a vital contributor to the country's economic growth, driven by infrastructure expansion, urbanization, and increased investments in public and private projects. Companies such as Power Mech Projects Ltd, Gannon Dunkerley and Company Ltd, and Ayoki Fabricon Private Limited are actively engaged in various construction activities, reflecting diverse financial outcomes and operational efficiencies.

Power Mech Projects Ltd has exhibited steady growth, with revenue increasing from INR 26,311 million in FY 2022 to INR 40,595 million in FY 2024. The company's operational performance is marked by a stable EBITDA margin of 12% and a PAT margin of 6%, indicating effective cost management and profitability. Its financial structure also improved, with a reduction in the debt-equity ratio from 1.50 in FY 2022 to 0.88 in FY 2024 and a notable ROCE of 30%. On the other hand, Gannon Dunkerley and Company Ltd experienced a decline in revenue from INR 16,206 million in FY 2022 to INR 10,627 million in FY 2024. The company reported a negative EBITDA margin of -15% and a significant drop in return metrics, including an ROCE of -41%. The debt-equity ratio climbed to 5.76 in FY 2024, reflecting challenges in financial stability and operational efficiency. Ayoki Fabricon Private Limited saw revenue dip to INR 4,385 million in FY 2023 from INR 4,803 million in FY 2022. Despite the decline, it maintained a 9% EBITDA margin and a 3% PAT margin, demonstrating operational stability. Its debt-equity ratio also improved slightly to 2.45 in FY 2023, while ROCE stood at 9%, indicating moderate efficiency in capital utilization.

The construction industry is expected to witness significant growth in the coming years, supported by infrastructure projects under programs like the National Infrastructure Pipeline and urban development schemes. The demand for housing, industrial facilities, and transportation infrastructure, combined with technological advancements and increased sustainability focus, will provide ample growth opportunities. Power Mech Projects Ltd is well-positioned to benefit from this growth due to its operational and financial strength. In contrast, Gannon Dunkerley and Company Ltd will need to address its financial and operational challenges to remain competitive. Ayoki Fabricon Private Limited has potential for growth by expanding its project portfolio and maintaining operational discipline. The evolving construction landscape will likely drive innovation, efficiency, and increased competition, offering opportunities for growth across various segments of the industry.