



EduTap

Economic Survey 2024-25

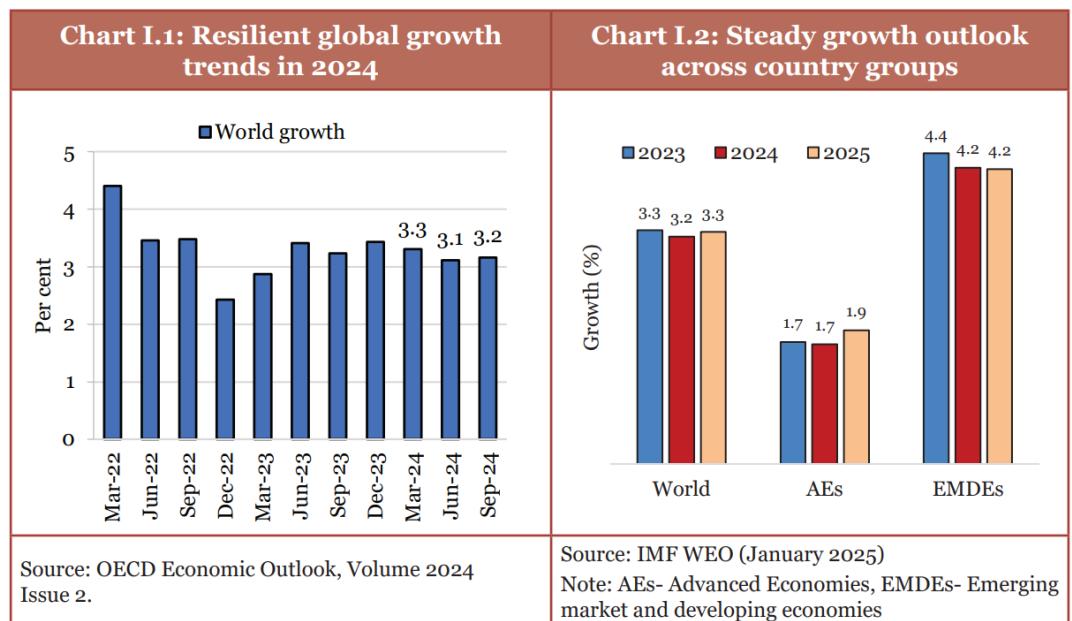
- Summary

STATE OF THE ECONOMY: GETTING BACK INTO THE FAST LANE

GLOBAL ECONOMIC SCENARIO

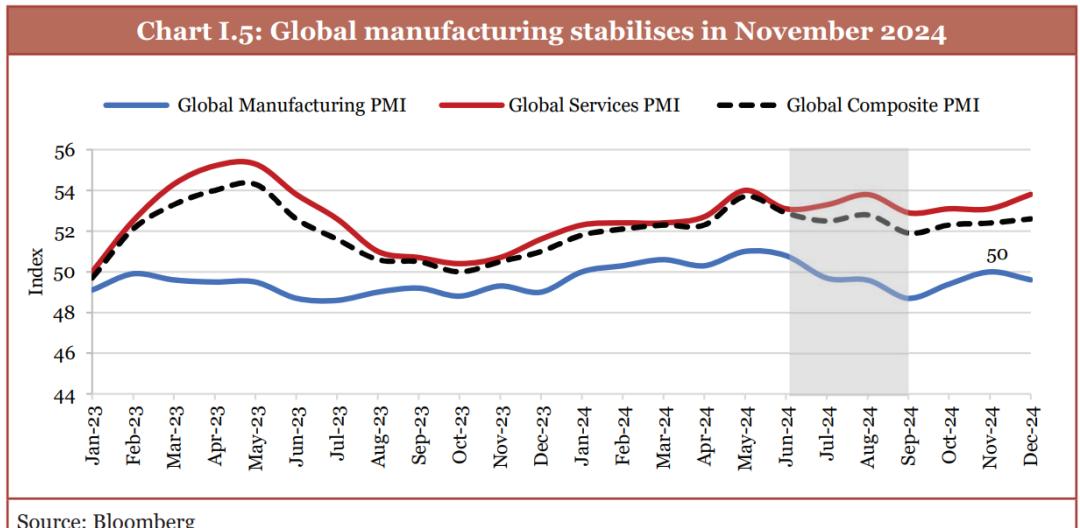
Steady global growth and varied regional dynamics:

- The year 2024 has been eventful, with over half of the world's population participating in major elections.
- Meanwhile, **conflicts like Russia-Ukraine and Israel-Hamas** have heightened regional instability.
- Cyberattacks also increased**, posing greater risks to people and finances as critical systems became more digital.
- Global economic growth** has been **moderate**, with an expected average of **3.2% over the next five years**, which is modest by historical standards.



Services sector growth steady; manufacturing faces challenges:

- The global composite **Purchasing Managers' Index (PMI)** has stayed in the **expansion zone for 14 consecutive months** as of December 2024.
 - The services sector remains strong, while the Manufacturing Purchasing Managers' Index (PMI) signals contraction.
- India** recorded the **strongest** manufacturing output expansion in December.



- Global services saw growth, with the Services PMI **Business Activity Index** rising to a four-month high of 53.8 in December, marking the 23rd consecutive month of expansion. Business, consumer, and financial services all grew, with financial services expanding the fastest.

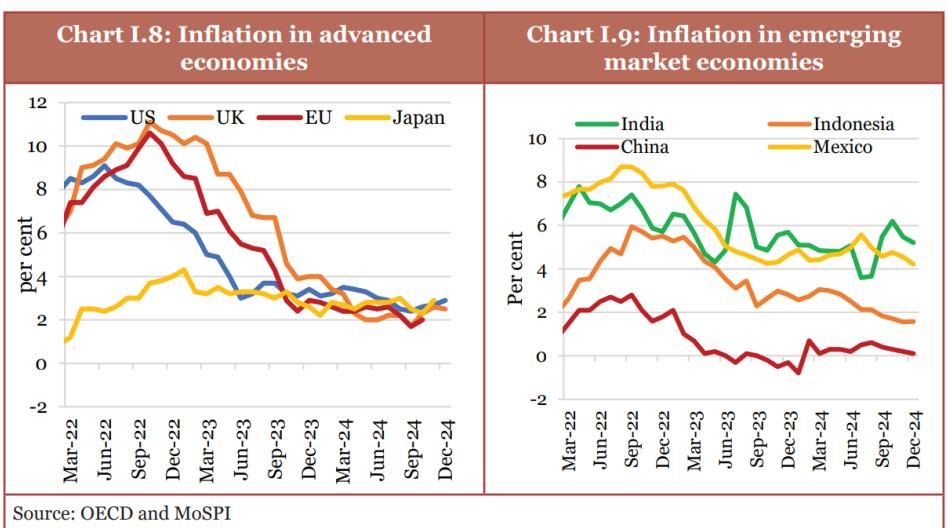
Inflationary pressures have eased, but the risk of widespread price increases remains:

- Inflation rates have **steadily decreased**, nearing central bank target levels.

- Tighter monetary policies** worldwide and supply chains adjusting to economic uncertainty have helped reduce inflation.

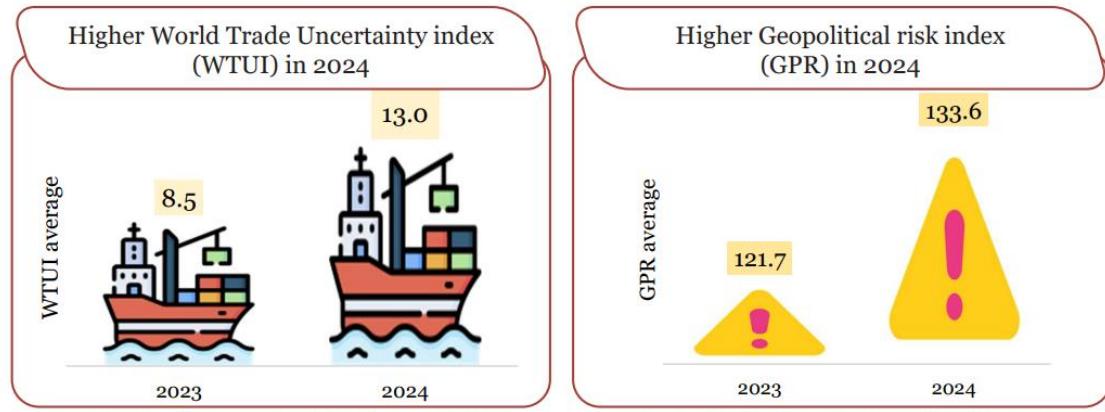
- In **2023**, price pressures eased due to **lower fuel prices**, and in **2024**, a **broad-based reduction** in goods inflation contributed further.

- Major central banks are **lowering policy rates** in response to declining inflation, with varying speeds due to differing economic conditions.



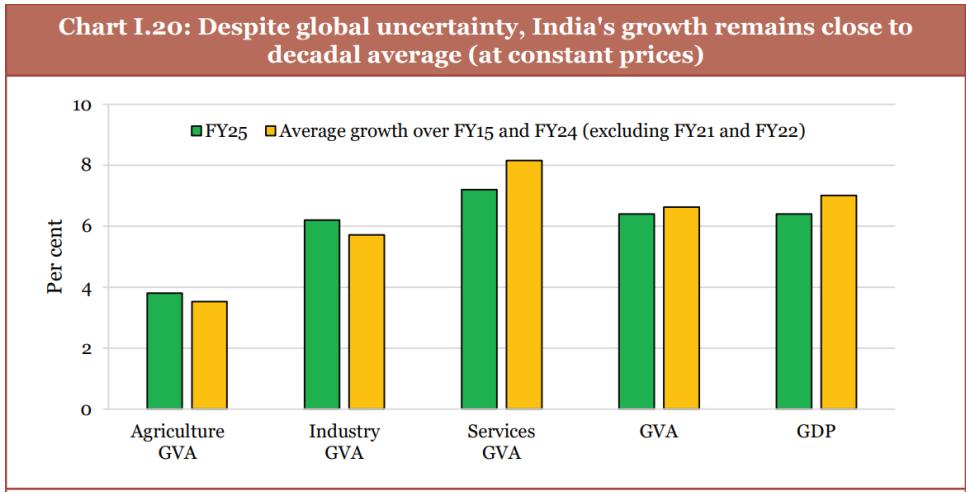
Geopolitical Risks Threaten Global Economy:

- High risks are reflected in indices like the **Geopolitical Economic Policy Uncertainty Index**, which remains **elevated** amid global economic policy concerns.



- Indices like the **Geopolitical Economic Policy Uncertainty Index** show heightened risks from global policy concerns.
- Import restrictions** in G20 economies now cover **12.7% of imports**, over three times the 2015 level.

DOMESTIC ECONOMY STABLE DESPITE GLOBAL UNCERTAINTIES



- According to the **first advance estimates** by the National Statistical Office (NSO), Ministry of Statistics & Programme Implementation (MoSPI), **real GDP growth for FY25 is projected at 6.4%**.

Supply-Side Growth Projections for FY25:

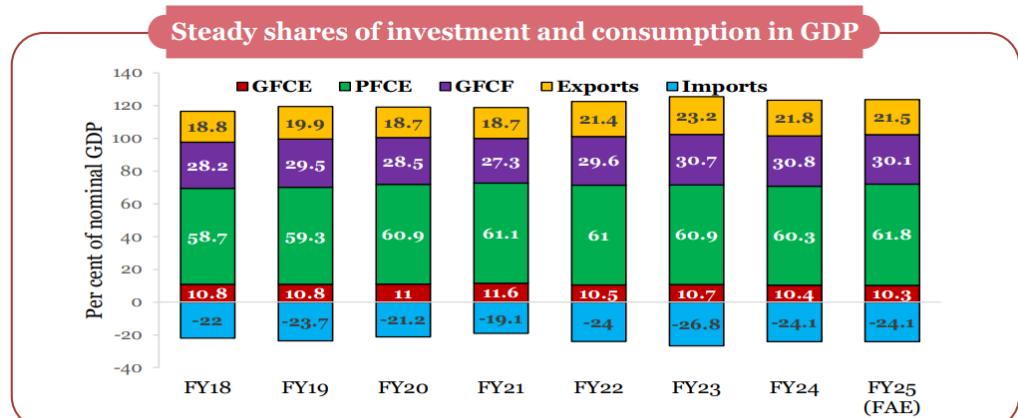
- Real Gross Value Added (GVA)** is estimated to grow by **6.4%**.
- Agriculture** sector is expected to rebound with **3.8% growth**.
- Industrial sector** is projected to expand by **6.2%**, supported by strong growth in construction and utilities.
- Services sector** is expected to grow **7.2%**, driven by financial, real estate, public administration, and professional services.

Improved agricultural prospects in FY25:

- Growth was supported by **healthy Kharif production**, above-normal monsoons, and adequate reservoir levels.
- As per the **first advance estimates for 2024-25**, total Kharif food grain production is projected at a record **1,647.05 lakh metric tonnes (LMT)**, marking a 5.7% increase from 2023-24.
 - Production is also 8.2% **higher than the five-year average**.
 - The estimated **increase is primarily driven by** higher rice, maize, coarse grains, and oilseeds output.

Analysis of GDP by expenditure categories:

- India's GDP grew by 6.7% in Q1 FY25 and 5.4% in Q2 FY25 (at constant 2011-12 prices), resulting in an overall 6.0% growth in the first half of the fiscal year.
 - The slowdown in **real GDP growth** in H1 FY25 is due to **GFCF growth falling from 10.1% to 6.4%**, impacted by lower government capital expenditure during elections and subdued private investment amid political and global uncertainties.
- Private Final Consumption Expenditure (PFCE) is estimated to grow by 7.3%, driven by a **rebound in rural demand**.
- PFCE share of GDP** (at current prices) is expected to rise from 60.3% in FY24 to **61.8% in FY25, the highest since FY03**.
- Gross Fixed Capital Formation (GFCF) is projected to grow by 6.4% at constant prices.
- In H1 FY25, India's exports of goods and non-factor services grew by 5.6%, while imports increased by 0.7% (at constant prices).



Source: MoSPI
 Note: PFCE – Private Final Consumption Expenditure, GFCE- Government Final Consumption Expenditure, GFCF- Gross Fixed Capital Formation

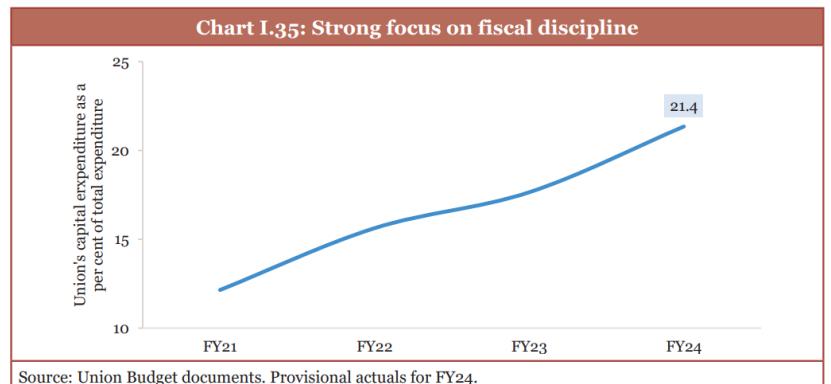
STABLE AND INCLUSIVE ECONOMY ACROSS MULTIPLE FRONTS

Improving public finances support macro stability:

- **Prudent fiscal management** since COVID-19 has **reduced general government dis-savings**, helping sustain overall economic savings and reducing dependence on foreign funding.
- Over the last four years, **controlled savings-investment gaps** ensured smooth financing of the current account deficit, despite a moderation in household savings.

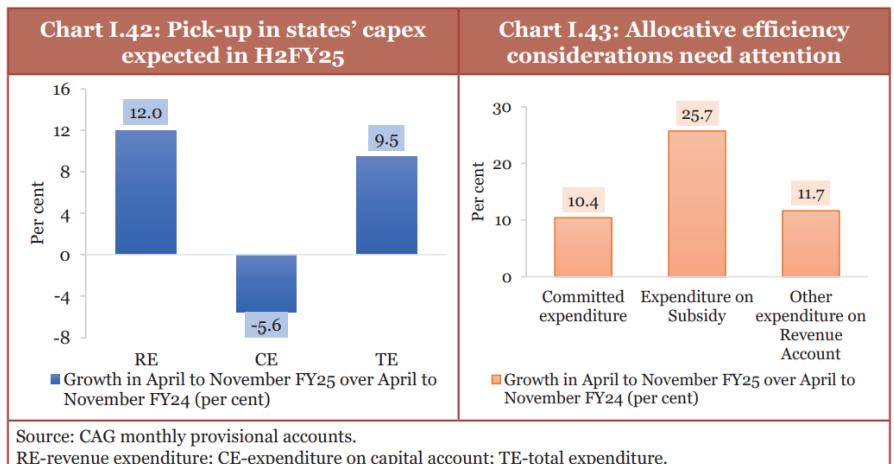
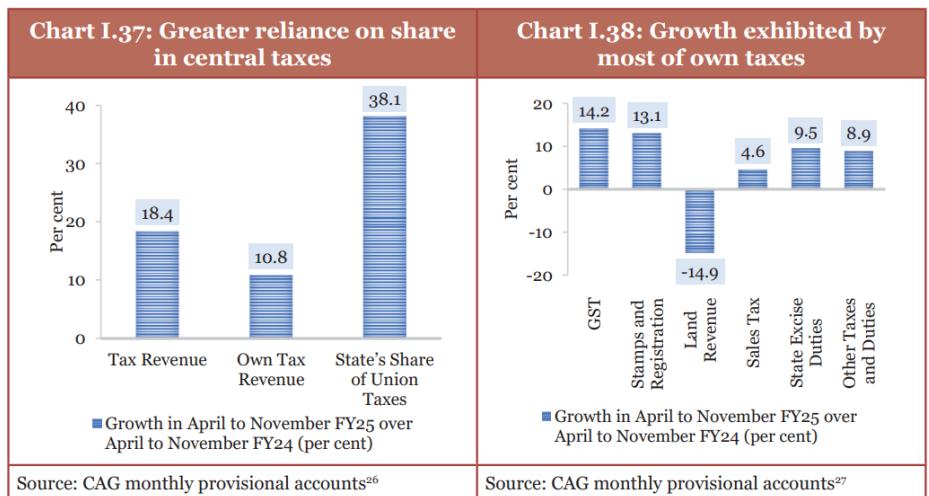
Fiscal discipline of the union government:

- The **Union government's fiscal discipline has improved**, with a steady rise in **capital expenditure as a share of total spending** since FY21.



Varying patterns in state finances:

- For the period April - November 2024, the Union's Gross Tax Revenue (GTR) and States' Own Tax Revenue (OTR) grew at a similar pace, but **states' overall tax revenue was higher** due to increased tax devolution by the Union government.
- **For 15 states**, OTR contributed **over 50% of total tax receipts**, with the highest in **Telangana (88%)**, followed by **Karnataka (86%)** and **Haryana (86%)**.
- **States with a higher ratio** of own revenue receipts (ORR) to total revenue receipts also tended to have relatively lower ratios of revenue deficit to total revenue receipts.
- **GST** was the main source of revenue among **Own Revenue Receipts (ORR)** for **23 states**, with **Manipur (78%)** and **Nagaland (72%)** having the highest reliance.
- The highest shares in **ORR** for **stamps & registration, sales tax, and state excise duties** were in **Maharashtra, Tamil Nadu, and West Bengal**, respectively.
- **Odisha** had the highest share of **non-tax revenue** in **ORR**, accounting for 49%.
- **Revenue and Expenditure of States:**



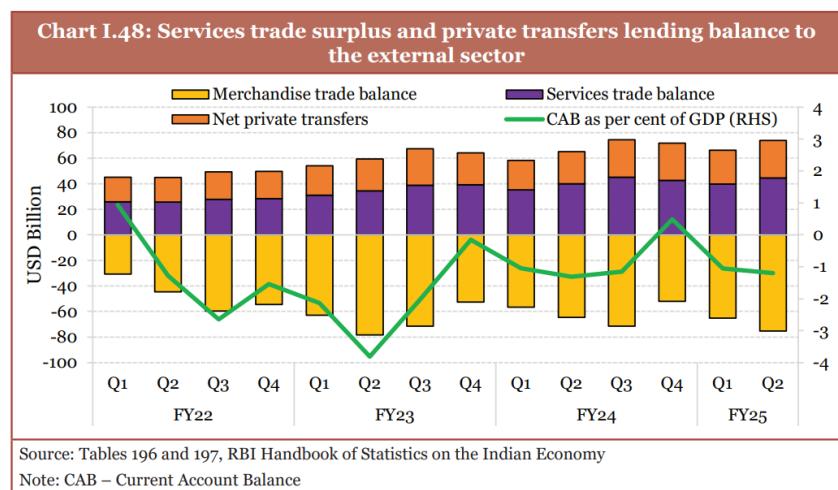
- **Revenue** expenditure of states grew by 12% YoY during April–November 2024, with **subsidies** increasing by 25.7% and **committed liabilities** rising by 10.4%.
- Despite a 5.6% decline in capital expenditure, **total expenditure grew by 9.5%**, although 11 states saw an increase in capital expenditure.
- In April–November 2024, **11 States** maintained revenue surplus.

Inflation – a combination of low and stable core inflation with volatile food prices:

- **Retail headline inflation**, measured by the Consumer Price Index (CPI), **decreased** from 5.4% in FY24 to **4.9% during April–December 2024**.
 - The decline was driven by **reduction in core inflation** (non-food, non-fuel) between FY24 and April–December 2024.
 - The CPI inflation, **excluding TOP commodities**, has been significantly lower, 4.5% in December 2024.
- Despite the overall decrease, **monthly volatility in food prices** and select commodities caused CPI inflation to stay near the **upper end of the tolerance band (4% ± 2%)**.
- **Food price pressures** have been influenced by factors such as supply chain disruptions and weather conditions.
- **Food inflation**, measured by the Consumer Food Price Index (CFPI), rose from 7.5% in FY24 to **8.4% in FY25** (April–December), primarily due to increases in vegetables and pulses.

External sector stability safeguarded by services trade and record remittances:

- India's external sector showed **mixed trends** due to volatile global conditions.
- India's **merchandise exports** grew by **1.6% YoY** during April–December 2024.
- Although merchandise **imports exceeded exports**, widening India's merchandise trade deficit, the **services trade surplus helped balance** the overall trade deficit.
 - India's strong services exports have helped it become the **7th-largest exporter of services globally**.
- In addition to the services trade surplus, **remittances from abroad** led to a healthy net inflow of private transfers.
- According to the World Bank, **India was the top recipient of remittances** globally, driven by increased job creation in OECD economies.
- These two factors helped keep India's **current account deficit (CAD)** relatively low at **1.2% of GDP in Q2 FY25**.
- The **capital account** comfortably **financed the CAD**, ensuring stability in the external sector.
- **Gross FDI inflows increased by 17.9% YoY in April–November 2024**, surpassing levels seen in all previous years except FY21.
 - The **net FDI inflow decreased** during this period mainly due to an **increase in repatriation**.



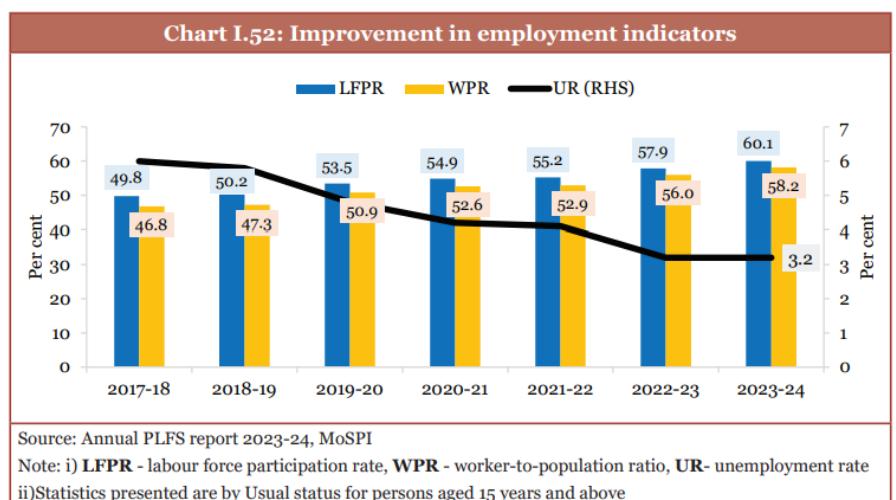
- The **inclusion of India's sovereign government securities** (G-secs) in the **JP Morgan EM Bond Index** led to increased activity in the debt segment of FPIs.
- Due to **stable capital flows**, India's foreign exchange reserves **rose** from USD 616.7 billion in January 2024 to **USD 704.9 billion in September 2024**.
 - India's forex reserves are **enough to cover 90% of external debt** and provide an **import cover of over 10 months**, helping safeguard against external vulnerabilities.

Financial Sector Outlook Amid Slower Credit Growth:

- The banking and financial sector **remains stable**, well-capitalized, and continues to meet the economy's financing needs.
 - The banking sector's **stability** is highlighted by **decreasing asset impairments, strong capital buffers, and good operational performance**.
- While **credit disbursal** by scheduled commercial banks (SCBs) is growing in **double digits**, there has been a slowdown in growth in recent months.
 - Besides **personal loans**, **credit to the services sector** is a key driver of growth in gross bank credit.
- According to the RBI's Financial Stability Report (FSR) of December 2024, **gross non-performing assets (NPAs)** have dropped to a **12-year low** of 2.6% of gross loans and advances.
- While the banking system's long-term stability is secure, there was **concern about the short-term issues** caused by the mismatch between credit and deposit growth rates.
- Another concern in the banking system is the **pressure on unsecured credit**, such as personal loans and credit cards.
- As of September 2024, **51.9% of the new NPAs** in the retail loan portfolio came from defaults in the **unsecured loan segment**.

Employment trends:

- India's labor market growth in recent years has been driven by **post-pandemic recovery and greater formalization**.
- The **formal sector** in India has grown significantly, with **net EPFO subscriptions more than doubling** from 61 lakh in FY19 to 131 lakh in FY24.
 - Between April and November 2024, net additions reached 95.6 lakh, with 47% of the new payroll additions coming from workers aged 18-25 years.



MONETARY AND FINANCIAL SECTOR DEVELOPMENTS: THE CART AND THE HORSE

CHAPTER

02

MONETARY DEVELOPMENTS

- **Monetary base (M0)**, the **most liquid** form of money, recorded a year-on-year (YoY) growth of 3.6% as of 3 January 2025, compared to 6.3% a year ago.
- Excluding the impact of the merger of a non-bank with a bank (effective from 1 July 2023), **M3 grew by 9.3%** YoY as of 27 December 2024, compared to 11% a year earlier.
 - **Aggregate deposits** were the main contributor to M3 expansion, with bank credit to the commercial sector being a key source of growth.

Money Multiplier (MM4) Trends and Influencing Factors:

- **Money multiplier (MM4)**, the ratio of M3 to M0, stood at **5.7** as of 27 December 2024, compared to 5.5 a year earlier.
 - MM in a country is **influenced by 2 main factors**: the amount of cash held by individuals and businesses, and the reserves maintained by banks.
 - The money multiplier **measures the maximum amount of money** that a banking system generates with each unit of central bank money.
 - A **higher money multiplier (MM)** means the banking system is creating more money from the central bank's supply.
- **MM has generally increased over the years**, dropping during the COVID-19 pandemic due to higher cash holdings, but has resumed growing after FY22, indicating improved liquidity generation.

FINANCIAL INTERMEDIATION

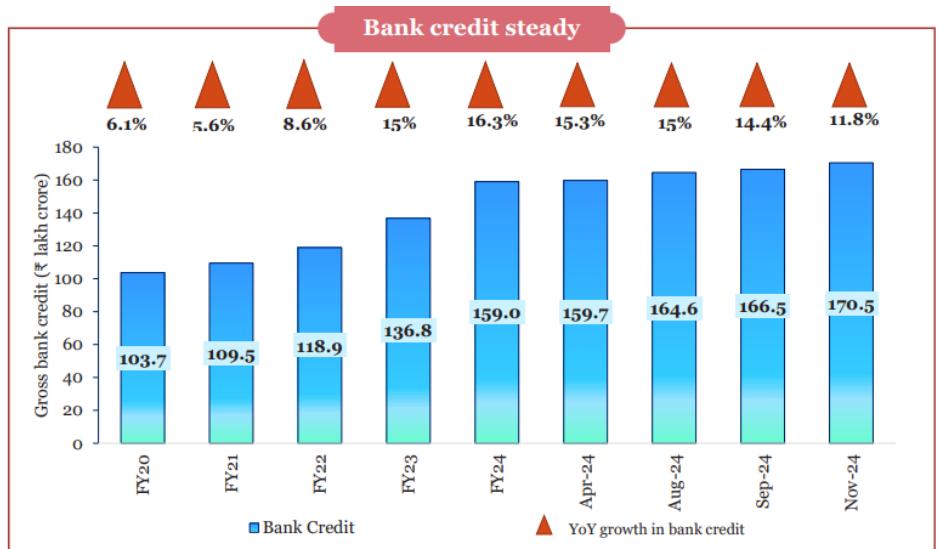
Performance of the banking sector and credit availability:

- The **GNPA ratio** of SCBs has steadily fallen from its peak in FY18 to a **12-year low** of 2.6% by September 2024.
 - This decrease is due to **fewer slippages** and a reduction in GNPs through **recoveries, upgradations, and write-offs**.
- Lower GNPs and higher provisions in recent years also helped reduce **net NPAs to around 0.6%** by September 2024.
- By September 2024, the **CRAR of SCBs was 16.7%**, with all banks meeting the CET-1 requirement of 8%.

- Despite a **decrease in Net Interest Margin (NIM)**, both return on equity (RoE) and return on assets (RoA) ratios improved by September 2024.
- As GNPs and slippages declined, the **provision coverage ratio increased** to **77%** by September 2024, up from 74.9% in March 2023.

Trends in bank credit:

- Despite the recent monetary policy tightening in India, **bank deposits continue to show double-digit growth**.
- However, the focus has shifted towards schemes offering higher returns, with growth in **term deposits outpacing current** and savings account deposits.
- By the end of November 2024, the **growth in overall bank credit** slowed to **11.8%** YoY, down from 15.2% in the same period last year.
- In the December 2024 MPC, the **RBI raised the interest rate ceiling on Foreign Currency Non-Resident (FCNR(B)) deposits** with maturities of 1-3 years and 3-5 years.
- The **RBI linked the foreign exchange retail platform with Bharat Connect** to boost MSMEs' access to foreign exchange.
- A key measure to improve **credit access for small and marginal farmers** is raising the limit for **collateral-free** agricultural loans from ₹1.6 lakh to **₹2 lakh**.
- The **credit/GDP ratio** is a useful measure to assess an economy's position in the financial cycle.
 - A ratio significantly higher than its trend may signal stress in the lending sector, while a lower ratio suggests room for growth.
 - In India, a **positive credit/GDP gap from 2006 to 2012** indicated excessive credit growth.
 - After overcoming the COVID-19 pandemic, the credit/GDP ratio has shown an upward trend, with the gap steadily closing.
- India's credit landscape reflects recovery, with the **RBI's Financial Inclusion Index** rising from 53.9 in March 2021 to **64.2 in March 2024**.



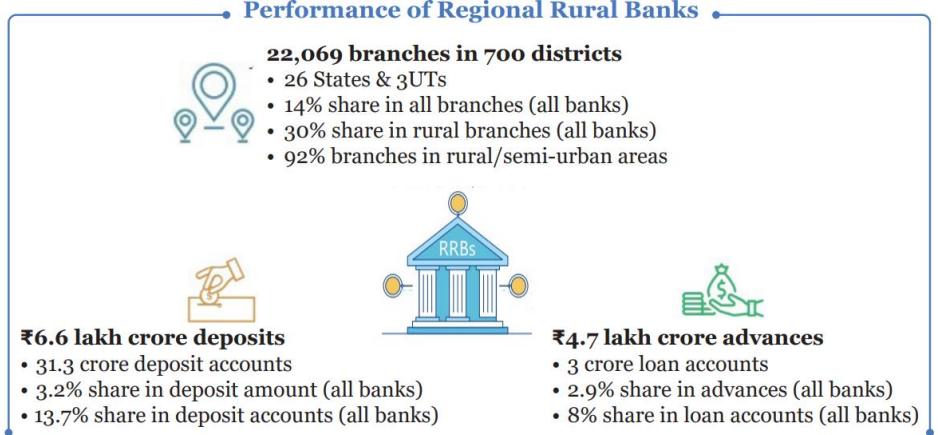
Rural Financial Institutions:

- This multi-agency system **includes** Regional Rural Banks (RRBs), Rural Cooperative Banks (RCBs), SCBs, Small Finance Banks, NBFCs, Micro Finance Institutions, and local area banks.

Regional Rural Banks (RRBs):

- RRBs were established in 1975** under the Regional Rural Banks Act of 1976, starting with five banks.

- As of 31 March 2024, there were **43 RRBs, sponsored by 12 SCBs**.
- The **consolidated CRAR** of RRBs rose from 13.4% in March 2023 to an **all-time high of 14.2%** by March 31, 2024.
 - The **GNPA ratio** of RRBs improved from 7.3% in FY23 to 6.1% in FY24, the **lowest in the past 10 years**.
 - **Net NPAs** decreased from 3.2% in FY23 to **2.4%** in FY24.
- **All RRBs** met the RBI's regulatory **targets** and sub-targets under the Priority Sector Lending (PSL) guidelines in FY24.



Development Financial Institutions:

- Their main objective is to drive economic growth by providing financial and technical support for infrastructure development across various sectors.
- Institutions such as **Infrastructure Development Finance Company** (1997), **India Infrastructure Finance Company Limited (IIFCL)** (2006), and more recently, the **National Bank for Financing and Infrastructure Development** (NaBFID) (2021) have focused on funding infrastructure development.

Establishment of NaBFID:

- NaBFID was established through the **NaBFID Act, 2021**, as an infrastructure-focused DFI with **both financial and developmental objectives**, providing long-term capital across various sectors.
 - **Financial Objective:** To lend or invest, directly or indirectly, in infrastructure projects, attracting private sector and institutional investment to promote sustainable economic development in India.
 - **Developmental Objective:** To coordinate with central and state governments, regulators, financial institutions, institutional investors, and other stakeholders.
- It was granted '**All India Financial Institution (AIFI) status by the RBI** on 8 March 2022, becoming the **fifth AIFI after NABARD, SIDBI, NHB, and Exim Bank**.

Efficacy of Insolvency Law:

- The **Insolvency and Bankruptcy Code, 2016 (IBC)** established a modern insolvency framework, improving the banking sector's health and redefining debtor-creditor relationships by addressing financial distress and NPAs.
 - As of September 2024, 1,068 resolution plans under the Code have led to creditors recovering ₹3.6 lakh crore, **161% of the liquidation value and 86.1% of the fair value**. Out of the 12 large accounts referred by the RBI for resolution under the Code, 10 have been successfully resolved.

Development in capital markets:

- **Investor** participation has increased from 4.9 crore in FY20 to **13.2 crore as of 31 December 2024**.
- India's **share in global IPO listings rose to 30% in 2024**, up from 17% in 2023, making it the leading contributor to primary resource mobilization globally.

- The **total resource mobilization** from **primary** markets (equity and debt) stands at **₹11.1 lakh crore** from April to December 2024, which is 5% higher than the amount mobilized during the entire FY24.
 - This also amounts to 25.6% of gross fixed capital formation of private and public corporations during FY24.
- The **number of IPOs** increased by 32.1% to **259** during April to December 2024, compared to 196 in the same period of the previous year, while the **amount raised almost tripled** from ₹53,023 crore to ₹1,53,987 crore in the same period.
- Reflecting strong market conditions, **Qualified Institutional Players (QIPs)** became the preferred equity fundraising mechanism for corporates in FY25.
- The **debt market** in India remains **undercapitalized** compared to the equity market.
 - The corporate bond market in **India is only 18% of GDP**, much lower than 80% in Korea and 36% in China.

Secondary Market: Positive performance amidst volatility:

- **India's weight in the MSCI-EM index** reached a new high of 20% in July 2024, settling at 19.4% by December 2024, **ranking 3rd** after China and Taiwan.
- On 23 May 2024, the **total market capitalisation of BSE-listed stocks** closed above the **USD 5 trillion milestone for the first time**.
- India's **market capitalization to GDP ratio** stood at **136%** at the end of December 2024, significantly higher than other Emerging Market Economies (EMEs).

Rise in investor participation in capital markets:

- The **number of demat accounts** increased by **33%** to 18.5 crore at the end of December 2024, showing a sharp year-on-year growth.
- The rise in **retail participation through mutual funds** is evident as the number of unique investors **doubled** from 2.9 crore in FY21 to 5.6 crore by December 2024.
 - The surge in participation and strong market performance led to a 25.3% **growth in mutual funds' assets under management (AuM)**, reaching ₹66.9 lakh crore by December 2024.
- The mutual fund segment now has **over 10 crore Systematic Investment Plan (SIP)** accounts, with cumulative SIP inflows of ₹10.9 lakh crore since inception.
- **Monthly average gross SIP flows** have more than **doubled** in the last three years, rising from ₹0.10 lakh crore in FY22 to ₹0.23 lakh crore in FY25.
- The financial sector is experiencing **positive changes**, including a rise in consumer credit.
 - Between FY14 and FY24, the share of consumer credit in total bank credit increased from 18.3% to 32.4%.
 - Banks' share in total credit has declined from 77% in FY11 to 58% in FY22, reflecting a **rise in non-bank-based financing**.
 - **Equity-based financing** has gained popularity, with IPO listings **growing six times between FY13 and FY24**, making India **rank first** globally in IPO listings in FY24.
- A report by the NSE notes that the **proportion of young investors** increased from 23% in March 2018 to **40% in September 2024**.

Developments in the insurance sector:

- India's insurance market continued to grow, with total premiums increasing by 7.7% in FY24 to ₹11.2 lakh crore, despite a **slight decline in insurance penetration from 4% in FY23 to 3.7% in FY24**.
 - Insurance penetration rate is below the **global average of 7%**.
 - **Insurance penetration** is calculated as the percentage of insurance premiums paid in a year to the country's gross domestic product.
- **Insurance density** in India saw a modest increase from USD 92 in FY23 to **USD 95 in FY24**.
 - This growth in insurance density has been on an upward trajectory since FY17.
 - Insurance density in India is **relatively low** compared to global standards.
 - **Insurance density** is calculated as the ratio of insurance premium to population (calculated in USD for international comparison).
- The Swiss Re Institute projects **India's insurance sector** to grow at 11.1% and become the **fastest-growing market among G20 nations** from 2024 to 2028.

Developments in the pension sector:

- The **World Economic Forum (WEF)** has noted that, for the first time in history, the global population of **people aged 65 and over has surpassed** that of children aged five and younger.
- **Pension assets**, including EPFO, account for **17% of India's GDP**, with **NPS** contributing an **additional 4.5%**. In contrast, average pension assets in **OECD** countries exceed **80%** of their GDP.

India's pension sector has grown significantly since the **introduction of the National Pension System (NPS) and Atal Pension Yojana (APY)**.

- As of September 2024, the total number of **subscribers reached 783.4 lakh**, showing a 16% year-on-year growth from 675.2 lakh in September 2023.
- The number of **APY subscribers**, which includes its earlier version, NPS Lite, rose from 538.2 lakh in March 2023 **to 629.1 lakh in September 2024**.
- **APY subscribers** make up approximately **80.3%** of the overall pension subscriber base.
- The **share of female** subscribers in APY increased from 37.9% in FY16 to **52% in FY24**.
- The share of APY subscribers **aged 18-25** increased from 29.2% in FY16 to 45.5% in FY24.
- However, **93.7% of APY accounts are for a pension of ₹1,000 per month**, and 3.7% are for ₹5,000.
- The **overall pension coverage** for these 2 schemes increased from 0.95% of the population in FY16 to **5.3% in FY24**, while their AuM as a proportion of GDP rose from 0.86% in FY16 to 4% in FY24.

CHAPTER

03

EXTERNAL SECTOR: GETTING FDI RIGHT

Indicators for Monitoring Global Risks and Economic Uncertainty:

- To monitor global risks and uncertainties, **several key indicators** are used to measure the impact of policy-related uncertainty on global economic activity. **These include:**

- **Geopolitical Risk (GPR) Index:** Tracks adverse geopolitical events through newspaper articles.
 - **Trade Policy Uncertainty (TPU) Index:** Monitors the frequency of articles mentioning trade policy uncertainty and heightened trade tensions.
 - **Global Economic Policy Uncertainty (GEPU) Index:** A GDP-weighted average of national Economic Policy Uncertainty (EPU) indices for 21 countries.
- These indices capture changes occurring in economies that constitute about 71% of global output.
 - As of November 2024, **both the GEPU and TPU indices remain high**, reflecting ongoing global economic policy concerns and rising trade tensions since December 2023.
 - The **RBI has developed a policy uncertainty index for India**, using Google Trends data to assess domestic and international events, with real-time updates.

GLOBAL TRADE DYNAMICS

- Since late 2022, there has been a rise in the political proximity of trade, favoring bilateral trade between countries with similar geopolitical stances, such as **friend-shoring and nearshoring**.
- **Friend-shoring** is determined by trade between countries with **similar political stances**, measured by how closely their voting patterns align in the United Nations.
- **Nearshoring** refers to relocating production or trade **closer to a country**, and it's measured by the average distance between trading partners, where shorter distances indicate nearshoring.

Global trade performance in 2024:

- According to the latest **UNCTAD trade update**, global **trade has continued to rise** from H2 of 2023 into 2024.
 - The WTO data shows a 3.5% YoY growth in global merchandise exports and 3% growth in imports in Q3 of 2024.
 - Global services exports and imports grew by 7.9% and 6.7% YoY, respectively, during the same period.

Tariff policies:

- The number of **regional trade agreements (RTAs) has risen** from 22 in 1990 to **369 as of August 2024**.
- Between 2000 and 2024, **India's average tariff rates on dutiable items dropped** from 48.9% to 17.3%.

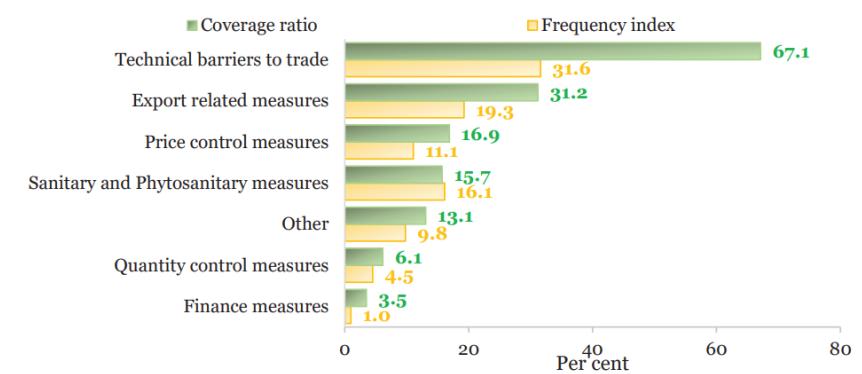
- Between 2012 and 2022, **Most Favoured Nation (MFN)** and preferential tariffs **decreased** in agriculture, manufacturing, and natural resources.

Non-tariff measures:

The global **decline in tariffs has been accompanied by an increase in Non-Tariff Measures (NTMs)** across countries.

- The Global Trade Alert database shows that between 2020 and 2024, **over 26,000** new trade and investment-related restrictions were imposed globally.
- Sectors **most affected** by NTMs include **agriculture, manufacturing, and natural resources**.
- Climate change-related** NTMs account for 2.6% of the total measures.

Chart III.4: Classification of NTMs based on coverage and frequency



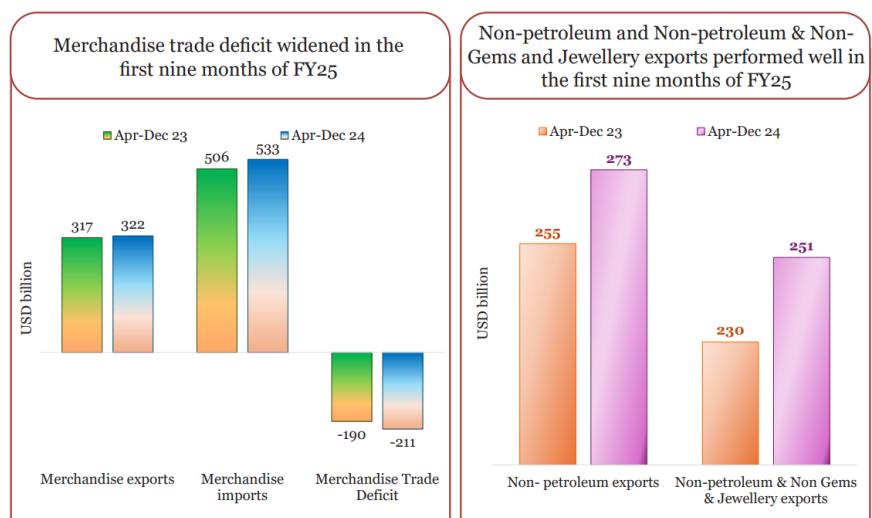
Source: UNCTAD TRAINS Database

Note: Other includes 'Pre-shipment inspection and other formalities, contingent trade protective measures, non-automatic import licensing, quotas, prohibitions, quantity-control measures and other restrictions not including sanitary and phytosanitary measures or measures relating to technical barriers to trade, measures affecting competition, trade-related investment measures, distribution restrictions, restrictions on post-sales services, subsidies and other forms of supports, government procurement restrictions, intellectual property and rules of origin. The frequency index is defined as the percentage of HS 6-digit lines covered. The coverage ratio is defined as the percentage of trade that is subject to NTMs'

TREND IN INDIA'S TRADE PERFORMANCE

- India's total exports** (merchandise + services) reached **USD 602.6 billion** in the first 9 months of FY25, showing a 6% YoY growth.
 - Total imports** during April-December 2024 reached **USD 682.2 billion**, with a 6.9% YoY growth.
 - The rise in imports compared to exports **increased the trade deficit** from USD 69.7 billion in April-December 2023 to **USD 79.5 billion** in the same period of FY25.
 - During April-December 2024, non-petroleum exports increased by 7.1%, while non-petroleum and non-gems and jewellery exports rose by 9.1%.
- Merchandise exports** grew by 1.6% YoY, mainly due to a decline in petroleum product exports caused by falling international commodity prices.
- Merchandise imports** grew by **5.2%** during April-December 2024, driven by a rise in **non-oil, non-gold imports**, reflecting a rebound in domestic consumption despite inflation.
- The faster increase in merchandise imports compared to exports widened the **merchandise trade deficit to USD 210.8 billion in April-December 2024**, from USD 189.7 billion last year.
- India is a **top exporter of shipping vessels** with nearly 33% market share and a **leading exporter of iron and steel alloys**, a market it entered after 1994.

India's trade performance in the first eight months of FY25

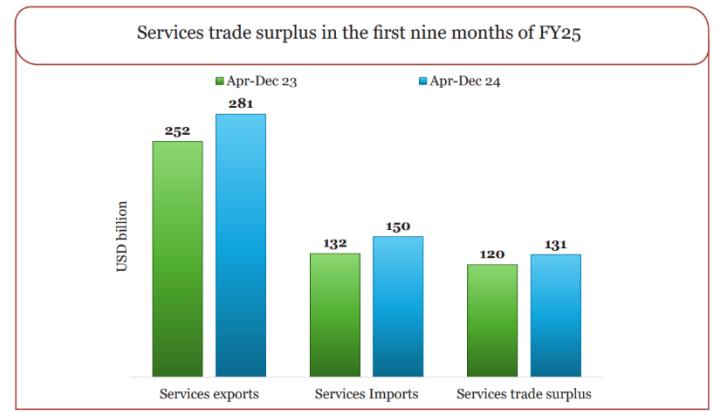


India's e-commerce exports:

- India's **e-commerce market** currently makes up **about 1.5%** of the global market and is projected to remain around 2% in the coming years.
- E-commerce **exports** generated an estimated USD 4 to 5 billion in FY23 and are expected to grow to **USD 200 to 300 billion by 2030.**

Services trade remained resilient amidst global challenges:

- **Services grew by 11.6%** in the first nine months of FY25 despite unfavorable geopolitical conditions, with net services receipts increasing from USD 120.1 billion in FY24 to USD 131.3 billion in FY25.
- India's **share in global services exports** more than doubled, rising from 1.9% in 2005 to around **4.3% in 2023.**
- India ranks as the **2nd-largest** global exporter in "**Telecommunications, Computer, & Information Services**", commanding 10.2% of the global market.
- India is the **3rd-largest exporter** in the "**Other Business Services**" sector, holding 7.2% of the global market, fueled by its expertise in professional and consulting services.
- India ranks **6th in 'Personal, Cultural, & Recreational' services** and **8th in 'Construction services,'** highlighting its competitive edge in cultural exports and international infrastructure projects.



EASE OF DOING BUSINESS INITIATIVES FOR EXPORTERS:

Trade Connect e-Platform:

- Launched by the **Directorate General of Foreign Trade (DGFT)**, this single-window platform **helps Indian exporters**, especially MSMEs, access new markets and boost international trade.
- The platform, **developed with key partners** like the Ministry of MSME, EXIM Bank, Department of Financial Services, and the Ministry of External Affairs, aims to address information gaps.
- This e-platform **will connect more than 6 lakh Importer Exporter Code holders**, over 180 Indian Mission officials, and over 600 Export Promotion Council officials, along with officials from the Directorate General of Foreign Trade, Department of Commerce, banks, and other entities.

DGFT Trade Facilitation Mobile App:

- It provides **information** on Foreign Trade Policy (FTP) updates, import/export policies, statistics, and application status.
- **Offers 24x7 virtual assistance** and auto-generation of electronic Importer Exporter Code (e-IEC), **eliminating approval wait time.**

- IEC details are **automatically validated** with the Central Board of Direct Taxes (CBDT), Ministry of Corporate Affairs (MCA), and Public Financial Management System (PFMS).



BALANCE OF PAYMENTS: RESILIENCE AMID CHALLENGES

- Despite external trade uncertainties, **India's Balance of Payments (BoP) remains stable**, supported by strong services exports, lower crude oil prices, foreign portfolio inflows, and revived FDI flows.

Current account:

- India's **current account deficit (CAD)** moderated to **1.2% of GDP in Q2 FY25**, down from 1.3% in Q2 FY24.
 - The rise in CAD is due to an increase in the merchandise trade deficit.
 - The rising **net services receipts** and increase in **private transfer** receipts **cushioned** the expansion in the merchandise trade deficit.
- Compared to other G20 economies like Brazil and Australia, **India's CAD remains relatively contained** despite **similar external pressures** such as rising commodity prices and weak global demand.
- Private transfers**, mainly driven by remittances from Indians employed overseas, formed the **bulk of net transfers** and showed steady growth.

Capital and Financial Account:

- The Capital and Financial Account plays a **key role in financing the CAD** and boosting foreign exchange reserves.

- India has mostly recorded **capital account surpluses from Q1 FY23 to Q2 FY25**, driven by strong FDI, FPI, and external loan inflows.

Performance of FDI flows:

- FDI saw a **revival in FY25**, with gross inflows increasing from USD 47.2 billion in the first 8 months of FY24 to **USD 55.6 billion** in the same period of **FY25**, registering a 17.9% year-on-year growth.
- From **April 2000 to September 2024**, cumulative FDI inflows, including equity inflows, reinvested earnings, and other capital, **surpassed USD 1 trillion** (USD 1,033.4 billion).
- In FY24, net FDI stood at USD 10.1 billion, with the last two years witnessing higher repatriation from India.
- Since developed countries are also **competing for investments**, India is not just competing with other emerging economies.

Thus, **India has two options:**

- o India

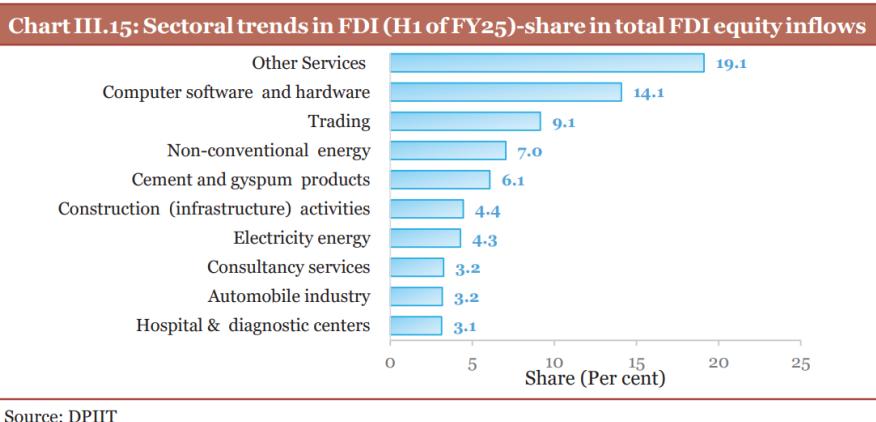
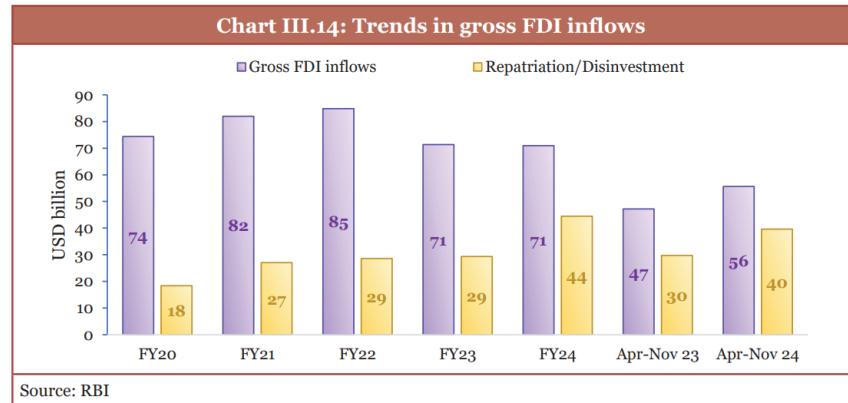
must aggressively attract FDI by **making itself more appealing** to foreign investors, with most sectors already open under the automatic route.

- Improving tax certainty and stability, including **Advance Pricing Agreement (APA)**, can further enhance investor confidence.
- o If the investment rate cannot increase due to capital constraints, **investment efficiency must improve**.
 - Deregulation and 'Ease of Doing Business' play a key role in this, making **deregulation the main theme of this Survey**.

Performance of Portfolio flows:

- Net Foreign Portfolio Investment (FPI) inflows into India **declined to USD 10.6 billion from April to December 2024**, compared to USD 31.7 billion in the same period of the previous year.
- The **inclusion of Indian Government Bonds (IGB) in global indices**, especially JP Morgan's index in October 2023, boosted FPI debt inflows to ₹1.1 lakh crore (Oct 2023–June 2024).
 - o FPI investment in **Fully Accessible Route (FAR) securities** crossed USD 20 billion within nine months of the JP Morgan EM Bond Index announcement.

India's Foreign Exchange Reserves:



Net FDI is calculated as follows:-

- (1) FDI by foreigners: Foreign direct investment inflows+retained earnings-repatriation
- (2) FDI by Indians: Indian investment overseas +retained earnings-repatriation
- (3) The net FDI figure: (1)-(2)
- (4) Then, there are Portfolio Investment flows: -
- (5) Foreign Portfolio Investors' net flows – Indians' Portfolio Investment (Indians' portfolio investment overseas is small)
- (6) Total Investment flows: (1)-(2) +(3)

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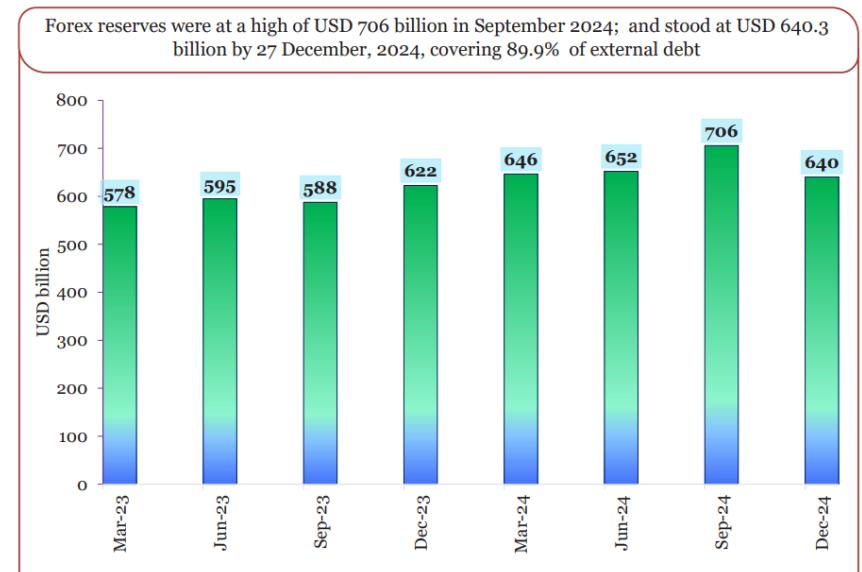
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- Foreign exchange reserves **comprise foreign currency assets (FCA), gold, special drawing rights (SDRs) and reserve tranche position (RTP) in the IMF.**
- These reserves can **cover 89.9% of external debt** (USD 711.8 billion as of September 2024), providing a strong buffer against external risks.
- **India became the world's 4th largest** foreign exchange reserve holder in 2024, after China, Japan, and Switzerland.
- Forex reserves rose by USD 27.1 billion in 2024, driven by net positive capital inflows, with Foreign Currency Assets (FCA) contributing the most to **Strengthening Forex Reserves**
- India's **import cover stood at 10.9 months as of December 2024**, reflecting strong external sector stability.
 - This significantly **exceeds the IMF's three-month import cover recommendation** for emerging economies, ensuring better resilience against external shocks.
 - **A BoP surplus**, along with a **modest valuation gain**, was the key driver of this improvement.



External debt position:

- The **external debt to GDP ratio** rose slightly from 18.8% of the GDP at the end of June 2024 to **19.4%** at the end of September 2024.
- As of September 2024, **short-term debt accounted for 18.8%** of total external debt and 18.9% of forex reserves.
- India's external **debt was primarily in US Dollars (53.4%)**, followed by Indian Rupees (31.2%), Special Drawing Rights (SDR) (5%), and Euros (3%).

PRICES AND INFLATION: UNDERSTANDING THE DYNAMICS

CHAPTER

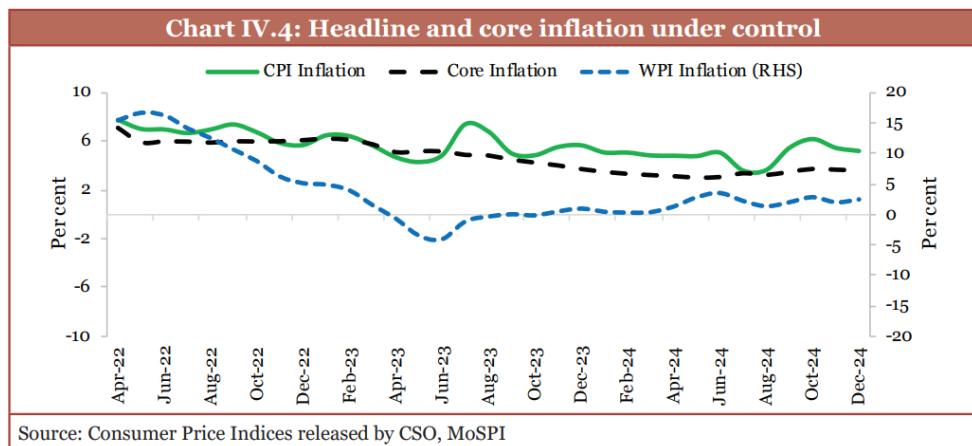
04

DOMESTIC INFLATION

Softening core inflation cools headline inflation:

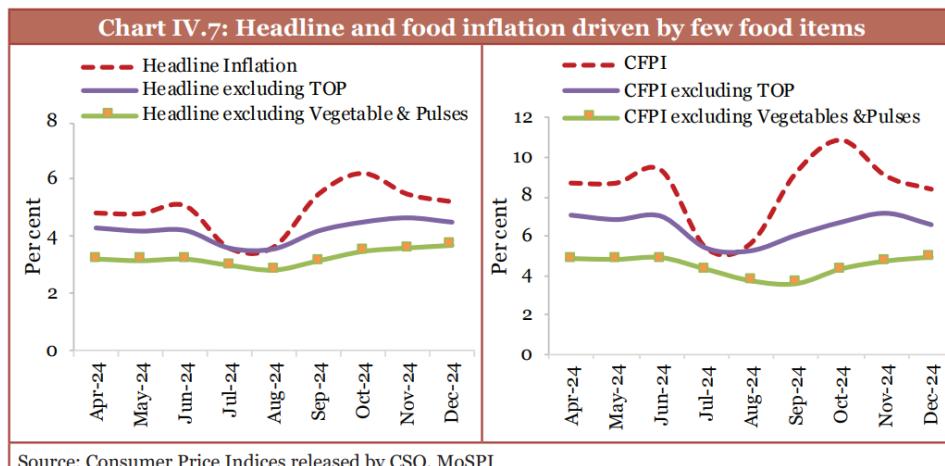
- India's headline inflation (CPI) moderated in FY25 (April–December) compared to FY24, mainly due to a 0.9% **drop in core inflation.**

- The sharp decline in core inflation was largely **driven by core services inflation**, which was lower than core goods inflation.
- Lower fuel price** inflation helped moderate headline inflation, easing household budgets.



Food Inflation is majorly driven by very few food items:

- India's food inflation **remained high** over the past two years, **unlike the global trend** of stable or declining food prices.
 - This was driven by supply chain disruptions, extreme weather events, and lower harvests of certain food items.
- Food inflation (CFPI)** in FY25 (April-December) was mainly driven by **vegetables and pulses**.
 - Despite having an 8.42% weight in the CPI basket, vegetables and pulses contributed 32.3% to overall inflation during this period.
 - Excluding vegetables and pulses**, average food inflation in FY25 (April-December) was 4.3% (4.1% lower than overall food inflation), while headline inflation stood at 3.2% (1.7% lower than actual headline inflation).
- Excluding the 3 most price-sensitive vegetables** - tomato, onion, and potato (TOP) - from the CPI basket, average food inflation in FY25 (April-December) was 6.5%, **1.9% lower than current food inflation**.
 - Average headline inflation** stood at 4.2% when **excluding TOP**, **0.7% lower** than the current headline inflation.



Note:

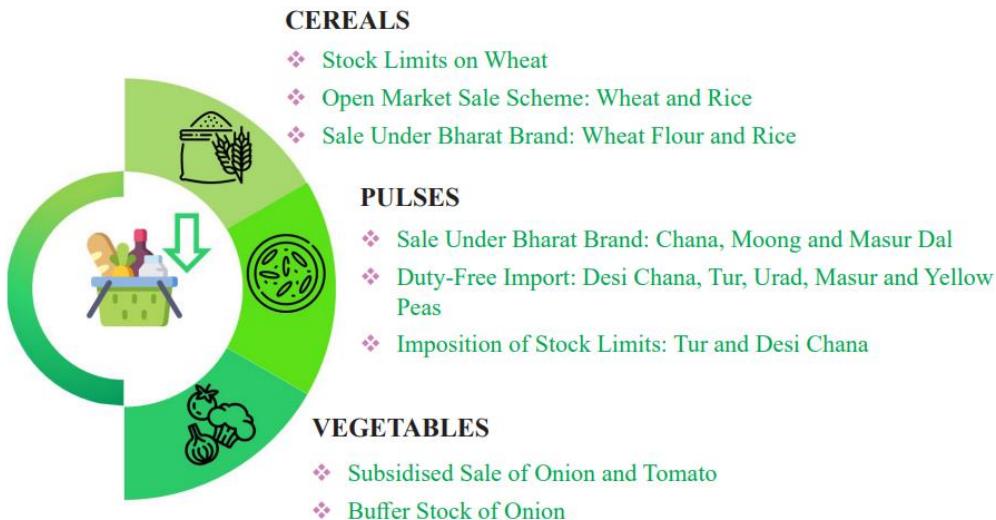
- Tomato production is mainly **concentrated in states** such as Madhya Pradesh, Andhra Pradesh, Karnataka, Gujarat and Odisha.
- Over the **past 3 years**, domestic household consumption of tomatoes and onions has been lower than production.

Table IV.1: Onion and tomato crop calendar

Vegetable	Share in Production	Season	Transplanting	Harvesting Period
Onion	30%	Kharif	Jul-Aug	Oct-Dec
		Late Kharif	Oct-Nov	Jan-Mar
	70%	Rabi	Dec-Jan	End of Mar to May
Tomato	33%	Kharif	May-Jul	Jul- Sept
	67%	Rabi	Oct-Nov, Jan-Feb	Dec-Jun

Source: PIB releases, Ministry of Consumer Affairs, Food & Public Distribution¹¹

Administrative measures to control food inflation:



Source: Various PIB releases

CHAPTER

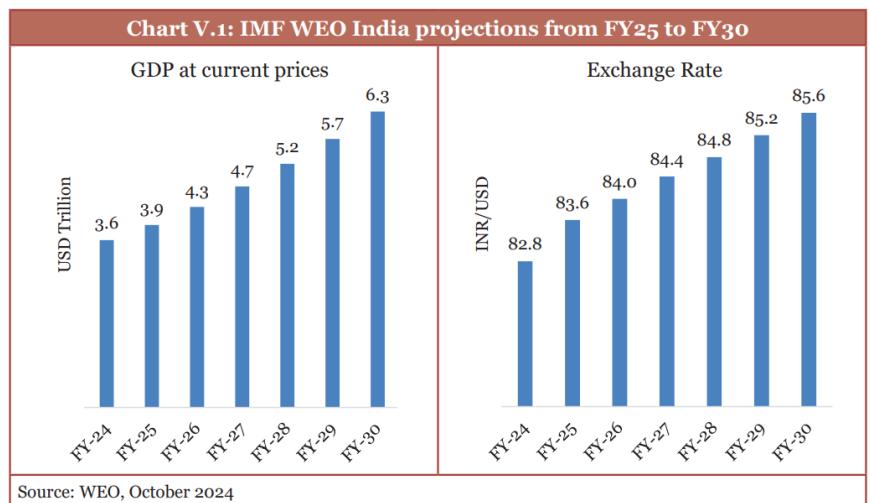
05

MEDIUM TERM OUTLOOK: DEREGULATION DRIVES GROWTH

INDIA'S MEDIUM-TERM OUTLOOK

- To achieve its **Viksit Bharat goal** by India's centenary of independence, the country needs an average growth rate of **8% at constant prices for a decade or two**.
- The IMF's World Economic Outlook (WEO) October FY25 projects **India to become a USD 5 trillion economy by FY28** and reach USD 6.307 trillion by FY30.
 - This implies an **annual nominal growth rate of 10.2%** in USD terms from FY25 to FY30.
 - Over 30 years **from FY94 to FY24**, India's GDP in USD terms grew at a compounded annual rate of **8.9%**.
 - India's nominal GDP grew at a **12.4% CAGR in rupee terms** over the three decades ending FY24.

- The IMF projects India's nominal GDP to grow at 10.7% annually over the next five years.
- The Ministry of Statistics and Programme Implementation (MoSPI) estimates **6.4% GDP growth at constant prices** in the first advance estimate for FY25.
- For FY26**, the Economic Survey projects GDP growth **between 6.3% and 6.8%**.
 - This aligns with the IMF's projection of India's GDP growth at **6.5% (constant prices)** **between FY26 and FY30**.



GEO-ECONOMIC FRAGMENTATION – THIS TIME MAY BE DIFFERENT

Globalization and Economic Transformation Since the 1980s:

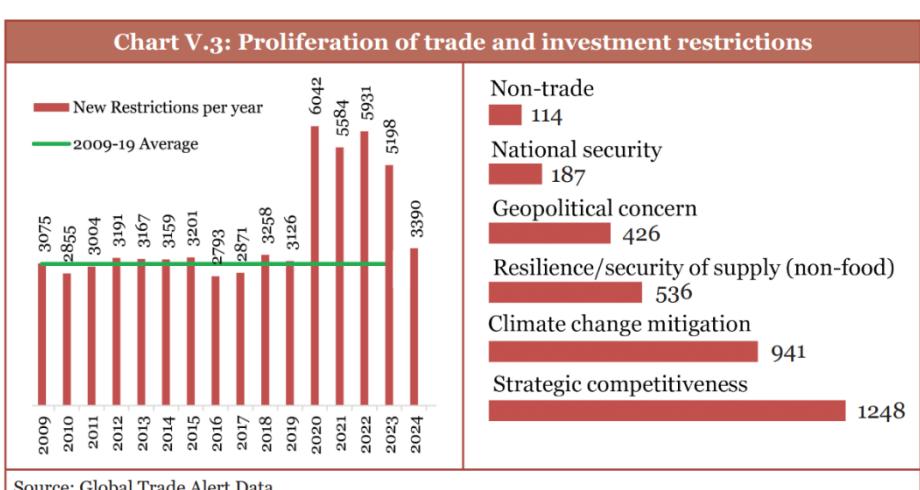
- Global trade expanded** significantly, rising from 39% of world GDP in 1980 to **60% by 2012**, reflecting deep market integration.
- Foreign Direct Investment (FDI)** surged, growing from USD 54 billion in 1980 to over **USD 1.5 trillion in 2019**, highlighting multinational corporations' role.
- The **global economy** grew from USD 11 trillion in 1980 to over **USD 100 trillion in 2022**, demonstrating strong economic expansion.
- Extreme poverty rates (those living on less than USD 2.15 a day)** dropped from 42% of the global population in 1981 to **8.4% in 2019**, driven by rapid economic growth in China and India.

Global population and urbanisation:

- The global population **increased from 4.4 billion in 1980 to 8 billion in 2022**, while **urbanization** rose from 39% to **57%** in same period, boosting economic activity and connectivity.
- Internet penetration:** In 1980, internet connectivity was nearly nonexistent, but by 2022, **5.3 billion people (66% of the global population)** had internet access.

THE ELEPHANT AND THE DRAGON IN THE ROOM

- Between 2020 and 2024, over **24,000 new trade and investment restrictions** were imposed globally, slowing trade growth and signaling secular stagnation in the global economy.
- According to UNIDO, **China's share** in global manufacturing surged from 6% in 2000 to a **projected 45% thirty years later**, giving it unprecedented dominance in manufacturing and energy transition.



- This level of manufacturing **dominance has been seen only twice before** - by the **UK at the start of the Industrial Revolution and by the US just after World War 2.**

IMPLICATIONS FOR INDIA'S GROWTH PROSPECTS:

- **Viksit Bharat@2047** aims to make India a developed nation by 2047, requiring an increase in the **investment rate to 35% of GDP** from the current 31%.
 - India **must create 78.5 lakh non-farm jobs annually till 2030**, achieve 100% literacy, enhance education quality, and build future-ready infrastructure.
 - Additionally, **strengthening manufacturing and investing in AI**, robotics, and biotechnology will be crucial.
- Over the last decade, India implemented **major structural reforms**:
 - **Goods and Services Tax (GST)** created a unified tax system, improving ease of doing business and boosting revenue collection.
 - **Insolvency and Bankruptcy Code (IBC)** accelerated NPA resolution, strengthening the banking sector and investor confidence.
 - **Real Estate Regulation Act (RERA)** helped regulate and clean up the real estate sector.
 - **India Stack** (Unique Identification (UID), Unified Payments Interface (UPI), Direct Benefit Transfer (DBT)) transformed digital infrastructure.
 - **Digital Public Infrastructure (DPI)** improved service accessibility and enhanced economic efficiency across sectors.
- **India's growth should be driven by internal engines**, focusing on economic freedom for individuals and organizations to pursue legitimate activities.

REINVIGORATING THE INTERNAL ENGINES OF GROWTH - ENHANCING ECONOMIC FREEDOM THROUGH DEREGULATION

Deregulation and economic freedom: A catalyst for growth:

- **Many regulations are gold-plated**, meaning they are unnecessarily strict and based on unrealistic compliance capacity, and can be simplified to match global standards.
- Regulations should be **rationalized to be minimal yet effective**, ensuring they are achievable within the limited managerial and financial resources of SMEs.

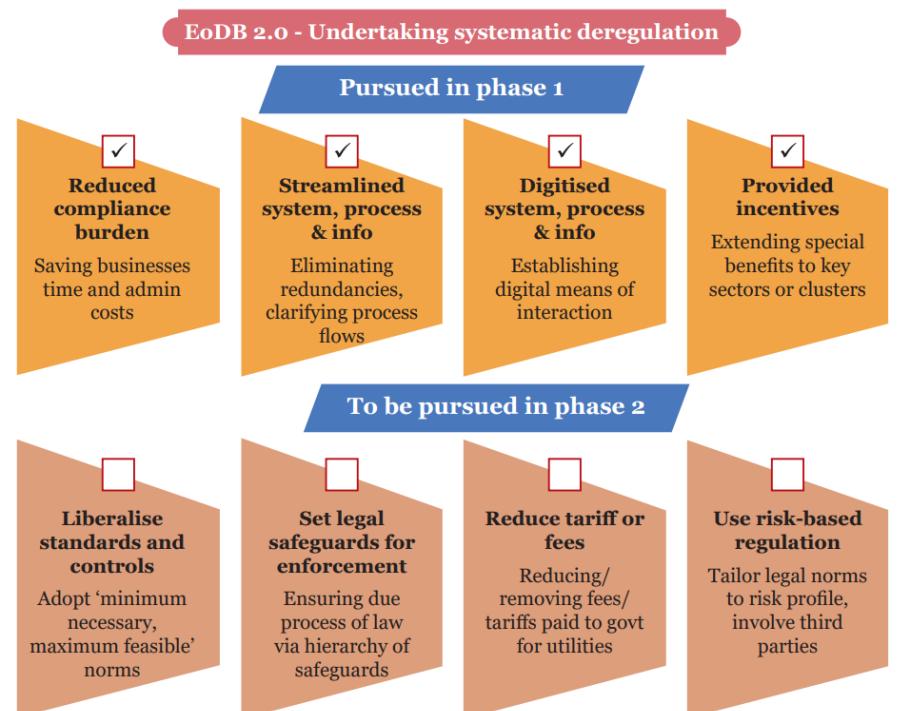
States can deregulate systematically by reviewing regulations for cost-effectiveness in **three steps**:

- **Identifying areas for deregulation:**
 - **Ease of Doing Business (EoDB) 2.0** should be state-led, addressing the root causes of business challenges.
 - When the Union Government makes the main laws, **states can simplify rules by changing related regulations.**
- **Thoughtfully comparing the regulations with other states and countries:**
 - States should use **inter-state and inter-country comparisons** to identify growth-inducing reforms, learning from deregulation experiences and creative solutions.
- **Estimating the cost of each of these regulations on individual enterprises:**

- o Regulations impose **monetary, opportunity, and enforcement costs**, requiring businesses to spend money and sacrifice entrepreneurial opportunities.
- o States should **assess the unit-level impact** of each regulation before implementation to ensure balanced compliance and enforcement.

The following can be pursued in Phase 2 of Ease of Doing Business (EoDB):

- **Liberalizing standards and controls** by adopting a "minimum necessary, maximum feasible" approach to regulations.
 - o Removing prohibitions on women from working in factory processes.
 - o Rationalise parking norms to reduce land loss in industrial and commercial plots.
- **Setting legal safeguards for penalties and enforcement** to ensure due process and fact-based dispute resolution.
 - o Adding safeguards to reduce chances of arbitrary administrative action
- **Reducing tariffs and fees** to eliminate unnecessary utility costs.
- **Using risk-based regulation** by tailoring legal norms to business risk profiles and involving third parties in enforcement.
- Systematic deregulation is as crucial as infrastructure investment and innovation incentives in building a **strong SME sector (Mittelstand) in India**.



Key Benefits of Deregulation:

- Deregulation **boosts confidence and trust in governance**, improving compliance and strengthening the partnership between the government and businesses.
- Removing some regulations makes it **easier to simplify others**, like peeling an onion, revealing further opportunities for reform.
- Deregulation can trigger a '**butterfly effect**', where small policy changes lead to significant economic impacts, fostering entrepreneurship, investment, innovation, and growth.

INVESTMENT AND INFRASTRUCTURE: KEEPING IT GOING

CHAPTER

06

The government has introduced various mechanisms to speed up project planning, approvals, and execution:

- National Infrastructure Pipeline (NIP):** It currently covers 9,766 projects **across 37 sub-sectors**, ensuring efficient tracking through the India Investment Grid (NIP-Project Monitoring Group) portal to expedite execution.
- National Monetisation Pipeline (NMP):** It set a **₹6 lakh crore target (FY22-FY25)** to unlock value from core infrastructure assets.
 - By FY24, ₹3.86 lakh crore was achieved against the ₹4.30 lakh crore target, with roads, power, coal, and mining leading the progress.
 - For FY25, the aggregate **monetization target** is set at **₹1.91 lakh crore**.
- The Union Government's **capital expenditure on major infrastructure** sectors grew at a **38.8%** trend rate from FY20 to FY24, reflecting its commitment to development.
- The Union Government's capital expenditure for FY25 is budgeted at **3.3 times** the capex for FY20.

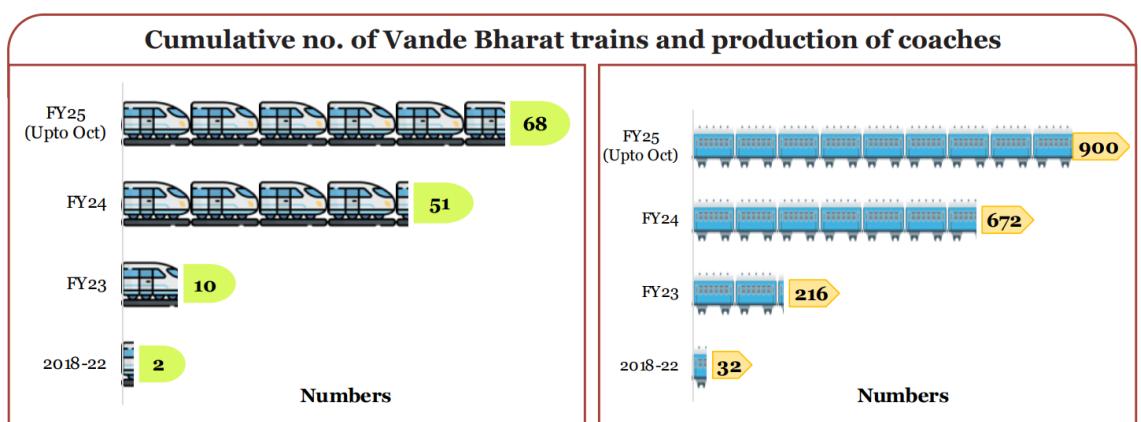
PHYSICAL CONNECTIVITY

Railways:

- Between April and October 2024, **17 new Vande Bharat train pairs were added**, and 228 coaches were produced.

Recent developments in railways:

- Gati shakti multi-modal Cargo Terminal (GCT):** 91 GCTs **commissioned** and 234 locations approved by October 31, 2024.
- Net zero carbon emission:** Indian Railways targets **30 GW of renewable energy by 2029-30**, with 375 MW of solar and 103 MW of wind commissioned as of October 2024.
- Major economic corridors:** 434 projects valued at ₹11.17 lakh crore have been identified under **3 railway corridors**, mapped on the PM GatiShakti portal.
- Major Projects:**
 - Mumbai-Ahmedabad High-Speed Rail (508 km)** sanctioned in December 2015, supported by Japan, with a ₹1.08 lakh crore revised cost; 47.17% completed as of October 2024.
 - Dedicated Freight Corridors (DFCs):** **2,741 km (96.4%)** of the 2,843 km network commissioned by November 2024.



Steps for enhancing passenger amenities in railways:

- Under the Amrit Bharat Station Scheme**, 1,337 railway stations were identified for redevelopment.
- Pradhan Mantri Bhartiya Janaushadhi Kendras (PMBJKs)** were started at 50 railway stations, with 18 more inaugurated in November 2024, to provide affordable medicines and healthcare services.
- One Station One Product Scheme** operates at 1,900 stations with 2,163 outlets, benefiting 79,380 local artisans by providing sales opportunities.

Road transport:

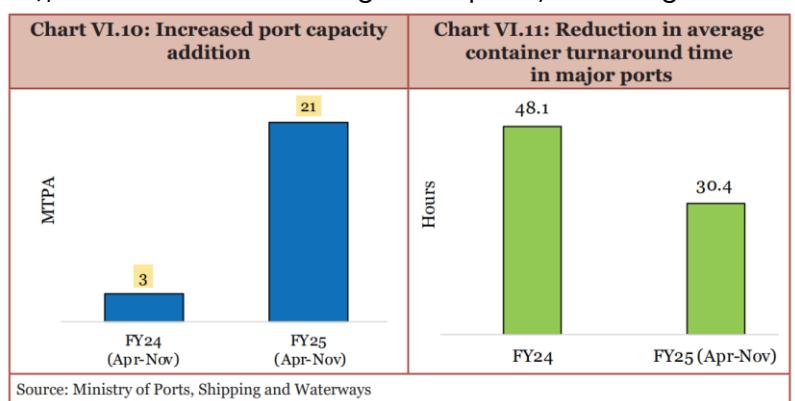
- India's total road network **spans 63.4 lakh km**, including a National Highway (NH) network of 1,46,195 km.
 - Despite being just **2% of the total road network**, NHs carry about **40% of overall road freight traffic**, serving as the arterial backbone of transportation.
- The **National Industrial Corridor Development Programme** aims to develop advanced industrial cities, making India a key manufacturing and investment hub.
 - Industrial development is **underway in 4 cities/townships**: Dholera (Gujarat), Shendra Bidkin (Maharashtra), Greater Noida (Uttar Pradesh), and Vikram Udyogpuri (Madhya Pradesh).
 - Work has started in **another 4 cities**: Tumakuru (Karnataka), Krishnapatnam (Andhra Pradesh), Nangal Choudhary (Haryana), and Dadri (Uttar Pradesh).
- An **additional 12 new industrial cities** have been approved, integrating Industry 4.0 standards, alongside 8 previously approved projects.
- **Bharatmala Pariyojana**, launched in October 2017, aims to develop 34,800 km of National Highways, with 76% (26,425 km) awarded and 18,926 km constructed by 2024.
- **Multi-Modal Logistics Parks (MMLP)**: Till December 2024, **6 MMLPs** in Chennai, Indore, Nagpur, Jalna, Jogighopa and Bangalore have been awarded.
- **Ropeways projects development: 15 projects are in progress**, with Varanasi, Dhos Hill, Bijli Mahadev, and Ujjain awarded, while 10 more are under bidding.

Civil aviation:

- Under the Regional Connectivity Scheme (UDAN), 619 routes connecting 88 airports, including 2 water aerodromes and 13 heliports, have been operationalised so far.

Ports and shipping:

- **Port-Led Industrialisation**: The Union Cabinet approved **12 new industrial smart cities** with a ₹28,602 crore investment across 10 states, along with 8 additional sanctioned projects.
- **International Linkages**:
 - **Chabahar Port & International North-South Transport Corridor (INSTC)**: Shahid Beheshti Port at Chabahar connects **Mumbai to Eurasia**, cutting transport costs and time, leading to a 43% rise in vessel traffic and 34% growth in container traffic in FY24.
 - **Sittwe Port, Myanmar (Kaladan Project)**: Provides an **alternative route to Northeast India**, reducing transport costs between Kolkata and Mizoram.
- In October 2024, the **National Maritime Heritage Complex in Lothal** was approved, featuring 14 museum galleries, the **tallest lighthouse museum**, India's largest Navy gallery, and themed amusement parks.
- The **International Container Transshipment Port at Galathea Bay**, Great Nicobar Island, is planned to boost cargo transshipment from Indian East Coast ports and neighboring countries.
- **Urban Waterways Projects**, valued at ₹1,303 crore, are underway.

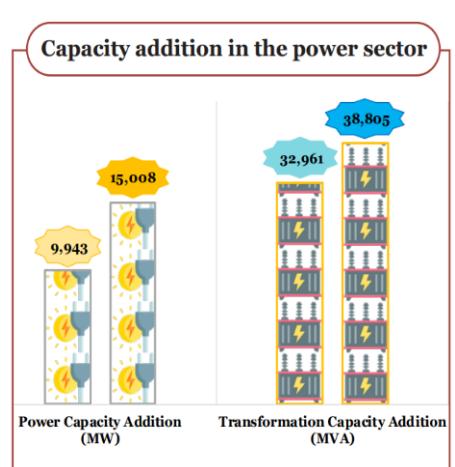
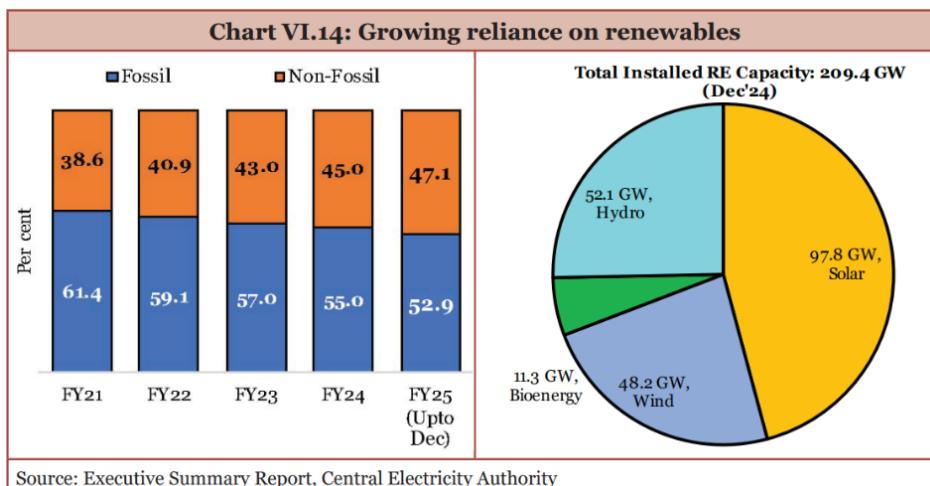


Inland Waterways Transformation: Key Projects and Initiatives:

- **Harit Nauka Guidelines (Jan 2024):** Aims to green 1,000 inland vessels over the next 10 years.
- **Cargo Promotion Scheme:** Encourages **shifting cargo transport from rail and road** to waterways, promoting sustainability.
- **River Cruise Tourism:** Improved waterways have benefited both cargo and tourism.
- **Jal Marg Vikas Project on NW-1:** Enhances cargo transport on the Ganga-Bhagirathi-Hooghly river system, achieving **65% progress** with a revised cost of ₹5,061.15 crore.
- **Jal Marg Vikas Project II (Arth Ganga):** Focuses on sustainable development, including **community jetties and navigation improvements**, with 49 out of 60 jetties already commissioned.

POWER SECTOR:

- The power sector expanded, with **installed capacity reaching 456.7 GW** in November 2024, a 7.2% year-on-year increase.
- By December 2024, **India's renewable energy** capacity grew 15.8% year-on-year, reaching **209.4 GW**, up from 180.8 GW in December 2023.



Government Initiatives for Improving Power Supply and Distribution Infrastructure:

- Under the **Deen Dayal Upadhyaya Gram Jyoti Yojana** (DDUGJY - launched in 2014), the **Integrated Power Development Scheme** (IPDS) (launched in 2014), and the **Pradhan Mantri Sahaj Bijli Har Ghar Yojana** (SAUBHAGYA) (introduced in 2017), a total investment of ₹1.85 lakh crore has been made to improve distribution infrastructure across states.
 - As a result, 18,374 villages have been electrified under DDUGJY, and **2.9 crore households** have gained access to electricity through **SAUBHAGYA**.
- Additionally, the **Revamped Distribution Sector Scheme**, launched in July 2021, aims to improve the quality and reliability of power supply.
 - With a total outlay of ₹3.0 lakh crore and a gross budgetary support of ₹97,631 crore for the period from FY22 to FY26.

DIGITAL CONNECTIVITY:

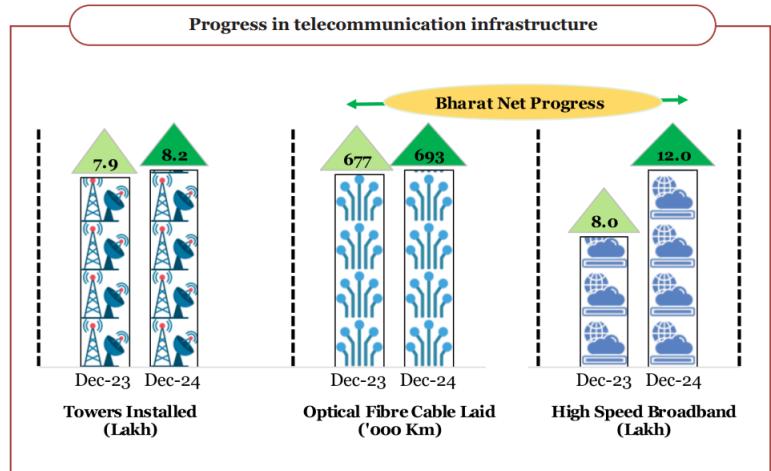
- By October 31, 2024, **5G services** were launched in all states and union territories, and are currently **available in 779 out of 783 districts**.

- In August 2024, the **Universal Service Obligation Fund**, which supports telecom services and subsidizes mobile, broadband, and infrastructure in **rural areas**, was **renamed Digital Bharat Nidhi (DBN)**.

- The BharatNet Project** aims to connect all Gram Panchayats and villages with broadband.

- As of December 2024, 6.92 lakh km of Optical Fibre Cable (OFC) has been laid, and 2.14 lakh Gram Panchayats are service-ready.

- The Government of India **Cloud initiative, MeghRaj**, is a key part of India's IT strategy, focused on delivering ICT services **through cloud computing to Central and State/UT Departments**.

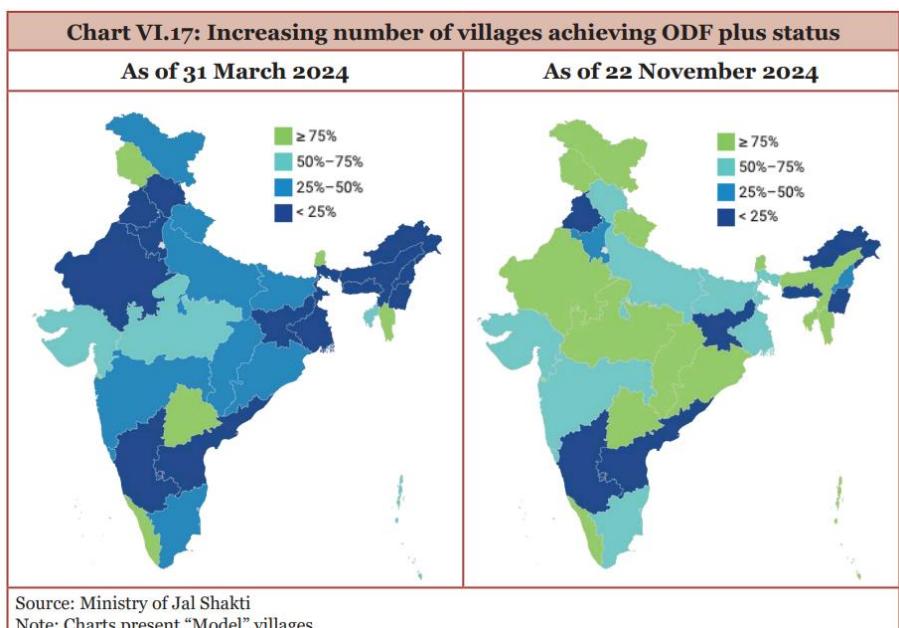


RURAL INFRASTRUCTURE:

Rural Drinking Water and Sanitation

:

- The **Jal Jeevan Mission (JJM)**, launched in August 2019, aims to provide reliable access to safe piped drinking water for rural households.
 - At the time of launch, **only 3.23 crore (17%)** rural households had tap water connections.
 - By November 26, 2024, over 12.06 crore households have been added, bringing the **total to 15.30 crore (79.1%)** out of approximately 19.34 crore rural households.
 - 8 states**, namely, Arunachal Pradesh, Goa, Haryana, Himachal Pradesh, Gujarat, Punjab, Telangana and Mizoram, and **3 union territories**, namely, Andaman & Nicobar Islands, Dadra Nagar Haveli & Daman Diu and Puducherry have achieved **100% coverage**.
 - At the time of launch, over 75.2 lakh households in **quality-affected areas** lacked safe drinking water; however, since implementation, 69.23 lakh households now receive safe piped water supply.



- The **Swachh Bharat Mission–Grameen (SBM-G)** achieved open defecation-free (ODF) status in its first phase.

- Phase II of SBM-G**, implemented from 2020-21 to 2024-25, focuses on converting villages from ODF to ODF Plus.

URBAN INFRASTRUCTURE

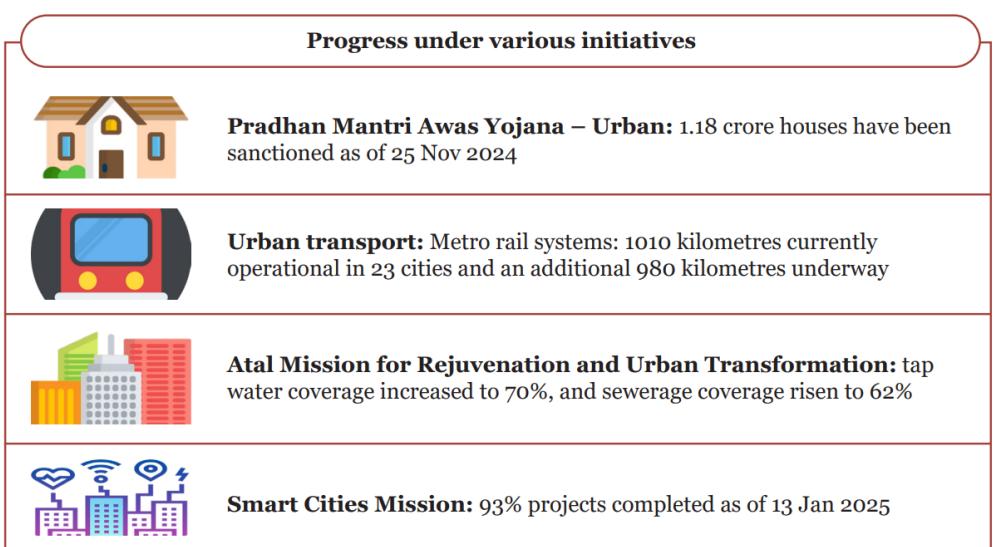
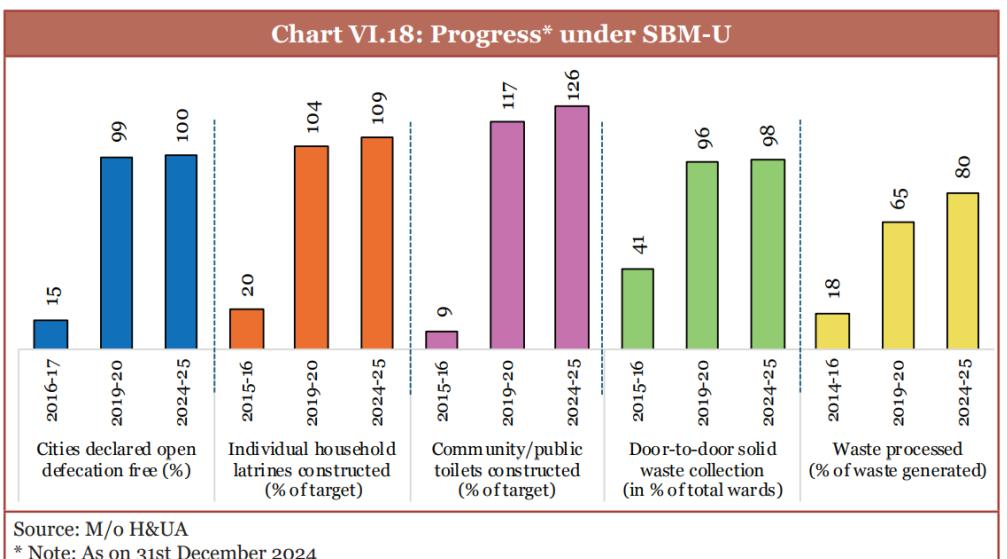
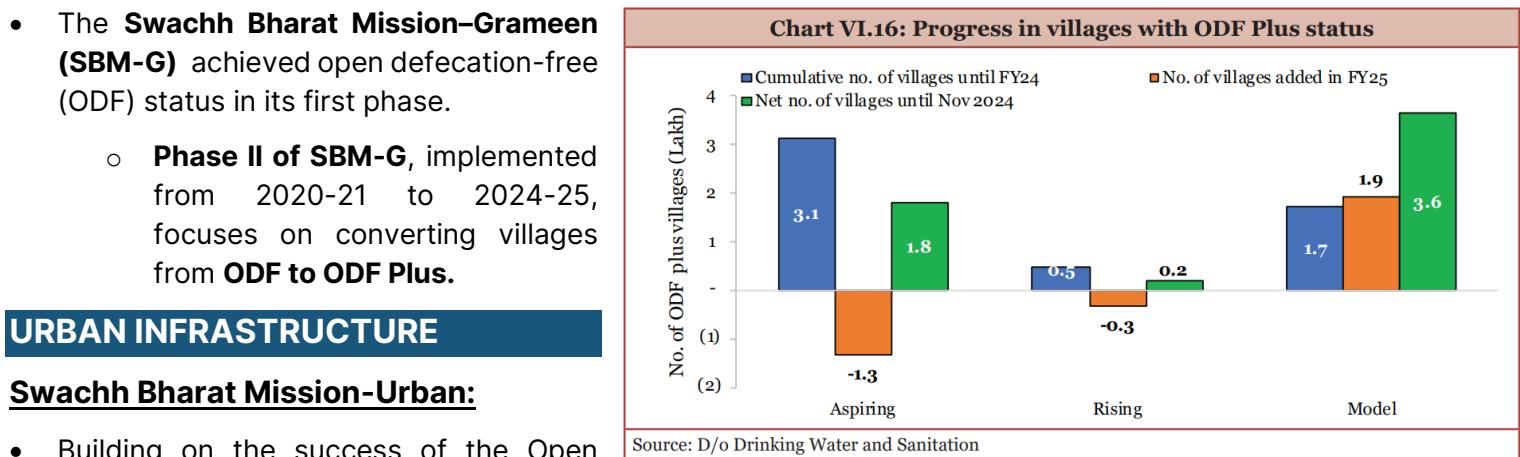
Swachh Bharat Mission-Urban:

- Building on the success of the Open Defecation Free (ODF) nation through the Swachh Bharat Mission (SBM-U), **SBM-Urban 2.0 was launched in 2021**.

- According to the **78th round report of NSS (2015)**, 97% of households in urban areas have access to toilets.
- The **NITI Aayog Sector Report (2021)** stated that SBM-U was well-aligned with sustainable development goals and national priorities, and was effectively implemented.

Progress under various initiatives:

- PMAY-U 2.0** was launched in September 2024 to support an additional one crore households.
 - 29 states and union territories have signed agreements** to implement PMAY-U 2.0, with approval granted for 6 lakh houses in FY25.
- In 2021, AMRUT 2.0 was introduced** to expand coverage to all statutory towns and cities, with an allocation of ₹2.77 lakh crore during FY22 to FY26.



Real Estate Development:

- Rules under the Real Estate (Regulation & Development) Act, 2016 (RERA) have been **notified in all States and Union Territories except Nagaland**, with various regulatory authorities established.

Initiatives driving urban transformation:

- **Climate Smart Cities Assessment Framework (CSCAF):** Launched in 2019 to assess climate-sensitive development in cities. CSCAF 2.0 evaluated 126 cities in 2020, and the **upcoming CSCAF 3.0 is currently being developed.**
- **DataSmart Cities Strategy:** Focuses on **data-driven governance** to assess cities' readiness for data solutions across various sectors.
- **National Urban Innovation Stack:** Supports collaboration within urban ecosystems and promotes data-driven governance.
- **National Urban Learning Platform:** A scalable platform **to build capacity** among urban local bodies for improved management.
- **City Investments to Innovate, Integrate, and Sustain Challenge:** Supports urban projects with significant funding for innovation and **climate-resilient infrastructure**. The **2nd phase** was approved in **2023** to fund climate-resilient infrastructure in a maximum of 18 cities.
- **Urban Learning Internship Programme (TULIP):** Launched in 2020, TULIP connects local bodies with youth for internships to enhance urban transformation skills.
- **National Urban Digital Mission:** Aims to establish shared digital infrastructure across cities to enhance **citizen-centric governance** and service delivery by 2024.

SPACE INFRASTRUCTURE:

- India currently operates **56 active space assets**, including 19 communication satellites, 9 navigation satellites, 4 scientific satellites, and 24 earth observation satellites.

Space-based Infrastructure Monitoring Platforms:

- **ISRO's Bhuvan Platform:** Helps monitor infrastructure under schemes like MGNREGA and the watershed component of PMKSY at various stages.
- **Electrical Infrastructure Management:** Facilitates the management of electrical infrastructure in Maharashtra and Telangana using Web-GIS portals.
- **NyayaVikas Portal for Judicial Infrastructure:** Developed in collaboration with the Department of Justice, this portal **monitors judicial projects** using Web GIS and mobile geotagging to track progress.
- **Urban Geospatial Databases for AMRUT Cities:** ISRO has created 2D urban geospatial databases for 238 AMRUT cities, supporting the development of GIS-based **master plans** for urban planning.

India's Space Vision 2047:

The Union Cabinet has approved **4 key projects:**

1. The **Gaganyaan follow-on mission** will pave the way for the establishment of the first module of the Bhartiya Antariksh Station
2. The **Chandrayaan-4** Lunar Sample Return Mission
3. The **Venus Orbiter** Mission

INDUSTRY: ALL ABOUT BUSINESS REFORMS

- **High-income countries have lost a significant share** in global manufacturing over the last decade, mostly gained by upper middle-income countries, particularly **China**.
- The share of lower middle-income economies, in general, did not increase, yet **India managed to improve its share** and global presence in manufacturing.
 - However, with **2.8% of the global share in manufacturing**, compared to China's 28.8%, India has a large opportunity to climb up the ladder.
 - India has significant **potential to increase the industrial sector's contribution** to GDP compared to its comparator countries.
- Global trends suggest that, due to high commodity prices, **consumption is shifting from manufactured goods to services**.

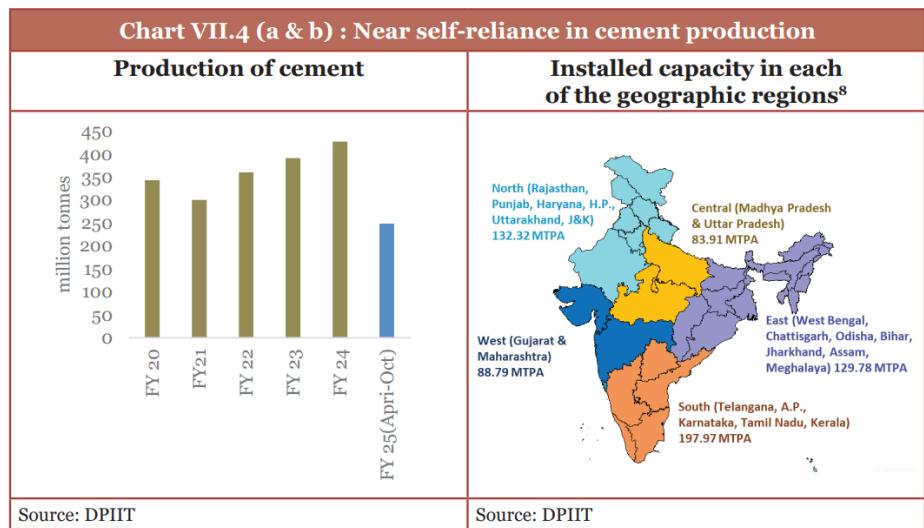
RECENT DOMESTIC DEVELOPMENTS:

- **Industrial growth** in FY25 is expected to be **higher than the previous 5-year average**, with a 6.2% increase driven by strong growth in electricity and construction.

CORE INPUT INDUSTRIES:

Cement:

- Currently, **India is the 2nd largest cement producer** in the world after China.
- Most cement plants in India are located near raw material sources, with **87% of the industry concentrated in states** like Rajasthan, Andhra Pradesh, Telangana, Karnataka, Madhya Pradesh, Gujarat, Tamil Nadu, Maharashtra, Uttar Pradesh, Chhattisgarh, Odisha, Meghalaya, and West Bengal.



Steel Industry:

- In April-November FY25, India's crude steel production grew by 3.3% and finished steel production by 4.6%, showing an **overall upward trend** despite some monthly fluctuations.
- India has been a **net importer** of steel from April to November FY25.
- In FY24, **construction and infrastructure** accounted for an estimated **68%** of total steel consumption.

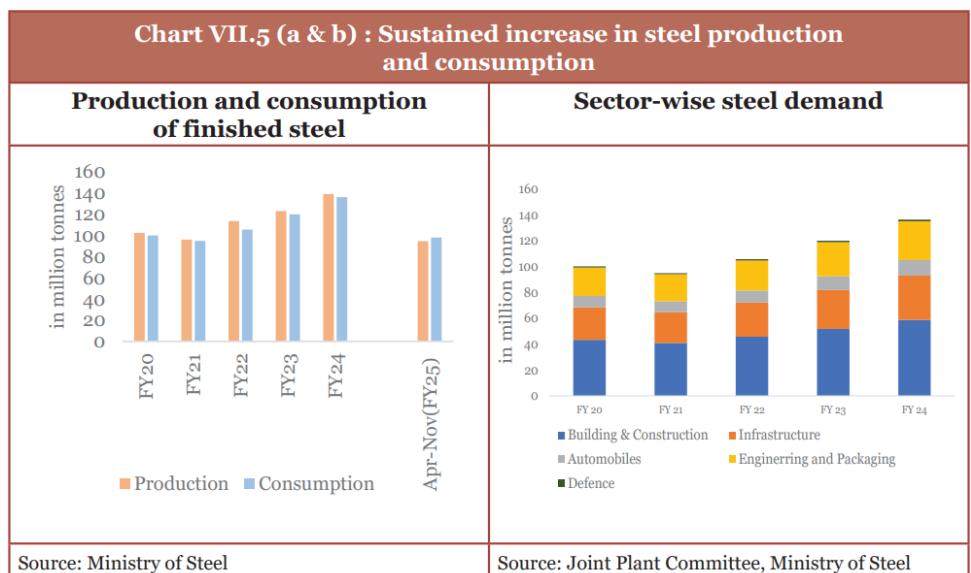
Chemical and Petrochemical Sector:

- India is a net importer of these products, **relying on imports for about 45%** of petrochemical intermediates.

PERFORMANCE OF CAPITAL GOODS AND CONSUMER GOODS INDUSTRIES:

Capital goods:

- The production of capital goods varied between FY20 and FY23, but showed **strong growth in FY24**.
- The government has launched **Phase II of the Scheme for Enhancement of Competitiveness of the Capital Goods Sector** to further enhance the impact of Phase I on the sector.
- The government has been promoting **Smart Manufacturing and Industry 4.0** by supporting the establishment of **Smart Advanced Manufacturing and Rapid Transformation Hub (SAMARTH) Udyog centres** at various institutions.

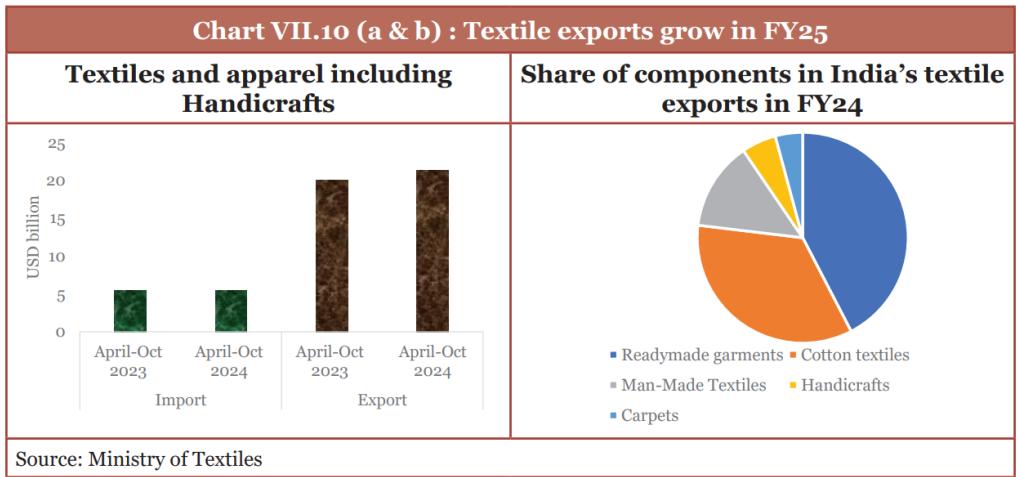


Electronics Industry:

- India has significantly reduced its reliance on **smartphone** imports, with **99% now being manufactured domestically**.
 - In FY24, around 33 crore mobile phone units were produced, with over 75% of the models being 5G enabled.

Textiles:

- The textile industry is a key employment generator, contributing about **11% to India's manufacturing GVA**.
 - India is a **leading producer of jute** and ranks **2nd globally** in cotton, silk, and man-made fibre production.
 - India is the **6th largest exporter** of textiles and apparel, with a 4% share of global trade in this segment.
 - In FY24, textiles, apparel, and handicrafts made up about 8% of India's total merchandise exports.
- India's **export of textiles and apparel**, including handicrafts, stood at **USD 35.87 billion in FY24**, down from USD 36.69 billion in FY23, after reaching a high of USD 44.44 billion in FY22.



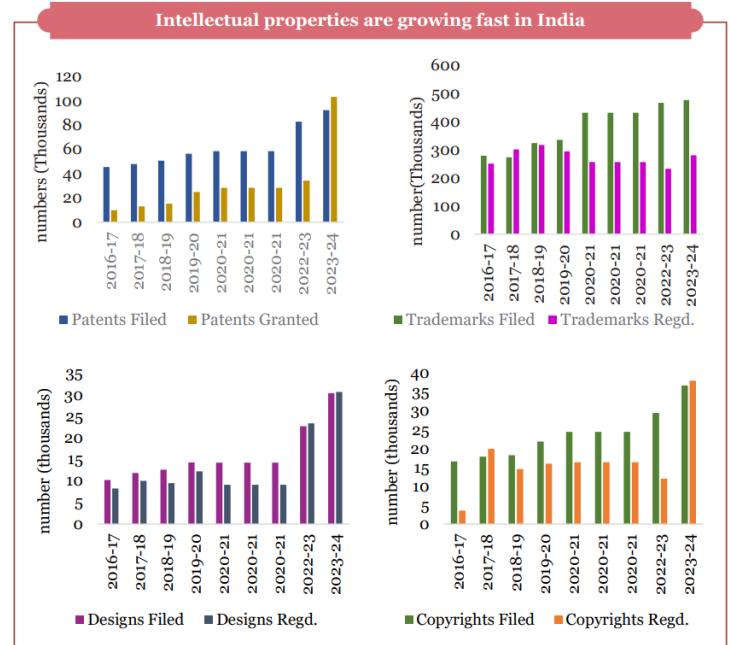
- India's **technical textile industry** is rapidly growing, ranking **5th globally**, and the country is a net exporter of technical textiles.

Pharmaceuticals:

- The Indian pharmaceutical industry is the **world's 3rd-largest by volume**.
 - Exports account for 50% of the total turnover.
- India holds a 1.5% share of the global medical devices market** and **ranks 4th** in Asia, behind Japan, China, and South Korea, while being recognized as one of the **top 20** medical device markets globally.
- As noted by the United Nations Industrial Development Organization (UNIDO), among the **top 5 pharmaceutical producers**, the **United States led** with significant growth, followed by Japan and China, while **Switzerland and India experienced a decline**.
- In October 2023, India made significant progress in cell and gene therapy with the approval of its **first indigenously developed CAR-T cell therapy** by the Central Drugs Standard Control Organisation.

FLOURISHING INNOVATIONS AMIDST ASPIRATIONS OF ENHANCED R&D:

- As per the World Intellectual Property Organization (WIPO) Report 2022, **India ranks 6th globally in patent filings**, with applications mainly in computer & electronics, mechanical & biomedical, and communication fields.
- The **Patent (Amendment) Rules 2024** has further simplified patent processing, filing and maintenance.
- India ranks 7th in intangible asset intensity**, outpacing many high-income economies and matching the intangible investment intensity of Germany and Japan as a share of GDP.
- India's rank in the Global Innovation Index has improved to 39th in 2024** among 133 economies, up from 81st in 2015.
 - It ranks 1st among 38 lower middle-income economies and 1st among 10 economies in Central and Southern Asia.



R&D in India:

- India lags in R&D, with the gross expenditure on research and development (GERD) at **0.64% of GDP**, which is low compared to many leading countries in R&D.
 - The funding for R&D in India is **predominantly sourced from government entities**.
 - The **R&D sector-wise share** in India is 43.7% for the central sector, 36.4% for the state sector, 8.8% for the private sector, 6.7% for the public sector, and 4.4% for higher.
 - In developed and emerging economies, business enterprises contribute over 50% to GERD, with countries like China, Japan, South Korea, and the USA exceeding 70%.
- In India, **industrial R&D is not only low but also concentrated in specific sectors**, with drugs and pharmaceuticals leading, followed by information technology, transportation, defence, and biotechnology.

Government Initiatives to Encourage IP Protection:

- **Expedited Patent Examination:** For start-ups, SMEs, women inventors, government departments, and academic institutions.
- **Simplified Patent Procedures:** Includes easier disclosure requirements, reduced the timeline for examination from 48 months to 31 months, certificates of inventorship, and a grace period for prior disclosed inventions.
- **Simplified Trademark Procedures:** Reduced the number of trademark forms from 74 to 8, streamlining the registration process.
- **Fee Reduction:** Lower fees for start-ups, MSMEs, and educational institutions for patent, design, and trademark filings.
- **Start-Up Intellectual Property Protection Scheme:** Provides financial and technical assistance to start-ups for patent, design, and trademark filings, **extended till March 2026**.
- **IP Saarthi Chatbot:** Offers instant guidance on IP registration and grant processes.
- **Technology Transfer Organizations:** Promotes R&D and IP commercialization, with 34 Technology and Innovation Support Centres established across the country.

MICRO SMALL AND MEDIUM ENTERPRISES (MSME):

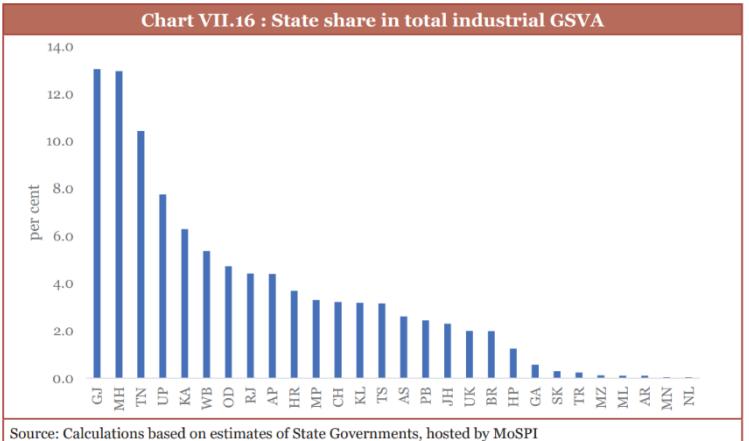
- As of November 26, 2024, MSMEs have reported **employing 23.24 crore individuals**.
- To simplify MSME registration and enhance ease of doing business, the government launched the **Udyam Registration Portal in July 2020**.
- To formalize Informal Micro Enterprises (IMEs), the government, **in collaboration with SIDBI, launched the Udyam Assist Platform (UAP) in January 2023**.
 - The UAP has formalized over 2.39 crore informal micro enterprises, making them eligible for priority sector lending benefits.
- **Credit Guarantee Scheme for Micro and Small Enterprises (CGTMSE):** In FY23, 11.65 lakh guarantees totaling ₹1 lakh crore were provided under the scheme.
- The government launched the **Self-Reliant India (SRI) Fund with a ₹50,000 crore corpus**.
- In addition to easy credit, the government addresses MSME issues through initiatives like **MSME Samadhan and the CHAMPIONS portal**.
- To deal with the issues of delayed payments, MSE suppliers may approach the **Micro and Small Enterprises Facilitation Council (MSEFC)**.
- The government is implementing the **Micro and Small Enterprises-Cluster Development Programme (MSE-CDP)** to develop clusters nationwide, with Common Facility Centres (CFCs) addressing common issues.

TReDS: Transforming MSME Financing Through Timely Payments:

- TReDS, regulated by the RBI, is a marketplace that allows buyers like government departments, public sector undertakings, and corporates to make **timely payments to MSME suppliers as per the MSMED Act 2006**.
- With the Government of India's **mandate for companies with a turnover above ₹250 crore** to join the platform, more corporates are expected to onboard.

POLICIES TO PROMOTE GREATER EQUITY IN STATE-WISE INDUSTRIAL PRODUCTION:

- In FY23, **84.7% of GVA** at constant prices was generated by industrial and service activities, with interstate variation.
- Gujarat, Maharashtra, Karnataka, and Tamil Nadu account for **about 43% of the total industrial Gross State Value Added (GSVA)**.
- **6 Northeast states** (excluding Sikkim and Assam) contribute **only 0.7%** to industrial GVA, highlighting the need for tailored industrial strategies for the region.
- Only a few states like **Gujarat, Uttarakhand, and Himachal Pradesh** effectively **leverage their dependence on the industrial sector** to generate reasonable income levels for their people.
- Some states have high dependence on the industrial sector but generate low income, while **states in the eastern and northern regions are the least industrialized**.
- The **mining sector** contributes about **8%** to the total industrial output. Mining activity is highly **concentrated** in Assam, Chhattisgarh, Gujarat, Maharashtra, and Odisha, which together account for about 60% of the all-State mining Gross State Value Added (GSVA).
- The **Annual Survey of Unincorporated Manufacturing Enterprises (ASUSE)** for FY23 shows significant inter-state disparities, with **Tamil Nadu having the highest concentration of factories per person**, followed by Gujarat, while Bihar has hardly any factories and Uttar Pradesh has hardly any smaller enterprises.
- The **Business Reform Action Plan (BRAP)** by the Department for Promotion of Industry and Internal Trade aims to improve ease of doing business across states, categorizing them into **four groups: top achievers, achievers, aspirers, and emerging business ecosystems**.
 - There is a **positive link between business reforms and industrial activity**, highlighting the need for deregulation and enterprise-friendly reforms in aspiring and emerging states.



SERVICES: NEW CHALLENGES FOR THE OLD WAR HORSE

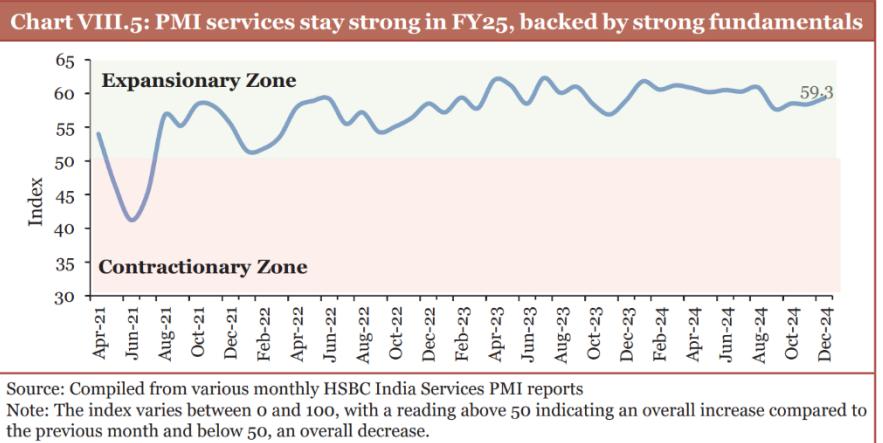
CHAPTER

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- **Services** value added accounts for about **62% of global GDP**.
 - Services have **driven growth in middle-income countries** like China, Thailand, and India over the last decade.
- The Global Services **PMI Business Activity Index** reached a four-month high of 53.8 in December 2024, indicating **expansion for the 23rd consecutive month**.
- In 2023, the **United States led** global services exports with a **13% share**, followed by the UK (7.4%), Germany (5.5%), and Ireland, China, and France (around 5% each).
 - **India ranked 7th** with a 4.3% share.

SERVICES SECTOR PERFORMANCE IN INDIA:

- India's services sector has consistently contributed to the gross value added (GVA) in the economy, increasing its share from **50.6% in FY14 to around 55% in FY25**.
 - The services sector provides **employment to about 30% of the workforce**.
- Services contribute **indirectly to GDP through the servicification** of manufacturing, involving the increased use of services in manufacturing and post-production value addition.
- The **growth in the service sector**, measured by the YoY change in real GVA, has been **above 6% annually** for the last decade, except during the Covid-19 pandemic in FY21.
 - The average services growth rate **before the pandemic was 8%**, and it has increased to 8.3% in the post-pandemic years (FY23 to FY25).
- **Information and computer-related services** had the **maximum buoyancy** among services, growing at 12.8% and increasing their share in overall GVA from 6.3% in FY13 to 10.9% in FY23, showing **resilience during and after the pandemic**.
 - While **public administration services** contributed 11-12% to total services GVA from FY13 to FY23.
- **India's rising share** in global services exports over the last two decades has helped offset fluctuations in its share of global merchandise exports.



Purchasing manager's index (PMI)-services:

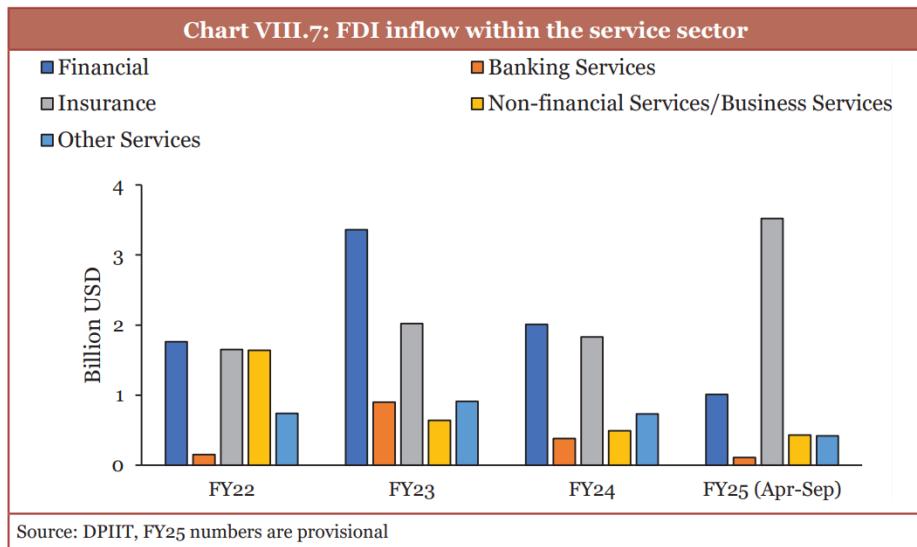
- HSBC's India Services PMI shows that the service sector has remained in the **expansionary zone for 41 consecutive months** since August 2021.

Trade in the services:

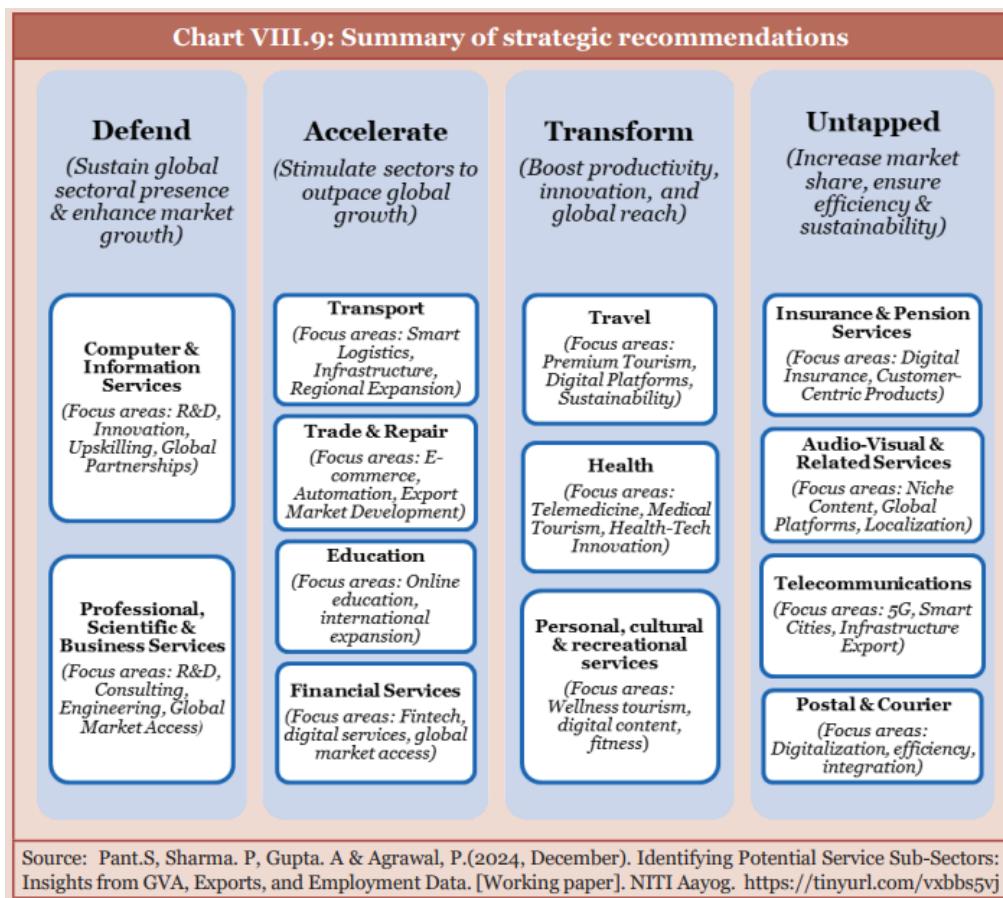
- The export of services grew at a trend rate of **11% during FY14 to FY23**, at constant prices.
 - **Computer services and business services** exports account for around **70% of India's services exports**.
- India remained **among the top five countries** in terms of growth in services exports in FY25 (April-September).

SOURCES OF FINANCING: BANK CREDIT AND FDI:

- Within the service sector, **computer software and professional services** recorded the highest YoY credit growth at 22.5% and 19.4%, respectively.
- In FY25 (April-September), **insurance services received the highest FDI inflows** of over 62%, followed by the financial sector, which received over 18% of the total FDI equity inflows to the services sector.



STRATEGY FOR SERVICES – MULTI-DIMENSIONAL ANALYSIS:



PROGRESS IN LOGISTICS AND PHYSICAL CONNECTIVITYBASED SERVICES:

Indian Railways: Indian Railways (IR) is the **4th largest** network in the world.

Road transport:

- Road transport generated the **highest GVA within transport** services, accounting for 78% of the total GVA in FY23.

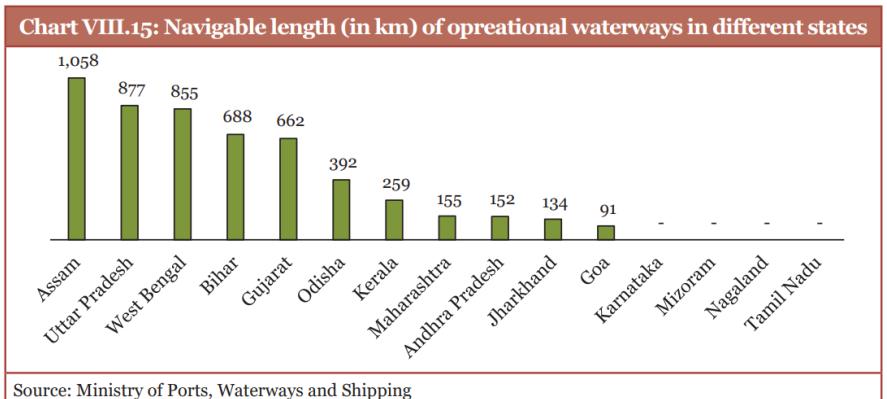
- The government has shifted to digitized tolling with **FASTag**, reducing the average waiting time at toll plazas from 734 seconds to 47 seconds.
- The government aims to implement **barrier-free tolling** on all four-lane and high-speed corridors **by FY29**.
- The government plans to establish over **1000 wayside amenities** in the next five years, offering world-class facilities every 40-60 km along NHs on both sides.
- A **cashless treatment scheme** for road accident victims has been launched, along with driving training centres at the state/district level.
- The government is promoting road safety through initiatives like the **Abhay project** for truck driver health and providing eye tests and health checks for drivers.

Aviation: flying high:

- India is the **fastest-growing aviation market** globally, with Indian airlines placing some of the largest aircraft orders to accommodate the significant growth in air traffic.
- The **PM Gati Shakti initiative** aims to create seamless multimodal connectivity, integrating the aviation sector with railways, roads, and waterways.

Port, Waterways and Shipping: Sea of opportunities:

- The government of India has launched the **Maritime India Vision 2030 and Maritime Amritkaal Vision 2047** to position Indian shipbuilding and ship repair among the **top five globally by 2047**.
- Inland water transport** has significant untapped potential in India, with around **14,850 km of navigable waterways**, including 26 operational waterways covering over 4,800 km as of October 2024.
- The government is also working to promote **river cruise tourism** on national waterways.



OTHER SERVICES:

Tourism and hospitality:

- The tourism sector's contribution to GDP returned to 5% in FY23, creating 7.6 crore jobs.
- International tourist arrivals (ITAs)** in India **rebounded** to pre-pandemic levels in 2023.
 - India's share** of global ITAs stands at **1.45%**, with foreign exchange earnings through tourism at 28 billion USD.
- India **received** 1.8% of world tourism receipts, ranking **14th worldwide** in 2023.

Real Estate: Building the economy

- After the enactment of the Real Estate Regulatory Authority, **India ranked 31st out of 89 countries in the Global Real Estate Transparency Index in 2024**.
- Housing demand in India is expected to touch **93 million units by 2036**.

- The government introduced **Real Estate Investment Trusts (REITs)** to allow investors to pool funds and invest in income-generating commercial real estate, boosting market liquidity and attracting institutional investors.

Telecommunication:

- India is the **2nd-largest telecommunications market**, with over 1.18 billion telephone subscribers, 84% teledensity, and 941 million broadband users as of 31st October 2024.
- India **leads in mobile data consumption per subscriber** and offers the world's most affordable data rates.

STATE WISE ANALYSIS OF SERVICE SECTOR PERFORMANCE:

- The service sector accounts for about 55% of national GVA in FY25, but its activity is **geographically dispersed** across Indian states.
- In FY23, **Karnataka and Maharashtra account** for over **one-fourth** of the total service sector GSVA.
 - Together with Tamil Nadu, Uttar Pradesh, and Gujarat, these states share **more than 50%** of the total service sector GSVA.
 - Furthermore, these states contribute over 50% of the total industrial GSVA, while 19 other states account for just one-fourth of the service sector GSVA.

States can be **classified into 4 distinct categories** based on their service and industrial performance in terms of per capita GSVA:

- States with high per capita industrial GSVA:**

- States like Gujarat, Uttarakhand, and Himachal Pradesh.
- States like Chhattisgarh and Odisha also perform well in the industrial sector but have low service sector growth.

- Strong service sector performers:**

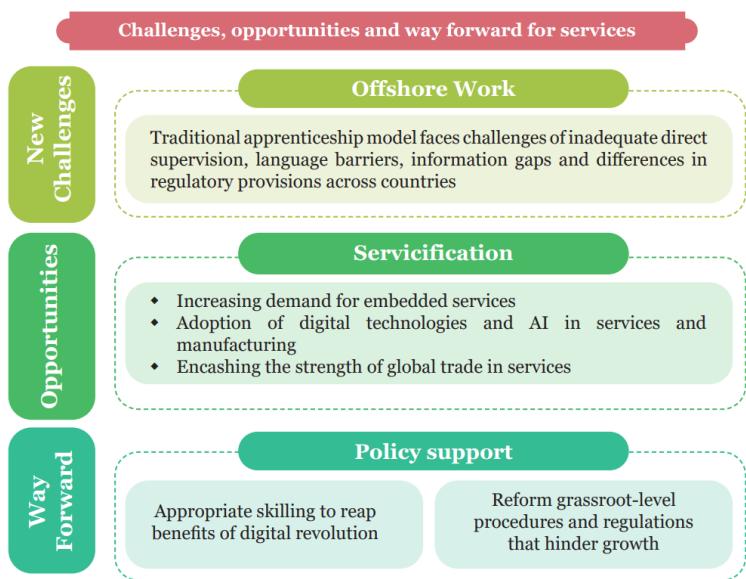
- States like Karnataka, Telangana, and Kerala excel in services with high per capita service GSVA, but their industrial performance is only average.
- These states are largely driven by urbanized service sectors.

- Dual strengths – industrial and service:**

- Maharashtra and Tamil Nadu** have strong industrial and service sectors.

- States with reform potential:**

- Arunachal Pradesh, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Manipur, Meghalaya, Nagaland, Rajasthan, Tripura, Uttar Pradesh and West Bengal.



AGRICULTURE AND FOOD MANAGEMENT: SECTOR OF THE FUTURE

CHAPTER

09

- The 'Agriculture and Allied Activities' sector contributes around **16% to India's GDP in FY24** and supports about **46.1% of the population**.

- The agriculture sector in India has shown robust growth, **averaging 5% annually from FY17 to FY23**, despite facing challenges.

- Due to a good monsoon, **kharif foodgrain production in 2024** is projected at **1647.05 Lakh Metric Tonnes (LMT)**, an increase of 89.37 LMT from the previous year and 124.59 LMT above the average, which bodes well for food security.

- Agricultural income has increased at 5.23% annually over the past decade**, compared to 6.24% for non-agricultural income and 5.80% for the overall economy.
- India, a major global cereal producer, **accounts for 11.6% of the world's total output**, but its **crop yields are significantly lower** than other leading producers, highlighting the need for productivity improvements.

- The crop sector grew at a **modest rate of 2.1% annually from FY13 to FY22**, mainly due to significant increases in the production of fruits, vegetables, and pulses.

- High-value sectors** like horticulture, livestock, and fisheries are **key contributors** to the growth of agriculture.
- The **fishery sector has shown the highest compound annual growth rate (CAGR)** of 13.67%, followed by livestock with a CAGR of 12.99% from FY15 to FY23.
 - Andhra Pradesh led in agriculture and allied sectors** (excluding forestry and logging), followed by Madhya Pradesh and Tamil Nadu.

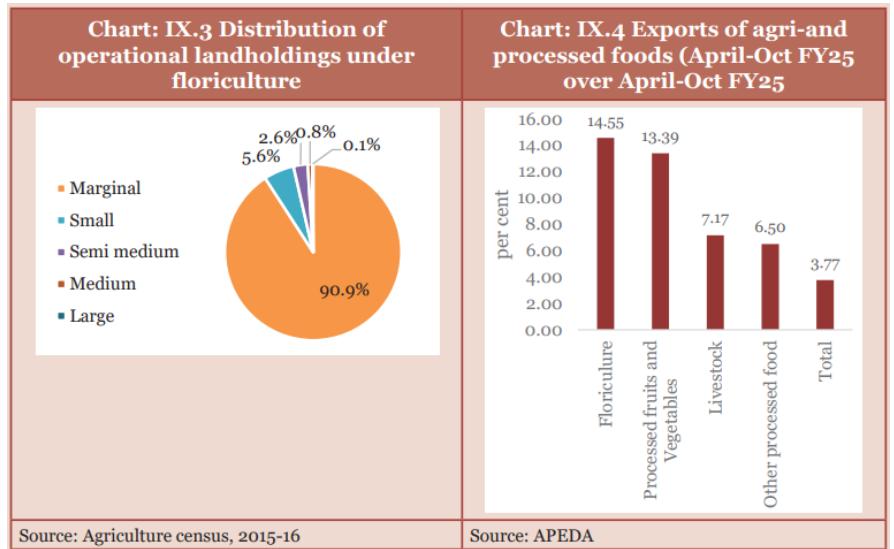
Government Initiatives to Boost Agricultural Productivity and Farmers' Incomes:

- The government is implementing initiatives to enhance agricultural productivity and increase farmers' incomes, **as per the Doubling Farmers' Income (DFI) Report 2016**, which highlights strategies for improving crop and livestock productivity, boosting cropping intensity, and diversifying into high-value crops.

- Key measures include **Per Drop More Crop (PDMC)**, the **National Mission on Sustainable Agriculture (NMSA)**, and promoting organic fertilisers for better sustainability.
- Digital initiatives like the **Digital Agriculture Mission** and **e-National Agriculture Market (e-NAM)**, along with income support programs like **PM-KISAN**, are aimed at adopting innovative technologies and ensuring fair prices for farmers' produce.

INDIA'S FLORICULTURE: A SUNRISE INDUSTRY

- India's **floriculture** (the cultivation of flowers and ornamental plants) industry has become a high-performing "sunrise industry" with **100% export focus**.
- Subsidy support and crop loan financing make floriculture a **promising venture for marginal and small landholdings**, which make up over **96%** of landholdings and **63%** of the cultivation area.
- In FY24, around **297 thousand hectares** were used for floriculture in India.
- India exported 19,678 metric tonnes of floriculture products, earning ₹717.83 crore (USD 86.63 million), with **key export destinations** including the USA, Netherlands, UAE, UK, Canada, and Malaysia.



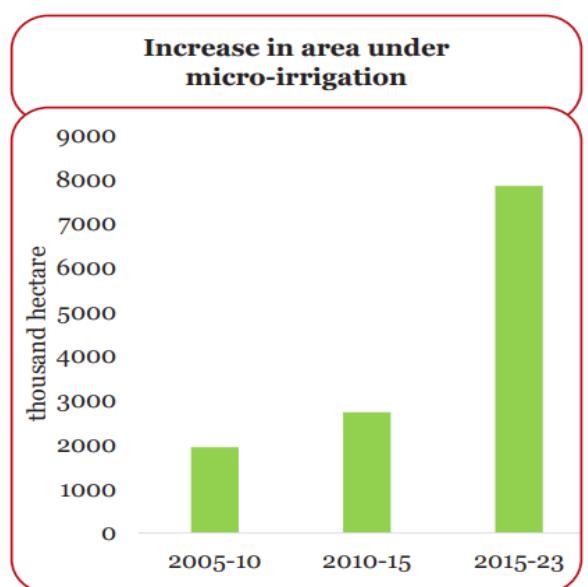
Transforming Rural Economies: The Rise of Horticulture:

- India's **horticulture sector is more productive** and profitable than traditional agriculture, emerging as a fast-growing industry.
 - India is a leading exporter of fresh grapes, with major grape-growing states including Maharashtra, Karnataka, Tamil Nadu, and Mizoram.

RAINFALL AND IRRIGATION SYSTEM: Building Efficiency and Extending Coverage

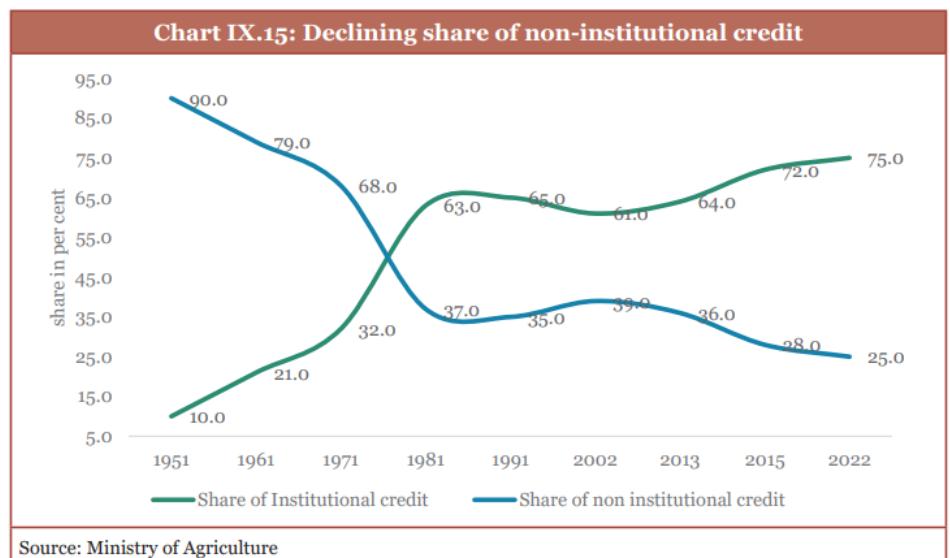
- In India, about **55% of the net sown area receives irrigation**, while a significant portion of agricultural land relies on rain-fed systems, making it highly vulnerable to fluctuations in precipitation.
- From FY16 to FY21, India's **irrigation area** coverage increased from 49.3% to **55%** of the gross cropped area, while **irrigation intensity** rose from 144.2% to **154.5%**.
 - States like **Punjab (~98%)**, **Haryana (~94%)**, **Uttar Pradesh**, and **Telangana** have high irrigation coverage of their gross cropped area, while states like **Jharkhand (<20%)** and **Assam** lag behind, highlighting the need for improved irrigation.
- More than **two-thirds of India's agricultural land is at risk of drought**, with a 35% national probability.
 - Erratic monsoon patterns heavily impact marginal and small-scale farmers, who make up **85% of India's agricultural holdings** and cultivate on plots smaller than 2 hectares.
- The government has prioritized irrigation development through the **Per Drop More Crop (PDMC)** initiative under the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) to promote water efficiency, providing financial assistance for micro irrigation.

- From FY16 to FY25, ₹21,968.75 crore was released for the PDMC scheme, covering 95.58 lakh hectares, which is 104.67% higher compared to the Pre-PDMC period.
- In addition to PDMC, the **Micro Irrigation Fund (MIF)** supports innovative projects by providing a 2% interest subvention to states on loans availed under MIF.
 - **Micro-irrigation** has significant potential for India's **140 million hectares** of arable land, with **8% of irrigated area** currently under micro-irrigation.
 - The adoption rate in India is **slower** compared to the USA (68.6%) and China (13.7%).
- The **Rain-fed Area Development (RAD) program**, part of the National Mission for Sustainable Agriculture (NMSA) since FY15 and integrated into the Rashtriya Krishi Vikas Yojana (RKVY) from FY22, has allocated ₹1,858.41 crore, covering 8 lakh hectares.
- The **Composite Land-use Restoration and Assessment Tool (CLART GIS) and the AVNI Gramin app** can identify water bodies for groundwater recharge and monitor restoration efforts through geo-tagged images and farmer-level verification.

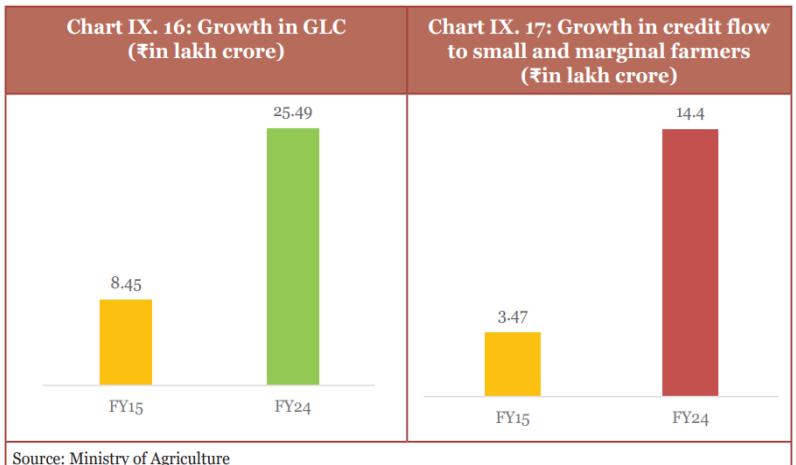


AGRICULTURE CREDIT: A critical input

- The Government of India introduced the **Kisan Credit Card (KCC)** to help farmers meet their **short-term working capital needs** efficiently, boosting working capital flow to agriculture and allied sectors.
 - As of March 2024, there are **7.75 crore operational KCC accounts** with an outstanding loan of ₹9.81 lakh crore.
- In 2018-19, **KCC was extended** to cover the working capital needs of **fisheries and animal husbandry**, with the limit for collateral-free loans raised to ₹1.6 lakh.
 - As of 31 March 2024, 1.24 lakh KCC were issued for fisheries and 44.40 lakh KCC for animal husbandry activities.
- The **Modified Interest Subvention Scheme (MISS)** provides short-term agri-loans through KCC at a concessional interest rate of 7%, while the Prompt Repayment Incentive (PRI) offers a 3% incentive for timely repayment.
 - From FY25, the claim processing for MISS has been **digitized through the Kisan Rin Portal** for faster and more efficient settlement.



- Banks are required to allocate **40% of their Adjusted Net Bank Credit (ANBC)** or Credit Equivalent Amount of Off-Balance Sheet Exposure (CEOBE) to **priority sectors**, including agriculture, to support small and marginal farmers.
 - These measures have **reduced reliance on non-institutional credit sources** from 90% in 1950 to around 25% in FY22.
- Ground-level credit (GLC)** to agriculture has also shown impressive growth with a CAGR of **12.98% from 2014-15 to 2024-25**.
 - Within this, the share of small and marginal farmers has significantly increased from ₹3.46 lakh crore (41%) to ₹14.39 lakh crore (57%) from 2014-15 to 2023-24.



KISAN RIN PORTAL: Streamlining Agri Credit for Farmers' Prosperity:

- Launched in September 2023, it addresses key **challenges in the Modified Interest Subvention-Kisan Credit Card (MISS-KCC) scheme**.
- Previously, banks **had to manually submit claims** for Interest Subvention (IS) and Prompt Repayment Incentive (PRI) to RBI and NABARD, leading to delays, but the Kisan Rin Portal **digitizes this process**, ensuring quicker, seamless transactions and improved access to credit for agricultural needs.
- The portal **simplifies access to low-cost credit** for traditional cropping as well as dairy, poultry, fisheries, and beekeeping.
- The KRP's **impact extends to over 453 banks**, with 1.89 lakh branches actively processing claims, and by 31 December 2024, it had processed claims **benefiting 5.9 crore farmers** under the MISS-KCC scheme.

Pradhan Mantri Fasal Bima Yojana (PMFBY):

- PMFBY is the **world's largest crop insurance program** by farmer enrolment and the **third-largest by premiums**, offering risk coverage from pre-sowing to post-harvest stages.
 - In FY25, the **participation of State governments and insurers increased to 24 and 15**, respectively, up from 20 and 11 in FY21, contributing to a 32% reduction in premium rates.
- As a result, **farmer enrolment reached 4 crore in FY24**, a **26% increase** from 3.17 crore in FY23, with the insured area expanding to 600 lakh hectares, reflecting a 19% rise from 500 lakh hectares in FY23. Both the **acreage and farmer enrolment** figures under the scheme are at an all-time high.

AGRICULTURE MECHANISATION: Facilitating access

- The **Sub-Mission on Agricultural Mechanisation (SMAM)** supports state governments with training, demonstrations on agricultural machinery, establishing Custom Hiring Centres (CHCs), and helping farmers acquire farming equipment.
 - As of 31 December, 26,662 CHCs were established under this initiative, with 138 CHCs set up in the year FY25 alone.
- The government has launched a **scheme to provide drones to 15,000 Women SHGs**, enabling them to earn at least **₹1 lakh annually** by offering rental services for agricultural tasks.

AGRICULTURE EXTENSION: The Enabler

- The government is implementing the **Sub-Mission on Agricultural Extension (SMAE)** to strengthen agricultural extension services, foster entrepreneurship, and improve productivity across India.
 - A key component of SMAE is the support from the **Agricultural Technology Management Agency (ATMA)**, which promotes the latest agricultural technologies to enhance production.
 - During FY24, over **3.66 million farmers benefitted from these extension activities**, with an additional 4.49 million farmers having availed themselves of the benefits by November 2024.
- The government has launched the **short duration skill training scheme** to provide short-term skill training to rural youth and farmers in agriculture and related fields.
- To address the training needs of **middle-level field extension workers**, the government has established **4 regional extension education institutes located in Haryana, Telangana, Gujarat, and Assam**.
- The government operates the **Kisan Call Centre** to address farmers' queries in 22 languages from 17 locations nationwide.

IMPROVEMENT IN AGRICULTURE MARKETING INFRASTRUCTURE

- Agriculture Marketing Infrastructure (AMI) sub-scheme introduced in 2014 provides **capital subsidies** to individuals, farmers, and cooperatives for developing storage infrastructure.
- The **Agriculture Infrastructure Fund (AIF), launched in 2020**, provides **medium-term financing for post-harvest management** and community farming projects, offering interest subvention, credit guarantees, and support for facilities like custom hiring centres, processing units, warehouses, and cold storage.
- The government introduced the **e-NAM Scheme to enhance efficiency in agricultural marketing and price discovery**, providing free software and **₹75 lakh** financial assistance per APMC Mandi for essential hardware. As of October 31, 2024, over 1.78 crore farmers and 2.62 lakh traders have registered on the e-NAM portal.
- In 2020, the government launched a **scheme with a budget of ₹6,860 crore to support Farmer Producer Organizations (FPOs)** and empower farmers.

CLIMATE ACTION IN AGRICULTURE

- The **National Mission on Sustainable Agriculture (NMSA)** is recognized as one of the nine missions within the National Action Plan on Climate Change (NAPCC).
- The government has **implemented two schemes since 2015 to support organic farming**: the Paramparagat Krishi Vikas Yojana (PKVY) and the Mission Organic Value Chain Development for North Eastern Region (MOVCDNER).
 - Under PKVY, 52,289 clusters covering 14.99 lakh hectares have mobilized 25.30 lakh farmers, while MOVCDNER created 434 Farmer Producer Companies, covering 1.73 lakh hectares and benefiting 2.19 lakh farmers.

Composite Index of Agricultural Sustainability:

- The sustainability index is **calculated by ICAR using 51 indicators** related to environmental health, soil and water quality, and socioeconomic development.
- The **average estimated value of the Index is 0.49**, indicating that Indian agriculture is moderately sustainable.

- States like Mizoram, Kerala, Madhya Pradesh, Andhra Pradesh, Manipur, West Bengal, and Uttarakhand perform **better than the national average**. Arid **Rajasthan** has the least sustainable agricultural practices.
- **States in the Indo-Gangetic Plains**, including Uttar Pradesh, Punjab, Bihar, and Haryana, as well as rice-dominant states like Jharkhand and Assam, face **higher risks from climate change impacts**.

ALLIED SECTORS: Potential to Build Resilience

- The livestock sector's **contribution to the Gross Value Added (GVA)** of agriculture rose from 24.38% in FY15 to 30.23% in FY23.
 - In FY23, it accounted for 5.5% of the total GVA, reflecting strong growth with a CAGR of 12.99%.
 - The **milk industry is a major branch** of livestock production, generating over ₹11.16 lakh crore (US\$133.16 billion) in revenue.
- The **Rashtriya Gokul Mission** supports the development and conservation of indigenous bovine breeds, while the Livestock Health and Disease Control Program enhances livestock well-being.
 - The **Multipurpose AI Technicians in Rural India (MAITRIs)** mechanism has been established to deliver breeding inputs directly to farmers' doorsteps.
- The government has implemented initiatives like the **Pradhan Mantri Matsya Sampada Yojana (PMMSY)** to boost aquaculture productivity and improve fisheries management.
- The **Fisheries and Aquaculture Infrastructure Development Fund (FIDF)** provides financial support for developing infrastructure in both marine and inland fisheries.
 - **Total fish production** (inland and marine) increased to 184.02 lakh tonnes in FY23, up from 95.79 lakh tonnes in FY14.
 - **India's seafood exports** grew by 29.70%, rising from ₹46,662.85 crore in FY20 to ₹60,523.89 crore in 2023-24.
- Under the **Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana (PM-MKSSY)**, the National Fisheries Digital Platform (NFDP) was launched, registering 16.35 lakh fish producers, workers, vendors, and processors in just four months.

COOPERATIVE SOCIETIES: Strengthening the Institution to serve better

- The Indian government has strengthened the cooperative sector through initiatives like introducing **Model Bye-Laws for Primary Agricultural Credit Societies (PACS)** and prioritizing their computerisation to improve efficiency and transparency.
- Efforts are underway to establish new **multipurpose PACS and dedicated dairy and fishery cooperatives**, while transforming PACS into Common Service Centres (CSCs) to offer services beyond financial assistance.
- Other measures to enrich the cooperative landscape include establishing **retail petrol and diesel outlets**, **setting up micro-ATMs** within cooperative societies for easier banking access, and issuing **RuPay Kisan Credit Cards for dairy cooperatives** to enhance their financial capabilities.
- The initiatives have led to the **establishment of over 9,000 new PACS, dairy, and fishery cooperatives** in underserved panchayats.
- A total of 35,293 PACS are now functioning as **Pradhan Mantri Kisan Samridhi Kendras (PMKSK)**, providing fertilisers and services, while 1,723 micro-ATMs have been distributed to offer doorstep financial services to rural populations.

FOOD PROCESSING INDUSTRIES: Critical for the Economy

- The food processing industry in India is a **major employer**, accounting for **12.41% of total employment** in the organised sector.
 - In FY24, agri-food exports, including processed food, reached USD 46.44 billion, making up **11.7% of India's total exports**, with processed food exports' share rising from 14.9% in FY18 to 23.4% in FY24.
- The Indian government has launched key programs like the **Pradhan Mantri Kisan Sampada Yojana (PMKSY)** to develop modern infrastructure and optimize supply chains from farm to retail in the food processing sector.
- The **Production Linked Incentive Scheme for Food Processing (PLISFPI)**, launched in 2021, promotes global food processing leaders with 171 approved applications (as of 31 October 2024), while the **Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PMFME)** scheme, launched in 2020, supports micro food enterprises with technical, financial, and business assistance.

FOOD MANAGEMENT: Enabling Food Security

- Food security is characterized by the **availability, access, utilization, and stability of the food supply**.
- The government has addressed food security through the Public Distribution System (PDS) and Targeted Public Distribution System (TPDS), with the **National Food Security Act (NFSA) 2013 and PMGKAY shifting the focus from welfare-based to rights-based food security**.
 - NFSA entitles up to **75% of the rural and 50% of the urban populations** (81.35 crore people) to receive highly subsidized food grains under TPDS. Therefore, about **two-thirds** of the population is covered under the Act to receive highly subsidized food grains.
- **Pradhan Mantri Garib Kalyan AnnaYojana (PMGKAY)** was introduced to alleviate the suffering of the poor and vulnerable during the COVID-19 pandemic, providing free food grains in addition to regular allocations for **around 80 crore beneficiaries**.
 - The provision of free food grains under PMGKAY **will continue for another five years starting from January 2024**.
- The government aims for **100% e-KYC compliance nationwide** to enhance the Public Distribution System (PDS), aligning with the **One Nation, One Ration Card (ONORC) scheme**, allowing beneficiaries to **complete e-KYC anywhere**.
- The government has approved the **Credit Guarantee Scheme for electronic-negotiable warehouse receipt (e-NWR)-based Pledge Financing (CGS-NPF)**, enabling farmers to obtain loans against e-NWRs for stored commodities, helping improve post-harvest lending and farmers' income.

MEASURES TO SUPPORT FOODGRAIN STORAGE INFRASTRUCTURE IN THE COUNTRY

- **Steel silos** are being developed in public-private partnerships (PPP) to upgrade foodgrain storage infrastructure and increase capacity in India.
- The government is **creating capacity under Hub and Spoke Model Silos**, where "Hub" silos have a dedicated railway siding and container depot facility.
 - While the **transportation from "Spoke" Silos** to "Hub" Silos is undertaken by road, transportation from Hub to Hub is via rail.
- To improve food grain storage, especially in hilly and remote areas, the government is exploring the use of **Flospan, a type of Mobile Storage Unit (MSU)**, in collaboration with the **World Food Programme (WFP)**.
 - These units can be **quickly erected** and have a storage capacity of 400 metric tonnes.

- As a pilot project, WFP has installed Fiospan in 6 states: Jammu & Kashmir, Himachal Pradesh, Rajasthan, Mizoram, Uttarakhand, and Chhattisgarh.
- To modernise government grain warehouses, the government partnered with WFP and Indian Grain Storage Management & Research Institute (IGMRI) to pilot a '**Smart Warehouse**'.
 - This warehouse uses sensors to monitor temperature, humidity, airflow, and rodent activity, providing real-time data to improve storage and reduce losses.

CONCLUSION

- With **consistent and stable agricultural growth at 5%**, contributing 1% growth to GVA, and a 20% share of overall GVA in the economy, the right policies will boost productivity, absorb surplus labour, foster agro-based entrepreneurship, and ensure food security for both India and other nations.

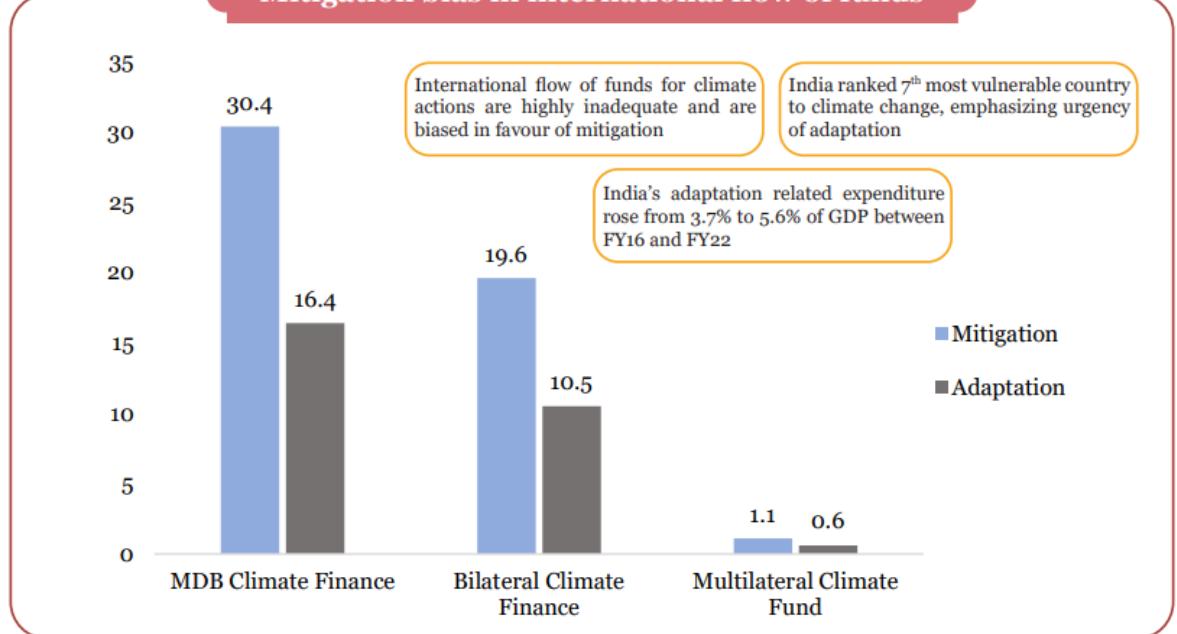
CLIMATE AND ENVIRONMENT: ADAPTATION MATTERS

CHAPTER

10

- India aims to **achieve developed nation status by 2047** through inclusive and sustainable development, with **per capita carbon emissions one-third** of the global average while being one of the fastest-growing economies.

Mitigation bias in international flow of funds



- The India-led global movement, **Lifestyle for Environment (LiFE)**, aims to boost sustainability efforts, with a focus on promoting a **circular economy**.
 - Developed countries are falling short of their Nationally Determined Contributions (NDCs) by **about 38%**, with their actions failing to reflect their historical responsibility or leadership in meeting obligations.
- The 29th session of the Conference of the Parties (COP 29) and the 6th session of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA 6) in Baku, Azerbaijan, were designated as the '**Finance COP**', focusing on the **New Collective Quantified Goal (NCQG) for climate finance**.

- The target of **mobilizing USD 300 billion** annually by 2035 is far below the estimated requirement of **USD 5.1 - 6.8 trillion by 2030**, failing to align with the urgent actions needed to meet the Paris Agreement's temperature goals.

BRINGING ADAPTATION TO THE FOREFRONT

- The Ministry of Environment, Forest and Climate Change (MoEFCC) is developing the **National Adaptation Plan (NAP)** to outline India's adaptation priorities and ensure climate resilience across all regions and sectors.

Adaptation in agriculture:

- Adaptation strategies in agriculture focus on **developing climate-resilient seeds, preserving groundwater**, improving soil health, and modifying cropping practices.

Building resilience in urban areas:

- Launched in 2010, the **National Mission on Sustainable Habitat (NMSH)** under the National Action Plan on Climate Change (NAPCC) promotes low-carbon urban development and resilience.
- **AMRUT improves water systems**, groundwater recharge, green spaces, wastewater recycling, and energy efficiency, supporting NMSH goals.
- **AMRUT 2.0 aims** to create water-secure cities by focusing on water conservation, augmentation, and rejuvenation.
- The **Smart City Mission** focuses on a people-centric approach based on liveability, economic ability, and sustainability.
- Launched in 2021, the **River Cities Alliance (RCA)** promotes sustainable river-centric development in over 145 cities, through collaboration between the Ministry of Jal Shakti and MoHUA.

Adaptation in coastal regions:

- India's **7,600 km long coastline** and islands make adaptation crucial, with actions such as planting mangroves, building sea walls and artificial reefs, beach nourishment, dune planting, and sand bypassing.
- **Promotional measures** are implemented through the 'Conservation and Management of Mangroves and Coral Reefs' scheme under **the National Coastal Mission Programme**.
- **Regulatory measures** are implemented through the Coastal Regulation Zone (CRZ) Notification (2019) under the Environment (Protection) Act, 1986; the Wild Life (Protection) Act, 1972; the Indian Forest Act, 1927; the Biological Diversity Act, 2002; and rules under these acts as amended from time to time.
- Through collaboration with initiatives like State CAMPA, MGNREGS, and state-specific programs, 22,560.34 hectares of degraded mangrove areas have been restored across 13 states and UTs.

Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI):

- The programme will cover **approximately 540 square kilometres** across **9 coastal states and 4 UTs over five years (2023-2028)** - to promote and conserve mangroves.
- As of 30 November 2024, **6 states and UTs**: Andhra Pradesh, Gujarat, Odisha, West Bengal, Kerala, and Puducherry have been allocated funds under the program.

Adaptation action for water management:

- The **Jal Shakti Abhiyan, launched in 2019**, addresses water stress across the country.

- The **Jal Shakti Abhiyan: Catch the Rain – 2024**, themed "Nari Shakti se Jal Shakti," focuses on women's role in water conservation through interventions like rainwater harvesting, water body mapping, and afforestation.
- The **National Aquifer Mapping Project (NAQUIM)** has been completed across 25 lakh square kilometers, providing water conservation plans and recharge structures for state agencies.
- The **Bhu-Neer portal, launched in September 2024** by the Central Ground Water Authority, aims to regulate groundwater resources and promote transparency, efficiency, and sustainability.
- The **FloodWatch India app (Version 2.0)**, launched by the Central Water Commission, provides real-time flood forecasts, data from 592 monitoring stations, and reservoir storage insights for better flood management.
- The **Smart Laboratory on Clean Rivers (SLCR) in Varanasi**, under the India-Denmark Green Strategic Partnership, aims to rejuvenate the Varuna River through sustainable practices and collaboration among various stakeholders.

ENERGY TRANSITION

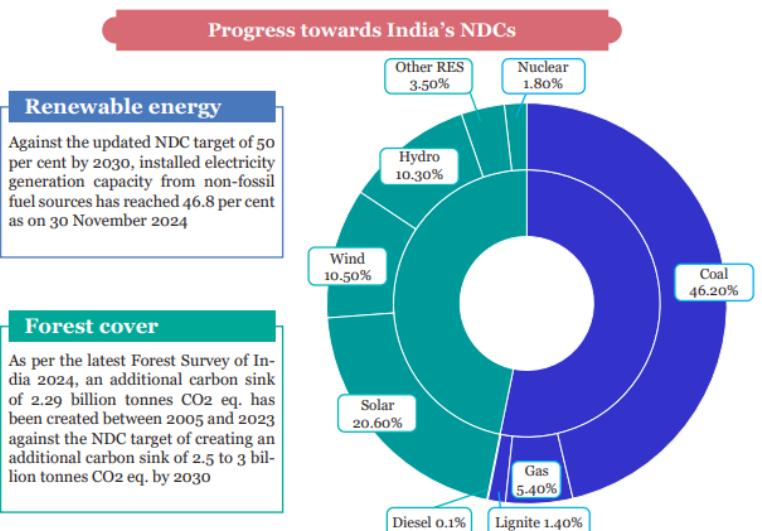
- **India's Human Development Index (HDI) is 0.644**, and as per estimate that to reach an HDI of 0.9 and become a developed country, **India's per capita final energy requirement** must be between 45.7 to 75 gigajoules per year.
- Provisional estimates from the Energy Statistics of India 2024 show that the total final energy consumption per capita in FY23 was 16.7 gigajoules, indicating a **significant gap to meet the energy requirements needed for growth towards Viksit Bharat status**.

PROGRESS MADE ON INDIA'S ENERGY TRANSITION

- India has achieved an installed electricity generation capacity of 213,701 megawatts from **non-fossil fuel sources**, accounting for **46.8% of the total capacity** as of November 2024, with a goal of reaching **50% by 2030**.

New initiatives and updates on existing policies/schemes to boost energy transition:

- The Ministry of New and Renewable Energy (MNRE) launched the **New Solar Power Scheme for Particularly Vulnerable Tribal Group (PVTG)** habitations under PM JANMAN on 4 January 2024.
 - Later revised on 18 October 2024 to include other tribal habitations and **renamed the scheme under both PM JANMAN and Dharti Aabha Janjatiya Gram Utkarsh Abhiyan (DA JGUA)**.
- The **PM - Surya Ghar: Muft Bijli Yojana** aims to install rooftop solar plants in one crore households, contributing to 30 gigawatts of residential rooftop solar capacity and adding 40-45 gigawatts by 2027.
 - Over 7 lakh households have already installed rooftop solar systems as of 9 January 2025.
- The **Viability Gap Funding (VGF) scheme for offshore wind energy** has a budget of ₹7,453 crore, including ₹6,853 crore for one gigawatt of projects in Gujarat and Tamil Nadu, and ₹600 crore for upgrading ports.



- The **Green Energy Corridor (GEC)** projects aim to improve transmission systems for renewable energy, with GEC-I already implementing 9,136 circuit kilometres of transmission lines and 21,413 MVA substations in eight states, and GEC-II progressing in seven more states.
- The **National Bioenergy Programme focuses on three pillars**: the Waste to Energy Programme, the Biomass Programme (supporting briquettes, pellets, and biomass-based cogeneration), and the Biogas Programme promoting family-type biogas plants.
- The **Scheme for the Development of Solar Parks and Ultra-mega Solar Power Projects** targets 40,000 megawatts of capacity, focusing on infrastructure development and necessary clearances for utility-scale solar projects.
 - As of 31 December 2024, **55 Solar Parks** with a cumulative capacity of 39.9 gigawatts have been sanctioned **across 13 states**.
- The **Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PMKUSUM)** aims to add 34.8 gigawatts of solar capacity by promoting small grid-connected solar plants, stand-alone solar pumps, and the solarisation of existing agricultural pumps.
- The **Production Linked Incentive Scheme** for the National Programme on High-Efficiency Solar Photovoltaic Modules has been initiated to enhance manufacturing capabilities in the solar sector.
- The **National Green Hydrogen Mission** aims to produce 5 million metric tonnes of Green Hydrogen annually, with 125 gigawatts of renewable energy capacity and a potential 50 million metric tonnes of CO₂ emission reduction by 2030.
 - Under the mission, the green hydrogen production capacity of 412,000 tonnes per annum and electrolyser manufacturing capacity of 3000 megawatts per annum have been successfully awarded.
- The **Central Public Sector Undertaking Scheme Phase-II** aims to establish grid-connected solar power projects.

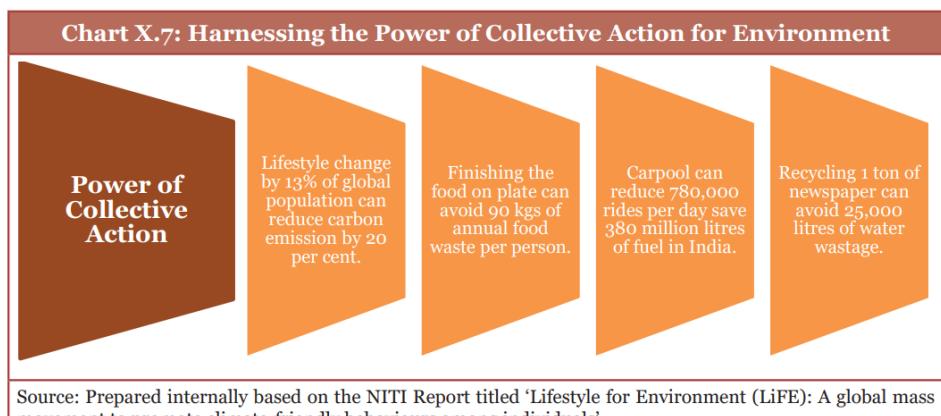
Developments in financial regulation on green investments:

- Based on the **2019 National Guidelines** on Responsible Business Conduct (NGRBC), SEBI introduced the **Business Responsibility and Sustainability Report (BRSR)** for the top 1000 listed companies, mandatory from FY23, replacing the previous Business Responsibility Report (BRR) of 2012.
- In 2023, the **BRSR norms were expanded** to include BRSR core for assurance and ESG disclosures for value chains, covering the top 75% of upstream and downstream partners.
- From FY26, the **top 500 listed entities** will report under BRSR core, expanding to the top 1000 from FY27.
- In 2017, **SEBI introduced a regulatory framework for green debt securities**, outlining activities eligible for financing through them.
 - The framework was **revamped in 2023 by introducing the concepts of transition bonds** (funds raised for transitioning to a more sustainable form of operations, in line with India's Intended Nationally Determined Contributions), **blue bonds** (related to water management and marine sector), and **yellow bonds** (related to solar energy), and circular economy as sub-categories of the green debt securities.
- The Government of India has included **Sovereign Green Bonds (SGrBs)** in its market borrowings to mobilize resources for green infrastructure, issuing bonds with **5, 10, and 30-year maturities**.
 - In FY23, ₹16,000 crore worth of SGrBs were issued, followed by ₹20,000 crore in FY24.
 - In FY25, ₹11,697.40 crore of 10-year SGrBs have been raised, with plans to raise ₹10,000 crore more in H2 FY25, including ₹5,000 crore each under 10-year and 30-year securities.

- The **RBI introduced a framework for accepting Green Deposits for Regulated Entities (REs)** from 1 June 2023 to encourage green deposits and address greenwashing concerns, boosting credit flow to green projects.
- RBI has classified bank **loans of up to ₹30 crore** for renewable energy projects (e.g., solar, biomass, wind, micro-hydel, and public utilities like street lighting) under the **priority sector lending category**.

OPTIMISING LIFESTYLES FOR SUSTAINABLE DEVELOPMENT

- India introduced the **Lifestyle for Environment (LiFE) Mission** at COP26 in Glasgow in 2021, recognizing the need to mobilize collective efforts to moderate consumption and production habits.
 - It **aims to mobilize one billion Indians and global citizens** to take individual and collective actions for environmental protection from 2022 to 2028.
 - Within India, the goal is for **at least 80% of all villages and urban local bodies to become environmentally friendly** by 2028 under this mission.
- Nearly **17% of food available** to consumers worldwide is **wasted** annually, contributing to over 8% of global greenhouse gas emissions. **If food waste were a country**, it would be the **3rd-largest emitter** of greenhouse gases globally.
- **Household consumption** contributes to around **two-thirds** of global greenhouse gas emissions.



Source: Prepared internally based on the NITI Report titled 'Lifestyle for Environment (LiFE): A global mass movement to promote climate-friendly behaviours among individuals'.

Green Credit Programme:

- The Green Credit Rules, 2023, support the Green Credit Programme (GCP) by incentivizing **voluntary environmental conservation** efforts, leading to the issuance of green credits.

Ek Ped Maa Ke Naam:

- The 'Ek Ped Maa Ke Naam' tree plantation campaign, **launched on World Environment Day in June 2024**, encourages pro-environmental activities by leveraging people's respect for mothers to conserve nature. The campaign successfully **planted 80 crore** seedlings by September 2024, meeting its ambitious goal.

Swachh Bharat Mission:

- Launched in 2014, the Swachh Bharat Mission (SBM) transformed sanitation access in India, and **SBM 2.0 integrates waste management and sanitation** with sustainability and circular economy principles.

Circular Economy and Resource Efficiency:

- According to an estimate, the circularity of resources could lead to **cost savings of 11% of current GDP** in 2030 and 30% in 2050.
- India's **Extended Producer Responsibility (EPR) framework** holds manufacturers accountable for the waste generated by their products, promoting sustainable design, recycling, and waste management.

- **Plastic pollution** is a major cause of biodiversity loss, ecosystem degradation, and climate change, contributing to 15% of global greenhouse gas emissions by 2050.
 - India has one of the lowest per capita plastic consumption rates (14 kg) compared to developed economies (over 100 kg), and its Plastic Waste Management Rules, 2016, provide a framework for sustainable plastic waste management.

SOCIAL SECTOR: EXTENDING REACH AND DRIVING EMPOWERMENT

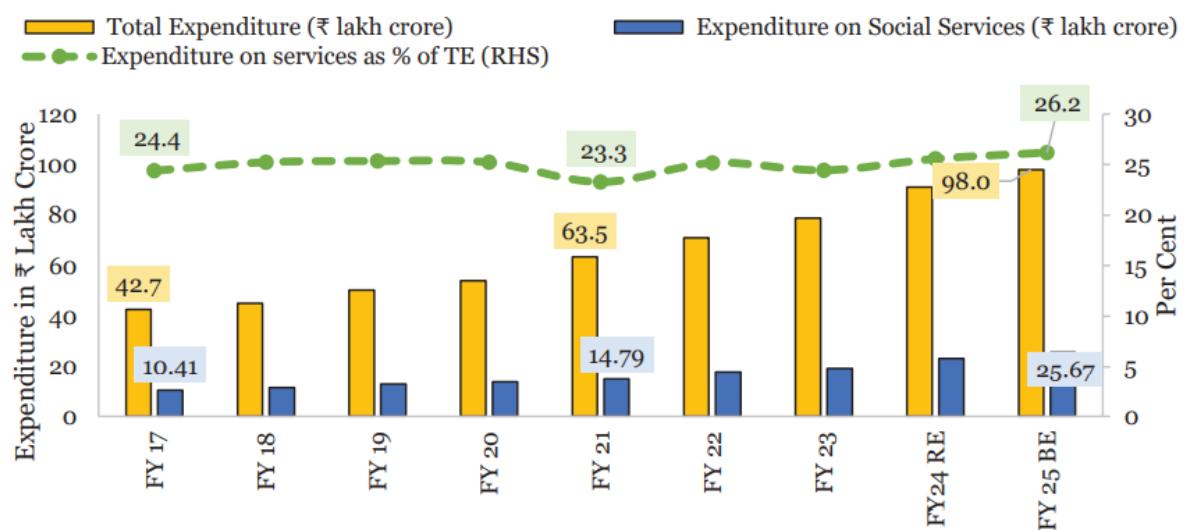
CHAPTER

11

Trend in social services expenditure:

- The general government's social services expenditure (SSE) has shown a **rising trend since FY17**, increasing as a percentage of total expenditure from 23.3% in FY21 to **26.2% in FY25 (BE)**.

Chart XI.1: Trends in social service sector expenditure by government (combined Centre and States)

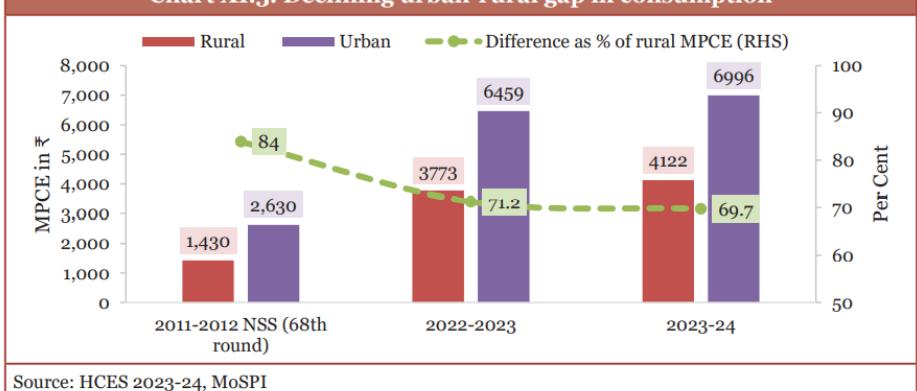


- From **FY21 (pandemic year) to FY25 (BE)**, the social services expenditure (SSE) grew at a **15% CAGR**, with the combined outlay of the centre and state governments rising from ₹14.8 lakh crore in FY21 to ₹25.7 lakh crore in FY25 (BE).
 - During this period, **education expenditure grew** at a 12% CAGR, increasing from ₹5.8 lakh crore in FY21 to **₹9.2 lakh crore in FY25 (BE)**, while **health expenditure grew** at an 18% CAGR, rising from ₹3.2 lakh crore in FY21 to **₹6.1 lakh crore in FY25 (BE)**.

Household Consumption Expenditure Survey 2023-24:

- The Household Consumption Expenditure Survey (HCES) 2023-24 highlights a **narrowing gap in consumption** expenditure between urban and rural areas.
- The **largest growth in average MPCE** (2022-23 to 2023-24) was seen in the bottom 5-10% of the population, with a 22% increase in rural areas and 19% growth in urban areas.

Chart XI.3. Declining urban-rural gap in consumption



Evidence on the distribution of benefits from the PDS:

- **Food subsidies** are the largest fiscal outlay in the government's social schemes, with **6.5% of the Union budget in 2022-23 spent on PM Garib Kalyan Anna Yojana (PMGKAY)** for free and subsidised food rations.
- The Union food subsidy **bill doubled from 0.5% to 1% of GDP** between FY19 and FY23 as food subsidies were expanded and consolidated under PMGKAY during the COVID-19 emergency fiscal response.
 - The **average PDS** benefits increased in 2022-23, relative to 3% in 2011-12.
- In 2022-23, **84% of the population had a ration card**, with 59% holding a BPL (Below Poverty Line), AAY (Antyodaya Anna Yojana), or PHH (Priority Household) card.
 - 74% of the population actively used the PDS/PMGKAY to access food rations or kerosene, with rice and wheat being the most commonly consumed items.
- Ration card **coverage was higher in rural areas (89%)** compared to urban areas (72%).

SCHOOL EDUCATION:

- India's school education system serves **24.8 crore students** across 14.72 lakh schools with 98 lakh teachers (UDISE+ 2023-24).
- **Government schools** constitute **69% of all schools**, enrolling 50% of students and employing 51% of teachers.
 - **Private schools** make up 22.5%, with 32.6% of student enrollment and 38% of teachers.
- The **NEP 2020** targets a **100% Gross Enrolment Ratio (GER) by 2030**.
 - GER is 93% at the primary level, while efforts continue to close gaps at the secondary level (77.4%) and higher secondary level (56.2%), moving closer to the goal of inclusive and equitable education for all.
- **School dropout rates have decreased** in recent years, reaching 1.9% at the primary level, 5.2% at the upper primary level, and 14.1% at the secondary level.
 - However, challenges remain with **retention rates** at 85.4% for primary (Classes I-V), 78% for elementary (Classes I-VIII), 63.8% for secondary (Classes I-X), and 45.6% for higher secondary (Classes I-XII).
- Key initiatives under **NEP 2020** include the **Samagra Shiksha Abhiyan** and its sub-schemes like **NISHTHA, Vidya Pravesh, DIETs** (District Institutes of Education and Training), and **KGBV** (Kasturba Gandhi Balika Vidyalaya).
 - Other significant programs are **DIKSHA, STARS, PARAKH, PM SHRI, ULLAS, and PM POSHAN**, among others.

In April 2024, the government launched **2 key initiatives for Early Childhood Care and Education (ECCE):**

- **Navchetana:**
 - Focuses on the **holistic development of children from birth to three years**.
 - It offers 140 age-specific activities through a **36-month stimulation calendar** and emphasizes the inclusion of differently-abled children, maternal mental health, and "Garbh Sanskar" (practices during pregnancy).
- **Aadharshila:**

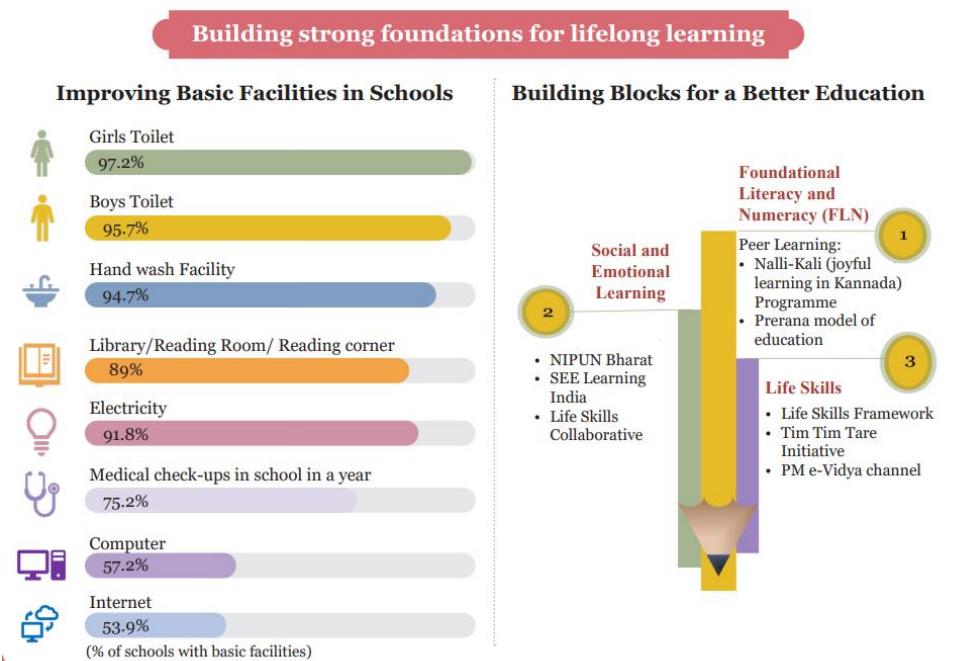
- Combines Indian and international research to promote **play-based learning for children aged three to six years**.
- It includes 130+ activities that encourage both child-led and educator-led learning.

Building strong foundations through literacy and numeracy:

- In **July 2021**, the Department of School Education & Literacy launched the **NIPUN Bharat Mission** (National Initiative for Proficiency in Reading with Understanding and Numeracy) to ensure that all children achieve **foundational literacy and numeracy (FLN)** by the end of Grade 3 by 2026-27.

Peer Teaching: A pathway to achieving FLN:

State governments have launched programmes to tackle FLN challenges:



- **Mission Ankur (Madhya Pradesh & Gujarat):** Engages schools and communities for primary students' holistic development and FLN attainment.
- **Mission Daksh (Bihar):** Provides **personalized mentoring** to help lagging students reach grade-level competencies by 2025.

Peer teaching is an effective approach where students learn by teaching and supporting their peers.

- In **resource-limited classrooms** with high student-teacher ratios, it offers scalable, tailored support.
- '**Student Champions**' - older or more knowledgeable students—help guide younger or struggling peers through foundational concepts.
- The **SARTHAQ guidelines** (Students' and Teachers' Holistic Advancement through Quality Education) for NEP 2020 emphasize peer tutoring to improve FLN and educational outcomes.

India's Experiments with Structured Peer Learning:

- **Nalli-Kali (Karnataka):**
 - Launched in 1995 in Mysuru, it promotes peer learning through self-paced activities.
 - Now the primary teaching method for Grades 1-3 to build age-appropriate skills.
- **Prerana Model (Multiple States):**
 - Implemented in AP, Karnataka, Maharashtra, Tamil Nadu, and Telangana via the Sikshana Foundation.
 - Focuses on small group learning, with 4-5 students collaborating to teach and learn together.
- **Involve Learning Solutions Foundation (UP, Bihar, Karnataka):**
 - Active in six districts to integrate peer teaching into government schools under NIPUN Bharat.

- 'Student Champions' (trained students) guide four learners with better subject mastery.

Empowering minds and hearts through social and emotional learning (SEL) techniques:

- UNESCO defines Social and Emotional Learning (SEL) as the **process of developing skills to manage emotions**, care for others, build positive relationships, make responsible decisions, and handle challenges effectively.
- **CASEL (Collaborative for Academic, Social, and Emotional Learning) identifies 5 core components** of SEL: Self-Awareness, Self-Management, Social Awareness, Relationship Skills, and Responsible Decision-Making.
 - These components help students handle challenges, improve mental well-being, and boost academic performance.
- The **National Curriculum Framework 2023 and NIPUN Bharat mission** guidelines 2021 emphasize SEL-based teaching to improve educational outcomes, foster well-being, and support holistic development in foundational education.

Imparting life skills: The Tim Tim Tare initiative

- Tim Tim Tare (TTT) is an initiative that **helps adolescent students in India develop life skills** like communication, emotional intelligence, and social well-being, **focusing on soft skills** rather than technical training to prepare them for life's challenges.
- TTT **follows the WHO Life Skills Framework to teach 16 core skills** like empathy, critical thinking, etiquette, and time management, covering 100+ related topics for youth development.
- **Tim Tim Tare (TTT), launched in 2009 in Tamil Nadu**, has expanded across **multiple states**, reaching **millions of students**.
 - It also **trains thousands of teachers** to ensure widespread, long-term impact.
- It **reaches 10+ crore students, especially in central India and Gujarat**, through government schools, Navodaya Vidyalayas, Kendriya Vidyalayas, Kasturba Vidyalayas, and juvenile homes.
 - It is **accessible via PM eVidya channels**, state relay centres, YouTube, and WhatsApp, with SCERT approval ensuring credibility and alignment with national standards.

Bridging the gap: Digital technology in education and the essentiality of digital literacy

- **UNESCO defines digital literacy** as the set of skills that encompass computer literacy, ICT literacy, information literacy, and media literacy.
- The Comprehensive Annual Modular Survey 2022-23 reveals **a rural-urban digital divide in internet-searching skills**, with rural areas, especially females, lagging behind.
 - In rural areas, **63% of males and 55% of females** can search the internet, compared to **74% of males and 69% of females in urban areas**, highlighting the need to close the digital gap.
- The NEP 2020 highlights **technology's role in improving education** and promoting inclusivity for Divyang students.
 - Key initiatives include DIKSHA, SWAYAM, e-VIDYA, PMGDISHA, and e-content for Divyang to support inclusive digital education.
- The government launched the **PM e-Vidya DTH Channel for Indian Sign Language** to support hearing-impaired students, while Samagra Shiksha provides funds for ICT labs and smart classrooms in schools with classes VI to XII.

- The government launched the **TeacherApp**, a digital platform with 260+ hours of resources like courses, videos, podcasts, and live sessions.

Tamil Nadu's Illam Thedi Kalvi (Education at Doorstep): Innovation in public education

- The Tamil Nadu government launched the Illam Thedi Kalvi Scheme **during COVID-19 to bridge the learning gap** through in-person education and door-to-door volunteer support, reducing internet dependence.
- The scheme **continues post-pandemic with remedial lessons** and year-round volunteer support, focusing on integrating out-of-school children, especially girls, CwSN, transgender children, and those from migrant worker families.

Children with Special Needs (CwSN): Developing a culture of inclusivity

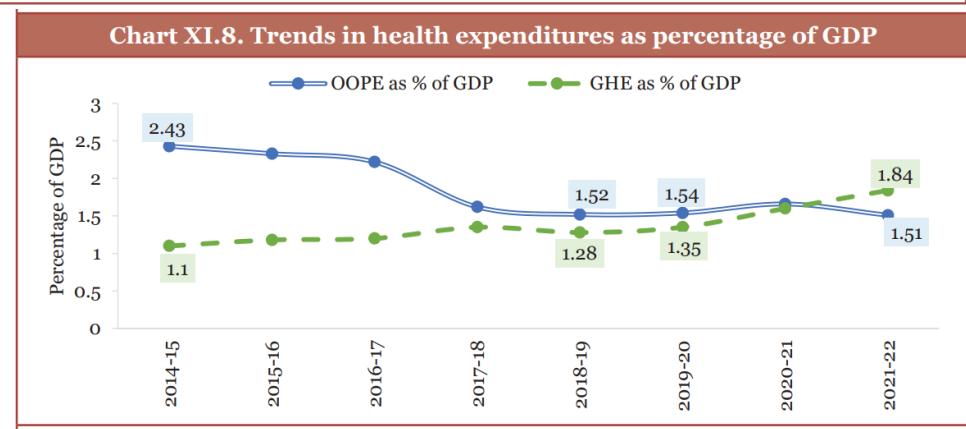
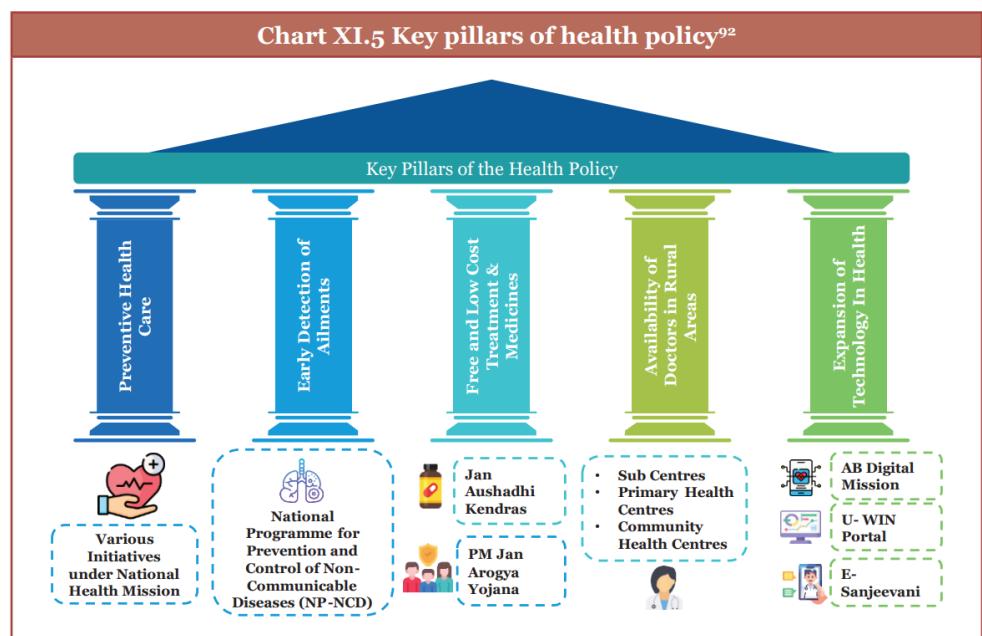
Chart XI.4. Initiatives for CwSN		
 <p>PMeVidya Series NCERT's 'Teaching learning interventions for inclusive classrooms' promotes inclusive pedagogy with ISL interpreters for accessibility.</p>	 <p>Inclusive Cell in CBSE Schools To facilitate equitable and barrier free environment and full participation.</p>	 <p>Disability Screening- PRASHAST Covers 21 disabilities, available in 23 languages through a mobile app. Over 10 lakh users and 61.57 lakh screenings completed since 2022.</p>
 <p>Accessible content 4250+ ISL Videos, 10,500-Word ISL Dictionary on DIKSHA, 24/7 educational channel on PM eVidya, and DTH Channels. 377 NCERT Talking Books on e-Pathshala and third-party TTS apps, and 4048 Audio Chapters on DIKSHA</p>	 <p>Inclusive Education National Guidelines and Implementation Framework on Equitable and Inclusive Education (NGIFEIE) (2021–2030) has been developed to provide a roadmap for creating inclusive schools, ensuring no child is left behind.</p>	 <p>Capacity Building and Training 5-day capacity-building program for 60 lakh teachers under NISHTHA (2023-24). Additional online training for 15,964 teachers on digital resources and assistive technologies. Module on Inclusive Education for in-service training of general teachers under Samagra Shiksha.</p>
Source: Department of School Education and Literacy, MoE		

HIGHER EDUCATION

- India's higher education system saw **4.33 crore enrollments in 2021-22**, a 26.5% rise from 3.42 crore in 2014-15.
- The **GER (18–23 age group) increased** from 23.7% to **28.4%** during this period, with a target of 50% by 2035, requiring expanded infrastructure.
- The number of **Indian Institutes of Technology (IITs)** increased from 16 in 2014 to **23 in 2023**, while **Indian Institutes of Management (IIMs)** grew from 13 to **20** during the same period.
- Medical colleges increased from 387 in 2013-14 to 780 in 2024-25, and universities saw 59.6% growth, rising from 723 in 2014 to 1,213 in 2024.
- Medical education** opportunities in India are **geographically skewed**, with 51% of undergraduate and 49% of postgraduate seats **concentrated in the southern states**.
 - This skew is also evident in healthcare services, where **urban areas have 3.8 doctors for every 1 doctor in rural areas**.
 - Additionally, 75% of dispensaries, **60% of hospitals**, and 80% of doctors are located in **urban regions**.

TOWARDS A HEALTHY NATION

- According to the National Health Accounts 2021-22, the Total Health Expenditure (THE) in FY22 was **3.8% of the GDP**.
- The share of **Government Health Expenditure (GHE)** in Total Health Expenditure (THE) increased from 29.0% in FY15 to **48.0% in FY22**.
 - During the same period, the **Out-of-Pocket Expenditure (OOPE)** declined from 62.6% to **39.4%**.
- AB-PMJAY** has significantly reduced OOPE by increasing social security and primary health spending, resulting in **₹1.25 lakh crore in savings**.
- As of 1 January 2025, over **36.36 crore Ayushman cards** have been issued. Key statistics of AB-PMJAY are given below.
- On 11 September 2024, the **expansion of AB PMJAY** was approved to include **senior citizens aged 70 and above**, irrespective of their socio-economic status.
 - As of 15 January 2025, **more than 40 lakh senior citizens** have been enrolled the scheme.
- Ayushman Bharat, launched in 2018**, marked a shift to comprehensive healthcare by focusing on prevention, promotion, and treatment across primary, secondary, and tertiary levels.
 - It transformed **Sub-Health Centres (SHCs)** and **Primary Health Centres (PHCs)** into **Ayushman Arogya Mandirs (AAM)**, providing universal, free healthcare services - including preventive, promotive, curative, palliative, and rehabilitative care - **in both rural and urban areas**.
 - Number of AAMs operational - 1,75,560 +**
- PM-ABHIM, launched in October 2021**, aims to strengthen public health infrastructure by addressing gaps in infrastructure, surveillance, and research **across urban and rural areas from FY22 to FY26**.

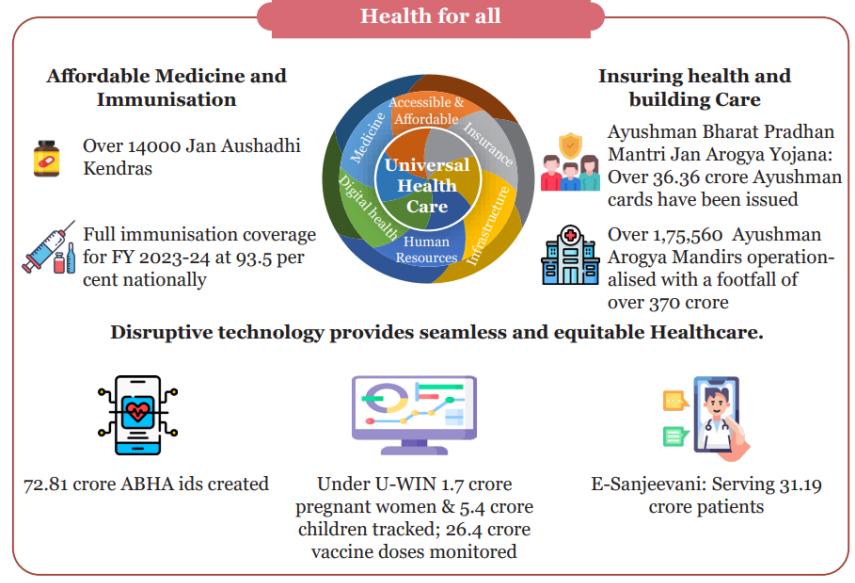


30,000 hospitals empanelled	13,352 private facilities empanelled	49% of cardholders are women	48% of hospital admissions are utilised by women
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- The government launched the **Free Drug Service Initiative (FDSI) in 2015 under the National Health Mission (NHM)** to reduce OOPE by providing financial support to states/UTs for the availability of essential drugs in public health facilities.
- The **Universal Immunisation Programme (UIP)**, originally launched as the Expanded Programme on Immunisation in 1978, was **rebranded in 1985** to provide life-saving vaccines to newborns and pregnant women, **extending coverage from urban to rural areas** to reduce healthcare disparities.
 - Currently, the **UIP offers 11 vaccines free of cost**, protecting against 12 vaccine-preventable diseases.
- The **Jan Aushadhi Scheme**, launched to provide affordable medicines, achieved record sales in 2024 and expanded to **14,000+ kendras nationwide**.

Disruptive technology providing seamless and equitable healthcare:

- The **U-WIN portal** is a digital platform that records vaccination details for **pregnant women and children up to 16 years** under the UIP.
 - The U-WIN portal **generates QR-based e-vaccination certificates** and helps create Ayushman Bharat Health Accounts (ABHA) for parents and children, supporting digital health management in 11 regional languages.
 - So far, 1.7 crore pregnant women and 5.4 crore children have been digitally registered, with 26.4 crore vaccine doses tracked in real-time.
- **E-Sanjeevani**, India's National Telemedicine Service, is the world's largest telemedicine platform **for primary healthcare**.
- **The Ayushman Bharat Digital Mission (ABDM)**, launched in September 2021, aims to build a national digital health ecosystem to support universal health coverage and integrated health infrastructure.
 - Total ABHA created - 72.81 crore units
- **Aerial Angels: Transforming Healthcare with Drone Technology**
 - In September 2021, the **World Economic Forum (WEF) and the Telangana government launched 'Medicines from the Sky'** in Vikarabad, the first such project in Asia to test medium-range medicine delivery via drones, later expanded to Arunachal Pradesh in 2022 to study its healthcare integration.
 - **The i-DRONE (ICMR's Drone Response and Outreach for North East)** was launched in October 2021 by the Ministry of Health and Family Welfare (MoHFW) to test drone-based delivery of vaccines and medical supplies in the **rugged terrains of Manipur and Nagaland**.



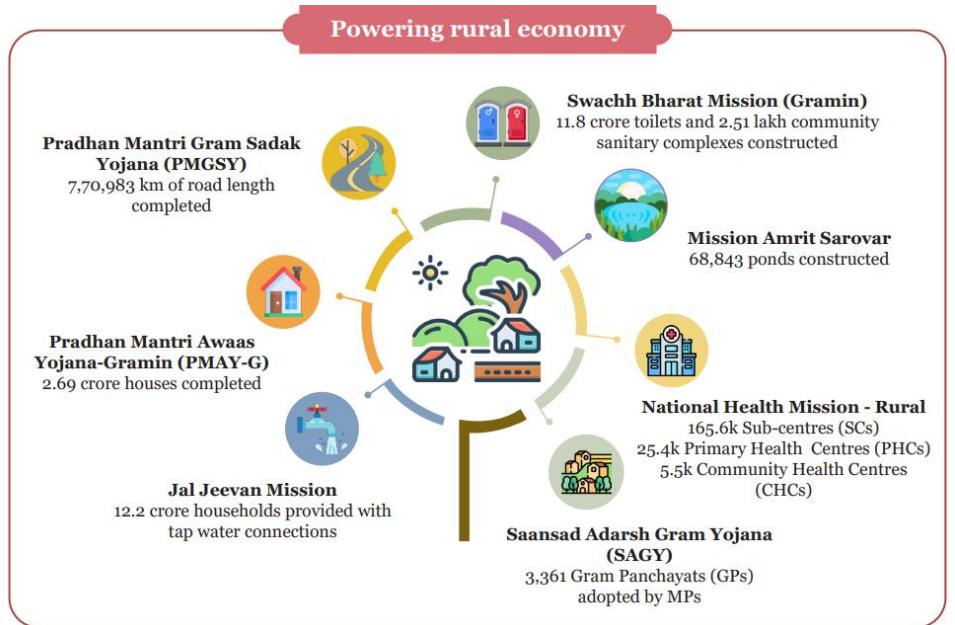
Impact of lifestyle choices on health:

- According to WHO, **non-communicable diseases (NCDs)** cause **41 million deaths annually**, accounting for 74% of global deaths, with 77% of these deaths occurring in low- and middle-income countries, driven partly by population growth and ageing.
- The **2017 ICMR report 'India: Health of the Nation's States'** revealed that **NCD-related deaths** in India increased from 37.9% in 1990 to **61.8% in 2016**.
- The **four major NCDs** are cardiovascular diseases (CVDs), cancers, chronic respiratory diseases (CRDs), and diabetes, with unhealthy diet, lack of physical activity, tobacco use, and alcohol consumption as common risk factors.
- To address the rising NCD challenge, the **MoHFW launched the National Programme for Prevention and Control of NCD (NP-NCD)**, formerly known as the NPCDCS (National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases, and Stroke).
- The government launched the **Population-Based Screening (PBS)** initiative to detect NCDs early by screening individuals **aged 30 and above**.
- The **National NCD Portal**, introduced in 2018, manages patient data and links health records with ABHA IDs.

RURAL ECONOMY

Rural Infrastructure:

- Pradhan Mantri Gram Sadak Yojana (PMGSY):** 99.6% of the targeted habitations provided connectivity.
- A **separate vertical has been launched under PMGSY** to support Particularly Vulnerable Tribal Groups (PVTG) through the Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM-JANMAN).
 - Population norms** have been relaxed to 100 to connect unconnected PVTG habitations. The target is to **construct 8,000 km of roads** by **March 2028**



Rural Housing: A Milestone for identity and economic growth

- The **Pradhan Mantri Awas Yojana-Gramin (PMAY-G)** was launched on 1 April 2016, aligning with **SDG Goal 11.1 on 'Safe and affordable housing'** and India's vision of '**Housing for All**'.
- PMAY-G aims to provide **pucca houses with basic amenities** to houseless families and those in kutcha or dilapidated houses **in rural areas by 2029**.
 - Since 2016, **2.69 crore houses have been constructed**, and the scheme has been extended to build 2 crore more houses over the next five years.
 - The construction of a PMAY-G house generates **314 person-days of direct employment**, including 81 skilled, 71 semi-skilled, and 164 unskilled person-days.

- Since 2016, an estimated 192 crore person-days of skilled labour and 250 crore person-days of unskilled labour have been employed.
- The PMAY-G scheme **reserves 60% of its targets for SC/ST households**, with 59.58 lakh SC and 58.57 lakh ST houses completed.
 - The scheme **prioritizes women's empowerment**, with 74% of sanctioned houses owned solely or jointly by women.

Localising SDGs: Powering rural progress

- SDG localisation is the **process of adapting global goals into local development plans** that address regional needs, context, and priorities while aligning with national frameworks (United Nations, 2024).
- SDG localisation is being **implemented at the Gram Panchayat (GP) level** through Village Panchayat Development Plans under **Mission Antyodaya and the Transformation of Aspirational Districts Programme (TADP)**, launched in 2018 with districts as the lowest implementation level.
- Additionally, work is underway to develop a **Local Indicator Framework (LIF)** at the GP level, with **9 themes covering all 17 SDGs**.
- The timely submission of **Voluntary National Reviews in 2017, 2020, and 2023** and the adoption of the SDG Index reflect India's commitment to the SDG goals.
 - The vision of '**Sabka Saath, Sabka Vikas**' and **Viksit Bharat 2047** serves as a roadmap for achieving these goals.
- **India's SDG implementation** follows a multi-layered approach with **4 key pillars**: institutional ownership, collaborative competition, capacity building, and a whole-of-society approach.
- NITI Aayog is transitioning to **SDG Coordination and Acceleration Centres (SDGCACs)** to advance SDG efforts by 2030, focusing on innovative solutions, scaling successful initiatives, and collaborating with diverse stakeholders.

Social Inclusion and Gender:

- State Rural Livelihoods Missions (SRLMs) have developed **state-specific strategies to integrate DAY-NRLM components** and community institutions, focusing on child education, early marriage, women's asset creation, and violence prevention.
- **Gender Resource Centres (GRCs)** are being set up to address gender issues locally, with Gender Point Persons (GPPs) educating SHG members on gender-based violence and discrimination.
 - A total of 3997 GRCs are operating across 18 States and UTs under DAY-NRLM.

Free legal assistance in remote and rural areas:

- The government launched the '**Designing Innovative Solutions for Holistic Access to Justice in India'** scheme to provide pre-litigation advice through Tele-Law and offer pro bono legal services via the Nyaya Bandhu programme.
- The **Gram Nyayalayas Act, 2008** ensures grassroots-level justice in rural areas.
 - As of October 2024, 313 Gram Nyayalayas have disposed of over 2.99 lakh cases between December 2020 and October 2024.
- The **National Social Assistance Programme (NSAP)** provides financial assistance to elderly, widows, disabled persons, and bereaved households from Below Poverty Line (BPL) families.

- NSAP supports 3.09 crore BPL beneficiaries, while States/UTs assist an additional 5.86 crore beneficiaries through state pension schemes.
- Together, around **9 crore beneficiaries are covered** under the national pension safety net, with an annual expenditure exceeding ₹1 lakh crore.

Enhancing rural incomes:

Mahatma Gandhi National Rural Employment Guarantee Scheme:

- The MGNREGA Act 2005 enhances rural livelihood security by **providing at least 100 days of guaranteed wage employment** per year to households with adults willing to do unskilled manual work.
- MGNREGS, initially a wage employment scheme, has **evolved into a rural asset creation program** for sustainable livelihood diversification.
 - The share of '**works on individual land**' **increased** from 16.2% in FY15 to 71.2% in FY25, while expenditure on these works rose from 11.65% to 28.9% during the same period.
- Several **efficiency reforms** have been introduced in **MGNREGA** to improve transparency and utilisation, including:
 - **Geotagging** of work before, during, and after completion.
 - **99.98% payments** processed via the **National Electronic Fund Management System (NEFMS)** with DBT-enabled wage transfers.
 - **Aadhaar-based payments** cover 96.3% of active workers, with 99.23% of wage transactions processed through the Aadhaar Payment Bridge System (APBS) in December 2024.
 - **Social audit units** have been established in **28 states/UTs**.

Table XI.8: Key indicators on MGNREGS

Indicator	2020-21	2021-22	2022-23	2023-24*	2024-25*
Person-days generated (in crore)	389.1	363.3	293.8	308.9	220.11
Average person-days per household	51.5	50.1	47.8	52.1	42.77
Women participation rate (%)	53.2	54.7	57.5	58.9	57.97

*As per MIS (as of 10 January 2025)

- Capacity development** of MGNREGS workers is being promoted through initiatives like **Bare Foot Technicians (BFT)** and the **UNNATI skilling project**.
- MGNREGS is converged** with initiatives like Nutri-Gardens (NRLM), fodder farms (DAHD), horticulture (Ministry of Agriculture), medicinal plantations (Ministry of Ayush), and Gram Panchayat buildings (Ministry of Panchayati Raj).

Deendayal Antyodaya Yojana-National Rural Livelihood Mission (DAYNRLM):

Launched in 2011, aims to reduce poverty by helping poor households access self-employment and skilled wage opportunities for sustainable livelihoods.

Table XI.7: Progress under key programme components of DAY-NRLM

Capacity Building	Financial Inclusion	Farm Livelihoods	Non-Farm Livelihoods
 <p>Mobilised 10.05 crore rural poor Households into 90.90 lakh SHGs, 5.96 lakh VOs and 32,439 CLFs in 7,143 blocks of 745 districts</p>	 <ul style="list-style-type: none"> 1.37 lakh SHG women members positioned as Banking Correspondent Sakhi. ₹49,284 crore capitalisation support provided to SHGs. ₹ 9.85 lakh crore of bank credit accessed by SHG. 	 <ul style="list-style-type: none"> More than 2.64 crore households have agri-nutri gardens Around 36,205 Custom Hiring Centres established to help small and marginal farmers hire farm tools and services at a nominal cost. 4.30 crore Mahila Kisan covered 	 <ul style="list-style-type: none"> Start-Up Village Entrepreneurship Programme (SVEP): nearly 3.13 lakh enterprises in 280 blocks of 31 States/UTs. Aajeevika Grameen Express Yojana: 2297 vehicles operational in 26 states connecting remote villages.

EMPLOYMENT AND SKILL DEVELOPMENT: EXISTENTIAL PRIORITIES

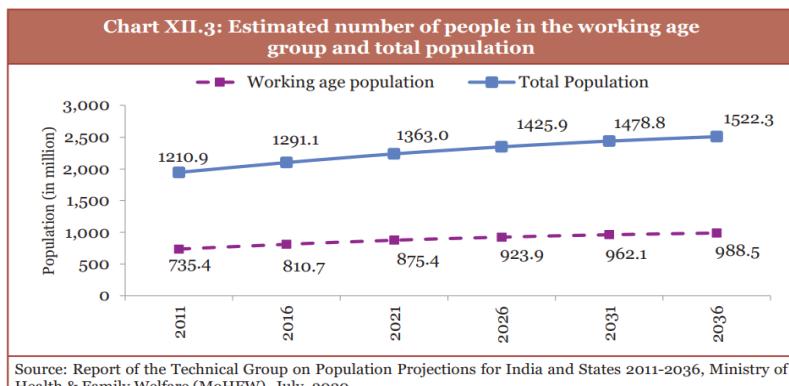
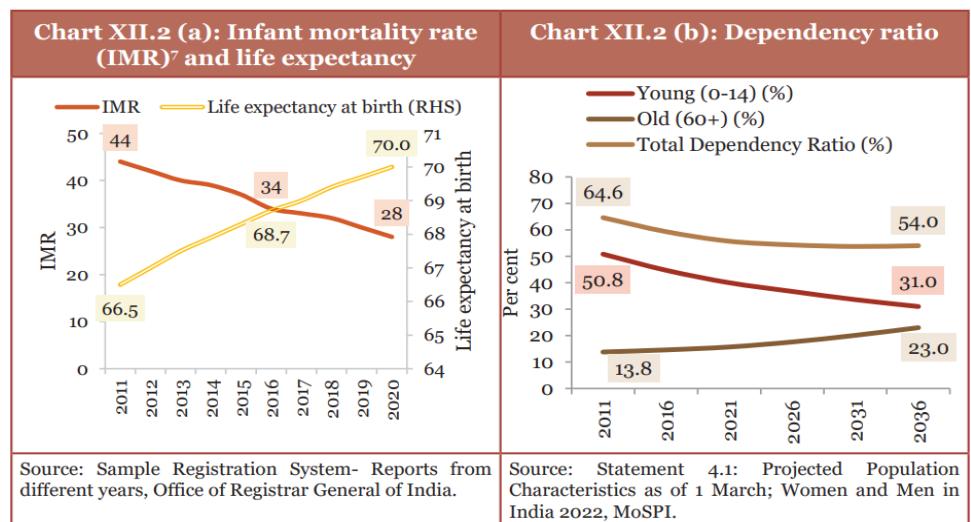
CHAPTER

12

- **India moved** from the 10th largest economy in 2014 to the **4th largest** in less than a decade, surpassing the UK.

- By 2030, India is expected to become the **world's 3rd-largest economy**, after the USA and China, driven by a growing working-age population and a strong manufacturing sector.

- India has **around 26% of its population** in the **10-24 age group**, offering a unique demographic opportunity.
- With a **median age of 28**, India's young population is a key driver of growth compared to aging developed countries.
 - The Economic Survey 2023-24 stated that India needs to create an **average of 78.5 lakh non-farm jobs each year** until 2030 to effectively employ its expanding workforce.
- **India's dependency ratio** has dropped from 64.6% in 2011 to 55.7% in 2021 and is expected to decline further to **54.3% by 2026**.

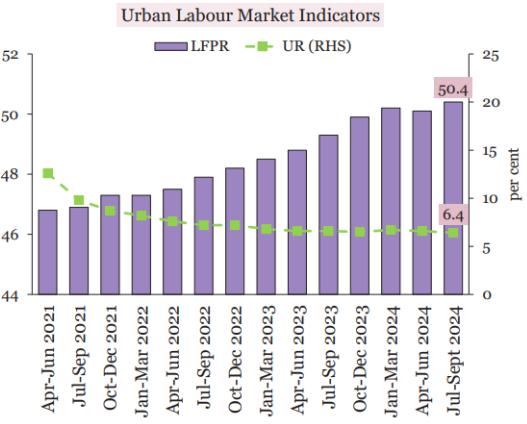
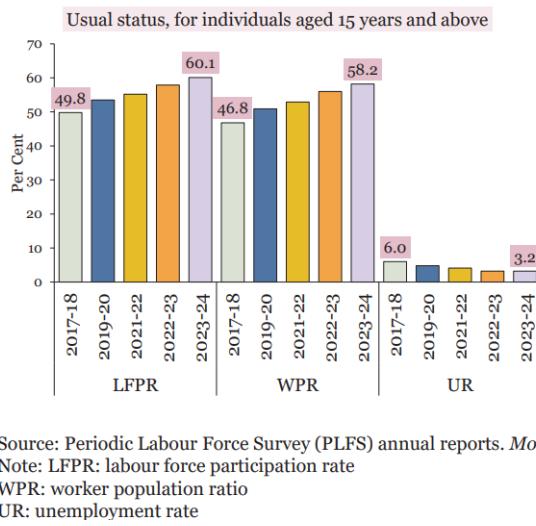


STATE OF EMPLOYMENT

- The 2023-24 Periodic Labour Force Survey (PLFS) report by the NSO shows a strong recovery in employment across India after the pandemic.
 - India's **annual unemployment rate for people aged 15 and above** has consistently dropped from 6% in 2017-18 to **3.2% in 2023-24**.
 - This recovery has been accompanied by an **increase in the labour force participation rate (LFPR) and the worker-to-population ratio (WPR)**.
- **Trends in labour market conditions across India:**
 - Out of 36 states and union territories, **only 12 have a workforce participation rate (WPR) below the national average** of 43.7%, and 12 fall below the national labor force participation rate (LFPR) average of 45.1%.

- Additionally, 14 states have seen a more than 10% rise in workforce participation (WPR), and 11 states have achieved a similar increase in labor force participation (LFPR) since 2017-18.

Improving labour market indicators



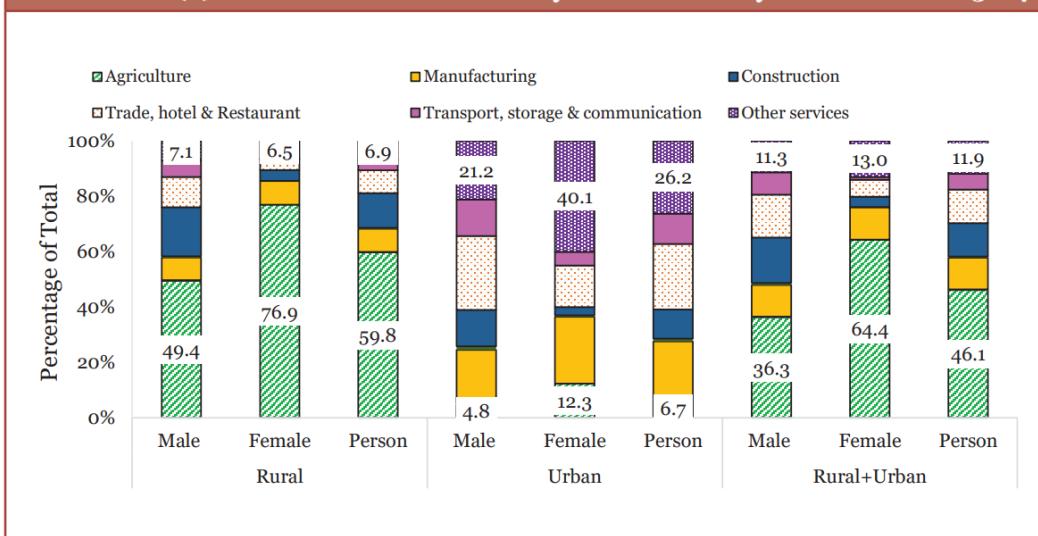
- Meanwhile, **casual workers decreased** from 24.9% to 19.8%, reflecting a shift toward more structured self-employment.
- PLFS data shows **fewer women in regular jobs** but more in self-employment or household work, especially in rural areas.
 - In rural India, women in regular wage jobs dropped from 10.5% in 2017-18 to 7.8% in 2023-24, while more women shifted to **self-employment or working in household enterprises**.
 - **In urban areas**, women in salaried jobs declined from 52.1% to 49.4%, with the sharpest drop in 2020-21, falling to 50.1% from 54.2% the previous year.
 - **Rural Women**: The share of rural women in **self-employment** rose from 19% (2017-18) to **31.2% (2023-24)**, while unpaid family labor increased from 38.7% to 42.3%.
 - **Urban Women**: Self-employment among urban women grew from 23.7% to 28.5%, and unpaid family labor increased from 11% to 13.8%.

Sectoral distribution of the workforce:

According to PLFS 2023-24:

- **Agriculture remains the largest employer**, rising from 44.1% (2017-18) to **46.1% (2023-24)**.
- **Industry and services saw declines**: manufacturing fell from 12.1% to **11.4%**, and services dropped from 31.1% to **29.7%**.
- Share of **Female workers in agriculture** increased from 57.0% to **64.4%**, while **male** participation decreased from 40.2% to **36.3%**.
 - More men shifted to sectors like construction, trade, hotels, restaurants, transport, and communication services.

Chart XII.8 (a) Distribution of workers by broad industry division in 2023-24



Source: Annual PLFS report 2023-24, MoSPI

Rise in Female LFPR: Tapping into female labour for economic growth:

- From the gender perspective, the female labour force participation rate (FLFPR) has **been rising for 7 years**, i.e., from 23.3% in 2017-18 to **41.7% in 2023-24**.
 - The rise in **rural FLFPR** mainly drives the overall increase in FLFPR, growing from 24.6% in 2017-18 to **47.6% in 2023-24**
- **The FLFPR has improved across states:**
 - In 2017-18, 20 states/UTs had an FLFPR below 20%.
 - By 2023-24, this number dropped to 3.
 - **Most states (21) have an FLFPR of 30-40%**, while 7 states/UTs reported over 40% in 2023-24.
 - **Sikkim had the highest rate at 56.9%**.
- As of 31 October 2024, 73,151 startups with at least one woman director were recognized under Startup India, nearly half of the 1,52,139 government-supported startups.

Factors influencing the female labour force participation:

- **Increased Participation:**
 - PLFS 2023-24 indicates a rise in women's participation in economic activities, particularly in rural areas, partly due to better survey methods capturing unpaid work and initiatives like DAY-NRLM providing skilling and credit access.
- **Barriers to Workforce Participation:** Traditional gender norms, childcare responsibilities, and household duties limit women's participation in paid work.
- **Policy Recommendations:**
 - Remove occupational restrictions on women.
 - Enhance childcare infrastructure with more crèches to ease work participation.
 - Promote skill development programs aligned with industry demands.

- Encourage women's participation in emerging sectors and non-traditional roles to harness India's demographic dividend.

Harnessing the power of women entrepreneurs for India's economic future:

- Over 80% of the nearly 4.96 lakh people in the khadi sector are women artisans.
- Additionally, the Handloom Census 2019-20 shows that 72% of handloom workers in India are women.
- **Gender Disparity in micro, small, and medium enterprises (MSME) Ownership:**
 - **Only 22%** of all (MSMEs) are owned by women entrepreneurs, largely male-dominated.
 - **As enterprise size grows**, women's **ownership drops** from 22% in micro to 12% in small and 7% in medium enterprises.
- **NRLM partnered with Global Alliance for Mass Entrepreneurship (GAME)** to empower rural women entrepreneurs through the Women Entrepreneur Financial Empowerment Programme (WEFEP).
 - This is supported by NRLM's ground cadres like "**Vitta Sakhis**," who guide women on loan options, assist with bank visits, documentation, and business proposals, reducing bank linkage time.
 - GAME program aims to impact **2.5 lakh women** in the digital platform economy by 2025.
- The "**Growtherator**" program accelerates MSME growth by fostering profitability, job creation, and long-term success through mentorship and peer networks.
- **WE Hub in Telangana** is India's first state-led incubator for women entrepreneurs.

Government initiatives to boost female entrepreneurship:

- **Flagship schemes:** Besides these, certain flagship schemes of the government of India, such as Pradhan Mantri Mudra Yojana, DAY-NRLM etc., are also oriented towards promoting women-led enterprises. Other schemes and initiatives, such as **Yashasvini** mass awareness campaigns, are also available for women entrepreneurship development.

 <p>SANKALP³⁶</p>	
32,262 women (67 per cent of beneficiaries) trained in entrepreneurship between 2021 to 2024.	
Department for Promotion of Industry and Internal Trade	
 <p>Start-up Support³⁷ 10 per cent of the Fund of Funds for Start-ups is reserved for women.</p>	 <p>Women Entrepreneurship Platform³⁸ Launched in 2018 to aggregate and showcase policies, with NSA awards recognizing women-led start-ups.</p>
 <p>Ministry of Food Processing Industries PM Micro Food Processing Scheme³⁹ SHG members receive ₹40,000 seed capital and 50 per cent branding/marketing grants.</p>	 <p>Ministry of Tribal Affairs Adivasi Mahila Sashaktikaran Yojana⁴⁰ Loans up to ₹2 lakh at 4 per cent interest for ST women.</p>
Ministry of Cooperation⁴¹	
 <p>NCDC Support⁴² ₹6,426 crore disbursed for women cooperatives; 25,385 registered cooperatives.</p>	 <p>Nandini Sahakar Scheme 2 per cent interest subvention for innovative cooperative projects.</p>
 <p>Swayam Shakti Sahakar Yojna Working capital loan to support women SHGs.</p>	

Ministry of Micro, Small and Medium Enterprises³⁰			
 <p>Formalisation of Enterprises³¹ 63 per cent of the 2.41 crore enterprises formalised since January 2023 are women-owned.</p>	 <p>Marketing Support³² Women's trade fair participation is fully subsidised.</p>	 <p>PM Employment Guarantee Programme³³ 41 per cent of loans in FY24 were sanctioned to women, with higher subsidies (25–35 per cent) and lower contributions (5 per cent).</p>	 <p>Procurement 3 per cent of procurement by CPSEs is reserved for women-owned enterprises.</p>
 <p>Skill Development Over 21,600 women trained in coir manufacturing in 5 years; free entrepreneurial training is offered.</p>	 <p>ZED Certification³⁴ 100 per cent subsidy on certification for women MSMEs.</p>	 <p>Access to Credit³⁵ Women entrepreneurs receive 90 per cent guarantees (vs. 75 per cent for others) and reduced fees under the Credit Guarantee Scheme. Of 97.68 lakh guarantees approved, 22 per cent are for women.</p>	
Ministry of Skill Development and Entrepreneurship			

Trends in wages and earnings:

- **Regular/salaried and self-employed** workers saw a 5% CAGR growth from 2018-19 to 2023-24, while casual workers' **daily wages grew at a 9% CAGR** during the same period.
- Self-employed earnings dropped from 2017-18 to 2020-21 but rose sharply after the pandemic.
- **Nominal wages** have shown good growth **across all categories**, outpacing growth in real wages.
- Corporate profitability has reached a 15-year high, even as wage growth moderates.
- As per the Annual Survey of Unincorporated Sector Enterprises (ASUSE) 2023-24, the **average emolument per hired worker** increased by 13%, rising from ₹1,24,842 in 2022-23 to **₹1,41,071 in 2023-24**, indicating improved wage levels.

Employment in factories:

- The **Annual Survey of Industries (ASI) 2023** shows the **manufacturing sector's resilience**, with employment growing by **over 7%** from the previous year.
 - Compared to **FY19 (pre-pandemic level)**, the sector added **over 22 lakh jobs** in FY23, highlighting a strong post-pandemic recovery.
- **Large factories** (more than 100 workers) now make up **22%** of all operational factories.
 - Large factories employ **80% of total workers** and **78% of total persons engaged (TPE)** in the sector.
 - Though small factories are more in number, they contribute less to overall employment.
- **7 key industries** - food products, textiles, basic metals, wearing apparel, motor vehicles, machinery & equipment, and chemicals - account for **54% of total employment**.

Growing formal sector in India:

- EPFO payroll data shows **increasing job formalization**, supported by government initiatives.
 - Net EPFO additions more than doubled, from 61 lakh in FY19 to **131 lakh in FY24**.
 - **EPFO membership reached 32.7 crore in March 2024**, up from 29.9 crore in March 2023.
- In FY25 (April-November), **expert services contributed 50% of new EPFO payroll additions**, making it the largest sector.
 - Trading-other industries accounted for 12%, and trading-commercial establishments for 7%.
- From April to November 2024, the **18-25 age group made up 47% of net EPFO payroll additions**.
 - Overall, **61% of new formal jobs went to workers under 29 years**, showing that most organized sector jobs are benefiting young workers.
- The **eShram portal** was launched by the Ministry of Labour and Employment (MoLE) on August 26, 2021, to recognize and support unorganised workers.
 - As of December 31, 2024, over **30.51 crore workers have registered on the portal**.
- Unorganised workers registered on eShram can now **access social security schemes** and track their benefits through the portal.
 - So far, 12 central government schemes have been integrated.
- To make eShram a One-Stop Solution for unorganised workers, the Ministry of Labour and Employment (MoLE) launched **eShram – “One-Stop-Solution”** on October 21, 2024.

JOB CREATION: ACTION TOWARDS ENHANCED EMPLOYMENT OPPORTUNITIES

Driving employment opportunities through the digital economy:

- According to NITI Aayog, India's gig workforce is expected to reach **23.5 crore by 2029-30**, making up 6.7% of the non-agricultural workforce and 4.1% of total livelihoods.
- The digital economy offers **women greater employment opportunities** through remote work, helping bridge the gender gap by overcoming barriers like limited access, cultural biases, and mobility restrictions.

Driving job opportunities

Harnessing the Digital Economy for Job Creation



India's digital economy is projected to surpass USD one trillion by 2025.



The gig workforce is projected to reach 2.35 crore by 2029-30.

Building a green workforce



Jobs in the renewable energy sector reached an estimated 1.02 million in 2023.



Hydropower employs ~453K in India's renewable sector, contributing 20% of global jobs globally.

Building a green workforce: Job creation in the renewable energy sector:

- According to the 2024 Annual Review by the International Renewable Energy Agency (IRENA), **India's renewable energy sector employed an estimated 1.02 million people in 2023.**
 - Hydropower is India's largest renewable energy employer**, providing 453,000 jobs and 20% of global employment, second only to China.
- Global Energy Alliance for People and Planet (GEAPP)** India partners with DAY-NRLM to create clean energy programs that improve women-led enterprises.

SKILL DEVELOPMENT: UPSKILLING, RESKILLING AND NEW SKILLING FOR A CHANGING WORLD

- Skilled workers are **increasing across all groups**, including rural, urban, and gender categories.
 - The PLFS 2023-24 report shows **4.9% of youth (15-29 years) received formal vocational training**, while 21.2% trained through informal sources.
- PLFS data shows that 90.2% of the workforce has secondary or lower education, leading **88.2% to work in low-competency jobs**, including elementary and semi-skilled occupations.
 - While 4.2% of the workforce with advanced education earns ₹4-8 lakh annually, 46% earn less than ₹1 lakh, mainly low to semi-skilled workers like agricultural laborers, clerical staff, factory workers, and small-scale service providers.

Table XII.5: Advancing India's skill development initiatives

 Re-skilling, Up-skilling and New-skilling of the workforce.	<ul style="list-style-type: none">Over 1.24 crore persons enrolled for long-term training under the Craftsmen Training Scheme at Industrial Training Institutes (ITIs).Over 1.57 crore persons have been trained, and over 1.21 crore have been certified under the Short-Term Training (STT), Special Projects (SP), and Recognition of Prior Learning (RPL) components of Pradhan Mantri Kaushal Vikas Yojna (PMKVY).Over 27 lakh people have been trained, and over 26 lakh have been certified under Jan Sikshan Sansthan (JSS).11.79 lakh artisans have been imparted basic skill training in 3,145 Skill centers, spanning 559 districts under PM Vishwakarma.National Council for Vocational Education and Training: 200+ new age and future skill courses approved.4.65 Lakh candidates enrolled in 100 New-age/futuristic job roles; 3.02 Lakh candidates have completed training, and around 98,000 are undergoing training under PMKVY.¹¹¹29 new-age courses under CTS have been introduced in ITIs.
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- Improving learning outcomes and employability is crucial. This requires action at two levels:

- School level** – Strengthening basic skills in language, math, and science, as emphasized in the **National Education Policy (NEP) 2020** under Foundational Literacy and Numeracy (FLN).

- Higher education** – Integrating skills for **Industry 4.0**, including **Generative AI** and **machine learning**.

- The **NEP 2020** aims for **50% of students** to gain skill education exposure by **2025**, with skill education gradually becoming part of all secondary schools over the next decade.

- The **Union Budget 2024-25** launched **five key schemes** with a **₹2 lakh crore** outlay to benefit **4.1 crore youth** over five years by promoting employment and skilling.

Tiered skill framework:

Chart XII.24: Skills Pyramid: Tiered framework for AI upskilling, reskilling and new skilling



International mobility of skilled workers:

- **India's diaspora** has grown from 18 million in 2020 to **32 million**, making it one of the largest globally.
- With **65% of its population under 35** and a median age of 28, India's demographic dividend positions it as a **global talent hub**, dependent on skill development.

International cooperation in skill development:

- **Bilateral Partnerships:**
 - The Ministry of External Affairs (MEA) has signed **Migration and Mobility Partnership Agreements (MMPAs)**, Labour Mobility Agreements (LMAs), and Labour Welfare Agreements
 - **MMPAs and LMAs are signed with 8 countries**, including Australia, Israel, Denmark, Italy, Germany, the UK, Japan, and Austria, focus on vocational training and skill alignment.
- **Government-to-Government (G2G) Memorandums of Understanding (MoUs):**
 - The Ministry of Skill Development and Entrepreneurship (MSDE) has seven active MoUs with Australia, Denmark, Germany, Japan, Qatar, Singapore, and the United Arab Emirates (UAE), focusing on vocational training, capacity building, and international certification to enhance global workforce mobility.
- **Skill Gap Assessments & Global Training:**
 - The National Skill Development Council (NSDC) assesses skill gaps in 16 countries.
 - Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and the Craftsmen Training Scheme include language training for better worker integration abroad.
- **Standardization & Skill Recognition:**
 - The National Skills Qualification Framework (NSQF) ensures international alignment of skills and qualifications.
- **Skill India International Centres (SII Cs):**
 - Act as hubs for global job seekers, reducing migration costs and improving workforce readiness.
 - Currently, **two SII Cs (Varanasi and Bhubaneswar) are operational**, with five more under renovation.
- **Pre-Departure Orientation Training (PDOT):**
 - Launched in 2018, PDOT provides free 8-hour training on cultural, legal, and welfare aspects for migrant workers before departure.
- **e-Migrate Platform:**
 - Managed by MEA, the e-Migrate platform streamlines emigration, offering online registration, PDOT, and grievance redressal.

CHAPTER

13

LABOUR IN THE AI ERA: CRISIS OR CATALYST?

- The **International Labour Organisation** estimates that nearly **75 million jobs** globally are at risk of automation due to AI.
- In line with **IMF** estimates, **Ernst & Young** notes that while the impact of **AI** on emerging economies is lower than on advanced economies, **57% of occupations** in emerging countries could still be affected by higher **Generative AI** adoption.
- **NASSCOM** estimates that the Indian **AI market** will grow at a **25-35% CAGR** by 2027, with continued higher adoption by the private sector and the market.

- According to the **Economic Survey 2023-24**, India needs to create an average of **78.5 lakh jobs annually** in the **non-farm sector** by 2030 to accommodate the rising workforce.
- A **tripartite compact between the government, private sector and academia** can ensure that the gains from AI-driven productivity are widely distributed, taking us in the direction of the ideal inclusive growth strategy.

A Future for human centric automation



Challenges to scaling AI



Practicality

Translating breakthroughs into practical, widely adopted applications remains challenging, as AI currently shows experimental and uneven utility



Reliability

Ensuring AI reliability is critical for real-world applications, as failures in key industries like autonomous vehicles or healthcare can prove problematic



Infrastructure

AI at scale requires substantial investments in infrastructure, including data centres, clean data pipelines, and computational resources



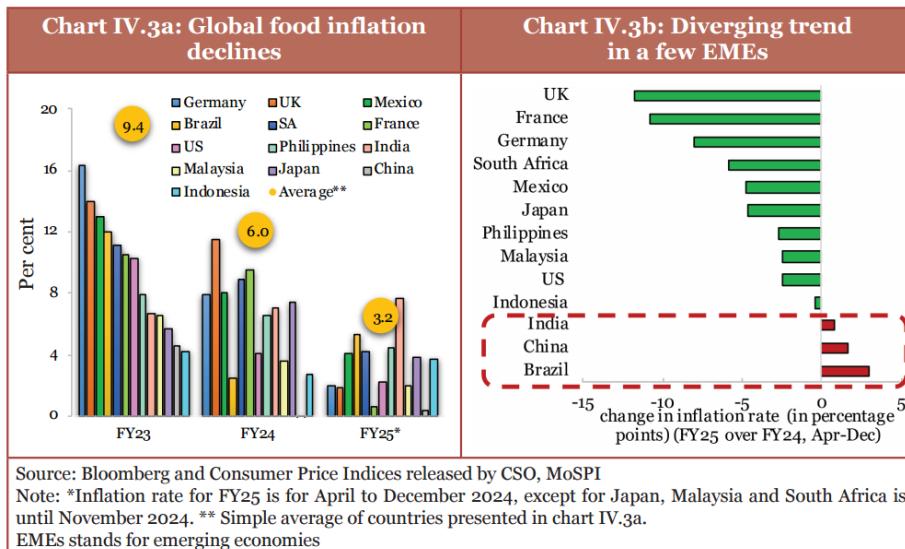
Resources

Large Models are resource intensive, requiring high energy consumption, dependency on scarce minerals for hardware, and finance, making sustainable innovation essential

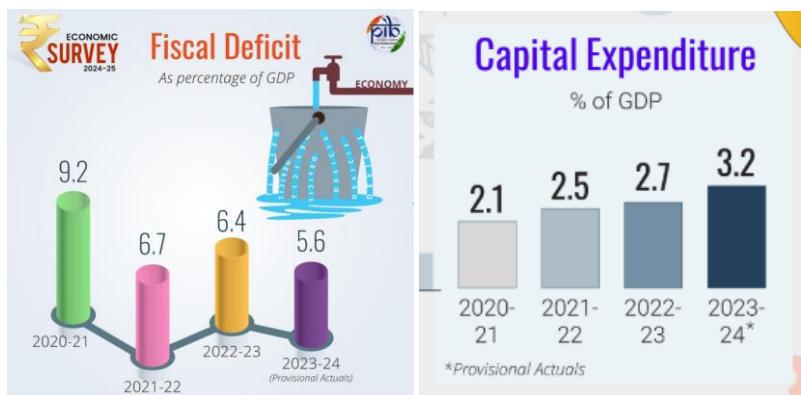
Additional Points

- In 2024, **3 major democracies** - India, America, and Indonesia - held elections.

Global inflation: peaked at 8.7% in 2022, fueled by supply chain disruptions and geopolitical tensions, before easing to 5.7% in 2024.



Fiscal Deficit and other trends:



- **Growth in services and goods exports**, excluding petroleum and gems and jewellery, was 10.4% (first 9 months of FY25).
- As of the end of **December 2024**, India's foreign exchange reserves amounted to **USD 640.3 billion**, which is sufficient to cover around 90% of the country's external debt of USD 711.8 billion as of September 2024.

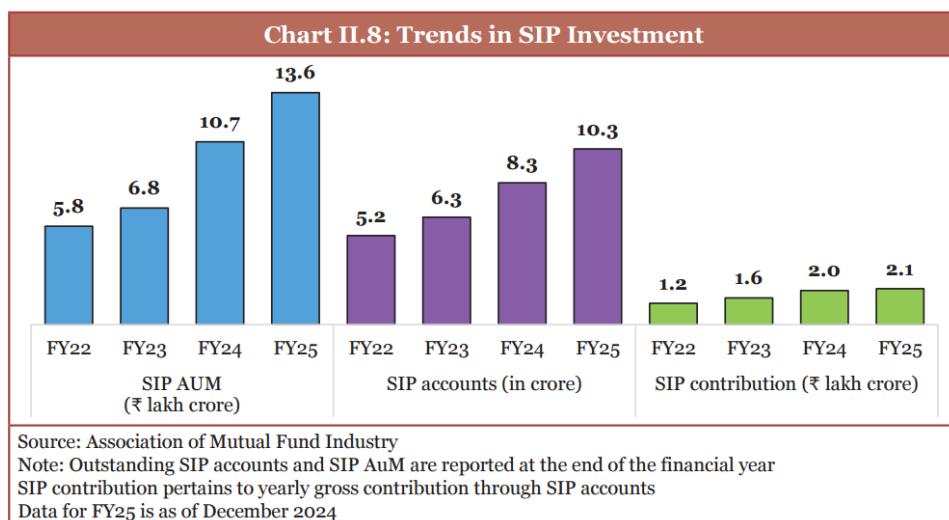
Old-age dependency ratio and Gini coefficient:

- The **old-age dependency ratio in India is about 15.7%**, which is much lower compared to many Emerging Market Economies (EMEs), indicating a relatively smaller proportion of elderly people dependent on the working-age population.
- The **Gini coefficient**, measuring inequality in consumption expenditure, declined from 0.266 to 0.237 in rural areas and from 0.314 to 0.284 in urban areas between 2022-23 and 2023-24.

LiFE measures:

- By 2030, it is estimated that these measures could save consumers around **USD 440 billion** globally through reduced consumption and lower prices.

Trends in SIP Investment:



Beneficiaries of PM-KISAN and PMKMY:

- **More than 11 crore farmers have benefitted** under the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN), and 23.61 lakh farmers have enrolled under the Pradhan Mantri Kisan Maandhan Yojana (PMKMY) as of 31st October 2024.

Growing Carbon sink of forests in India:

- **Target:** India's Nationally Determined Contribution (NDC) aims to **increase carbon sinks by 2.5 to 3 billion tonnes** of CO₂ equivalent by 2030 through improved tree cover.
- **Current Status:** As per the latest Forest Survey of India (FSI) 2024, India's carbon sink in 2023 is estimated at **30.43 billion tonnes of CO₂ equivalent**, compared to 28.14 billion tonnes in 2005.
- **Increase in Carbon Sink:** The addition to the carbon sink between 2005 and 2023 is **2.29 billion tonnes** of CO₂ equivalent, bringing it closer to the NDC target.
 - The FSI projects a carbon sink of 31.71 billion tonnes by 2030, surpassing the NDC target.

Draghi report:

- The report highlights the "**China Challenge**" to European competitiveness, which could also apply to India, noting that India's youthful demographic is an advantage but comes with significant responsibility.
- The "China Challenge" refers to **China's growing dominance in global manufacturing and trade**, which creates significant competition for other countries.
 - It pressures economies like Europe and India to innovate and maintain competitiveness in the global market.

AI-driven automation:

- Goldman Sachs economists state that nearly 300 million full-time jobs remain exposed to AI-driven automation.