VISION IAS
INSPIRING INNOVATION

ECONOMICS

Classroom Study Material 2024

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ECONOMY

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A NOTE FOR THE STUDENTS

Dear Students,

Understanding current affairs can add depth to your perception of intricate issues and help you form nuanced perspectives, especially in the context of the Mains examination.

In light of this, Mains 365 documents attempt to simplify your study process by including features that assist in creating answers, reviewing content, and retaining information.

Economy Mains 365 Key Features:

Concise and Objective: Brief, objective analysis of each topic, incorporating clearly laid out dimensions and key data & facts.

Integration of Current and Static topics: 'Topic at a glance' section provides a static overview of the section enriched with latest data, examples and developments.

Enhanced Infographics: Designed for effective revision and engagement.

Value addition: The data and examples alongside the dimensions in 'Topic at a glances' will play a vital role in enriching the points in your answers.

Previous Years Questions (PYQs): Segregated list of previous years questions for efficient revision.

Appendix: Includes appendix of key data and facts.

Weekly Focus: QR code-linked list of relevant weekly focus documents.

We sincerely hope Mains 365 documents will guide you effectively in your preparation and aid you in scoring better in your Mains examination.

"Learn everything you can, anytime you can, from anyone you can. There will always come a time when you will be grateful you did."

All the Best! Team VisionIAS

1. SNAPSHOT OF THE INDIAN ECONOMY

Indian Economy at a Glance

Key Economic Indicators

National GDP
Estimated at **Rs. 293.90 lakh crores** at current prices in 2023-24 while **real GDP** (at constant prices) is estimated at **Rs. 172.90 lakh crores.**

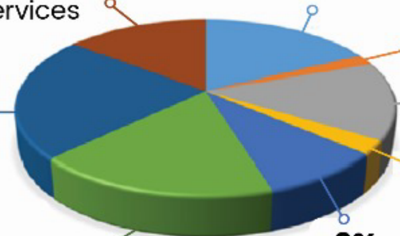
External Trade
India registered record exports in 2023-24 at **USD 778 billion** and overall imports declined to **USD 853.8 billion** in 2023-24.

Unemployment
Unemployment Rate **declined to 3.2%** in 2022-23 from 4.1% in 2021-22.

Debt Estimated
81.6% **public debt-to-GDP ratio** for FY2023-24.

Poverty
Percentage of the poor has gone down **from 25% in 2015-16 to 15% in 2019-21** and **around 135 million people were lifted out of poverty** during this period

Sectoral Composition of Nominal GVA in FY 2023-24



Key Goals

- Government has set a goal of becoming a **developed country by 2047.**
- India has targeted to become **third largest economy** with a **GDP of $5 trillion by 2027-28** and $7 trillion by 2030.
- Foreign Trade Policy 2023 aims to boost **India's exports to USD 2 trillion by 2030.**
- Government aims to raise **per capita income to $4,418** from around $2,500.
- Government aims to reach a fiscal deficit **level below 4.5% of GDP by 2025-26.**

Key Initiatives

- **Infrastructure Development** through PM Gati Shakti, National Logistics Policy, Industrial Corridor Development Programme etc.
- **Push to Manufacturing** through Production Linked Incentive Schemes, Make in India, Startup India etc.
- **Export promotion** through New Foreign Trade Policy 2023, FTAs, Export promotion schemes,

Districts as Export Hubs Initiative etc.

- **Digital India** which is creating digital infrastructure, aiding e-governance and spreading digital literacy.
- **Fiscal Consolidation path** for reducing government liabilities and increasing capital expenditure.
- **Employment creation and skill development** through various schemes.

Key Constraints

- A **large debt stock and interest burden** persist.
- Risks emanate from **higher global crude and commodity prices,** owing to heightened geopolitical tensions.
- Increased **geoeconomic fragmentation and slowdown of hyper-globalisation** can have repercussion on trade and economic growth.
- **Artificial Intelligence** poses a big challenge as 40% of global employment is exposed to AI, especially in services sector, which is a growth driver for India.
- **Availability of talented and appropriately skilled workforce** to the industry.
- **Other challenges include** Digital divide, infrastructural deficit and socio-economic inequalities.

Way forward

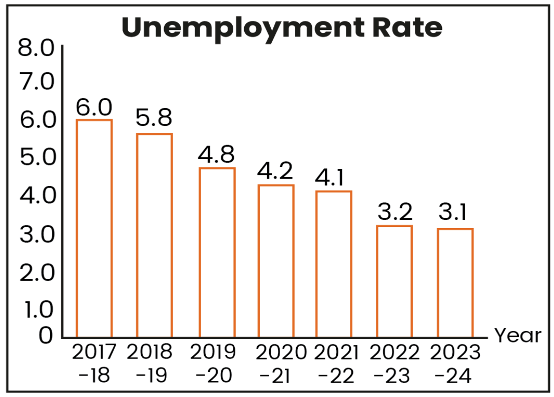
- Cautious **fiscal policy** diminishing government's elevated debt and interest burden.
- **Increase public investment in infrastructure** and incentivise private infrastructural investment.
- Improve **central bank's monetary policy effectiveness** to effectively manage inflation risks.
- **Diversify export basket and reduce commodity dependency** to shield the economy from global shocks.
- **Streamline tax system** with low rates, a thorough assessment and rationalisation of tariff structure.
- **Integrate** Indian economy in the **global value chain** through specialisation and value addition activities.
- Increased focus on the Manufacturing sector, aiming to make **India, a global manufacturing hub.**

2. EMPLOYMENT, LABOUR, AND SKILL DEVELOPMENT

2.1. EMPLOYMENT

Unemployment in India at a Glance

Status of Unemployment in India	
Unemployment rate was 3.1% for calendar year 2023 (PLFS 2023), which Urban at 5.2% and rural at 2.4%.	**Women's labor force participation rate** was 41% (PLFS 2023).
1 out of every 3 unemployed individuals was young in India (ILO finding).	**Employment ratios for women in India are below average** (World Bank South Asia Development Update)



Reasons behind high Unemployment in India

- **Higher population Growth** and **poor utilization of demographic dividend.**
- Level of **educational attainments** in India at **higher levels remains low** and quality is a concern (ILO Report).
- Only about **4.7% of Indian labor force** has undergone any formal skill training.
  - **National Skill Development Corporation skill** gap study found that **29.82 crore workers need to be skilled, reskilled, and up skilled.**
- **Manufacturing is becoming more capital-intensive and automated,** which provides growth but doesn't provide mass employment.
- **About 45.76% of the total workforce is engaged in agriculture (Seasonal employment)** and allied sector during 2022-23.
- **High percentage (~92%) of casual and informal labour** characterized by low and inconsistent wages.
  - The **share of informal sector** to the economy is **more than 50% of Gross Value Added (GVA).**

Steps Taken towards employment generation

- **Aatmanirbhar Bharat Rojgar Yojana (ABRY)** to incentivize employers.
- **Prime Minister Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi Scheme)** to facilitate collateral fee loan.
  - **Rashtriya Udyamita Vikas Pariyojana (RUVP),** entrepreneurship training to PM SVANidhi beneficiaries.
- **PM Vishwakarma Scheme** to provide end-to-end support to artisans.
- **National Education Policy 2020** integrates vocational education into mainstream education.
- **Deen Dayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM).**
- **Others:** Make in India, Start-up India, Stand-up India, Digital India, Smart City Mission, Rozgar Melas, etc.

Way forward

- **Make growth more employment intensive**
  - Boosting productive non-farm employment
  - Focus more on MSMEs
  - Increase agricultural productivity and promote entrepreneurship
- **Improving quality of jobs**
  - Investing in healthcare and digital economies.
  - Inclusive urban policy vis-à-vis migrants, women and workers from poor households.
- **Addressing of labor market inequalities**
  - Improving ICT access and bridge the digital divide.
  - Increasing the flexibility of labor laws and regulations to boost employment, especially in formal sector.
- **Increased Female labor force participation**
  - Monetary incentives such as tax benefits.
  - Closing gaps between the quality of boys' and girls' schooling.
  - Broadening women's access to finance.

2.1.1. INFORMAL EMPLOYMENT AND LOW-PAYING WORK

Why in the news?

In a report published by OECD found that **Informal workers' vulnerability risks are passed on to their children**.

Findings of the Report

- **Majority** of the world's employed **population works in informal settings.**
- These workers **face high poverty and occupational risks** and the **lack of adequate social protection arrangements.**
  - It leaves workers and their families in the informal economy especially vulnerable.
- In households where **all family members are informally employed**, **children inherit their parents' vulnerabilities in the workplace.**
  - **Around 60% of all children aged under 15 years in developing countries** and more than **80% in African countries live in completely informal households**.
- **Earnings disparities** among parents and household types **lead to educational disparities** early in their children's lives.
- The **share of 'not in education, employment or training' or NEET is higher for those from informal households** than for those from mixed and fully formal households.
  - A **NEET is an unemployed person who does not receive any education or vocational training.**

Four ways in which children inherit vulnerabilities

- Direct exposure to **informal employment**
- **School attendance gaps between children** from fully informal, mixed, and formal households
- **Education** receives fewer financial resources and parental time
- Transitioning from school to **work takes longer time**

Policy Recommendation

- **Lower Tier Workers and Their Children: Alleviating the Double Burden**
    - **Skill Development Initiatives:** Implement targeted employer-sponsored training and public skills development programs.
    - **Education Enhancement:** Invest in accessible, equitable, and quality education for children of informal workers to facilitate smoother school-to-work transitions**.**
    - **Social Protection Measures:** Include lower-tier, informal workers in non-contributory social protection schemes
    - **Recognition for Essential Low-Paid Jobs:** Acknowledge that certain workers may remain in low-paid, informal jobs. Prioritize alleviating the double burden through renumeration policies, effective minimum wages, and measures to enhance bargaining power.
- **Upper Tier Workers: Encouraging Formalization**
    - **Standard Formalization Policies:** Encourage upper-tier informal workers to respond positively to standard formalization policies.
    - **Ensuring Adequate Coverage:** Ensure adequate coverage by labor laws, social security, and tax regulations for upper-tier informal workers**.**
    - **Enforcement of Compliance:** Enforce compliance with labor laws, social security, and tax regulations by both workers and employers in the upper tier.

2.2. LABOUR

Labour Law reforms at a Glance

Labour Laws are a body of laws, administrative rulings, and precedents which address the legal rights of, and restrictions on, working people and their organizations.

Implementation of the 4 labor codes, passed by Parliament between 2019 and 2020 seeks to **bring sweeping changes to India's job market,** has been stalled presently.

4 Labour Codes

- The Code on Wages, 2019
- The Industrial Relations Code, 2020
- The Occupational Safety, Health and Working Conditions Code, 2020
- The Code on Social Security, 2020.

Need for reform and codification of India's Labour Laws

- Labour laws were **highly complex** and overlapping in nature and also **very high in number.**
- **Poor enforcement** of laws due to delays in referral, disposal and implementation of awards in cases.
- **Constrained growth of firms** with high administrative burden and lack of an easy exit option.
- It is indirectly **promoting more capital-intensive industries.**
- A **large number of unions** within an establishment negatively impact **collective bargaining rights of workers.**
- **Inadequate coverage** of workers **aggravates social issues like poverty.**

Potential effect of Labour Code on these issues

- It has **extended the coverage** to **more categories of workers and establishments.**
- It **guarantees timely minimum pay to all** with provisions like National Minimum Wage.
- It **facilitates growth of firms along with job creation** by increasing the permission threshold before closure, lay-off, or retrenchment to 300 workers.
- **Improves labour administration** through web-based inspections and compounding of offences in certain cases.
- It increases **protection of contract labourers rights** by increasing responsibilities of the contractor.
- It provides **recognition to negotiation unions** with 51% membership.
- Easing the process for entrepreneurs with **'one labour return, one licence and one registration'** policy.

Issues and concerns against the new consolidated codes

- **Universal minimum wage is very low** and can lead to the process of **labour cheapening.**
- Unnecessarily **wide jurisdiction of the government** in certain cases.
- **Over-delegation of legislation** leading to bypassing of legislative scrutiny in some laws.
- The central and the state government have **wide discretion in providing exemptions** from these codes.
- **Overlap between the definitions** of gig workers, platform workers and unorganized workers.
- Certain code like **social security and occupational safety do not apply to all the workers.**
- Other emerging challenges like dealing with new kind of workforce like **"crowd-work" or "on-demand" work.**

Way forward

- National Commission on Labour (NCL) (2002) had **recommended a separate law for small scale units.**
- NCL recommended a system of **labour courts, lok adalats and Labour Relations Commissions (LRCs) as the integrated adjudicatory system** in all labour matters.
- NCL recommended that a **specific provision may be made to enable workers in the unorganized sector to form trade unions.**
- Standing Committee on Labour (2020) recommended that the Code on security should **provide a framework for achieving universal social security.**
- ILO (2016) highlighted that **restricted use of fixed term and ad-hoc contract workers in the total workforce** could prevent their over-exploitation.

2.3. SKILL DEVELOPMENT

Skill Development at a Glance

Status of Skill Development

- **In India, only around 5% of the workforce is formally skilled** against **52%** in the **US** and **96%** in South **Korea**
- India has entered its **37 years long demographic dividend period,** lasting from 2018 to 2055
- Only **50.3% of India's educated people are employable,** as per India Skills Report, 2023
- **Quality of jobs is on decline,** highlighted by **Periodic Labour Force Survey (PLFS)**

Key Targets

- To train **400 million** Indians under NSDM.
- To encourage and promote skill development with respect to **market demand,** industry needs, services and in new-age job roles under PMKVY.
- To skill **50,000 youth** through Skill Impact Bond between 2021-25.
- To make India **'Skill Capital'** of the world.
- Increase the **formally skilled** labour to at least **15% of the workforce.**
- Ensure **inclusivity** and reduce divisions based on gender, location, organised/unorganized sector etc.

Schemes/Policies/Initiatives

- **National Skill Development Mission (NSDM) and Skill India Mission**
- **PM Kaushal Vikas Yojana (PMKVY), PM YUVA yojana etc.**
  - **Recognition of Prior Learning (RPL)** [Component of PMKVY]
- **Skills Acquisition and Knowledge Awareness for Livelihood (SANKALP)** and **Skills Strengthening for Industrial Value Enhancement (STRIVE)**
- **Skill Management and Accreditation of Training Centres (SMART)**
- **National Initiative for Promotion of Upskilling of Nirman workers' (NIPUN)** project to train 100,000 construction workers.
- Adoption of **Captive Employment** (in house training and placement) methodology under DDU-GKY.
- **Bharatskills Forum, a digital knowledge-sharing platform** for the ITIs' trainees, trainers and industry

Constraints

- **Multiplicity in assessment and certification systems**
- **Underdeveloped and poor-quality infrastructure** of skill training centres.
- **Less participation of women in skill development schemes**
- **Lack of proper career guidance to the students**
- **Low Public perception of skilling,** pushing it lower on priority than the formal academic system.
- **Limited mobility** between skill and higher education programmes and vocational education.

Way forward

- Enabling an ecosystem to create **Industry-Academia partnership.**
- **Mapping** skill requirements for a demand-driven skill development. E.g., deliberating on ideas like Skill Census.
- **Mainstreaming skill development** with education through a system for academic equivalence to ITI's qualifications.
- **Instill the required vocational and skill development programs** in our secondary, higher secondary, and undergraduate education.
- **Standardisation of certification**
- **Alternative financial sources** such as CSR, CAMPA, MPLAD funds, MGNREGA etc. can be utilised for skill development.
- **Encourage Private Sector** to take part in it as it has necessary resources and expertise.

3. GROWTH AND DEVELOPMENT

3.1. ECONOMIC INDICATORS

3.1.1. GROSS DOMESTIC PRODUCT (GDP) ESTIMATION IN INDIA

Why in the news?

The Ministry of Finance issued clarification regarding the ongoing debate around the accuracy of the April-June 2023 GDP data.

More about the news

- India recorded real **GDP growth of 7.8%** during the **April-June period of 2023-24,** the highest in the past four quarters.
  - It was on the back of **double-digit expansion in the services sector (which forms 56% of gross value added)**.
- Critics argued that these GDP figures are inflated as they **do not accurately reflect the impact of inflation** on GDP growth.

GDP calculation approaches

There are **three approaches to** calculating the GDP of a country-

- **Production or 'Value-added' Approach:** It sums the **"value-added" at each stage** of production.
- **Income approach:** It measures the total **income earned by the factors of production**.
- **Expenditure approach:** This measures the total expenditure incurred by all entities on goods and services within the domestic boundaries of a country.

Ideally, the **growth rate in three approaches should be the same**. However, due to **variations in data collection and processing** (often referred to as **statistical discrepancy**), there are **often gaps** between the three which are taken into account while making the final calculation.

Present GDP Calculation Methodology in India

- **Income Method:** Government of India follows the consistent practice of **using the income side estimates** to compute economic growth.
- **Real and Nominal GDP:** The Ministry of Statistics and Programme Implementation (MoSPI) calculates quarterly GVA (gross value added) at **constant prices (2011-12) [Real GDP] and current prices [Nominal GDP].**

Challenges with current GDP calculation methodology

- **Accuracy of Data:** Outdated data in various economic sectors provide an inaccurate picture of the economic activity.
  - Also, in India, the accurate data for one financial year comes through **after a lag of three years** as GDP results declaration cycle runs for three years.
- **Accounting unorganized sector:** Presently, GDP computation methodology uses data from the organized sector as a proxy for the unorganized sector.
- **Exclusion: Not all productive activity is included in GDP**. For example, unpaid work and black-market activities are not included.

Why GDP is not a very good marker to measure development?

- **Misleading growth:** GDP is **not a measure of overall standard of living** or well-being of a country. **Many key goods,** including peacefulness or environmental protection are **not measured.**
- **Inclusion of social harm:** GDP even calculates social harm if it generates a positive economic activity.
  - For instance, a train crash which generates Rs. 1 billion worth of track repairs, medical bills etc. is deemed as beneficial as an uninterrupted service which generates Rs. 1 billion in sales.

- **Non-inclusion of social and environmental aspects:** It does not allow for assessment of social aspects of people's life – state of health, quality of education, length of time for leisure etc. or accounting of natural capital.

Way Forward

- **Base year updation:** Regular updation of the base year is required for maintaining the accuracy of the volume estimates of GDP. (Current base year is 2011-12, which is more than a decade older.)
- **Double deflation:** Steps can be taken to adopt double deflation. It means that outputs and inputs are deflated separately using relevant output and input price indices.
- **Robust data:** Timely data collection, storage and processing, especially with the help of emerging tools such as Big Data and Artificial Intelligence can increase the accuracy of GDP estimation.
- **Measurement of productive activity:** All productive activities of an economy irrespective of the economic transactions such as voluntary work, unpaid household work etc. can be included in the GDP figure.

3.1.2. GROSS FIXED CAPITAL FORMATION (GFCF)

Why in the news?

The sluggish growth of private Gross Fixed Capital Formation (GFCF) as a percentage of Gross Domestic Product (GDP) at current prices has been a significant challenge for the Indian economy.

More about the news

- **Evolution of GFCF (also called Investment):**
  - From **independence to economic liberalisation,** investment largely remained either slightly **below or above 10% of the GDP.**
  - It rose **from around 10% of GDP in** the **1980s** to **around 27% in 2007-08.**
  - From **2011-12 onwards**, however, **private investment began to drop** and **hit a low of 19.6% of the GDP in 2020-21.**
  - **In absolute terms, GFCF** in the Indian economy increased from Rs. 32.78 lakh crore (constant 2011-12 prices) in 2014-15 to Rs. **54.35 lakh crore in 2022-23** (Provisional Estimates).
- **Reasons for fall in Private GFCF:**
  - Historically, in India, **higher consumption** has **led to lower private investment**.
  - **Unfavourable government policy** and **policy uncertainty** act as major issues affecting private investment. E.g., disputes associated with tax laws.
    - ✓ The **drop in private investment** is due to the **slowdown in the pace of reforms in the last two decades.**

What are Capital Formation (CF) and Gross Fixed Capital Formation (GFCF)?

- **Capital formation**: It refers to the process by which resources are invested in assets like plants, machinery, etc. as well as in human capital through education, health, etc.
- **Gross Capital Formation (GCF):** It refers to the growth in the size of fixed capital in an economy. It includes
  - **Gross Fixed Capital Formation (GFCF**): Like land improvements; plant, machinery, and equipment purchases; and the construction of roads, etc.
  - **Change in stock (CIS) of raw materials, semi-finished and finished goods:** Stocks of goods held by firms to meet temporary fluctuations in production or sales.
  - **Net acquisition of valuables**: like gold, gems, ornaments and precious stones etc.

Why GFCF is an important economic variable?

- **Growth Multiplier: GFCF and GDP are positively correlated** and indicate that an increase in GFCF invariably leads to an increase in GDP.
- **Boosts productivity and living standards:** GFCF helps workers produce a greater amount of goods and services each year, helps boost output and improves living standards.

- **Promotes Self-sufficiency:** Growth in GFCF enables the creation of capital assets, thus improving self-sufficiency in production as well as research in the longer term.
- **Indicator of Market Confidence:** GFCF is considered a meaningful indicator of **future business activity, business confidence** and **future economic growth patterns**.
    - For example, **Private GFCF can serve as a rough indicator** of how much the **private sector in an economy is willing to invest.**
- **Reflects overall output: GFCF as an indicator** helps to determine the **overall output of an economy** and hence what consumers can actually purchase in the market.

What is hindering the growth of GFCF?

- **Slow pace of reforms** especially land acquisition has deterred investors from investing in the economy.
- **Financial problems of Indian banks** and many large corporations. This indirectly locks the capital available in the market which cannot be reinvested in new projects.
- **High cost of borrowing** slows down the cycle of lending and borrowing, thus deterring effective channelling of investment.
    - High cost of borrowing stems from higher lending rates, which in turn is affected by high inflation.

Conclusion

To ensure a seamless development of capital formation, economic reforms accompanied by stability in other macroeconomic variables (such as inflation) should be the way forward.

3.1.3. HOUSEHOLD SAVINGS AND DEBT

Why in the news?

Reserve Bank of India in its Financial Stability Report has stated that **household debt warrants close monitoring** from a financial stability perspective.

What are Household Savings and Debt?

- Household (HH) savings in India consist of **two parts** — Net Financial Savings (NFS) and Physical Savings.
- HH NFS is arrived at after **deducting financial liabilities** (known as annual borrowing) from Gross Financial Savings (GFS).
    - GFS includes currencies, deposits (bank and non-bank), insurance, provident and pension funds, shares and debentures, small savings and others.
- **HH physical savings** primarily constitute residential real estate (accounting for about two-thirds) and machinery and equipment.

Status of Household Savings and Debt

- **Gross Savings:** India's gross savings rate stood at **29.7% of Gross National Disposable Income (GNDI)** in 2022-23, with **households being the primary savers** and forming 60.9% of aggregate savings.
- **Savings components:** Savings in **physical assets** has been the dominant and rising component.
    - Households are diversifying their financial savings, allocating more to non-banks and capital markets.
- **Net financial savings:** NFS **declined to 5.3% of GDP** during 2022-23 from an average of 8% during 2013-22.
    - Fall in HNFS was driven by a **rapid rise in financial liabilities** from 3.8% of GDP in 2021-22 to 5.8% in 2022-23.
- **Household debt:** At **40.1% of GDP**, the stock of household debt in India is **relatively low when compared to other Emerging Market Economies** (EMEs).
    - However, in relation to GDP per capita, it is comparatively high.
- **Debt-to-GDP Ratio:** India's household debt to GDP ratio is **one of the lowest** in the world, as also the Debt Service Ratio (DSR), which is estimated at 6.7% at end-March 2023.

Significance of Household Savings

- Households are the **largest driver of fixed capital formation** accounting for over 60% of gross national savings.

- Households finance over **40% of the domestic investment**, with most of it directed towards real estate.
- It is one of the **principal means for financing the fiscal deficit.**
- It **reduces dependence on foreign capital** to fund economic growth.

Implications of high household debt

- **Erosion of household purchasing power** due to lower disposable incomes, affecting consumption demand.
- High household debt levels can be a **source of financial vulnerability** and contribute to prolonged recession.
- **Unanticipated income shocks** triggering defaults and sensitivity to interest rate changes are risks to household debt that can have **macroeconomic and financial stability implications.**
- Banks with high levels of bad debt (that may arise from increased HH debt) have **less money to lend for productive purposes.**

Way Forward

- **Distributing the impact of economic growth evenly** to every section of society, driving inclusive growth.
- Implement **policies that drive job creation, increase real income** and improve economic conditions of every section of society.
- Encourage savings by ensuring **easy access to banking services**, especially for rural and underserved population.
- Educating households and **promoting responsible borrowing practices**.
- **By enforcing fiscal discipline,** the government could **reduce its own borrowing requirements**, potentially leading to lower overall interest rates.

3.1.4. HOUSEHOLD CONSUMPTION EXPENDITURE (HCE)

Why in the news?

The National Sample Survey Office (NSSO) released the **HCES 2022-23,** after a gap of over 10 years since the last survey in 2011-12.

Key Findings of HCES 2022-23

- **Overall Trend: Average** Monthly Per Capita Consumption Expenditure (MPCE) has been **increasing since 1999-2000**.
  - **Rural-urban Divide: Average** MPCE has been Rs. 3,773 in rural India and Rs. 6,459 in urban India.
  - **Rich-Poor Divide:** Richest 5 % of rural and urban areas spend nearly 8 times and 10 times more than the bottom 5 % respectively.
- **MPCE of Agriculture Households: Consumption expenditure of agricultural households falls below the rural average** for the first time**.**
  - However, the gap between the MPCE of agricultural families and the overall average of rural households has been narrowing over the years.
- **Consumption Expenditure among Disadvantaged Sections:** In rural areas, **Scheduled Tribes (ST) reported the lowest MPCE**, followed by Scheduled Castes both less than the rural average.
  - **In urban areas, SCs reported the lowest MPCE**, followed by STs and OBCs, all less than the average MPCE in urban areas.
- **Expenditure on Food:** Share of expenditure on food has gradually declined while the **share of non-food items has increased** for both urban and rural households.
  - Further, **expenditure has shifted to high-value and nutritious animal and horticulture** products from cereals and pulses.

Significance of HCES 2022-23

- HCES is **used for updating several macroeconomic indicators**, including poverty incidence, Consumer Price Index (CPI) and the Gross Domestic Product or GDP.

- HCES **now covers 405 items, compared to 347 in 2011-12** and we have done away with some obsolete items.

3.2. HUMAN DEVELOPMENT REPORT (HDR) 2023-2024

Why in the news?

United Nations Development Programme (**UNDP**) released **the Human Development Report (HDR) 2023-2024** titled **"Breaking the Gridlock: Reimagining cooperation in a polarised world".**

Human Development Index (HDI)

- **About:** It's statistical measure used to quantify a country's achievement in 3 basic dimensions of human development - Long and healthy life, Knowledge, and a decent standard of living.
- **Significance**: It can be used to examine the various policy choices of nations.
  - For example, if two countries have approximately the same GNI per capita, then the HDI can help to evaluate why they produce widely disparate human development outcomes.
- **Limitations**: The HDI **captures only part of what human development entails**. It **does not reflect on inequalities, poverty, human security, empowerment**, etc.

Key Findings about India
- **HDI:** Rank Improved to **134 in 2022** from 135 in 2021 (and 130 in 2018).
  - **Life expectancy at birth:** Improved to 67.7 years (in 2022) from 67.2 (in 2021).
  - **Expected years of schooling**: Increased to 12.6 years from 11.9 years.
  - **Mean years of schooling:** Increased to 6.57 years.
  - **Gross National Income per capita:** Improved to $6,951 from $6,542.
- **Category**: Medium human development category.
- **Comparison with the Neighborhood**: India ranks below China (75), Sri Lanka (78), Maldives (87), Bhutan (125), and Bangladesh (129).

Global Findings

- **Human Development Index (HDI)**: A total of 193 countries were ranked in 2022 of which **Switzerland ranked first**, followed by Norway and Iceland.
  - **Economic Concentration:** Almost 40 % of global trade in goods is concentrated in three or fewer countries.
- **Widening Human Development Gap**: The two-decade **trend of steadily reducing inequalities between wealthy and poor nations is now in reverse**.
- **Rise in Trend of Democracy Paradox**: This paradox, coupled with a sense of powerlessness and a lack of control over government decisions, has **fuelled political polarization and inward-looking policy approaches**.
  - Democracy Paradox means where the **population thinks positively about democracy but supports leaders who undermine democracy**.

Other major indices measuring human development

Index	India's Performance
Gender Inequality Index (GII)	• India has jumped 14 places to **rank 108 in 2022, from 122 in 2021.**
Multidimensional Poverty Index (MPI)	• There are **more than 230 million people in Multidimensional poverty in 2021 in India.**
Gender Development Index (GDI)	• India shows low equality in HDI achievements between women and men with **absolute deviation from gender parity of more than 10 %.**
Inequality-adjusted Human Development Index (IHDI)	• India's rank **declined by 6 places to 140th in IDHI.**

Planetary pressures-adjusted Human Development Index	• With **3% difference from HDI value, India ranks at 127th.**

3.3. URBAN POVERTY

Urban Poverty At A Glance

Urban poverty is a form of poverty that is particularly visible in megacities, characterized by poor living circumstances and income, as well as a lack of essential utilities and a bad quality of life. The government aims for:

- **Sustainable Development of Cities** to ensure access to all sections of society.
- **Empower urban poor** and achieve high economic growth to reduce poverty.
- **Meeting local communities' aspirations** while resolving main urban development issues.

Current Situation

- Important centers of economic activity, they contribute nearly **65% of India's GDP.**
- **Lack of Affordable Housing** with **greater urban poor deprivation** in **sanitation** and **infrastructure.**
- **17% of urban** households are **slum dwellers** (as per the Ministry of Housing and Urban Poverty Alleviation).
- **Increasing inequalities** between rich and poor; leading to **Ghettoization** of communities and rise in crimes.
- **Growing Anti-immigrant sentiments,** leading to demands for local reservations.
- **Growing Economic Distress and Desperation** due to reduced household incomes.

Steps taken

- **National Urban Livelihood Mission (NULM)** to generate gainful self-employment and
- skilled wage employment.
- **Pradhan Mantri Samajik Utthan Evam Rozgar Adharit Jankalyan (PM-SURAJ) portal** to provide credit support to marginalized sections.
- **Smart cities mission** to develop **smart, citizen friendly and sustainable cities.**
- **Atal Mission for Rejuvenation and Urban Transformation (AMRUT)** to provide basic services to households and build amenities.
- **Pradhan Mantri Awas Yojana (Urban)** for Housing for All by 2022.
- **Jal Jeevan Mission (Urban)** and **Swachh Bharat Mission (Urban)** for universal drinking water supply and sanitation facilities respectively.

Persisting Challenges

- **Continued migration pressure** with urban population to exceed 590 million people by 2030 due to **Urban-pull** and **Rural-push factors.**
- **Lack of Opportunities** and **Formal Skilling** due to missed manufacturing phase and shortage of skilling infrastructure.
- **Higher urban inflation** with greater impact of **pandemic induced disruptions** due to market shutdowns, social distancing norms at workplace etc.
- **Low Female Labor Force Participation.**
- **Limited devolution of powers, functions and finances** to urban local bodies.

Way forward

- **Empowerment of Local Leadership** (e.g. Mayor) for more localized economic and social planning.
- **Address Structural Issues of Economy** which leads to lack of economic opportunities, low productivity and unemployment.
- **Modernization of Agriculture** and bringing **Industrialization to Rural Areas** for decongestion of cities.
- **Promotion of Entrepreneurship** with improved **financing and Vocational Education and Training infrastructure.**
- **Promotion of SHGs** and **Gender Equality** to eliminate all forms of poverty.
- **Bringing New Urban Agenda** with explicit inclusion of culture in the urbanization process to re-humanize cities and have people-centered societies.

3.4. DIRECT BENEFIT TRANSFER (DBT)

Why in the news?

According to the Union Finance Ministry, the government has saved Rs 2.73 lakh crore of taxpayers' money from 2014 to 2023 by adopting **Direct Benefit Transfer (DBT)** to send money directly to the targeted beneficiaries.

About Direct Benefit Transfer (DBT)

- **Objective:** Bring **transparency** and **terminate pilferage** from the distribution of funds **sponsored by the Union Government.**
- **Launch**: It was rolled out in 2013 in certain districts. Later, it was implemented across the country in 2014.
- **Key Enablers for DBT:**
  - **JAM (Jan Dhan, Aadhaar, and Mobiles) trinity**: Enabled transfer benefits in a **leakage-proof, well-targeted, cashless, and timely manner.**
  - **Business Correspondents (BC) Infrastructure**: Ensure that payments are disbursed to the beneficiaries **on time, at their doorstep, and of full value.**
  - **Payments Bank**: Increased the **penetration level of financial services** in remote areas of the country.
  - **Mobile money**: Develop a comprehensive **eco-system for cashless transactions** over a mobile platform using Aadhaar as an identifier.

Scope of Schemes under DBT

Cash Transfer:
Example PAHAL, MGNREGA, NSAP etc.

In-kind Transfer:
Given by then Government to individuals through an intermediate agency. E.g., Public Distribution System (PDS)

Other Transfer:
From the **government to different non-government functionaries who help in facilitation of various government** schemes till the last mile. Example ASHA workers under NHM, Aanganwadi workersunder ICDS, etc.

Impacts of DBT

- **Expedited Fund Transfer**: DBT expedited the **flow of funds and information** securely while reducing the possibility of fraud. Also, the **cost of transferring funds** from the government to the beneficiary has been reduced.
  - Schemes like **PM Awas Yojana** and **LPG Pahal scheme** have been successfully implemented.
- **Reduced Corruption**: It ensured **accurate targeting of beneficiaries**.
  - It eliminated the **need for intermediaries**, including government officers.
  - Beneficiaries can link only **one bank by seeding the fund deposits** to their Aadhaar details to **avoid duplication of subsidies**.
- **Financial Inclusion**: It encouraged people to **open bank accounts**.
- **Better Monitoring**: Enabled the Government to simultaneously **monitor** and **reach out to both citizens and beneficiaries of the scheme.**
- **Empowered Citizen:** DBT encouraged people to take benefit of other **e-governance services of the government.**

Challenges in the implementation of DBT

- **Identification of beneficiaries: For instance,** reportedly**,** due to complex eligibility criteria under PM-KISAN, crores of funds were distributed to ineligible beneficiaries.
  - After identification and enrolment, there is also the challenge of database management.
- **Compliance and operational Issues**: **Aadhaar-related errors** such as **fingerprint mismatch, inadequate training of data entry operators** at the field level, etc., have led to transaction failure.
- **Low Financial Inclusion**: People in rural areas, scheduled tribes, etc., have less access to bank accounts, due to which benefits of DBT do not reach all.
- **Digital divide and illiteracy:** Among the poorest 20 per cent of households, only 2.7 per cent have access to a computer and 8.9 per cent to internet facilities (**India Inequality Report 2022: Digital Divide by Oxfam).**
- **Others**: Ineffective **grievance redressal mechanism** for beneficiaries who face issues with DBT, data security, privacy breaches, etc.

Way Forward

- **Grievance redressal:** A proper customer grievance redressal mechanism is required to be conceptualised and coordinated by the PMO.
- **Better coordination and interaction:** Between all the stakeholders, such as the ministry which has launched the scheme, the nodal bank, and the NPCI (National Payments Corporation of India) system.
- **Promotion of Women Agents**: Greater focus should be given to increasing the number of **women agents** in the field to improve access to women beneficiaries.
- **Promoting Digital Infrastructure** initiatives like BharatNet (for Broadband Connectivity).

3.5. FINANCIAL INCLUSION

Financial Inclusion at a Glance

Status of Financial Inclusion in India

- **14.7 bank branches** per 100,000 adults in **2020,** higher than **Germany, China and South Africa**
- **50 Crore+ PMJDY** accounts with over 55% accounts held by women
- RBI's **Financial Inclusion (FI) Index shows growth across all segments**
- **Bottom 50% of the global population owns just 2%** of wealth and 8% of income. **(World Inequality Report 2022)**

Vision

- **Universal Access to Financial Services** (Banking for the unbanked) for affordable, safe and transparent financial services and products.
- **Better access to credit** at a reasonable cost for those presently excluded.
- **Maintain financial sustainability** with improved awareness through financial Literacy, innovative financial products etc.
- **Women Empowerment** through increased role of women in financial management, employment opportunities.
- **Utilize advanced technology** for digital solutions, effective co-ordination among institutions and customer protection.

Schemes/Initiatives

- **National Mission for Financial Inclusion,** namely **PM Jan Dhan Yojana** to provide universal banking.
- **Universal Social Security System** for all Indians through **PMSBY, PMJJBY and Atal**
- **Pension Yojana (APY).**
- **National Strategy for Financial Inclusion 2019-2024** from RBI to ensure access to financial services for every adult through mobile by 2024.
- **Strengthening digital financial services** via NPCI- UPI & RuPay card.
- **Providing banking access** in villages through Banking Correspondents.
- **Supporting employment and entrepreneurship** through PM Mudra Yojana and **Stand Up India Scheme.**
- **Financial Literacy Project** through financial literacy centres and regular activities in different areas.

Constraints

- **Lack of financial literacy** amongst low-income households and small informal businesses.
- **High Operational Cost** of traditional banking and increasing frauds, malpractices in digital model.
- **Excessive regulatory requirements** on products, and market entry, and conservative regulatory approach to new technologies.
- **Presence of a large informal sector,** promoting large scale cash transactions.

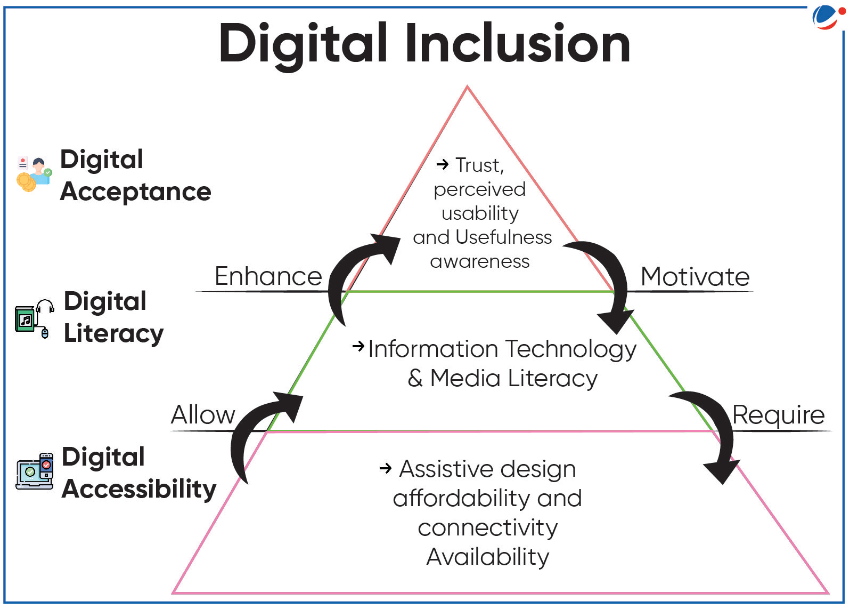
Way forward

- **Launching a new scheme for comprehensive financial literacy** by integrating it in the regular school curriculum, mass media campaign.
- **Focus on Financial empowerment** through credit, financial skills and entrepreneurship development.
- Use of technology to **improve credit-worthiness** assessment for households and informal businesses.
- Optimize the performance of **banking correspondents** with better incentives.
- **Leverage payment banks** and other platforms to scale **up payments systems** in underserved areas.
- **Strengthen cybersecurity regime and data protection laws.**

3.5.1. DIGITAL INCLUSION IN EMERGING TECHNOLOGIES

Why in the news?

Recently, the Telecom Regulatory Authority of India (TRAI) has released a Consultation Paper on **"Digital Inclusion in the Era of Emerging Technologies".**



Importance of Digital Inclusion in Emerging Technology

- **Digital technologies provide job opportunities for individuals,** especially in fields like data science, data engineering etc.
  - As per the Future of Jobs Report 2023 by the World Economic Forum, Data analysts and scientists are expected a 30-35% increase in demand.
- **Digital Inclusion and online learning can bring down the cost of education,** reduce the digital divide etc.
- It **bridges the gap between employment opportunities** for men, women, and disabled employees.
  - It empowers disabled and female workers to transcend limitations tied to **part-time or low-skilled positions.**
- It can **improve the accessibility, affordability and quality** of healthcare.
  - For example, **tele-consultations through the e-Sanjeevani platform** touched one million during the pandemic.
- **MSMEs:** Emerging technologies that could be useful through the development of use cases for MSMEs include E-commerce; the Internet of Things; Process automation etc.

Challenges of Digital Inclusion in Emerging Technology

- **Rapid pace of technological advancements** can **widen the digital divide.**
  - In 2021, 49% of Indian adult men-owned smartphones, while only 26% of women did, revealing a gender disparity in ownership.

- **Lack of fiberization** (the process of connecting radio towers with each other via optical fibre cables) of mobile towers hampers the quality of internet access.
- **Cost of the cheapest internet-enabled smartphone was 35.91%** of the average monthly income.
- **Limited Digital literacy** is a key barrier to Digital Inclusion.

Initiatives for Digital Inclusion in Emerging Technologies

- **For Digital Connectivity**
  - **Universal Service Obligation Fund (USOF)** for affordable access to a reliable and ubiquitous telecom network to remote and rural areas.
  - **BharatNet project** aimed to connect all Gram Panchayats and Villages in country by high-speed broadband connectivity using Optical Fibre Cable.
  - **Digital India Programme**: Its vision is centred around three key vision areas i.e.
    - ✓ Digital Infrastructure as a core utility to Every Citizen.
    - ✓ Governance & Services on Demand.
    - ✓ Digital Empowerment of Citizens (Digital Literacy).
- **For Digital Affordability**
  - **National Policy on Electronics 2019** promotes **domestic manufacturing and export** of electronic devices including smartphones, laptops, and tablets.
  - **Design Linked Incentive Scheme** which offers **financial incentives as well as design infrastructure support** to semiconductor design(s).
- **For Digital Literacy**
  - **Pradhan Mantri Gramin Digital Saksharta Abhiyan** to **digitally literate 60 million people** (14-60 years age) from rural areas.
  - **Digital Skilling Programme** for skilling, reskilling and upskilling students via internships, apprenticeships, and **employment to 1 crore students**.

Way forward

- **Focusing on digital literacy programs and affordable access** to all sections of society. E.g., Affordable Connectivity Program of USA
- **Public and private funding** for high-speed internet infrastructure development.
  - World Bank has estimated that a 10% increase in fixed broadband penetration would increase GDP growth by 1.38% in developing economies.
- **Tax rebates:** It is essential to reduce mobile sector-specific taxes (like import duties) and fees discouraging internet usage and adoption of mobile devices (import duties).
- **Stakeholders Collaboration** to **address bureaucratic hurdles, and develop strategies to facilitate Digital Inclusion** and adoption of digital technologies by businesses.
  - E.g., **Smart Nation Singapore programme** where Digital Government, Digital Economy and Digital Society will act as three pillars of a smart Singapore.

3.6. URBAN PLANNING IN INDIA

Urban Planning in India at a Glance

Urban Planning as an approach takes into account all aspects of a city — economic development, population diversity and social interaction — in order to develop a central and coherent view of the urban space.

City Level (City Master plans, Local area level planning and building level interventions etc.)	**Regional level** (District/ metropolitan development plans, industrial area plans etc.)	**National/State level** (Long term plans developed by Union and State Governments)

Present framework of Urban Planning

- **Role of Governments:** Primary role is of States while Central Government plays an 'advisory' role and provides financial and technical support.
- **Legislative framework:**
  - **At State level:** State Town and Country Planning Acts, Municipal Corporation Acts etc.
  - **At regional/local levels:** e.g., Delhi Development Act 1957
  - **Acts related to land, housing, infrastructure, environment, etc.:** e.g., the Registration Act 1908, Environment (Protection) Act 1986, etc.
- **Institutional framework:**
  - **Institutions created via the Constitution (Seventy-Fourth) Amendment Act, 1992:**
- Urban Local Bodies (ULBs) and Metropolitan Planning Committees.
  - **Other Institutions:** State Town and Country Planning Departments, Parastatal agencies/bodies, Improvement trusts.

Role of urban planning in development of urban spaces of the future

- **Accommodating accelerated & unplanned growth** in urban population and **dealing with issues** like slums, traffic congestion, etc. India is **at present 35%** urban, which is expected **to go to 53% by 2047.**
- **Overcoming Interstate disparities** in terms of distribution of urban centres and the pace of urbanisation.
- **Building disaster resilient cities.**
- Efficient Urban Planning is significant for achieving **India's Economic growth, Infrastructure and Employment targets.**
- **Transitioning to low carbon economy** by controlling emissions in cities.
- **Fulfilling India's global commitments-** SDG 11; United Nation Habitat's New Urban Agenda; and the Paris Climate Agreement.

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Issues in India's urban-planning capacity

- **Institutional issues:** Multiplicity of authorities; Absence of effective decentralisation; Governance issues in municipal bodies.
- **Issues in the planning process:** Absence of participative decision making; Lack of Master Plans of Cities and Regions; Low participation of private sector.
- **Issues related to Urban land use:** Non-Recognition of 'Urban' Areas; Sub-Optimal Utilisation of Urban Land; Unintended impacts of Development regulations.
- **Issues related to Disaster Resilience:** Development location decisions are not directed by hazard exposure; Lackadaisical approach towards natural drainage systems and waterbodies; Building bye-laws are still limited to a few hazard risks etc.
- **Issues in Human resource engaged in urban planning:** Shortage of adequate and technically qualified planners; Lack of Specialised Professionals.

Way Forward: Building cities of the future

- **Interventions in existing master plan preparation:** Mapping of all the relevant sub-sectors of a city; Development and inclusion of specific proposals with clear responsibilities.
- **Human resource management:** Overcoming shortage of Urban planners by expediting the filling up of vacant positions of town planners, job standardisation etc.
- **Executive and Legislative Reforms:** Clear division of the roles and responsibilities of various authorities; Adapting the planning regulations and building bye laws as per economic growth drivers of cities; etc.
- **Conducting Hazard Risk and Vulnerability Assessments (HRVA)** of cities to build resilience.
- **Expanding Participation:** Conducting 'Citizen Outreach Campaign'; Enhancing the Role of Private Sector.

3.6.1. SMART CITIES MISSION (SCM): AN EVALUATION

Why in the news?

Standing Committee on Housing and Urban Affairs presented its report "Smart Cities Mission: An Evaluation".

Progress highlighted by the Report

- **Financial progress:** Out of its proposed share, the Central Government has released 86% up to December 2023.
  - **Only 28 cities have received 100% of their share of funds** from States/ULBs.
- **Additional funding sources:** While **half of cities could not undertake any project under PPP** model, **only six cities could generate funds through loans** for Smart Cities projects.
- **Physical progress:** Till December 2023, out of 7,970 projects taken up by Smart cities, 6,419 projects have been completed.
  - Progress of work is from 80% to 100% in 57 cities amongst which **Madurai is the only Smart City which has completed 100% of its projects.**

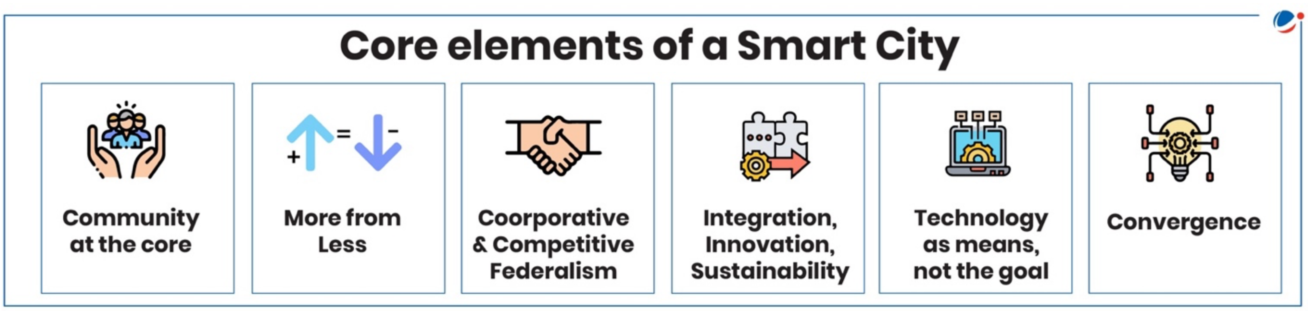
Issues and challenges affecting Indian Cities

- **Frequent variations in projects:** Cities had initially planned to execute around 5,151 projects, but projects have increased to 7,970 due to modifications and changes.
- **Lack of financial progress:** Fund transfer has been slow as some cities have received below 50% of their eligible funds.

- **Intercity disparity in progress:** Almost **47% projects are at work order stage in the 20 cities at the bottom** of the ranking.
- **Lack of cross-learning from Sister cities:** E.g. Chennai had established a sister city relationship with the Chinese city of Chongqing.
- **Lack of defined governance structure of SPVs:** Project execution was affected due to **frequent transfers of CEOs of SPVs** and lack of clear guidelines.
- **Fragility of Infrastructure:** Recent tragic incidents in Indian cities showcase this-
  - **Mumbai billboard collapse:** A giant billboard collapsed during a sudden storm in Indian city of Mumbai.
  - **TRP Game Zone fire in Gujrat's Rajkot:** Investigations revealed a series of serious misdemeanors by the promoters E.g. Entry and exit to play area were combined and narrow, avoidance of fire safety rules, inaction by fire departments etc.
  - **Hooch tragedy in Kallakurichi, Tamil Nadu:** Local administration's inability to prevent hooch tragedies nationwide is now an established fact.

Recommendations / Way Forward

- **Master plan for Greenfield Development:** MoHUA should spearhead the planning and provide expertise for the master plan of ULBs based on core elements of a Smart City.
- **Creative Redevelopment:** Continual process of urban regeneration (Repurposing a building for a new use) through the use of innovative mechanisms.
- **Inclusive design and sensitization**: Sensitization and understanding of disability needs among those who design, implement, and oversee public spaces and services.
- **Third-party assessment of the various projects** undertaken in the Smart Cities Mission. E.g., MoHUA's Amplifi 2.0 (Assessment and Monitoring Platform for Liveable, Inclusive, and Future-Ready Urban India).
  - In the next phase, **thrust should be on tier 2 cities,** located between 50 to 100 kilometers from capital cities and tourist cities, if not already covered.
- **Pan-city projects:** Smart Cities Mission should put greater emphasis on Pan City projects focusing on **implementing technology-driven solutions** across the entire city.
  - Presently, pan-city projects do **not comprise more than 50 percent of total projects in 76** smart cities.
- **Strengthening ULBs:** Strengthen the **capabilities of the ULBs** in small cities and enhance their capacity to **tap innovative financing mechanism** such as municipal bonds etc.
- **Providing Incentives/encouragement** like India Smart Cities Awards Contest (ISCAC).



3.6.2. URBAN INFRASTRUCTURE DEVELOPMENT FUND (UIDF)

Why in the news?

National Housing Bank (NHB) has operationalised the **Urban Infrastructure Development Fund (UIDF)** with the **outlay of** ₹10,000 crore**.**

About UIDF

- **Objective:** Supplement the **efforts of the State governments/UTs** by providing a **stable and predictable source** of **finance** for the creation of **infrastructure**.
  - Established on the lines of the **Rural Infrastructure Development Fund (RIDF)**.

- **Coverage (Cities as per Census 2011)**: 459 Tier 2 cities and 580 Tier 3 cities.
- **Eligible Activities**: Shall be aligned to the Missions and programmes of the **Ministry of Housing and Urban Affairs**.
  - Basic services like **sewerage and solid waste management**, water supply and sanitation, etc., and impact-oriented projects would be prioritised.

Need/Relevance of UIDF for Tier 2 and Tier 3 cities

- **Development of Tier 2 and 3 cities will check migration** of overflowing Metropolitan cities.
  - As per the Census of 2011, **40% of India's Urban population** lives in Tier 2 and 3 cities, which is expected to grow at a very fast pace.
- Most of Tier 2 and 3 cities **lack the access of low finance funds.**
- Municipal authorities of these cities **lack the ability** to **plan, execute** and **manage** infrastructure projects.
- Other issues like **acquiring land for infrastructure projects is difficult** and **poor or inadequate urban planning.**

Conclusion

UIDF will help in enhancing the overall quality of urbanisation in India. All the stakeholders need to play an effective role in its implementation.

3.7. HOUSING AT A GLANCE

Housing at a Glance

Status of Housing in India

- **3 crore additional rural and urban houses announced in june 2024 under** PM Awas Yojana **(PMAY).**
- Over **1 crore houses grounded** under **PMAY (U)** and over **75 lakh houses completed**
- **2.94 crore houses** have been sanctioned, and **2.62 crore houses have been completed** (2024)
- **Around 4.12 lakh housing units** (44% in NCR) **are stalled.**

Key Targets

- **'Housing for All'** by constructing more than **20 million rural homes** and **11 million urban homes.**
- Every family to have **pucca house with water connection, toilet facilities, and 24x7 electricity** and access to adequate **physical** and **social infrastructure.**
- Address **housing needs of Urban Poor including Slum Dwellers.**
- **Ease of Living** for urban migrants/poor.

Policy/Schemes/Initiatives

- **Pradhan Mantri Awas Yojana** for Credit Subsidy, Slum Redevelopment, Affordable Housing etc.
- **Affordable Rental Housing Complexes (ARHCs)** for ease of living.
- **Infrastructure status** to affordable housing sector and concessional project finance under **Affordable Housing Fund (AHF) and Priority Sector Lending (PSL).**
- **Global Housing Technology Challenge-India** (GHTC-India) to identify and mainstream innovative construction technologies.
- **National Initiative for Promoting Upskilling of Nirman workers** (NIPUN) under **DAY-NULM** for construction workers skill training.

Constraints

- Lack of access to **finance** from **formal** financial institutions.
  Long-drawn out, multi-level **approval system** in urban areas in a large majority of municipal jurisdictions.
- **Limited private sector participation** in affordable housing schemes in urban areas.
  Predominance of **conventional construction practices leading to delays** with limited use of prefabricated and pre-engineered materials.
- Limited access to **Land Banks** for affordable housing projects.
- Insufficient number of **trained masons.**

Way forward

- **Finance:** Improve access to **institutional finance** and alternate funding with focus on **affordable housing** and encourage Private Sector participation via innovative models (e.g. Swiss Challenge).
  - **Financing of Stalled Projects** by utilizing **Special Window for Affordable and Mid-Income Housing (SWAMIH) Fund.**
- **Policy/Rules:** Streamline processing of applications. E.g., **Mandatory registration with RERA.**
- **Human Resource:** Capacity Building of ULBs; Link skill development and employment ecosystem with housing sector.
- **Use of Technology:** Encourage new construction technologies and construction material for sustainable, eco-friendly and disaster-resilient, bringing economic benefits for other sectors (e.g. steel and cement).

3.7.1. PRADHAN MANTRI AWAS YOJANA (PMAY-URBAN)

Why in the news?

As per the Standing Committee on Housing and Urban Affairs, the union government should not consider housing units built under PMAY (Urban) as completed when basic amenities are not provided.

Concerns associated with Pradhan Mantri Awas Yojana- Urban

- **Delay in completion**: For instance, in Meghalaya out of 4,758 sanctioned houses, only 1,631 houses were completed by July 2024.
- **Lack of basic amenities in completed houses**: Around 5.62 lakh houses could not be delivered to beneficiaries due to a lack of basic amenities as of December 2022.
- **Lack of finance**: Financial Assistance of Rs. 1.2 lakh per unit for plain areas and Rs. 1.3 lakh per unit for hilly areas, and difficult areas is **insufficient for building a new house.**
- **Low sanctioning of houses under the In-situ Slum Redevelopment (ISSR) vertical:** Against the demand received of 14.35 lakh, only 4.33 lakh houses were sanctioned.
- **Corruption**: Several instances related to **funds** i**rregularities** and **corruption in beneficiaries' selection,** and **construction materials** etc. were reported.

Way forward

- **Shift focus on Outcome rather than output**: Expedite the completion and ensure speedy occupancy of houses in Affordable Housing in Partnership (AHP) projects.
- **Monitoring**: States/UTs have been directed to **constitute a District Level Advisory and Monitoring Committee (DLAMC)** for Urban Development to monitor projects.
- **Social Audit**: Conduct a Social Audit of pending/ongoing projects under PMAY-U to avoid any delay in the release of funds and completion of projects.
- **Ensuring quality construction**: Third-Party Quality Assessment team to assess the quality of houses constructed under AHP and ISSR verticals.
- **Involving beneficiaries as stakeholders** from project initiation and acknowledging and incorporating their feedback is vital to avoid later unoccupancy.

3.8. LAND REFORMS

Land Reforms at a Glance

- **1.15 ha** was the average farm size in 2010-11.
- **<10%** of the land is under non-agricultural uses.
- **25%** of the total geographical area is forest.

Key Objectives

- Legalize and ease **land leasing.**
- **Consolidate fragmented plots** of farmers to enhance efficiency and equity.
- **Create a digitized and integrated land records system** that is easily accessible in all states.
- Increase efficiency in the **management of forest land.**
- **Convert waste and fallow land** to productive uses.
- **Strengthen property rights,** especially community rights over forest land.

Constraints

- **Restrictive agricultural tenancy laws** which create issues like conditions on leasing and high informal tenancy.
- **Small-sized land parcels** disincentivize economies of scale.
- **Poor productivity and shrinking area** of Forestland.
- **Absence of conclusive titling and records.**

Schemes

- Digital India Land Records Modernization Programme.
- SVAMITVA (Survey of Villages and Mapping with Improvised Technology in Village Areas) Scheme.

Way forward

- States may consider the **Model Land Leasing Act, 2016.**
- Consolidate smaller plots of **land through land pooling to enhance productivity.**
- **Increase efficiency around the management of forest land** by implementation of the Forest Rights Act (FRA) etc.
- Updating and **modernisation of land record systems.**
- **Initiating Public Private Partnerships (PPPs)** for wasteland development.
- **Using land as a resource** to finance urban development.

3.8.1. LAND RECORD MODERNIZATION

Land Record Modernization in India at a Glance

Status of Land record Modernization in India

- **95.09% of villages** have completed **Computerization of Land Records (Record of Rights i.e., RoR)**
- **70% of Cadastral Maps have been digitized**
- **1.15 ha** was the average farm size in 2010-11
- **<10%** of the land is under non-agricultural uses

Need for land record modernization

- **To adopt the system of Conclusive Titles** instead of present Presumptive Titles (Record of Rights (RoR)).
- **Enhanced transparency in land records maintenance system** will minimize the scope of land disputes.
- **Standardisation of land records** for registration and RoR.
- **Reduced process and time** of document registration.
- **E-linkages to credit facilities** as clear land titling provide easy access to institutional credit.

Schemes/Initiatives

- **Digital India Land Records Modernization Programme (DILRMP).**
    - **Unique Land Parcel Identification Number (ULPIN) or Bhu-Aadhar** (adopted by 26 States/UTs) [Part of DILRMP]
- **National Generic Document Registration System (NGDRS)** (adopted by 28 States/UT) **Survey of Villages Abadi and Mapping with Improvised Technology in Village Areas (SVAMITVA) Scheme**
- **BhuNaksha:** A Solution for digital Cadastral Mapping.
- **Best Practices like-**
    - **BHOOMI – KAVERI** programme of Karnataka;
    - **Mee-Seva** of Andhra Pradesh;
    - Proof of Concept of **use of blockchain for land record** management by NITI Aayog etc.

Constraints

- **Digital records have inherited the bad data from old documents,** reflected missing maps and lack of updated surveys with modern tools.
- **Lack of data standardization** among different states.
- **Lack of coordination between various nodal agencies handling land records** like revenue, survey and registration overseeing the land.
- **Digital presence** of property ownership documents can potentially leave personal **data vulnerable to data leaks and threat of cyber-attacks.**
- Any instances of **malicious manipulation** of digital land records can erode **landowners trust in the system.**

Way Forward

- **Providing government employees appropriate skills** through comprehensive training programmes.
- **Adopt and implement security management systems** for safely storing land record data and building trust among landowners.
- **Undertake surveying and mapping of the land** using the new technologies such as blockchain, drones, satellite imagery, GIS etc.
- **Build capacity among states** for by establishing dedicated data centres, high speed processors and fibre optic networks etc. at the state level.
- **Conduct awareness generation programmes** regarding digital processes and applications related to land registration.
- **Build uniform standards** for recording, maintaining and updating land records.

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4. FISCAL POLICY

4.1. GOVERNMENT FINANCING

Government Finance at a Glance

Status of Government finance in India	
5.6% of GDP as fiscal deficit for FY2023-24	**Estimated 81.6%** public debt-to-GDP ratio for FY2023-24
27.5% combined debt-to-GDP ratio of States at end-March 2023	**60% debt-to-GDP ratio (40% Central Government and 20% combined debt-to-GDP ratio of States)** by FY25 to avoid the debt spiralling out of control

'SAPTARISHI' 7 PRIORITIES OF BUDGET 2023-2024
Financial Sector
Inclusive Development
Reaching the Last mile
Infrastructure and Investment
Unleashing the Potential
Green Growth
Youth Power

Key Objectives

- Use of **Fiscal Policy** to promote **stable and sustainable growth.**
- To ensure **transparent fiscal management systems** in the country.
- To create a **more equitable and manageable distribution of the country's debts** over the years.
- Aim for **fiscal stability for India** in the long run and bring fiscal deficit target below **4.5% of GDP by FY26.**

Schemes/Initiatives

- **Fiscal Responsibility and Budget Management** (FRBM) Act, 2003, amended in 2019.
- **Fiscal Responsibility Legislation** (FRL) adopted by the states.
- Creation of **Financial Stability and Development Council** (FSDC).
- Management through regulatory changes in **Ways and Means Advances (WMA)** for States and Union by RBI.

Constraints

- **Vertical imbalance** (between the Centre and the States) and **horizontal imbalance** (within states) in the distribution of financial resources.
- **Rising Commodity prices** and **geopolitical tensions** leading to **high inflation** and increased **subsidies burden.**
- **Low Tax-to-GDP ratio** limiting the **non- compliance of FRBM** mandate.
- Issue of **corruption, leakages** and **free riders for various schemes.**
- **Decreased State Revenues** due to pandemic uncertainties.

Way forward

- **Financing from private investment,** institutions dedicated for infrastructure financing.
- Compliance with the **fiscal deficit and debt levels** as per FRBM Act.
- **Improving Public Sector efficiency for effective utilization** of financial resources through outcome-based budgeting, improved transparency and accountability.
- **Decentralization of financial power** for increased financial autonomy of State and civic bodies.
- **Proactively Manage Public Finances** by using data and technology to reduce cost of administering public finances.
- **Reforming Taxation System** to balance revenue collection with economic growth. Adoption and effective implementation of **Public Financial Management System (PFMS).**
- **An Expenditure Council (EC)** can be created on the lines to GST Council to make Government Expenditure more optimal.

4.1.1. STATE FINANCES

Why in the News?

Recently, the Reserve Bank of India published an annual report titled "**State Finances: A Study of Budget of 2023-24**". The theme of the Report is '**Revenue Dynamics and Fiscal Capacity of Indian States'.**

Key Findings of the Report

- **Prudent Fiscal Management:** States consolidated **Gross Fiscal Deficit to Gross Domestic Product (GFD-GDP) ratio declined from 4.1% in 2020-21 to 2.8% in 2021-22**, led by a moderation in revenue expenditure, coupled with an increase in revenue collection.
- **Increased Capital Outlay**: Capital outlay is budgeted to **increase by 42.6%** in 2023-24 to 2.9% of GDP.
- **States' Total Outstanding Liabilities:** The debt-GDP ratio of states **declined from 31% at end-March 2021, to 27.5% by end-March 2023,** supported by fiscal consolidation.
- **Net Market Borrowings**: States' dependence on net market borrowings **declined to 76% in the budgeted GFD for 2023-24.**
- **Committed Expenditure:** That includes **interest payments, administrative services, and pension**, is expected to remain at **4.5 % of GDP**.

Concerns with State Finance

- **Low Non-Tax Revenue Collection remained around 1% of GDP** in the last 10 years compared to a ratio of 10% or more in countries like Singapore, Egypt and Iran.
- **Reduced Development Expenditure** for education, sports, art and culture, relief were reduced.
- **Return to the Old Pension Scheme (OPS) would exert a huge burden on State finances** and restrict their capacity to undertake growth-enhancing capital expenditures.
  - If all the State governments revert to OPS from the National Pension System (NPS), the **cumulative fiscal burden could be as high as 4.5 times that of NPS**.
- **Rising Off-Budget Borrowings (OBBs)**
  - OBBs refer to **borrowings that are not reflected in the budget**, even though **budgetary resources** will have to be **used for their repayment.**

Reasons for resorting to OBB

- **Bypass Fiscal Deficit targets** under the **FRBM** Act, 2003,
- **Avoid borrowing limits** under **Article 293 (3)** of the Constitution.
    - Article mandates **States to take consent of the Centre before raising any loan if they have any outstanding loan to the Centre** or **loans** where the **Centre is the guarantor.**
- **Avoid delay in central grants,** or reduction in other sources of revenue.

Ways of OBB: National Savings Schemes, Government Fully Serviced Bond, Domestic /Foreign Market borrowings, etc.

Ways to improve state finance in the long term

- **Increase Non–non-tax revenue**: Through **revisions of user charges on electricity, water** and other public services, royalties and premiums from mining, asset monetization etc.
- **Prevent Revenue Loss due to Illegal Mining:** Utilize **modern technologies** such as Geographic Information Systems (GIS) and Drone Surveys to identify **and curb illegal mining activities**.
- **Performance-Based Transfers**: Finance Commissions could consider **recommending an increased share of conditional transfers based on reforms, quality of expenditure and fiscal sustainability**.
- **Streamlining Fund Transfers for Efficient Governance:** Efficient banking arrangements and cash management practices are essential for effective utilisation of government's financial resources.
- **Implementing N.K. Singh Committee Recommendations:** The combined **debt-to-GDP ratio of the centre and states** should be brought down to 60% by 2023 (comprising of 40% for the Centre and **20% for states**).

4.2. FISCAL DEFICIT

Fiscal Deficit at a Glance

Fiscal deficit refers to the amount by which a government's spending exceeds its revenue in a given fiscal year.

Gross fiscal deficit = Total expenditure - (Revenue receipts + Non-debt creating capital receipts)	Primary deficit = Fiscal Deficit – Interest Payments

Status and Objectives

- Fiscal Deficit of Union Government reached **9.2% of GDP during pandemic year FY21.**
- Fiscal deficit for FY2023-24 moderated to **5.6%** of GDP.
- The Government aims to reach a fiscal deficit **level below 4.5% of GDP by 2025-26.**
- The **Combined Gross Fiscal Deficit (GFD) of states,** which increased to 4.1% of GDP in the pandemic-affected year, was brought down to **2.8% in FY22.**

Favourable factors for decline in fiscal deficit

- Thrust on **capital expenditure** and **buoyancy in gross tax collections.**
- **Direct tax collection** of Rs. 16.61 lakh crore in FY23.
- 22% **increase in Gross GST collection** in FY23.
- **Resilient economy** as activities accelerated following the Covid-led crisis.
- **Lower food and fertilizer subsidy bill** after merging of the Pradhan Mantri Garib Kalyan Anna Yojana with the National Food Security Act.
- **Higher dividend** by central public sector enterprises has offset the shortfall in disinvestment revenue for FY23
- **Higher dividend payout from RBI.**

Fiscal Deficit Management in India

- The **Fiscal Responsibility and Budget Management (FRBM) Act** was passed to address the historic highs of the combined Gross fiscal deficit of the Government.
  - The aim of FRBM is to keep the **deficit at a sustainable level** while ensuring that public debt remains manageable, allowing the government to meet its **financial obligations and maintain economic stability** in the long term.
- **Gradual decline** in fiscal deficit is in line with the **fiscal glide path** envisioned by the government.
- In Union Budget 2023-24, Union Government has allowed a **fiscal deficit of 3.5% of GSDP** of which 0.5% will be tied to power sector reforms.
- **Majority of fiscal deficit is financed through internal market borrowings** and external debt is only about 1% of total fiscal deficit.

4.3. GOODS AND SERVICES TAX (GST)

GST at a Glance

GST is a **unified tax system that replaced multiple indirect taxes** levied by both the Centre and State Governments.

Structure of GST

- The GST system follows a dual structure, comprising **Central GST (CGST) and State GST** (SGST), levied concurrently by the Central and State governments, respectively. Additionally, an **Integrated GST (IGST)** is levied on interstate supplies of goods/services and imports.
- Under GST, goods and services are categorized into different tax slabs, including **5%, 12%, 18%, and 28%.** Some **essential commodities are exempted** from GST.
- **GST Council under Article 279A** of the Constitution makes decisions on various aspects of GST.

Need for GST

- Establishment of a **single national market**
- Rationalisation of **complicated taxation regime**
- Rectifying issues like **tax cascading**
- Need for **incorporation of technology** in strengthening tax regime
- Promoting **ease of doing business** and competitiveness
- Increasing **revenue efficiency** and reducing cost of tax collection

Impact of GST

- Promoted **cooperative federalism** through centre state deliberations on taxation issues.
- **Reduction in tax burden** and other benefits to taxpayers such as easier process, smooth refund flows etc.
- **Easing of compliance** burden on MSMEs.
- **Increased revenue collection** over the last six years.
- **Improvement in tax buoyancy** for states to 1.22 from 0.72 in pre-GST regime.
- **Market integration** and ease of doing business.
- **Increased technology penetration** and better data analytics for policy formulation.

Challenges to GST

- **Tax evasion and fraudulent claims** with fake GST identification numbers and Input Tax Credit (ITC) claims.
- **Erosion of taxpayers' trust** due to arbitrary cancellation of GST registration and ITC denials.
- **Technology glitches** in GST portal and e-way billing system.
- **Absence of GST Appellate Tribunals (GSTATs).**

Steps being taken to improve GST

- **Information Sharing** among different government agencies such as ED and GST Network.
- **Use of Technology** and advanced data analytics to nab tax evaders.
- **Tightening of registration norms** with plans for biometric authentication and geotagging.
- **Tightening of return filing system** to act against fraudsters.
- **Relaxation of GSTAT member qualification norms** to expand the available talent pool (CGST Act 2023).

Way Forward

- **Rationalization of tax rates** for ease of compliance.
- **Tightening enforcement** provisions to curb leakages and evasions.
- Use of **technology-based monitoring** systems.
- **Streamlining of audits, assessments and investigations.**
- **Expansion of tax network** to cover products such as alcohol, petroleum etc.

4.4. DIRECT TAXATION

Direct Taxation at a Glance

Status of Direct Taxation in India

- 11.6% tax-GDP ratio in FY 2023-24 (6.6% for direct taxes and 5.0% for indirect taxes)
- **Corporate Tax and Personal Income tax** as the **main contributors** to Direct Tax.
- **Direct tax buoyancy** at 2.52 in 2021-22 was the **highest in last 15 years** but declined to 1.18 in 2022-23

Key Achievements

- Net Direct Tax collections (provisional) for the FY 2023-24 stand at **Rs. 19.58 lakh crore.**
- **Corporate tax** collection stands at ₹9.11 lakh crore and **personal income tax** at ₹10.44 lakh crore in FY2023-24.

Policies/Schemes/Initiatives

- **Taxpayers' Charter** to provide a transparent and taxpayers friendly tax regime.
- **Faceless Assessment Scheme and Faceless Appeals Scheme** for Honouring the Honest.
- Amendments to **Income-tax Act to cover virtual digital assets.**
- **Authority for Advance Rulings** and Tax Treaties on International Taxation like the **Double Taxation Avoidance Agreements (DTAA), Tax Information Exchange Agreement (TIEA) etc.**
- **Information sharing** between Government departments.
- **Vivad se Vishwas Scheme for** reducing litigations in the direct tax payments

Constraints

- **Despite record Gross direct tax collections** (₹23.37 lakh crore), the **Tax-GDP ratio** is much lower than OECD countries (33.5% in 2020).
- **Issues of tax evasion and corruption.**
- **High exemption** limit and deductions.
- MNCs setting up offices in **low-tax jurisdiction countries/tax havens.**
- **Lack of global consensus** over tax rates.
- Issues surrounding **Digital taxation.**

Way forward

- **Direct Tax Code** on lines of GST.
- **Base widening** by increasing the number of taxpayers.
  Exploring **taxation on agricultural income.**
- **Rationalisation** of incentive provisions.
- Curbing non-compliance by developing an **efficient information centre, digitisation, etc.**
- **Build Resilient Economy** to minimise impact of supply chain disruptions and commodity price rise on tax collections.
- Participating in international frameworks like **OECD Automatic Exchange of Information (AEOI) to check tax evasion.**

4.4.1. ADVANCE PRICING AGREEMENTS (APAS)

Why in the News?

The Central Board of Direct Taxes (CBDT) has signed highest ever record 125 APAs (including Unilateral and Bilateral APAs) in FY 2023-24 with Indian taxpayers.

About Advance Pricing Agreements (APAs)

- It is an agreement between a **taxpayer and tax authority.**
- APAs endeavours to **provide certainty to taxpayers** in domain of **transfer pricing** by specifying **methods of pricing.**
  - **Transfer pricing** is the price of goods and services exchanged between companies that are under common ownership or control.
- APA helps **determine Arm's Length Price (ALP) of international transactions** in advance for a maximum of five future years.
  - ALP states that the price agreed in a transaction between two related parties must be the same as the price agreed in a comparable transaction between two unrelated parties.

Significance of APAs

- **Double Taxation Avoidance as** there is clarity with respect to tax outcome.
- **Promoting ease of doing business** especially for Multinational entities.
- **Reduction of compliance costs to companies**
- **Reduced cost of administration** with reduced litigation and tax audits.

Indian Advance Pricing Agreement Scheme:

- Ministry of Finance had notified **APA Scheme** in 2012 through the insertion of sections **92CC and 92CD in the Income-tax Act, 1961.**
- Under it, an agreement is **signed between Central Board of Direct Taxation (CBDT) and any person** determining in advance arm's length price in relation to an international transaction.
- **Nature of Scheme:** APA **process is voluntary** and supplements appeal and other Double Taxation Avoidance Agreement (DTAA) mechanism for resolving transfer pricing dispute.
- **Term of APA**: Maximum five years.

- **Rollback provisions:** Allows Arm's Length Price as agreed in APA, to be rolled back to a period prior to the commencement of the APA.

Mutual Agreement Procedure:
- MAP is an **alternative available to taxpayers** for **resolving double taxation disputes** whether juridical or economic in nature.
- MAP is a **mechanism laid down in tax treaties (E.g. DTAA)** to ensure that taxation is in accordance with the tax treaty.
- **Difference between MAP and APAs:** MAP resolves transfer pricing disputes while APAs prevents transfer pricing disputes.

Issues with Advance pricing Agreement in India:

- **Complex International transactions:** Many international transactions involve intricate business structures and operations, making it challenging to accurately determine arm's length prices.
- **Lack of Internal Co-ordination:** Different entities take different technical positions on similar international transactions, creating uncertainty for taxpayers and stalling APA negotiations.
- **Delay in Processing APAs:** Scarce human resources leads to delay in processing as process is usually fact intensive and need a lot of data analysis.

Conclusion

Apart from **reducing company's compliance requirements** , APA program has also assured **revenue flow to the Indian treasury**. To address APA issues, **outsourcing subject matter experts** from private sector can not only solve human resource crunch issue but will also bring clarity to emerging complexities with their expertise.

4.4.2. INHERITANCE TAX AS A TOOL OF WEALTH REDISTRIBUTION

Why in the news?

The use of inheritance tax, a system similar to an existing tax system in the U.S. to address **economic inequality** is widely debated in India.

What is Inheritance Tax?

- **Inheritance tax** is levied on **property/asset inherited** upon an **individual's death**. It differs from **estate tax**, which is levied on the **total value of a deceased person's estate**.
- It is levied by many countries. E.g. Japan (tax rate is 55%), South Korea (tax rate is 50%) etc.

Benefits of Inheritance Tax

- **Revenue Generation:** Increased revenue can be used by government for socio-economic upliftment.
- **Reducing Wealth Inequality:** It can **mitigate wealth concentration** by redistributing a portion of inherited wealth to fund public programs and services.
- **Promoting Meritocracy:** Taxing inherited wealth can help create a more **level playing field** and promote a meritocratic society.
- **Encouraging Productive Investment:** It can **encourage wealthy individuals to invest their wealth more productively** during their lifetimes, rather than simply passing it on to their heirs.
- **Intergenerational Equity:** Inheritance tax can help ensure that resources are more evenly distributed across generations, rather than perpetuating dynastic wealth accumulation.

Implications of Inheritance Tax

- **Potential Tax Evasion:** Due to the **high taxation rate**, loopholes such as tax evasion and avoidance can be used. Also, it may lead to distressed sales for depositing taxes.
- **Discourage savings and investment:** As individuals may be reluctant to accumulate wealth if a significant portion is to be taxed on inheritance.
- **Affect Business**: Many businesses may move their businesses abroad to avoid taxes. It may also force the sale or break-up of family-owned businesses to pay the tax liabilities.

- **Double Taxation Concerns:** Critics argue that inheritance taxes represent double taxation, as the wealth being transferred has already been subject to income and other taxes.

Conclusion

Inheritance tax can effectively **reduce wealth inequality**, but implementation requires careful balancing to **avoid unintended consequences**. A **well-designed progressive inheritance tax system** with measures against avoidance can **promote wealth equity** while **raising revenue** for social programs.

4.5. NON-TAX REVENUE

4.5.1. DISINVESTMENT

Why in the News?

Centre is likely to miss its disinvestment target for the current year, as it has been able to garner only around ₹10,000 crore while it had a target of ₹51,000 crore for FY 2024.

What, Why and How of Disinvestment

<table>
<tr><th colspan="2">Disinvestment</th></tr>
<tr><td>What is disinvestment?
Disinvestment means the government, or an organisation is selling its stake in a company. There are primarily two different approaches for it-
Strategic Disinvestment implies entire or substantial sale of Government shareholding of a Central Public Sector Enterprise (CPSE) along with transfer of management control.
Minority Disinvestment: Government retains a majority stake (~>51%).</td><td>Why is disinvestment done?
Reduction of fiscal burden as it can be used to finance fiscal deficit.
Re-allocation of resources into other productive areas such as health and education.
Under-utilization of capacity in various Public Sector Undertakings (PSUs).
Withdrawal of government from non-strategic sectors and idle lying public sector assets.
To introduce competition and market discipline
To depoliticize non-essential services in the long run.</td></tr>
<tr><td colspan="2">Methods for Disinvestment
Initial Public Offering (IPO) - offer of shares by an unlisted CPSE or the government out of its shareholding or a combination of both to the public for subscription for the first time.
Further Public Offering (FPO)-offer of shares by a listed CPSE or the Government out of its shareholding or a combination of both to the public for subscription.
Offer for sale (OFS) allows auction of shares on the platform provided by the Stock Exchange (extensively used by the government since 2012).
Strategic sale is sale of substantial portion of the government shareholding up to 50%, or higher along with transfer of management control.
Institutional Placement Program (IPP) - only Institutions participate in the offering.
CPSE Exchange Traded Fund (ETF)- allows simultaneous sale of government's stake in various CPSEs across diverse sectors through single offering.</td></tr>
</table>

Challenges in achieving Disinvestment Targets

- **Global developments:** Experts suggests **that pandemic-induced uncertainty, the geopolitical conflicts**, and the associated risks are reasons for government missing targets since last three years.
- **Valuation debate:** Often, the government faces allegations for undervaluation of the national assets mainly on account of:
  - **non-consideration of surplus assets** (land and building) **and non-segregation of core and non-core assets**
  - government's decision to have majority ownership

- **Fear of labour unrest due to apprehensions of job loss** and **apprehension of private monopoly** as government withdraws from various sectors.

Measures that can be taken to improve disinvestments

- As per NITI Aayog, there should be **continued closure of sick CPSEs and strategic disinvestment** of viable CPSEs.
- Disinvestment should be **guided by government withdrawal** from goods and services **where competitive markets have already emerged**.
- **National Monetisation Pipeline** to unlock the value of investments in public sector assets by tapping private sector capital and efficiencies.
- **Strengthen CPSEs** by reforming their working than merely considering it as a resource raising exercise by granting greater **managerial autonomy** to their boards and allowing **strategic decision making**.

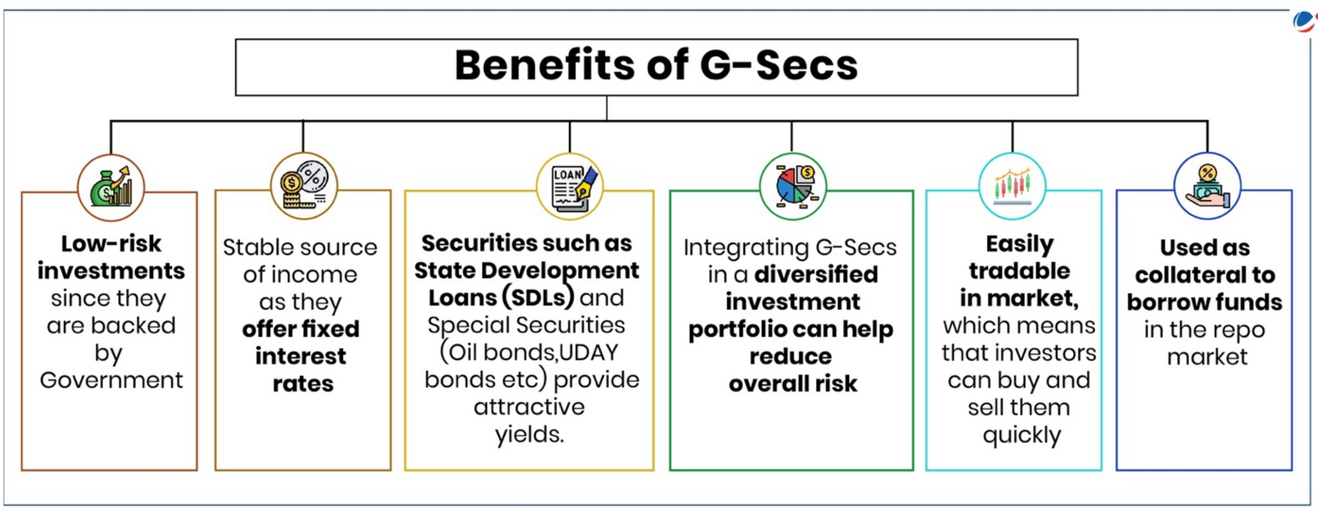
4.5.2. GOVERNMENT SECURITIES

Why in the news?

Recently, the Reserve Bank of India (RBI) has permitted the lending and borrowing of G-Securities (G-Secs) by issuing directions called RBI (Government Securities Lending) Directions, 2023.

About G-Securities (G-Secs)

- G-Sec is a **tradeable instrument issued by Central or State Governments.** It acknowledges the government's debt obligation.
    - **Such securities are short-term terms** usually called **Treasury bills** (T-Bills) **or long-term** called **Government bonds or dated securities**.



Initiatives taken for Government-Securities (G-Secs)

- **G-sec Acquisition Programme (G-SAP):** Under it, RBI **conducts open market operations** to **purchase G-Secs** from the market, helping it control excessive volatility in G-Secs market.
- **RBI Retail Direct Scheme**: Under this, retail investors will have the facility to **open and maintain 'Retail Direct Gilt Account' (RDG Account) with RBI** to access its G-Sec platform.
- **Draft RBI (Bond Forwards) Directions, 2023**: It aims to **introduce bond forwards in G-Secs**, a move that will enable market participants, particularly long-term investors, to **manage cash flows and interest rate risk**.
- **Scheme for Non-competitive Bidding Facility in Auctions of G-Secs:** Introduced by RBI to **encourage retail participation in primary market** for G-Secs.

What are the concerns associated with government securities?

- **Captive investor base:** Currently, a **large portion of G-Secs are held by captive investors such as banks**, and insurance companies, and are in need of diversified investors.
- **Exchange rate management:** Inflows of foreign funds via government bonds can lead to rupee appreciation.
- **Liquidity: Lacks liquidity due to non-availability of buyers** for the security in the **secondary market**, which can lead to distress sales.
- **Major risks associated with holding G-Secs:**
    - **Market risk** arises out of **adverse movement of prices of securities due to changes in interest rates**.
    - **Interest rate risk** for securities with a **long-term maturity**.

Way forward

- **Unified market:** Unifying the G-Sec and corporate bond markets would enable **seamless transmission of pricing information from G-Secs to corporate bonds**, economies of scale and scope, leading to greater competition, efficiency, and liquidity in markets.
- **Trading:** G-Secs should be issued and traded through the stock exchange mechanism to facilitate greater investor participation.
- **Increasing retail participation:** Government **should issue G-Secs in demat** and **G-Sec-based exchange-traded funds** should also be developed to increase retail participation.
- **Tax Incentives:** Providing tax incentives can boost the demand for the G-sec in the market.

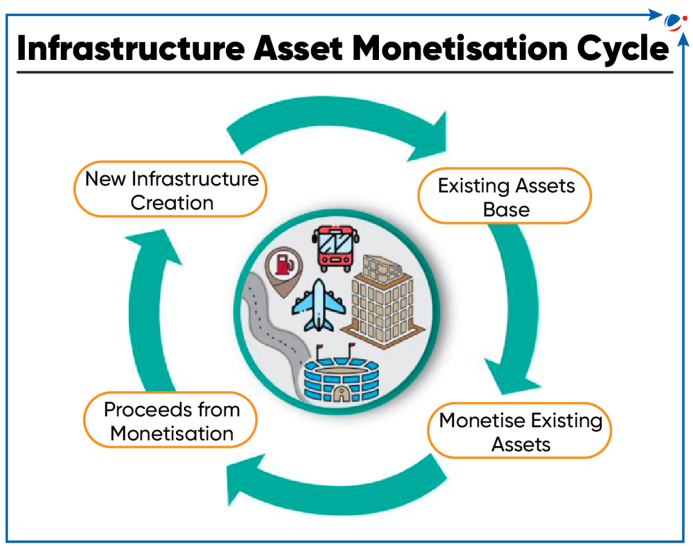
4.5.3. ASSET MONETIZATION

Why in the news?

Recently, the National Highway Authority of India (NHAI) raised its highest-ever monetization value of Rs. 15,624.9 Crore through the Infrastructure Investment Trust (InvIT) mode.

About Asset Monetization (AM)

- **Genesis**: The idea of AM was first suggested by a committee led by economist **Vijay Kelkar in 2012.**
    - AM was announced in the **Union Budget 2021-22** through the **National Monetisation Pipeline.**
- **Definition:** AM is the process of creating new sources of revenue for the government and its entities by unlocking the economic value of unutilised or underutilised public assets.
- **Process of Asset Monetisation (AM)**
    - AM involves the **license/lease of a government-owned asset** to a private sector entity for a specific period.
    - The transfer of rights in exchange for payments is governed **by a concession agreement** that facilitates **balanced risk-sharing** between the **public authority** and the **private party.**



Need for Asset Monetisation in India

- **Fund the National Infrastructure Pipeline (NIP)**: NIP is aimed to provide world-class infrastructure to citizens and attract investments into this sector.
    - NIP envisages an investment of 111 lakh crore over 2020 to 2025.

- **Reduction of the fiscal strain**: The capital invested by private parties during AM can reduce the fiscal burden on the public sector and free up resources for developing new infrastructure projects.
- **Funding new infrastructure:** AM plays an important role in providing finance to the State for the creation of new infrastructure.
- **Private sector efficiency**: AM will invite private sector efficiencies and transparency in the management of public assets.
- **Facilitate economic development**: A robust AM plan could upgrade economic productivity, encourage demand, create jobs, boost growth prospects, and accelerate economic development.

Initiatives taken for Asset Monetization

- **National Monetisation Pipeline (NMP):**
    - **Sectors:** The government has identified **13 sectors to monetise** its **brownfield infrastructure assets.**
        - ✓ **These top 5 sectors capture ~83% of the aggregate pipeline:** Roads (27%), Railways (25%), Power (15%), Oil & Gas pipelines (8%), and Telecom (6%).
    - **Potential:** Monetisation potential of **Rs 6.0 lakh crores through core assets** of the Central Government, over four years, from FY 2022 to FY 2025.
- **Various assets/ asset classes targeted for monetisation:**
    - Railways will monetise **Dedicated Freight Corridor** assets for operations and maintenance, after commissioning.
    - Airports will be monetised for **operations and management** concession.
- **National Land Monetization Corporation**: Special Purpose Vehicle (SPV) for undertaking surplus land monetization of Central Public Sector Enterprises (CPSEs) and other Government agencies.
- **Asset Monetisation dashboard:** For tracking progress and for providing visibility to investors.

Challenges faced in Asset Monetization

- **Valuation Challenge:** Accurately valuing public assets, especially brownfield projects, can be complex and may lead to disputes.
- **Implementational challenge**: The ambitious target of monetizing assets within four years seems difficult given the experience in meeting the disinvestment targets.
- **Transparency challenge**: There is a larger question of where within the budget will such proceeds from monetisation be accounted for, and how these proceeds will be spent.
- **Lack of a clear sector-specific roadmap** for monetisation is also a major roadblock in the process.
- **Other challenges**: Limited interest and participation of bidders, technical competence of bidders to operate and develop assets, closing of transactions on time etc.

Way forward				
A clear road map especially monetisation of brown-field assets	**Regulatory clarity** with respect to legal disputes	**Capacity building support** on asset valuation and revenue projections	**Structuring of Assets** for diverse investors	**Supporting States** through reassurances to investors

4.6. CAPITAL EXPENDITURE

Capital Expenditure (Capex) at a Glance

Status of Capex in India

- Government has budgeted capital expenditure at **₹11.11 lakh crore (an increase of 11.1%** over 2023-24) in 2024-25
- Total Capex grew at an **average rate of 13% during FY12 and FY22**
- The **Centre's Capex** has steadily increased from an average of 1.7% of GDP (FY09 to FY20) to **3.4% of GDP** in FY2024-25
- **Capex by the Corporate sector increased** in FY23, driven by heavy investments in electricity, steel, chemicals, auto and pharmaceuticals sectors

Significance of Capex

- **Multiplier Effect:** The economic output of the country is set to **increase by at least four times the amount of Capex.**
- **Efficiency improvement:** Capex creates assets. These **improve the efficiency of the economy.**
- **Future Growth:** Contributes to **future economic growth** through capacity development.
- **A sustained increase in private Capex** is imminent with the **strengthening of the balance sheets of the Corporates** and the consequent increase in credit financing.
- **Other Effects:** Capital spending can result in **crowding-in private investment** and ease critical supply constraints.

Government initiatives

- **Increased capital outlay** in Interim Union Budget 2024-25.
- Continuation of **50-year interest-free loans** to state governments.
- Highest ever capital outlay of **₹2.4 lakh crore for Railways** in FY2023-24.
- 100 **transport infrastructure projects** identified for end-to-end connectivity for ports, coal, steel, and fertilizer sectors.
- Creating Urban Infrastructure in Tier 2 and 3 cities via the establishment of an **Urban Infrastructure Development Fund.**

Challenges in Capital Expenditure

- For increasing capex, there is a **need for huge amounts of funds** and pooling of such funds becomes difficult.
- **Delays in implementation** of capital-intensive projects result in cost and time overruns, limiting the effect of capex.
- The long-term cost and benefits of capex are **challenging to measure** and governments generally focus on short-term benefits.
- The **inflation, geopolitical scenario and supply chain disruptions** increase the input costs and limit the intended outcomes of capex.
- **Lack of required human resource capability** with limited skill development makes implementation of projects challenging.

Way forward

- Governments can promote **investment through both direct and indirect channels.**
  - The **direct channel** involves spending on physical infrastructure and human capital.
  - The **indirect channels** act by crowding in private investment, promoting good governance, and attracting FDI etc.
- There is a need for a **supervisory body** such as the **Expenditure Council** to formulate guidelines for governments in terms of resource allocation.
- Governments need to **raise their revenue generation capacity** and can tap alternative sources.
- Governments can consider **creating a capex buffer fund** so as to smoothen and maintain expenditure flow through the economic cycle.

4.7. EXCHANGE RATE MANAGEMENT IN INDIA

Why in the news?

Indian rupee's valuation against currencies of major trading partners has surged to a near two-year high on central bank intervention and elevated domestic inflation.

What is Currency Valuation?

- It refers to the process of **determining the relative worth or value of one currency in terms of another**.
  - It is **influenced by several factors** including **interest rates, Inflation, capital flow, and money supply** etc.
- The most common method to value currency is through **exchange rates**.
  - An exchange rate represents the **value of one currency in terms of another**. For example, if the exchange rate from USD to INR is 80, you can exchange 1 USD for 80 INR.

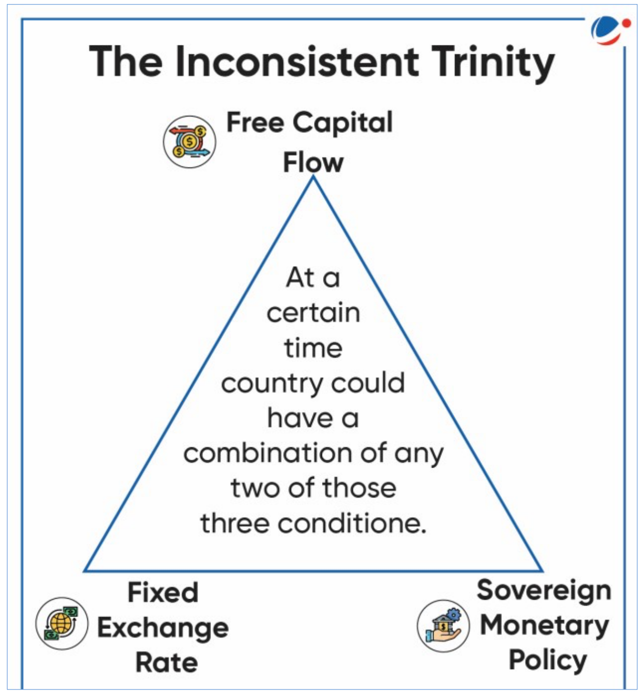
Effects of exchange rate on other key economic variables

- **Inflation**: An **over-valued currency** can contribute to **lower inflation** by reducing the cost of imported goods and services and vice versa.
- **Interest rates:** Central banks may respond to a strengthening currency by **lowering interest rates** to stimulate economic activity and exports.
  - Similarly, Central Banks respond to a weakening currency by increasing the interest rates.
- **Economic growth:** While a stronger currency can contribute to lower inflation, it may reduce export-driven sectors, **consequently a decline in overall economic growth**.
- **Trade:** A stronger currency may contribute to **trade deficits as exports become less competitive** and **imports become more attractive** to domestic consumers.
- **Capital Flow:** A stronger currency **may attract more foreign direct investment** as investors seek higher returns due to currency appreciation.

Challenges in managing exchange rates

- **Unpredictable geopolitical Events** such as Trade war (e.g., U. S.-China trade war), geopolitical tensions (e.g., Ukraine-Russia war) or natural disasters.
- **Speculation and Manipulation** of currency in the forex market for speculation and manipulation can **exacerbate exchange rate volatility**.
- **Interventions by governments or central banks** (e.g., devaluation, depreciation) to stabilize or influence exchange rates **may impact market perceptions** and create challenges for policymakers.

- **Impossible trinity (or inconsistent trinity).** It refers to the idea that an economy cannot pursue independent **monetary policy, maintain a fixed exchange rate, and allow the free flow of capital** across its borders at the same time.



Way forward

- **International Policy Coordination:** Governments and central banks should coordinate policies to maintain stability through institutions such as the **Bank of International Settlements.**
- **Maintaining Foreign Exchange buffers:** Maintaining adequate buffers of key resources such as gold and important foreign exchange currencies can help better manage market volatilities.
- **Advocate against Currency Manipulation:** Concerns can be voiced at international forums against countries that engage in currency manipulation that distorts the global market for selfish gains.

4.8. MONETARY POLICY

Monetary Policy at a Glance

Monetary policy refers to central bank activities that are directed toward influencing the quantity of money and credit in an economy. Central banks use monetary policy to manage economic fluctuations and achieve price stability, which means that inflation is low and stable.

Key objectives

- The primary objective is to **maintain price stability** while keeping in mind the objective of **growth.**
- **Implementation of the Flexible Inflation-Targeting (FIT) (currently 4% (+/- 2%)) framework,** which is revised every 5 years.
- **Financial stability** and adequate availability of credit for growth.
- Safeguarding the value of Rupee and ensuring **Exchange rate stability.**

Monetary Policy Framework

- **Six-member MPC** implements the FIT framework under RBI Act, 1934.
- **Consumer Price Index (CPI)** has been chosen as a **measure of inflation.**
- Instruments of monetary policy include **Repo, Reverse Repo, CRR, SLR, LAF, MSF, Open Market Operations etc.**
- Use of **innovative tools of monetary policy** such as GSAP, LTROs etc.

Constraints

- **Developing economies** like **India** are subject to **greater supply shocks than developed economies.**
- **COVID 19** has resulted in major supply and demand-side shocks in the economy **disrupting the monetary policy dynamics.**
- Greater hinge towards Inflation Targeting **tends to compromise growth.**
- **Uncertain environment** due to lags in data, informational constraints, and accuracy of data.
- **Difficulty to forecast** in a volatile environment.
- **Limitations in monetary policy transmission and underdeveloped money market.**

Way forward

- Improving the **data collection** and **analysis** framework.
- Broadening the **investor base** in Government securities.
- Strengthening coordination of **Monetary and Fiscal policy.**
- Make the economy more **resilient** in light of the fragilities exposed by **the impact of COVID-19 on the economy.**
- **Staggered appointments** to MPC increasing its independence and avoiding political influence.
- Reserve Bank of India has adopted a **Medium-term Strategy Framework – Utkarsh 2.0.**
  - It aims to **strengthen the trust** of citizens, adopt **ethical internal governance** and nurture dynamic and skilled **human resources.**

4.8.1. MANAGING FOOD INFLATION IN INDIA

Why in the news?

The Indian Council for Research on International Economic Relations (ICRIER) has estimated that banning cereal exports has cost farmers at least ₹45,000 crore in 2023.

Food Inflation in India

- **Retail inflation** was at 6.83% with **Food Inflation at 9.2%** in August 2023**.** It is measured by the Year-on-Year **Consumer Price Index (CPI)**.
    - The recent inflation is largely because of the **impact of rising food prices**, as food and beverages carry 45.9% weight in the CPI basket.
- **Major contributors** to current food inflation include tomatoes, onions, cereals (wheat and rice), spices, and milk and dairy products.
    - **Wheat inflation** is partly due to domestic factors like **heat waves and unseasonal rains** and partly a result of international price transmission due to issues like the **Russia-Ukraine war.**

Factors Affecting India's Food Inflation in the long-term

Monsoon Variability, which is further aggravated by climate change.	**Global Commodity Prices,** include food as well as crude oil prices.	**Government Policies,** including the MSP Policy.	**Infrastructure availability** such as storage and distribution systems.	**Exchange rate fluctuations** affect agri-trade and thus agri-prices.	**Outbreaks of pests and diseases** can affect crop yields and prices.

Government Measures to manage food inflation

- **Export restrictions** including export ban, export duty and imposition of Minimum Export Price (MEP).
- **Imposition of stocking limits** on wheat traders and millers.
- **Maintenance of buffer stock** and offloading from it under the Open Market Sales Scheme (OMSS).
- **Pradhan Mantri Garib Kalyan Ann Yojana** was launched to provide free food grains to more than 80 crore beneficiaries.
- **Direct support to farmers** through subsidies, income support and procurement at MSP.
- **Supply-side measures** such as improving agricultural productivity, marketing, strategic reserves, promoting diversification and value addition.

Concerns with the current food inflation management system

- **Loss of Farmers' Income:** Measures to contain food inflation such as export ban, OMSS and imposition of stock limits results in a collective loss of farmers' income.
- **Policy Bias:** Adoption of such market-distorting policy measures indicates a bias in **favour of consumers** (compared to farmers i.e., producers) in India's food price policy.
- **Indirect tax burden on farmers:** Research by ICRIER showed that between 2000-01 and 2016-17, Indian farmers carried a substantial **indirect tax burden amounting to Rs. 2.65 lakh crores annually**.
- **Global Ramifications:** India is the largest rice exporter accounting for around 40% of the global share. India's export ban on rice affects global prices.
    - Such sudden policy shifts **endanger global food security** and **undermine India's reputation as a reliable exporter.**

How to best manage food inflation without adverse effects?

- **Calibrated trade policy:** Instead of a protectionist trade policy, trade policy can be calibrated to control rising inflation with measures such as a timely reduction in import duty.

- **Buffer Stocks:** Government should build **buffer stocks for volatile vegetable staples** like TOP (Tomato, Onion, Potato) during the harvest season.
- **Income support to farmers:** Government can increase its amount of income transfer to farmers under PM-Kisan from ₹6,000 to ₹10,000 a year to offset the potential income losses.
- **Development of food processing:** Processed food can provide a viable substitute for consumers during price pressure on fresh produce.

5. BANKING, PAYMENT SYSTEMS AND FINANCIAL MARKETS

5.1. BANKING

Banking at a Glance

Status of Banking in India

15.4% Credit Growth for Scheduled Commercial Banks **(SCBs)** in FY22-23	**4.5% Gross NPA ratio** and 1.2% Net NPA of **SCBs** at end-December 2022	**71.6%** was the **Provision Coverage Ratio (PCR) of SCBs** in September 2022	**Annualised Return on Assets (RoA)** and **Return on Equity (RoE)** for **PSBs turned positive** in 2020 after remaining **negative** since March 2016

Schemes/Initiatives

- **Regulation and Supervision**
  - **Enhanced Access and Service Excellence (EASE)** 5.0 reforms for **PSBs** by Ministry of Finance.
  - Platform for Regulated Entities for Integrated Supervision and Monitoring **(PRISM).**
  - Creation of **Regulatory Review Authority 2.0** to reduce the compliance burden on Regulated Entities.
  - Regulatory reforms including **expansion of the Bank Licensing Framework.**
  - Supervisory initiatives such as **Prompt Corrective Action (PCA)** [to be extended to NBFCs by Oct 2024].
  - **DAKSH,** an advanced supervisory monitoring system of RBI, **monitors compliance requirements** in Supervised Entities (SEs) like Banks, NBFCs, etc.
- **Banking penetration and experience:**
  - **Increase in Deposit Insurance** to **₹5 lakh** with interim payments.
  - **Fraud Registry of RBI to blacklist perpetrators of online frauds.**
  - A centralized web portal – **UDGAM (Unclaimed Deposits – Gateway to Access Information.**
  - **RBI has classified major banks** like SBI, ICICI Bank, and HDFC Bank as **Domestic Systemically Important Banks (D-SIBs)**

Constraints

- **High proportion of NPAs** especially for Public Sector Banks (PSBs) at **5.5%.**
- **Increasing Burden** of Regulatory Compliance and **steady decline in capital adequacy** for
- Indian banks, especially for PSBs.
- **Emerging competition** from non-banking companies, FinTechs etc. because of **limited integration** in different sectors of the financial system.
- **Unchecked adoption of technology** especially at the ground level. E.g., use of Model-based algorithmic lending by banks.
- In addition to these, **PSBs also face other problems** like bureaucratization, political interference etc.
- Liquidity Deficit in the banking system **widened to ₹1.46 trillion, highest since 2019.**
- Indian banks are **battling the worst deposit crunch in 20 years.**

Way forward

- **Streamlining of the supervision process** with combination of on-site and off-site surveillance along with external auditing.
- **Introduction of the process of structured and discretionary intervention** for problem banks through a PCA mechanism.
- Institutionalization of a mechanism facilitating **greater coordination for regulation and supervision of financial conglomerates.**
- Strengthening **creditor rights and corporate governance.**
- **Restoration of PSB's net worth** through recapitalization, where needed.
- **Invest in emerging technologies** to deliver a superior experience in a secure manner; helping to withstand competition.

5.1.1. UMBRELLA ORGANISATION (UO) FOR URBAN COOPERATIVE BANKS (UCBS)

Why in the news?

Recently, the Ministry of Cooperation constituted the **National Urban Cooperative Finance and Development Corporation Limited (NUCFDC),** an Umbrella Organisation (UO) for UCBs.

About NUCFDC

- According to the **N.S. Viswanathan committee,** UO appears to be the **only long-term solution** to enhance the **public and depositors' confidence** in the sector.
- In countries having a large presence of co-operative banks (called credit unions), such as the **USA, Canada,** and **France**, **cooperatives** thrive under an apex institution known as **UO.**
    - In India, UO will be helpful to **modernize and strengthen around 1,502 UCBs** in the country.

Existing issues in UCB that could be eliminated by the NUCFDCs

- **Poor governance:** As **board members are necessarily elected from amongst the members** of the bank. Example, poor governance resulted in failure of the Punjab and Maharashtra Co-operative Bank (PMC).
- **Constraints in Raising Capital:** According to co-operative principles, share capital is to be issued and refunded only at face value. Thus, investment in UCBs is less attractive.
- **Acute market competition:** Small Finance Banks (SFBs), FinTechs, etc. which are equipped with state-of- the-art technology coupled with deep pockets **and can disrupt UCBs' traditional market segments.**
- **High gross non performing assets (GNPA):** As per Financial Stability report of the RBI, GNPA of UCBS stand at **10.9% till September 2023.**

Major functions envisaged for NUCFDC

- **Offering liquidity and capital support:** To raise capital, with plans to reach a **capital base of Rs.300 crores** to support UCBs.

- NUCFDC can also offer **fund management** and other consultancy services to UCBs.

- **Facilitate regulatory compliance:**
  - Prepare small banks for compliance with the **Banking Regulation Act (BRA), 1949.**
  - Facilitate **communication between UCBs and regulators**.
- **Develop a shared technology platform:** NUCFDC will enable UCBs to **widen their range of services at a relatively lower cost.**

Other Initiatives taken for overcoming issues of UCBs

- **Supervisory Action Framework (SAF):** It seeks expeditious resolution of UCBs experiencing financial stress.
- **Scheme for voluntary conversion:** The RBI had announced a scheme for the voluntary conversion of eligible UCBs into SFBs in 2018.
- **Other steps:**
  - UCBs were permitted to provide **door-step banking services to their customers.**
  - **Individual housing loan limits** for Urban Cooperative Banks have also been **more than doubled.**

Conclusion

Long term growth of UCBs warrants rapid technology adoption, clear accountability processes and efforts to ensure seamless integration with the overall financial system.

5.1.2. BASEL III ENDGAME

Why in the news?

Consumer Bankers Association (CBA) recently released a White Paper, "The Impact of the **Basel III Endgame Proposal** on Consumers on the Margins of the U.S. Financial System,".

About Basel III Endgame

- **Basel III is a set of measures** developed by the **Basel Committee on Banking Supervision** to strengthen the regulation, supervision, and risk management of banks.
- The **final set of rules of Basel III norms** has been called "Basel III Endgame."
  - **Potential impact of the Endgame** includes **Globally Systemically Important Banks (G-SIBs)** experiencing an increase of 21% in capital requirements.
  - **Proposed changes** are aimed at improving **the "strength and resiliency" of the banking system** while also improving transparency and consistency in banks' capital frameworks.

Significance of Basel Norms

- **Development of better risk assessments system** through capital requirement parameters, and by focusing on those target segments, markets and customers who have high risk ratio.
- **Robust risk management process**: It results in **serving the customers better** including **small and medium sized businesses**.
- **Improved Corporate Governance:** Norms also offer banks with **business benefits like improving corporate governance** and allocation of capital.
- **Minimizing Economic Spillovers:** These Norms ensure that the **banking system as a whole** does not crumble and its spill-over impact on the real economy is minimized.

Basel norms implementation in India:

- **Basel 1 norms** were adopted in India with the announcement by RBI in its Mid-term Review of Monetary and Credit Policy **for 1998-99** to raise Capital to Risk Weighted Assets Ratio **(CRAR) from 8 per cent to 9 per cent.**
  - **In 2007, RBI** announced the final **guidelines for implementation of Basel II.**
- **The Basel III capital regulations** were implemented in India in **2013** and have been **fully implemented as on October 2021.**

- As compared to the Basel norms**, the RBI's prescribed norms are stricter and more prudential.**
- RBI has also introduced the **Basel-III capital framework for All India Financial Institutions (AIFIs).**

Conclusion

The biggest contribution of the Basel Accord has been to arrive at a **common definition of capital**, while capital adequacy norms have been adopted in different countries with certain country-specific adaptations.

5.2. ASSET QUALITY AND RESTRUCTURING

Asset Quality and Restructuring at a Glance

Status of NPAs in India

The **Gross Non-Performing Assets (GNPA)** ratio fell to **3.9%** in **2022-23.**	The **sectoral share of the NPAs is dominated by the infrastructure sector**	**Disproportionate share of Public Sector Banks (PSBs)** i.e., about 9/10th of NPAs	**India has been one of the worst affected economies** from the Global Financial Crisis of 2008

Reasons for emergence of the India's NPA problem

- **Economic Reasons:**
  - Overoptimism in relation to the growth experienced in 2006-08 period.
  - Structural issues in the economy such as poor Ease of Doing Business (EoDB).
- **Systemic Reasons:**
  - Absence of a swift NPA identification mechanism accompanied with a prolonged policy of regulatory forbearance.
  - Abandoning of projects due to loss of promoter and banker interest in the project.
  - Governance issues such as weak corporate governance.
- **Ethical Reasons:**
  - Malfeasance by Bankers in the form of limited due diligence or outsourcing of analysis.
  - Manipulation of the restructuring process by the promoters.

Steps taken to halt the growth of NPAs

- **Recognition:** Post the Asset Quality Review of 2015, NPA recognition steps including **Prompt Corrective Action (PCA) Framework.**
- **Recapitalization** includes Budgetary allocations and schemes like **Mission Indradhanush.**
- **Resolution:** These include **Insolvency and Bankruptcy Code** (IBC), **Project Sashakt,** RBI's framework for COVID-19 related stress and other specific schemes like MSME SAMADHAN.
- **Reform:** Long-term steps for sectoral reformation have been taken such as implying a more robust Credit Risk Management system, widening of powers of RBI and key reforms undertaken for PSBs.
- **Enhanced Access and Service Excellence (EASE)- EASENext Reforms (or EASE 5.0).**

Challenges that still remain

- **Apathy in decision making process** due to risk-averse nature of bankers.
- **Absence of clear accountability** flows creates the issue of moral hazard and inadequate due diligence.
- **Corporate Governance Issues,** especially with PSBs in the form of appointment delays, **interference etc.**
- **Absence of integrated approach** towards asset quality in the financial sector as the Banking sector, NBFC sector and other elements of financial sector are not viewed together.
- **Growth of the ARCs has not been consistent** and not always been synchronous with the trends in NPAs of banks.

NPA resolution as a catalyst for reformation of the Banking Sector

- **Strengthening the core banking function** by making lending practices more efficient.
- **Enhancing the level of governance** through transparency and creation of clear communication channels.
- **Attitudinal change** among all stakeholders by clearly highlighting that **regulatory forbearance should be an exception and not a norm.**
- **Accelerating the use of technology** through tools like Blockchain, Artificial Intelligence etc.
- **Driving integration in the financial system** by addressing the connected issues in the NBFC and FinTech sector.

5.2.1. INSOLVENCY AND BANKRUPTCY CODE (IBC), 2016

Why in the News?

Insolvency and Bankruptcy Board of India (IBBI) proposed reforms to make the Insolvency and Bankruptcy Code (IBC) process more transparent.

Key reforms proposed

- Review the work/progress of the **corporate insolvency resolution process (CIRP**) by the Committee of Creditors (CoC).
- **Resolution Professionals (RP)** should be mandated to conduct the meetings of the CoC every month.
- **Standardise** the **valuation methodologies.**
- Streamline the resolutions and prevent delay in the implementation**, resolution plans may adopt a two-part structure.**
  - Part A of the resolution plan shall deal with the inflow i.e., payment under the resolution plan, payment of insolvency resolution process cost, etc.
  - Part B will deal with distribution to the various stakeholders.
- **Clarity in minimum entitlement to dissenting financial creditors.**

About IBC

- It **consolidated** and **amended** the laws relating to **reorganisation** and **insolvency resolution** of corporate persons, **partnership firms** and **individuals.**
  - The **Corporate Insolvency Resolution Process (CIRP)** is a recovery mechanism for the creditors of a corporate debtor.

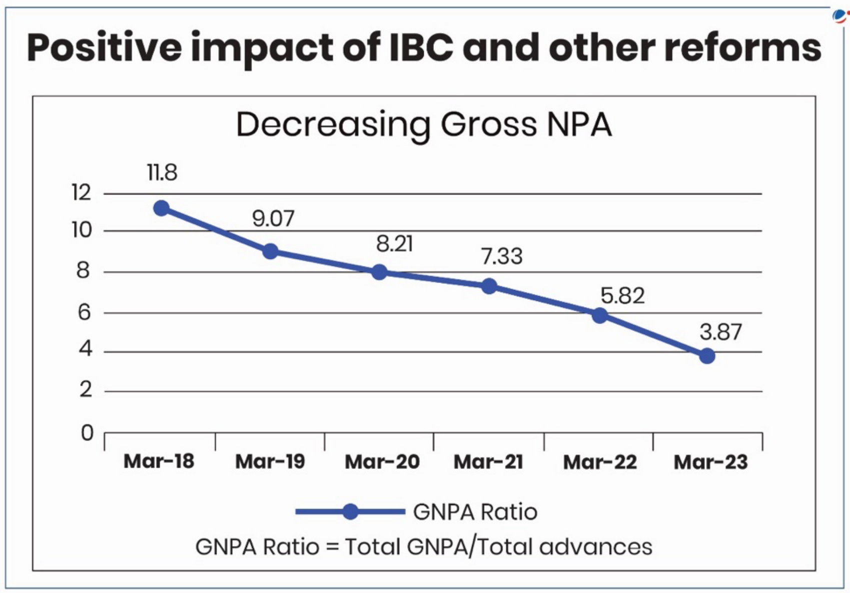
- It provides an **exit mechanism** for a corporate person that has not defaulted, through a **voluntary liquidation process.**

Significance of IBC

- **Time-bound resolution** of stressed assets.
- Mechanism for a company to **exit with the least disruption** and cost.
- Better performance than **Debt Recovery Tribunal, the SARFAESIAct, 2002 and Lok Adalat.**
- **Improved Ease of Doing Business** and promoting the interest of small investors.

Challenges with IBC

- **Huge Backlog of 13,000 cases** under IBC, which includes 2,073 ongoing corporate insolvency resolutions.
- **Limited judicial bench strength and delays** in identifying and acknowledging cases.
- **Recovery rates have declined from 43% to 32%** between March 2019 and September 2023.
- **Average resolution time has increased** from 324 to 653 days versus the stipulated 330 days.
- **Creditors on average had to bear an 80% haircut** in more than 70% of the cases.



Way Forward

- **Implement reforms proposed by the IBBI**:
    - Increasing the number of **NCLT benches** and **extending timelines** for filing claims.
    - To better represent the interests of homebuyers, **authorised representatives (ARs)** of a class of creditors have been granted an expanded role in the insolvency process.
- **Pre-packaged Insolvency Resolution Process (PIRP) option** should be extended to all corporates after review.
    - PIRP is an alternate **resolution mechanism for micro, medium and small enterprises in financial distress.**
- **Introduction of specialised resolution frameworks** for specific sectors.
- **Benchmarks for haircuts** and other processes **similar to global standards**.
- **Phased introduction of voluntary mediation** as a dispute resolution mechanism under IBC (suggested by T.K. Vishwanathan committee).
- **Effective use of Asset Reconstruction Companies (ARCs).**
    - In this light, the Reserve Bank of India (RBI) has issued **master Direction – Reserve Bank of India (Asset Reconstruction Companies) Directions, 2024** to improve their efficacy.

5.3. PAYMENT SYSTEM AT A GLANCE

Payment Systems at a Glance

Status of Payment System in India

- As per RBI, **cash accounts for nearly 50% of all transactions in India.**
- **50% volume** of India's digital payments is dominated by Debit Cards, PPIs, and IMPS
- **53% value** of India's digital payments is dominated by RTGS and NEFT
- **22.4 digital transactions** were happening per capita in 2019 (from 2.4 in 2014)

Key objectives

- Providing **real-time, secure, accessible and easy payment** mechanisms.
- The transfusion of one form of payment to another is seamless, thus envisaging an **integrated payment system.**
- Making the **transaction costs as low as possible.**
- **Creating institutional, digital and physical infrastructure** to manage and sustain high transaction volumes.
- **Expand interoperability** between different payment mechanisms.

Schemes/Initiatives

- RBI's **Payments Vision 2025 with its five pillars** – Integrity, Inclusion, Innovation, Institutionalization, and Internationalization.
- **Enhancements to UPI** system with UPI Lite, UPI-123Pay, enabling cross-border transactions etc.
    - **Increasing UPI Transaction Limit for Specified Categories** such as educational institutions.
- **Payments Infrastructure Development Fund (PIDF)**
- Reserve Bank of India **(Digital Payment Security Controls) directions, 2021**
- **Rationalisation** of Merchant Discount Rate **(MDR)**
- RBI's **Mission Har Payment Digital and 75 digital villages programme.**
- Setting up of **Fintech Repository by RBI.**
- Regulatory Framework for **Web-Aggregation of loan products (WALP)** to compare and choose best offers.

Constraints

- Migration of the economy from predominantly cash-based to **digital has only gradual acceptance.**
- Cyberattacks, Data leaks, platform downtimes, and information theft leading to **Data security and privacy risks.**
- **Lack of Digital Financial Awareness** and Digital Financial Literacy.
- **Low internet and smartphone penetration in rural areas.**
- Less digital payment products for the **non-smartphone users.**
- **Customer Protection** and Security of Digital Payments.
- Issue of **cost and connectivity** especially in the hinterland.

Way Forward

- Strengthening **foundational infrastructures** such as telecommunications, along with digital and financial infrastructures.
- Need of **Single Regulatory mechanism** for the system.
- Providing more option for **offline payments through mobile devices.**
- **Digital Payment Awareness** along with Financial Literacy.
- Safeguard the **Integrity of Financial Systems** by assessing and mitigating the risks of criminal misuse.
- To measure the adoption of digital payments, **geo-tagging can be used.**
- Increased **coordination among regulators.**
- **Internet penetration, financial education, financial inclusion, and growth in payment systems** need to be pursued in tandem.

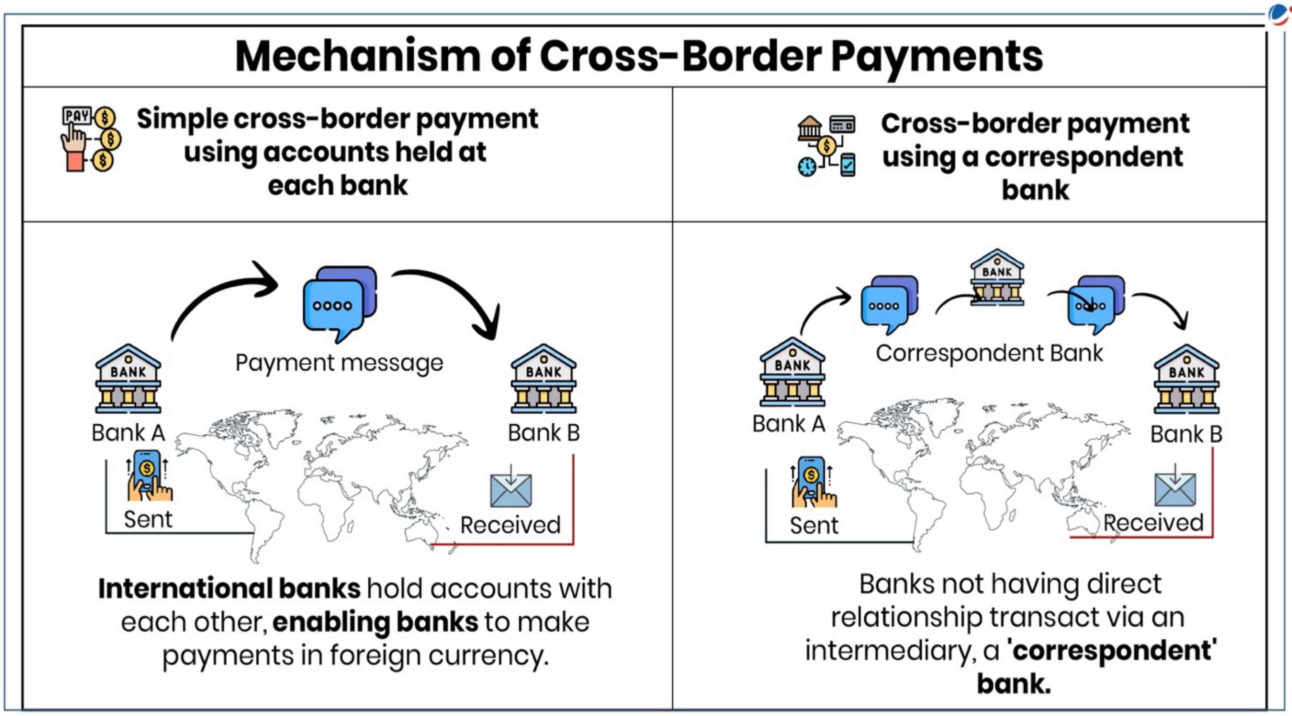
5.3.1. CROSS BORDER PAYMENTS

Why in the news?

G20 TechSprint 2023 was organised to promote innovative solutions aimed at improving cross-border payments.

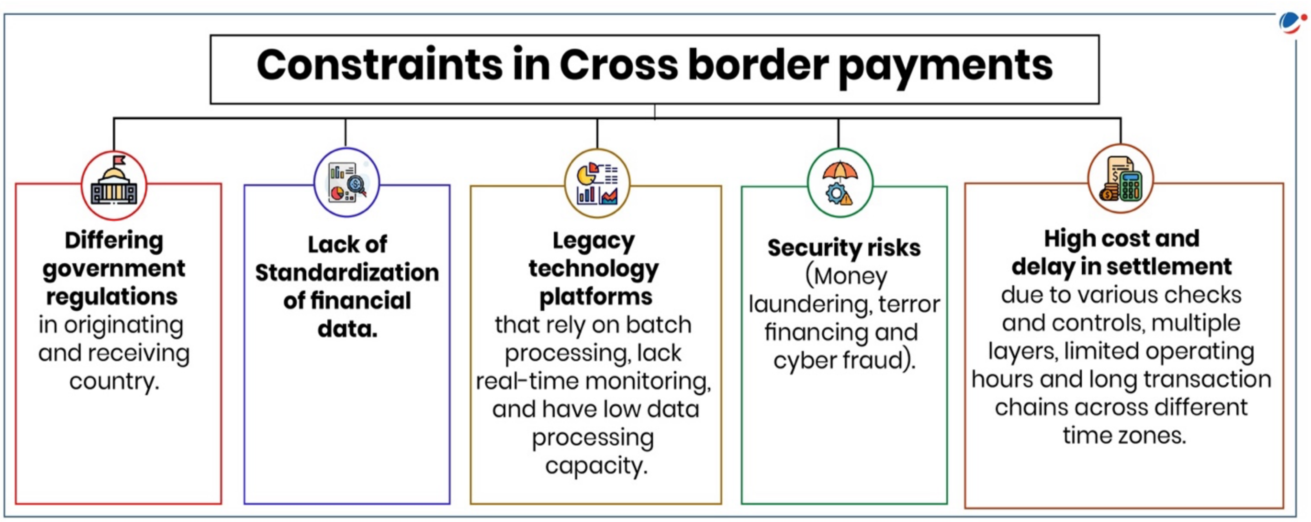
About Cross border payments

- It is a type of transaction that takes place between financial institutions, businesses, and individuals, where the **sender and recipient are based in separate countries**.
    - The cross-border payments market value is estimated to be **$190 trillion in 2023** and expected to reach $290 trillion by 2030.



Significance of cross-border payments for India

- **Ease Remittances:** Since 2016, India's cross-border remittances have been growing at a CAGR of 8%.
- **Facilitating Travel and tourism**: In 2021, the travel and tourism industry in India contributed around 178 billion U.S. dollars to the country's GDP.
- **Accelerating foreign investment**: India received a total FDI inflow of US$70.97 billion in FY 2023.
- **Access to global markets:** It allows businesses to expand into international markets and reach new customers, suppliers, and partners.
- **Diversification:** It enables businesses to diversify their customer base, supplier base, and investment portfolio.



Steps taken in India for strengthening cross-border payments

- **RBI Payments Vision 2025** with one focus areas is to bring ease in cross border payment.
- **NIPL (NPCI International Payments Limited),** has undertaken various initiatives across nations to enable cross-border acceptance of BHIM UPI QR at merchant establishments.
    - Currently, BHIM UPI QR has gained acceptance in **Singapore, UAE, Mauritius, Nepal and Bhutan.**
- RBI has allowed **access to Unified Payments Interface (UPI) to foreign nationals and NRIs**.

Way forward

- **Improve existing payment infrastructures and arrangements** through measures like aligning processes and operating hours across systems etc.
- **Adopt a harmonized ISO 20022 version** (an open global standard for financial information) for message format.
- **Collaborate with fintech companies** specializing in cross-border payments to leverage their expertise and innovative solutions.
- **Explore the potential role of new payment infrastructures and arrangements** like central bank digital currencies (CBDCs).
- **Ensure compliance with international and local regulations**, including anti-money laundering (AML) and know-your-customer (KYC) requirements.

5.4. CAPITAL MARKETS

Capital Markets at a glance

Capital markets are part of the financial markets where buyers and sellers can engage in the trade of long-term (period greater than one year) financial instruments.

Status of India's capital market

- **Consistent growth in terms of size** during the past few decades **(India is the 4th largest stock market).**
- Large number of new instruments such as **hybrids & convertibles, Real Estate Investment Trusts (REITs), Infrastructure Investment Trusts (InvITs), etc.**
- **Money raised by Initial Public Offering** has been the greatest in the last decade.

Role of Capital Markets

- **Reducing funding costs** for industries, enable their expansion and bring transparency.
- **Alternative source of funding** for government, its enterprises, and local bodies.
- **Facilitates disinvestment** of government enterprises.
- Helps in capital formation with better returns to investors, **attracting foreign investment and funding innovative solutions.**
- **Social upliftment** with various instruments such as impact bonds, social stock exchange etc.
- Promotion to **sustainable investment and climate finance** such as through green bonds, establishment of ESG considerations etc.

Factors responsible for the growth of the capital market in India

- Modernization of trading system by **depository system and computerized Screen-Based Trading** to improve efficiency.
- **Quicker settlement of trades** with adoption of **T+1 settlement** (and testing T+0 settlement for limited scrips).
- **Halving the time for IPO listing of companies** from 6 days to 3 days
- **Growth of awareness** of capital market instruments and investment opportunities.
- **The emergence of new instruments** like mutual funds, venture capital funds, REITs, InvITs etc.
- **Growth of ancillary industries** like merchant banking and underwriting business.
- **Liberalization measures** to tap foreign capital.
- **Development of the institutional framework** like credit rating agencies, development banks, and independent regulatory body (SEBI).

Challenges in the Indian capital market

- **Inadequate disclosure:** Lack of quality information disclosed by companies, especially
- climate related disclosures.
- **Inadequate Protection to Investors** like lack of grievance redressal mechanism. **Malpractices, unfair practices and scams** like price manipulation and insider trading hamper the trust of investors.
- **Issue of independence of Credit Rating Agencies (CRAs).**
- **Misuse of technologies** like Algo trading, artificial intelligence, robot advisory, etc.

Way Forward

- **Expanding the participation of retail investors** with initiatives like **SCORES 2.0** which strengthens investor complaint redress mechanism.
- **Strengthening the legal and regulatory framework for investor protection**
- **Enhancing the quality of disclosures** by increasing the quality of financial results, annual reports, and adoption of ESG norms etc.
- **Stringent measures against unethical trade practices** and redressing insider trading.
- **Reforming credit rating industry** through measures like 'investor pay' model, etc.
- **Regulation of algo trading** and other disruptive technologies such as generative AI.
- **Diversification** for increasing resource mobilization.

5.4.1. SOCIAL STOCK EXCHANGE

Why in the news?

Recently, the Securities and Exchange Board of India (SEBI) approved certain **flexibility in the framework for the Social Stock Exchange (SSE).**

More on news

- Flexibility in the framework for SSE aims to **provide impetus to fundraising by Not for Profit Organizations** (NPOs).
  - In this regard, the **minimum issue size** in case of public issuance of **Zero Coupon Zero Principal (ZCZP) Instruments** for NPOs on SSE will be **reduced to Rs 50 lakh from Rs 1 crore**.
  - To enable wider participation of subscribers including retail, the **minimum application size** in case of public issuance of ZCZP by NPOs on SSE has been **reduced from Rs 2 lakh to Rs 10,000.**

About Social Stock Exchange

- SSE is a **segment of the existing Stock Exchange** that can **help Social Enterprises,** such as NPOs or For-Profit Enterprises (FPEs), to **raise funds from the public** through the stock exchange mechanism.
- **Fundraising can be done through**
  - **Issuance of ZCZP bonds and donations through Mutual funds** for NPOs.
  - **Issuance of Equities and debt instruments** for FPEs.

Significance of Social Stock Exchange

- **Improved market access** for Social Enterprises and their access to investors/donors **with inbuilt regulation for providing sanctity and accountability of finances.**
- **Performance-based philanthropy** as the performance of the enterprises listed on SSE would be monitored.
- **Minimal Registration Cost** by charging minimal fees for registration and listing.
- **Access to international finance** as SSE would serve as a streamlined platform for **leveraging and attracting foreign funds** and bilateral/multilateral agency contributions.

Challenges Associated with SSE

- Limited **awareness and education** hinder potential investors.
- Stringent Regulatory Compliance complicates **regulations for social enterprises.**
- Lack of **universally accepted evaluation methodologies.**
- Balancing **financial sustainability with social impact.**
- Heavy focus on **project-based financing across SSEs rather than organizational funding.**

Way ahead

- **Investment readiness**: SSE should **prioritize enhancing the capacity of social enterprises** and listed organizations.
- **Tax benefits**: It is required that the **tax laws in India relating to the social sector are synchronised and integrated** to attract both investors and investees.
- **Research:** Carry out a rigorous demand assessment to understand how donors and investors view the value of the SSE.
- **Viability of Social Enterprises**: For SSEs to succeed, a **scalable model which is capable of attracting the required capital** to deliver tangible impact is vital.

5.5. CRYPTOCURRENCY

Cryptocurrency at a glance

Cryptocurrencies (Bitcoin, Ethereum etc.) are **digital or virtual currencies in which encryption techniques are used** to regulate generation of units and verify transfer of funds.
Control of each cryptocurrency **works through distributed ledger technology called blockchain. These** operate independently of a central bank.

Advantages of Cryptocurrencies

- **Eliminating the middleman,** resulting in significantly lowered transaction costs and increased pace of transactions.
- **Enhancing security of the payment systems** by enabling cryptographic encryption. **Reduces leakages** by increasing transparency.
- **Act as enabler of financial inclusion** by overcoming the issues related to banking infrastructure, access to finance etc.
- **Empowering businesses** by creating tools like Smart Contracts among others.
- **Showcasing high potential for use outside economic discourse** i.e., in social spheres like platform for artists.

Concerns related to Cryptocurrencies

- **Controlling the macroeconomic variables** like money supply, inflation etc. with advent of
- an alternate currency.
- **Misuse in criminal activities** like money laundering and terrorist financing.
- Most of cryptocurrencies **face high volatility of value and trading volumes.** **Tax evasion and avoidance** as there is lack of central oversight.
- **Managing cybersecurity issues** which could be susceptible to hackers and malicious users.
- **Might create a new divide** due to limited financial inclusion and technological access. Cryptocurrency mining could become a **major factor in carbon dioxide emissions.**

Way Forward

- **Exploring the idea of Central Bank Digital Currency (CBDC),** as suggested in Budget
- 2022-2023, to promote financial inclusion and simplify the implementation of monetary and fiscal policy.
- **Mastering the regulatory sandbox** by adopting a regulatory approach which evolves rapidly and fixes problems along the way.
- **Regulators need to boost their investor safeguard measures,** until they regulate them tightly.
- **Preparing the ecosystem for adoption of digital finance** by improving financial literacy, increasing digital penetration, and strengthening cybersecurity ecosystem.
- **Involving private sector** to encourage innovation.
- **Evolving a monetary policy for the digital age.**
- **Maintaining international collaboration** for financial stability.

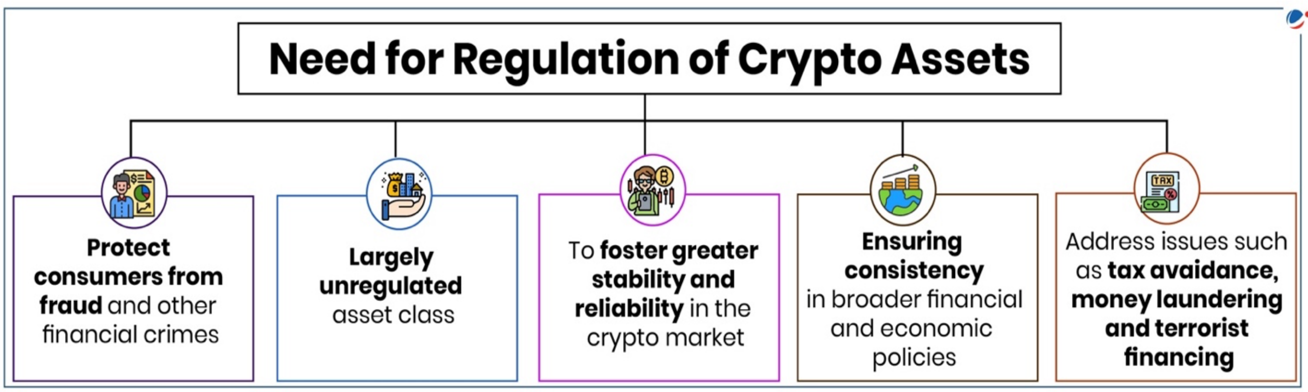
5.5.1. REGULATION OF CRYPTO ASSETS

Why in the news?

G20 countries adopted the New Delhi Leaders' Declaration which called for effective regulation of crypto assets.

Crypto regulation in India

- **Legal provision:** At present, the exchange, transfer, safekeeping or administration of cryptocurrencies is under the **ambit of the Prevention of Money Laundering Act (PMLA) 2002**.
- **RBI's stance:** RBI has, on several occasions, voiced its concerns about crypto assets, saying that these assets threaten financial stability.
- **Regulatory Framework:** In 2022, the Ministry of Finance released a report proposing the creation of a **digital rupee, a state-backed cryptocurrency**, as well as a framework for regulating private cryptocurrencies.
- **Tax regime:** In 2022, the Union Budget, for the first time officially classified digital assets, including cryptocurrency, as **"virtual digital assets."**



Challenges in Regulating Cryptocurrency

- **Blanket Ban:** Blanket bans making crypto-asset activities illegal can be costly and technically demanding to enforce.
- **Regulatory inconsistency:** Achieving consistency in crypto regulations across different countries remains a complex task.
- **Lack of harmonized taxonomies:** Different jurisdictions define and categorize crypto-assets in various buckets, creating ambiguity in understanding the risks posed.
- **Fragmentation:** Fragmented monitoring, supervision and enforcement due to a lack of coordination among various law enforcement agencies.

Global Regulation of Crypto Assets

- **IMF-FSB Synthesis Paper:** In the recently concluded G20 summit, the countries endorsed the report by the IMF and the Financial Stability Board (FSB) on risks and the framework for regulating crypto assets.
- **Markets in Crypto-Assets Regulation (MiCA):** Framed by the European Union, it is the **first cross-jurisdictional regulatory and supervisory framework** for crypto-assets.

Global Regulatory Approaches	Description
Principle based regulation	Instead of prescribing detailed rules, this regulatory approach outlines the results and performance expected.
Risk based regulation	It works on the idea of intervention based on the associated level of risk.
Agile regulation	Agile regulation adopts a responsive, iterative approach, acknowledging that policy is no longer limited to governments but is a multistakeholder effort.
Self-regulation	In self-regulation, industry representatives coordinate and collaborate to formulate voluntary standards or codes of conduct.
Regulation by enforcement	It indicates that enforcement actions are being used to define regulatory frameworks and making rules.

Way Forward for Crypto Regulation

- **Implication – Policy Linkage:** Identifying implications of crypto assets and framing an adequate policy responses can be a way forward (see infographic).
    - For example, to check the implication of Macroeconomic instability, focus on safeguarding monetary sovereignty.
- **Licence and supervision:** Licensing of crypto assets service providers and supervising them in the same way as financial institutions.
- **Anti-money laundering:** Once licensed and regulated, the service providers should implement measures like customer due diligence, record keeping and reporting of suspicious activities.
- **Clarity on taxation:** The G20 nations have endorsed forming a framework like the **Crypto Asset Reporting Framework (CARF)** for cross-border data sharing for effective tax compliance.

6. EXTERNAL SECTOR

6.1. EXPORT SECTOR

India's Export Sector at a Glance

Status of India's Export Sector

- **US$ 778.22 billion** was India's overall exports (merchandise and services combined) in 2023-24.
- **2.4%** was **India's share in world's exports** (China-12% and US-9%).
- India's exports are about **23% of its GDP.**
- India's **services trade has been a major driver of its exports.**

India's need for Export Led growth

- **Self-reliance**: Exports can help India to achieve the target of making India a developed economy by focusing on '**Atma Nirbhar Bharat**'.
- **Economic Growth:** Higher exports draw more **foreign remittances, create more demand, jobs and infrastructure and lower the current account deficit**.
- **Becoming a part of Global Value Chains:** Exports give domestic sellers increased **access to the market**, presenting a golden opportunity to **capture a good chunk of global market share.**
- **Mitigate Regional Disparities:** Improving the export competitiveness of states can **mitigate regional disparities** through **export-led growth** and the consequent rise in **standard of living**.

Reasons for India's Underperformance in Exports

- **Limited diversification of India's export basket** with top 10 principal exports accounting for 78% of total merchandise exports. Ex: Petroleum products, Gems etc.
- **Low competitiveness of Indian Products** due to domestic factors like lacklustre infrastructure, complex land and labour laws etc.
- **Inability to exploit comparative advantage** in lower-skilled and labour-intensive exports.
- **India's merchandise imports from FTA partners** grew by ~38% whereas exports grew by just ~14.5% (Global Trade Research Initiative (GTRI)).
- **Poor utilization of FTAs** and presence of **Non-Tariff Barriers (NTBs).**
- **Three fundamental challenges with regard to export promotion**:
  - **Intra- and inter-regional disparities** in export infrastructure.
  - **Poor trade support** and growth orientation.
  - **Poor research & development infrastructure** which hinders complex and unique exports.

Steps taken to boost India's exports

- New **Foreign Trade Policy 2023** and **automatic 'Status Holder' certificates.**
    - Status Holders are **business leaders who have excelled in international trade.**
- **Trade Infrastructure for Export Scheme (TIES)** and Market Access Initiatives (MAI) Scheme.
- **Service Exports from India Scheme (SEIS)**.
- **RoDTEP (Remission of Duties and Taxes on Exported Products) Scheme** provides **for reimbursement** of taxes, duties, and levies.
- **Export Promotion Capital Goods Scheme** (EPCG Scheme).
- **Districts as Export Hubs initiative**
- **Export Preparedness Index (EPI)** as a data-driven endeavour to identify critical areas for subnational export promotion.

Way ahead for India's exports

- **Increasing Competitiveness of Made in India Products:**
    - **Promoting Ease of doing Business**
    - **Improving India's manufacturing base**
    - **Focus on Research and Development (R&D)** for greater innovation and **improving the quality of Indian products**
- **Exploring and strengthening potential sectors:**
    - **Diversification of India's export basket**.
    - **Promote local manufacturing in high-potential sectors** under the PLI Scheme.
- **Recommendations on FTAs by Surjit Bhalla Committee-**
    - Implement extensive **training programme on technical regulations.**
    - Objective **database for utilization of FTAs.**
    - **Use trade remedies** like Anti-dumping and Countervailing duties available under FTAs.
- **Learning best practices from neighbours,** E.g., Bangladesh has become the second largest apparel exporter after China, Vietnam's exports have grown by about 240% in the past eight years etc.

6.2. FOREIGN DIRECT INVESTMENT

Foreign Direct Investment at a Glance

Status of FDI in India

- FDI into India reached an all-time high of **$84.83 billion** in **2021-22**
- **Expected to reach to the tune of $100 Billion**
- From April 2000-March 2024, **India's service sector attracted the highest FDI** equity inflow of 16.13%
- **Mauritius, Singapore, USA, Netherlands and Japan** emerged as **top 5 countries** for FDI inflows in India in FY2023-24

Significance of FDI in India

- **Long-term Capital for Economic Growth:** FDI is a stable source of **non-debt financial resource**.
- **Human Resource Development:** Flow of management techniques bringing knowledge and skills.
- **Technology Transfer:** Important source of advanced production technology and equipment for efficient production.
- **Increased Exports:** It helps in global integration of the economy with an external network, increasing exports in the long-term.
- **Investment promotes growth of new players** in market and leads to higher productivity.
- **Investment can lead to an increase in forex reserves**, providing a cushion against economic uncertainties.

Schemes/Initiatives

- **Liberalization of FDI in sectors** like Insurance, Power exchanges etc.
- Investment promotion and facilitation through **Invest India Programme.**
- Attracting foreign investment through **initiatives like Make in India.**
- Specific partnerships like **India and UK** agreed for an investment boost to strengthen bilateral ties for an '**Enhanced Trade Partnership**'.
- **Project Development Cell (PDC)** in the ministries/departments for attracting investments.

Issues in FDI inflow in India

- **Decline in Growth Rate:** In 2023–2024, FDI inflows declined by 3.5% to $44 billion, which is a five-year low.
- **Concentrated to Few Sectors:** Around 50% of the total FDI inflow went into just five sectors, i.e., Services, Computer, Trading, Telecommunication and Automobile.
- **Regional inequalities in FDI:** 70% of total inbound FDI was limited to three states i.e. Karnataka, Maharashtra & Gujarat in FY 2022 – 23.
- **Use of Offshore financial hubs and tax havens** like **Cayman Islands, Singapore** continue to feature in top FDI sources.
- **Low actual realization of commitments:** The gap between MoUs signed and actual FDIs remains high.
- **Lesser reinvestments:** Foreign investors prefer to take surpluses out of India rather than reinvest.

Way Forward

- **Continue policy reforms** and ensure **stable public finances** to overcome uncertainty in the minds of investors.
- **Improve transparency and efficiency** of governance to build confidence in foreign and domestic businesses.
- **Take initiatives to diversify FDI** with protection of environment, culture, and small businesses for holistic development of India.
- **Direct tax reforms** to check rerouted investments through tax havens.
- **Gradual liberalization** of non-strategic sectors to diversify the sectors which receive FDI.

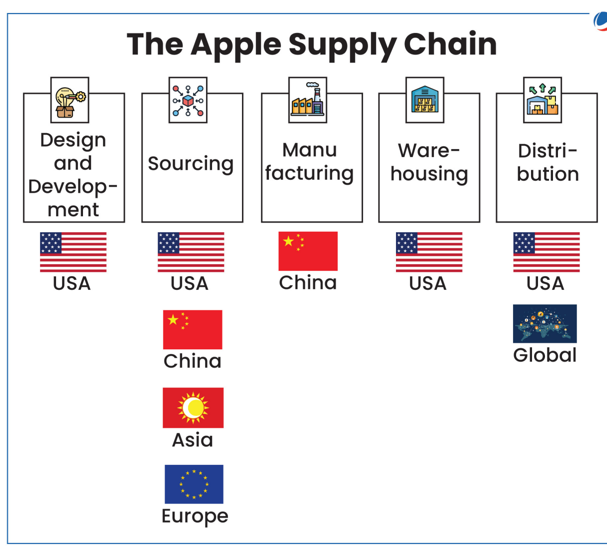
6.3. INDIA AND GLOBAL VALUE CHAINS (GVCS)

Why in the News?

NITI Aayog CEO highlighted the need for India to get into global value chains (GVCs) to boost exports and secure supply chains.

What are Global Value Chains (GVCs)?

- It refers to a **production sequence** for a final consumer good, with each stage **adding value** (e.g., production, processing, marketing, transportation, distribution) and with at least **two stages taking place in different countries.**
    - **For example**, India imports cotton fabric from Italy to make and export shirts.
- As per OECD, an estimated **70 % of trade occurs through GVC.**



Importance of Global Value Chains (GVCs)

- **Increase in Productivity:** By accessing a variety of imported inputs, increased knowledge sharing, leveraging economies of scale and higher value added tasks etc.
- **Reduction in Poverty:** According to World Bank, a **1% increase** in **GVC participation** is estimated to boost **per capita income** levels by more than **1%** (about twice as much as conventional trade).
- **Employment Creation and Women Empowerment:** GVCs can lead to the creation of more jobs when they catalyze **structural** transformation or generate **new linkages** in and around the chain**.**
    - In sectors most intensively traded in GVCs (apparel, footwear, and electronics) lower-skilled, young, female workers account for the **largest share of employment.**
- **Greater scope for Specialisation:** Countries can **create targeted industries** for a particular stage of production along the value chain that suits their existing level of capability.

India's participation in GVC

- **Low Participation**: India's GVC-related trade (**as per cent of gross trade** was at **40.3%** in 2022) is **significantly low,** also when compared to smaller countries like South Korea and Malaysia.
- **Low export of Network products:** Electronics, computers, and vehicles for which GVCs are the dominant mode of production, account for only **10% of India's total merchandise exports.**
- **Key products driving India's GVC participation:** Coal and petroleum, business services, chemicals, transport equipment etc.
- **Predominance on forward linkages**: India still depends heavily on exports of raw materials and intermediate products.

Reasons behind India's weak GVC integration				
Poor trade infrastructure. E.g., delays at ports or customs.	**Uncertainty in trade and tariff policy.** E.g., average tariffs have jumped to 18.1% (2022) from 13% (2014).	**High export standards and strict delivery pressures** in many sectors.	**Biased towards capital-Incentive sector** despite having advantages in unskilled labour-intensive sectors.	**Domestic policy challenges** like Complex tax policies labour laws, and uncertainty in trade policy.

Measures Taken to Integrate India in GVC

- **Foreign Trade Policy 2023:** It aims at **process re-engineering and automation** to facilitate ease of doing business for exporters**.**
- **PLI Scheme for large scale Electronics manufacturing:** Launched in 2020, it has encouraged GVC participation. E.g., 3 of Apple Inc's contract manufacturers have set up manufacturing bases in India.
- **One District One Product- Districts as Export Hubs (ODOP-DEH) initiative:** To focus on districts as unit for converting into a manufacturing and export hub by identifying products with export potential.
- **Make-in-India Initiative:** It has been cited as one of the key reasons for **FDI equity inflow** in the manufacturing sector between 2014 and 2022 increasing by **57%.**

Way forward

- **Facilitating Trade:**
    - Establishing stable **tariff rules,** streamlining border procedures and establishing a **National Trade Network** (an online platform for all export-import compliance processes).
    - Implementing the **Indian National Strategy on Standardisation** to increase firms' capacity to meet international standards.
- **Stabilizing regulatory environment:** Tax regulations and procedures must be uniformly implemented and should align with **trade policies**.
- **Focus on High-Value GVC Segments:** Such as product conceptualization, design, prototype development, and after-sales services etc.
- **Promote labour-intensive Sector:** To undertake activities which enable participation in GVCs.

6.4. GLOBAL ECONOMIC DECOUPLING

Why in the News?

Recent drops in FDI in China highlight the shift of global companies away from world's key production hub, furthering trend of economic decoupling.

What is Economic Decoupling?

- It is the process of weakening interdependence between two nations or blocs of nations.
- E.g. In recent times **United States and China are** opting for **divergent technologies and global trade standards**, and rely on **increasingly independent supply chains.**
- **Economic decoupling** can considerably **limit the degree of interdependence among global economies** and thereby **transforming very foundations of globalization.**

Reasons behind Economic Decoupling

- **Geo-Political Reasons:**
  - **"Cold War 2.0":** Great power rivalry between China and the United States for global supremacy inducing both states to pursue decoupling.
  - **Ukraine War:** China's alliance with Russia deepening antagonism with United States.
- **Economic Reasons:**
  - **Protectionism:** To safeguard domestic industries from foreign competition. E.g. **USA's use of tariffs on the imports from China.**
  - **Economic Nationalism:** To promote self-reliance and prioritize domestic production over imports.
  - **Supply Chain Resilience:** To reduce import dependence from a single country or supplier to mitigate risks.
- **Technological Factors**
  - **Fourth Industrial Revolution:** Cyber security concerns and data sovereignty, Diverging technological standards and practices, other national security concerns.
  - **Additive Manufacturing:** Ability to produce small, customized batches locally.
- **Environmental Factors:**
  - **GHG emission:** For Reduction of environmental degradation and CO_2 emission through localized supply chain.

Different Dimensions/Methods Of Economic Decoupling

Supply Chain Realignment: Limiting overextension and overdependence, Localization and near-shoring or reshoring of manufacturing, Diversification of supplier bases.

Adapting Different Standards and Technologies: Separate technological ecosystems (e.g., 5G infrastructure), Independent R&D pathways.

Trade Decoupling: Reduction in bilateral trade volumes & Shift towards regional trade agreements and blocs.

Impacts of Economic Decoupling

- **Loss to global GDP:** International Monetary Fund found that the **long-term cost of economic fragmentation** could be up to **7% of global GDP.**
  - Technological decoupling can cause some countries **could lose up to 12 percent of GDP.**
- **Access to Foreign Markets: Tariffs and restrictions on investment** will **make it more challenging for businesses to access foreign markets** and benefit from international cooperation.

- **Technology:** Decoupling will further **raise technology competition between China and Western countries**, and will disrupt the technological ecosystems, limiting research collaboration and knowledge exchange
- **Opportunity for India:** Countries such as **Mexico, Brazil, India, Malaysia, Thailand and Vietnam may benefit from gaining production** capacity previously based in China.
- **Other Impacts:** Less innovation, economic fragmentation, risk to global stability and de-globalization etc.

Way-forward

- **Development of Global Standards:** Companies should make it a priority to design products that can be **compatible with different global standards.**
- **Strategic Policy Reforms:** Implementing comprehensive economic policies and ensuring a balance between protectionism and globalization.
- **International cooperation**: Enhance diplomatic efforts and dialogue among major economies to reduce trade tensions, resolve disputes, and find common ground on economic policies.
- Support for **multi-polarity and multilateralism in international relations and** Advocating for a **rules-based global order.**
- **Diversifying the import and export structure:** For relying less on one country and increased supply chain resilience.

6.5. INTERNATIONALIZATION OF RUPEE

Why in the news?

Recently, Prime Minister asked the Reserve Bank of India (RBI) to prepare a **10-year strategy to make the Indian rupee a globally accessible and acceptable currency**, enabling its **internationalization**.

About internationalization of currency

- **An international currency** is one that is **used and held beyond the borders** of the issuing country, not merely for transactions with that country's residents, but also, **for transactions between non-residents**.
- Currently, the **US dollar, the Euro, the Japanese yen and the pound sterling** are the leading reserve currencies in the world.

Benefits of Internationalization of Currency

- **Limit exchange rate risk** as domestic firms can settle their exports/imports in their currency.
- **Access to international financial markets** without assuming exchange rate risk.
- **Boost capital formation** by reducing capital cost and widening the set of financial institutions.
- **Financing budget deficit** by issuing domestic currency debt in international markets rather than issuing foreign currency instruments.
- **Lowering the impact of sudden stops and reversals of capital flows** and enhancing the ability to repay external sovereign debt.
- **Reducing requirement of forex reserves** to manage external vulnerabilities.

Challenges in Internationalization of Currency

Exchange Rate Volatility
- May result in a potential **increase in volatility** of its exchange rate in the initial stages.

Monetary Policy Dilemma or Triffin Dilemma
- It is a conflict that arises when a country needs to supply enough of its currency to meet **global demand** while also maintaining its **domestic monetary policies.**

Vulnerability to External Shock
- May accentuate an external shock, given the open channel of the flow of **funds in and out of the country** and from one currency to another.

Macroeconomic Stability
- Integration of financial markets could affect **stability in the long-term.**

Approach for internationalization of Rupee

- **Capital Account Convertibility:** INR (Indian National Rupee) is fully convertible in the current account but partially in the capital account.
    - **Review extant Foreign Exchange Management Act (FEMA) provisions** and extending incentives for international trade settlements in INR.
- **Promoting international use of INR:**
    - **Currency Swaps and Local Currency Settlement (LCS)** and **inclusion of INR in Continuous Linked Settlement (CLS).**
    - **Extending global reach of India's payment systems** including RTGS, NEFT and UPI.
    - **Creation of an Indian Clearing System** and promoting **INR as a vehicle currency/contender to Special Drawing Rights (SDR) basket.**
- **Strengthening Financial Markets: Harmonisation of KYC norms** of RBI and SEBI, global **24x7 INR market**, inclusion of **Indian Government Bonds in Global Bond Indices.**

Steps taken towards internationalization of Rupee

- RBI has allowed **opening of Rupee accounts outside India.**
- **Use of Indian Payment Infrastructure:** India initiated interlinkage of UPI with Singapore's PayNow and is reaching out to jurisdictions to increase global outreach of UPI system.
- **Special Vostro Rupee Accounts (SVRAs):** RBI has put in place the mechanism for INR trade settlement with 22 countries by allowing banks from these countries to open SVRAs for settling payments.
- **INR as a Designated Foreign Currency in Sri Lanka:** Paved the way for INR-based bilateral trade.
- **Asian Clearing Union (ACU):** RBI had proposed inclusion of INR as one of the settlement currencies under the ACU.
- **Bilateral Swap Arrangements (BSA):** India currently has a BSA with Japan for an amount up to USD 75 billion as a backstop line of support in case of any balance of payments issue.
    - Also, India has recently signed a 35 billion rupees currency swap agreement with UAE.

6.6. WORLD TRADE ORGANIZATION (WTO)'S 13TH MINISTERIAL CONFERENCE (MC)

World Trade Organization (WTO) at a Glance

WTO is the only global international organization dealing with the rules of trade between nations.

- It came into being in 1995 as a successor of General Agreement on Tariffs and Trade (GATT) after the Uruguay round of negotiations.
- **Doha Development Round (2001 - present)** was adopted in 4th Ministerial Conference and it covers about 20 areas of trade such as agriculture, services, geographical indication etc.

Successes of WTO

- **Global:**
  - Accelerated growth in global trade.
  - Acted as an enabler of domestic reforms for countries.
  - Increased economic efficiency via development of Global Value Chains (GVCs).
- **India:**
  - India's exports almost doubled in less than a decade.
  - Rapid growth in export of Software Services due to liberalization of trade.
  - Employment Generation due to growth of labour intensive sectors.
  - Poverty alleviation transmitted through economic growth.

Factors currently affecting the WTO

- **Newer areas of discussion** coming to the fore such as E-commerce.
- **Changed Global Economic distributions** from 1995 in the form of growth in developing countries.
- **Emerging trade war** between China and United States.
- **WTO appellate body** has become dysfunctional in the recent past.
- **Move towards bilateral/regional/plurilateral trading regimes** such as RCEP.
- **The effect of COVID-19** has permanently disrupted some Global Supply Chains (GSCs).
- **Threat of waning of globalization** due to trends of reverse globalization among countries.

Unresolved issues in negotiations and India's stand on them

- **Agricultural Subsidies:** India's stand is based on food security, poor estimation of subsidies given by developed countries.
- **Fisheries Subsidies:** India states that developing countries should be exempted from global commitments.
- **Affordable Medicines:** India seeks revision to TRIPS agreement to improve global access of pharmaceuticals.
- **Non-Tariff Barriers to Trade:** India advocates for their rationalization and standardization.
- **Investment Facilitation:** India argues that developing countries should be given flexibility in application of TRIMS.
- **E-Commerce:** India states that e-commerce talks should be embedded in the WTO's digital trade agenda of 1998

Way forward

- **Institutionally linking national goals with global goals.**
- **Building geo-political capital** to better transition to a changed global trading scenario.
- **Playing proactive role in emerging areas** like e-commerce.
- **Preferring WTO reform over other methods like trading blocs** to safeguard non-discrimination and equity in global trade.
- **Focussing on domestic reform** alongside engaging iun global trade for making the economy globally competitive and simultaneously opening the economy further.

6.6.1. AGRICULTURE AND FOOD SECURITY

Why in the news?

The conference concluded without a permanent solution to the public stockholding (PSH) issue, a demand raised prominently by India.

About PSH Policy

- **Objective:** The PSH makes it possible for the government to procure crops from farmers at MSP, and store and distribute these food grains to the poor.
- **De minimis limits:** Under global trade norms, a country's subsidy bill should **not breach the limit of 10 %** (for developing countries) and 5 % (for developed countries) of the value of production.
    - Currently, it is **calculated at the reference price for 1986-88.**

Global Divide over PSH

- **Developing Countries**: Apart from increasing this De minimis limit, India and developing countries have asked for amendments in the formula to calculate the price support subsidies given to farmers for government procurement.
- **Developed Countries**: Most developed countries claim that PSH is market-distorting and that there should be no export restrictions.

Peace Clause & India's Stand

- **Peace Clause**: WTO at the Ninth Ministerial Conference (MC9) in Bali agreed to a "peace clause" as an interim solution for the public stockholding for food security.
    - **Peace clause** shields any breaches of the agreed limits from legal challenge.
    - It was agreed that the "peace clause" would remain in force till MC 11. However, due to non-consensus among the members, it was **extended**.
- **India's Demand:** India is pressing for a permanent solution to the issue of public stockholding (PSH) and has asked for measures like amendments in the formula to calculate the food subsidy cap.

Why Permanent Solution to PSH is Important for India?

A permanent solution to PSH is crucial for India and other developing countries, as it would **legitimize higher subsidies for food stockholding programmes**. This would protect the interests of the **poor and vulnerable farmers and** take care of its domestic food security needs and price stabilisation.

6.6.2. FISHERIES SUBSIDIES AGREEMENT

Why in the news?

WTO's ministerial conference ended with no decision on finding a permanent solution curbing fisheries subsidies that lead to over-capacity and over-fishing.

WTO Agreement on Fisheries Subsidies

- **Geneva Package**: The Agreement was adopted during the 12th Ministerial Conference of WTO in 2022 held in Geneva, Switzerland under the 'Geneva Package'.
- **Aim**: To curb harmful subsidies, which are seen as a key factor in the widespread depletion of the world's fish stocks.
- **Not accepted yet**: Acceptance from two-thirds of WTO members is needed for the Agreement to come into effect. The agreement is still short of 39 countries (March 2024).
  - **India is not part of the agreement**.
- **Benefits**: It will have positive effects on the sustainability of marine fish stocks and fisheries –
  - By curbing subsidies to illegal, unreported and unregulated fishing
  - By prohibiting subsidies to fishing on overfished stocks
  - By prohibiting subsidies to fishing on the unregulated high seas
- **Special and Differential Treatment (S&DT):** Under S&DT, Developing Countries and Least Developed Countries (LDCs) have been allowed a **transition period of 2 years** from the date of entry into force of this Agreement.

India's Demands

- **PPP and CBDR- RC:** Countries that have provided huge subsidies in the past and are responsible for the depletion of fish stocks, should take more obligations to prohibit subsidies based on the '**Polluter Pay Principle' (PPP) and 'Common But Differentiated Responsibilities and Respective Capabilities' (CBDR-RC)**.
- **Moratorium on Distant Water Fishing Nations:** India urged the Members to introduce a moratorium on subsidies by Distant Water Fishing Nations for fishing or fishing related activities beyond their EEZs for a period of at least 25 years.
- **Exception for Developing countries and small economies:** They should be free to provide subsidies for the fisheries sector.
  - India is **one of the lowest fisheries subsidizers** despite such a large population.
  - **Significant population** of India (more than 100 million fishers) **depends on fishing sector** and approximately 61% of them are still living below the poverty line.

6.6.3. CROSS-BORDER REMITTANCES

Why in the news?

India submitted a draft proposal to reduce the cost of cross-border remittances at MC13. However, it was **not included in the final Abu Dhabi Ministerial declaration**.

Key Highlights related to the proposal

- **Remittance Flow:** Out of total remittances of USD 860 billion in 2023, USD 669 billion (about 78%) went to low and middle-income countries.
- **Remittance Costs:** The **remittance costs are about 6.18%** globally which is well above the UN's SDG target of 3 %.
- **India's Recommendations:** To cut this cost, India is suggesting encouraging digital transfers, fostering interoperable systems, promoting competition, streamlining regulations, and enhancing pricing transparency.

Significance of cost reduction in cross-border remittance

- **Socio-economic Development:** Cross-border remittances have a significant contribution towards socio-economic development especially in developing countries, including poor nations.
- **Increased Flow of Remittances**: Cost reduction can increase the inflow of remittances to developing countries and enhance the personal consumption of receiving households.
- **Enable UPI to become Global:** Remittance cost cut will lead to a big boost for UPI transactions and it will have a much greater footprint overseas.

- It will also help the Indian banking sector, which has been at the forefront of technology, to obtain a larger footprint in the global economy.

Conclusion

While proposals at the WTO may take time to arrive at a consensus and then move towards implementation, India should meanwhile make it easier for individuals and businesses to make or receive cross-border payments.

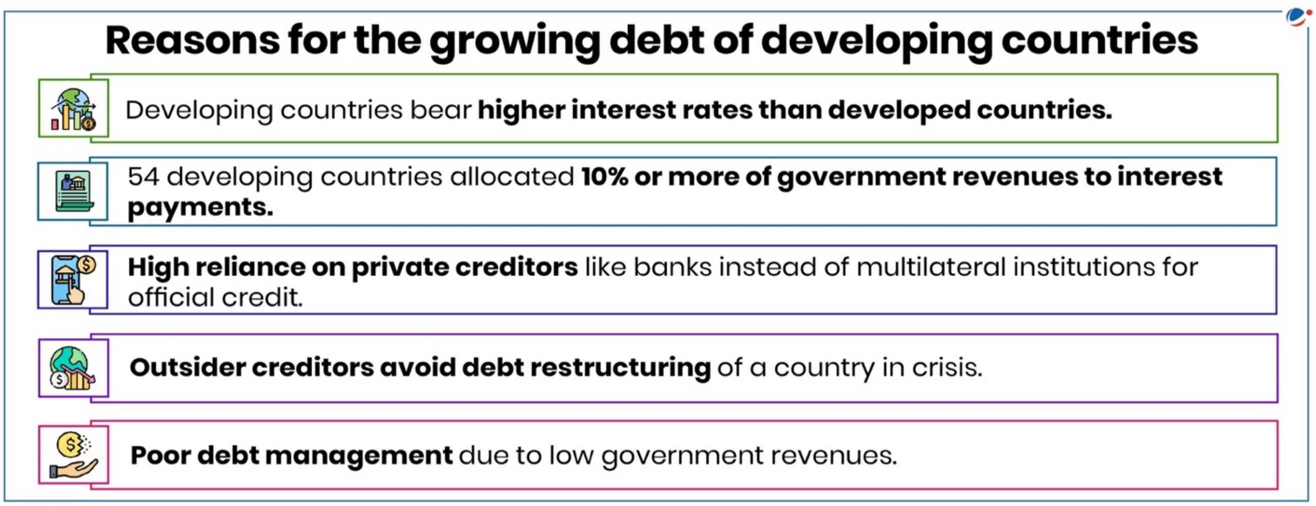
6.7. GLOBAL DEBT OF DEVELOPING COUNTRIES

Why in the news?

Sri Lanka faces an unsustainable debt and a severe balance of payments crisis which highlighted the issues of growing debt of developing countries.

Growing debt of developing countries

- United Nations report "A world of Debt: A growing burden to global prosperity" found that global public debt reached an **all-time high of $97 trillion in 2023 from $17 trillion in 2000.**
  - **30% of global public debt** is held by developing countries.
  - Median value of **public debt-to-GDP ratio** fell from a peak of 60.4% in 2020 to 54.7% in 2023.
- **India's General Government Debt (GGD) was 80.9% of the GDP.** IMF reported that India's GGD could exceed 100% of gross domestic product (GDP) in the medium term.



Concerns raised due to high debt burden

- **Issue of debt sustainability:** Debt burden pushes countries to borrow from more expensive sources, increasing their vulnerabilities and making it even harder to resolve debt crises.
- **Global Financial Stability:** High debt levels in developing countries can contribute to global financial instability.
- **Crowding out of priorities:** Debt servicing could crowd out spending on other development priorities **(health, education, etc.).**
  - **India's debt service** was **2% of the GNI** in 2022.
  - 3.3 billion people live in countries that spend **more on interest than health or education.**
- **Hampers sustainable development:** For instance, over 70% of public climate finance takes the form of debt thus **countries in debt crisis tend to spend less on climate finance.**

Global initiatives to solve debt crisis in developing countries

- **Role of IMF:** The IMF and World Bank launched the **Heavily Indebted Poor Countries (HIPC) Initiative** in 1996 to ensure that no poor country faces an unmanageable debt burden.

- **Global Sovereign Debt Roundtable (GSDR):** It brings together key stakeholders involved in sovereign debt restructuring to foster consensus on debt and debt-restructuring challenges and how to address them.
- **Debt Management and Financial Analysis System (DMFAS) programme of UNCTAD:** It aims to strengthen the Government's capacity to manage its debt effectively and sustainably.

Way forward

- **Inclusive international financial architecture:** Improve real and effective participation of developing countries in the governance of international financial architecture. E.g., **updating IMF quota formulas**.
- **Provide liquidity:** Provide greater liquidity in times of crisis through IMF, and MDBs so that developing nations do not opt for unsustainable high-interest financing.
- **Transparent reporting of debt:** Ensure that all countries adhere to comprehensive and transparent reporting of public debts.
- **Prudent Debt Management Strategies:** Low-income countries must proceed prudently in taking up new debt, focusing more on attracting foreign direct investment and boosting tax revenues at home. E.g., Strategies of **debt buyback, debt-for-nature swaps** can be adopted.
- **Debt Restructuring:** Promote collaboration among official creditors to prepare for debt restructuring cases that involve non-traditional lenders.

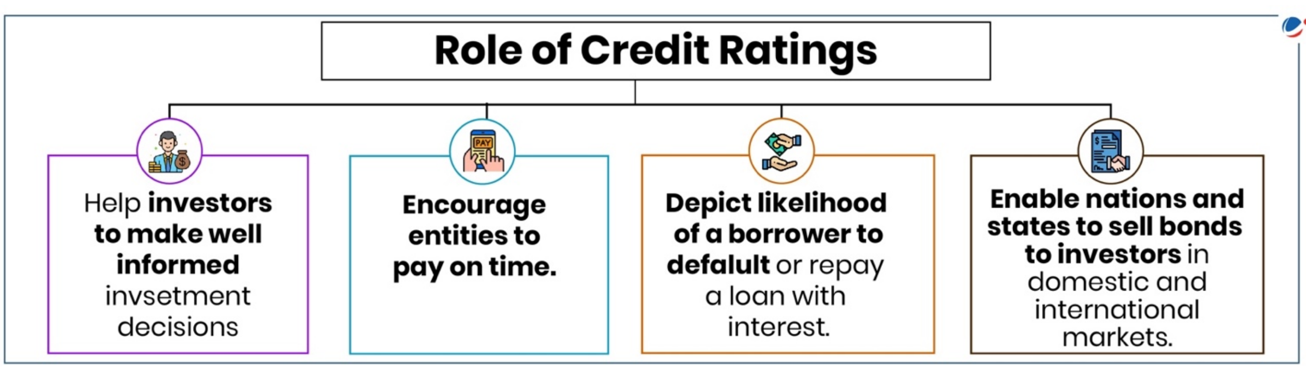
6.8. CREDIT RATING AGENCIES

Why in the news?

Ratings agency S&P Global Ratings revised its **outlook on India to positive from stable** citing Robust Growth and Rising Quality of Government Spending.

About Sovereign Ratings

- **Sovereign ratings assess the creditworthiness** of countries and are a key gauge for investors.
- **Covering more than $66 trillion** in sovereign debt, the **credit ratings agencies** act as gatekeepers to **global capital.**
- Currently, India is rated investment grade by **three major Credit Rating Agencies (CRAs) - Standard & Poor's(S&P), Moody's and Fitch.**
  - There are **several criteria** behind rating a government's creditworthiness -
    - ✓ **Political risk, taxation, currency value and labour laws**.
    - ✓ **Another is sovereign risk,** where a country's central bank can change its foreign exchange regulations.
- **In India, the Securities and Exchange Board of India (SEBI)** regulates all credit rating firms under **the SEBI (Credit Rating Agencies) Regulations, 1999.**
  - **There are seven credit rating agencies in India -** CRISIL; CARE; ICRA; Acuité Ratings; Brickwork Rating; India Rating and Research Pvt. Ltd., and Infomerics Valuation and Rating Pvt. Ltd.



Issues with India's sovereign ratings by global agencies

- **Historical anomaly**: Recently, S&P and Fitch rated India 'BBB-' while Moody's has 'Baa3', indicative of the lowest possible **investment grade.**
    - Economic Survey 2020-21 noted that **never in the history of sovereign credit ratings** has the **5th largest economy** in the world been rated at **the lowest rung of the investment grade (BBB-/Baa3)** except in **case of China and India.**
        - ✓ This show **Bias and Subjectivity in sovereign credit rating**.
- **Structural issues: Flawed "issuer-pays" model** where the entity also pays the rating agency for its services. This often leads to a **conflict of interest,** with tremendous potential for rating biases.
- **Ratings do not capture India's fundamentals:** India's willingness to pay is unquestionably demonstrated through,
    - **Its zero sovereign default history.**
    - **Comfortable size of its foreign exchange reserves (**As of June 2024, Forex Reserves stood at **US$ 651 bn)** and **low external debt to GDP ratio around 19-20%.**
- **Pro-cyclical nature of credit ratings:** Can have a potentially adverse impact on economies and can **affect equity and debt FPI flows of developing countries**, causing damage and worsening crisis.
- **Complete regulatory void in global CRAs: Lack of transparent mechanism** to disclose more information on how decisions have been made by CRAs.

Way Ahead

- **Refocus regulatory scrutiny**: **A global "super-regulator" of CRAs** would be best placed to address regulatory issues.
- **Reducing dependency on credit ratings in regulation:** There is a need for mechanisms to determine capital requirements **that suffer less from the pro-cyclicality** and **contagion sensitivity of ratings.**
- **Long-term ratings:** Rating agencies should be compelled to make more explicit long-term credit analyses; the relative short-term perspective of the ratings can be misleading.
- **Improving transparency of CRA methodologies:** Sovereign credit rating methodology to be made more transparent, less subjective and better attuned to reflect an economy's fundamentals **(Economic Survey 2020-21).**

7. AGRICULTURE AND ALLIED ACTIVITIES

7.1. AGRICULTURAL CREDIT

Agricultural Credit at a Glance

Every 1**% increase in agricultural credit** produces **0.29% increase in agricultural GDP** and consequently aiding in increased income of farmers.

Challenges

- **Dependence on non-institutional channels of borrowing**
- **Regional Imbalance** in credit disbursement and **skewed credit distribution**
- **Anomalies in the Priority Sector Lending (PSL)** in Agriculture
- **Diversion of agriculture loans** for non-agriculture purposes
- **Credit for small farmers:** Small and marginal farmers hold 86% of operational landholdings, only 41% of such farmers could be covered by banks.

Measures taken

- Dedicated **Long Term Irrigation Fund (LTIF)** with NABARD
- Unified **Agricultural Marketing e-Platform**
- Pradhan Mantri Kisan Samman Nidhi **(PM-KISAN)**
- Pradhan Mantri Fasal Bima Yojana (**PMFBY)**
- **Kisan Credit Card scheme** for hassle-free loan to small and marginal farmers
- **Modified Interest Subvention Scheme (MISS)** to provide short term credit to farmers at subsidized interest rates.

Possibilities going forward

- **Dispensation of long term credit** to boost capital formation
- **Share of loans to SMF in total loans to agriculture to be raised**
- **Special focus on eastern, central, hilly and north eastern states** to tackle regional imbalances.
- **Enhance farmer inclusion process, training and skilling**
- **Encourage aggregation / collectives of farmers/ FPOs**
- **Promotion of Joint Liability Groups (JLGs)** as an alternative channel
- **Access to infrastructure and common assets**
- **Priority sector lending norms** should be reviewed

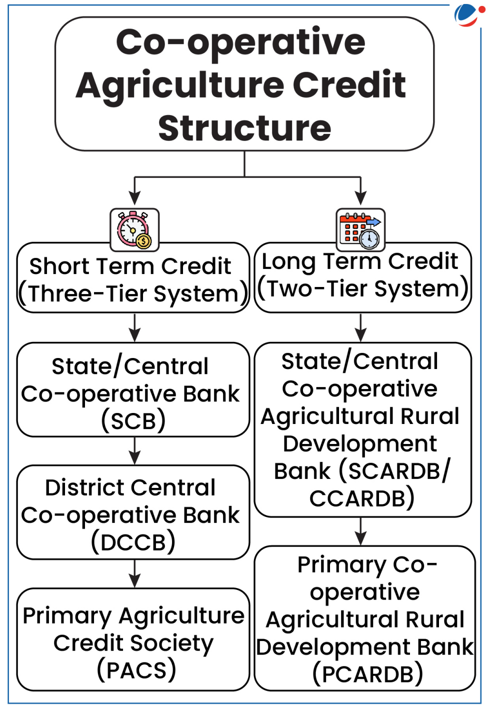
7.1.1. PRIMARY AGRICULTURAL CREDIT SOCIETIES (PACS)

Why in the news?

Various initiatives have been taken for the expansion and modernization of PACS.

About PACS

- **Definition:** PACS are the **grassroot level arms of short-term co-operative credit structure** (refer to infographics).
- **Refinancing:** They are refinanced by NABARD through DCCBs and SCBs.
- **Functions: Gives short-term credit loans** and provide other **input services,** like seed, fertilizer, and pesticide distribution **to member farmers.**
- **Significance**: PACS play a key role in financial inclusion as they **account for 41 % of the KCC loans** given by all entities and **95% of these KCC loans** are to the **Small and Marginal farmers** (2022).
- **Current Status:** There are **more than 65000 functional PACS** across country.



Initiatives to strengthen PACS

- **Plan for additional 500 PACS** for construction of godowns & other agri-infrastructure was laid down.
- **Initiatives for modernization of PACS:**
  - Under '**centrally sponsored project for computerisation of PAC' scheme,** government aims to **computerise 63,000 functional PACS**.
  - **National Cooperative Database (NCD)** which provides all information about cooperative sector.
- **Diversifying business portfolio**
  - **Model Byelaws to make PACS multipurpose:** Enable PACS to diversify their business by undertaking more than 25 business activities. E.g. dairy, fishery, floriculture, setting up godowns etc.
  - **PACS to function as Pradhan Mantri Kisan Samriddhi Kendras:** To provide fertilizers, pesticides and various other agri inputs to farmers at a single shop.
  - **PACS to operate as Pradhan Mantri Bhartiya Jan Aushadhi Kendras:** To ensure availability of generic medicines to rural citizens.
  - **PACS to operate as Common Service Centers (CSCs).**

Issues faced by PACS

- **Infrastructure:** Absence of digital infrastructure, such as computerized accounting systems, poor access to internet connectivity limiting their ability to streamline operations.
- **Financial:** PACS suffer from **inadequate capital, low levels of deposits**, and **high non-performing assets (NPAs).**
  - **Debt waiver schemes and interest subvention schemes** also have adverse impact on balance sheet of PACS.
- **Human resource:** Lack of trained staff and insufficient managerial skills among members of PACS.
- **Governance:** PACS are managed by a body elected from local village groups which results in **political Interference.**

- Other governance issues, such as **lack of transparency, and inadequate accountability mechanisms** have also undermined their effectiveness.
- **Regional disparity:** PACS are largely concentrated in **western and southern states** (Maharashtra, Gujarat, Karnataka etc.).

Way Forward

- **Encourage adoption of technology:** Implementation of **Common Accounting System (CAS)** and **Management Information System (MIS),** and other technological support.
- **Financial strengthening:** Introduction of a **risk-based lending model and implement effective** recovery measures to address NPA issue.
  - **Enhance capital base of PACS** through access to external funding sources.
- **Human Resource:** Implement capacity-building programs, provide better compensation and career progression opportunities to skilled staff to retain them.
- **Improving governance: Regular audits, strict disclosure norms, and insulation from undue political influence** to ensure their autonomous functioning.

7.2. AGRICULTURAL MECHANIZATION

Agricultural Mechanization at a Glance

Status of India's farm mechanization

- **Indian farm mechanisation level is at 40-45%** compared to that of the United States (95%), Brazil (75%) and China (60%) (NABARD, 2018)
- **India's farm equipment market is 7%** of the global market, **with more than 80% of the value contribution coming from tractors**
- The **trade surplus in non-tractor farm machinery is very small**
- India is reliant on **low grade equipment or imports**

Challenges in Farm Mechanization

- **Small and fragmented** land holdings, (85% of agricultural households hold less than 2 hectares).
- Practice of **subsistence agriculture** and low awareness.
- **Diverse** soil conditions and cropping patterns.
- **Lack of access to power & cheap energy source.**
- Process of acquiring farm equipment is **tedious and cumbersome.**
- **Unaffordable Cost of equipment and reluctance of Banks to lend** to farmers**.**
- **Inadequate quantity and quality of service centres** for proper maintenance.
- Mismatch **between needs** of Indian farmers and what farm machinery sector is producing.
- **Limited R&D** in non-tractor farm machinery.

Government interventions

- **Sub Mission on Agricultural Mechanization (SMAM):** Major objectives under it include:
  - o Promoting '**Custom Hiring Centres (CHCs) and Hi-tech Hubs** of High-Value Machines'.
  - o Ensuring performance testing and certification and creating awareness.
- **E-NWRs**: To facilitate finance against e-NWRs (Electronic Negotiable Warehouse Receipt).
- **Farm mechanization key objective in schemes** such as Rashtriya Krishi Vikas Yojana, National Food Security Mission, Mission for Integrated Development of Horticulture etc.
- **Land Conservation Department** offers 90% subsidy to the women establishments for purchasing the machines.
- State governments are providing **farm machinery at concessional rates**. E.g., Yantradoot scheme of MP.

Way forward

- **Subsidise farmers on consistent basis** for farm mechanisation and procurement and renting of heavy farm machinery.
- **Simplification of process** for getting loan and **increase in financing options.**
- Process of applying/receiving subsidy should be **streamlined, simplified, and digitised** as done in Odisha.
- Create an **institutionalized framework** for highly unorganized CHCs.
- **Extension programmes** for farmers need to be strengthened.
- Agricultural universities/institutes should be identified and assigned **responsibility for R&D.**
- **Logistics needs to be improved** especially for transporting heavy machinery.
- **Level-playing field** for Indian manufacturers.
- **Testing, specification standardisation & performance requirements, and regulations** should be developed in line with **global benchmarks.**

7.3. AGRICULTURAL MARKETING

Agricultural Marketing at a Glance

Agricultural Marketing can be simply defined as the commercial functions involved in **transferring agricultural products from producer to consumer**.

Importance of Agricultural markets

- **Monetization of agricultural produce** in the market.
- Acting as a source of **market information and price signal**.
- **Reducing the role of intermediaries**.
- Encouraging **capital formation** and investment in **technology.**
- **Value addition in agriculture** by providing production with forward and backward linkages.

Issues faced by Agri markets in India

- **Institutional Issues** like **licensing barriers for new traders** for entering the market and **high incidence of market charges** (including in APMCs).
- **Infrastructural Issues** like **limited Access of Agricultural Produce Markets** in some parts of the country, **poor Infrastructure in Agricultural Markets** etc.
- **Market information system issues** like **absence of efficient real-time informational channels** and **lack of awareness among farmers** vis-à-vis the new information channels.
- **Other issues** like **limited public investment** on marketing infrastructure development.

Way Forward

- **Checking Monopolies** by creating an ecosystem where the farmers and traders enjoy **freedom of choice**.
- **Encouraging private sector participation to boost contract farming**.
- **Improve price discovery and realization for farmers** by creating alternate and direct channels of marketing.
- **Reforms in APMCs** like appointment of an independent regulator and encouraging private sector participation in APMCs (through Private Wholesale Markets, Unified Single Registration etc.).
- Creating a long-term **National Policy on storage and movement of agricultural produce**, and prompting states to promote PPP Model for infrastructure development.
- **Creating more robust Information dissemination systems** via Mobile devices and providing farmers a broader set of information.
- **Rationalization of Market Fee/ Commission Charges** to maximum 2% of the value of the produce.
- **Implementation of Market Yard of National Importance (MNI)** to promote inter-mandi & inter-State trade as highlighted by the report of Expert Committee.

7.3.1. INDIA'S GRAIN STORAGE SYSTEM

Why in the news?

The Prime Minister inaugurated pilot project of **'World's Largest Grain Storage Plan in Cooperative Sector'**, for 11 Primary Agricultural Credit Societies (PACS) across 11 States.

About World's Largest Grain Storage Plan in Cooperative Sector

- **Purpose:** To establish **decentralized storage facilities at PACS level**, alongside other **agricultural infrastructure**, like, warehouses, custom hiring centers, processing units etc.
- **Benefits to PACS: PACS can avail subsidies and interest subvention** benefits for construction of godowns/storage facilities and setting up of other agri infrastructure.

Grain storage system in India

- **Storage by small farmers:** Around 60-70% of food grain produced is stored at household level using various indigenous **traditional storage** structures like Morai, Mud Kothi, etc.
- **Government storage agencies**:
  - **Food Corporation of India (FCI):** FCI is main agency for storage of foodgrain in country.
  - **Central warehousing Corporations (CWC)** for warehousing of agricultural produce.
  - **State warehousing Corporations** to regulate warehousing of certain goods in the states.
- **Private agencies:** FCI hires storage capacity from **private owners.**

Other initiatives for augmentation of grain storage capacity

- **Warehousing (Development and Regulation) Act, 2007**: Establishes **Negotiable Warehouse Receipt (NWR) system for all commodities** through a network of registered warehouses,
  - **e-Kisan Upaj Nidhi** is a **Digital Gateway initiative** of WDRA to **facilitate farmers in obtaining post-harvest loans** from banks **against their stocks** stored in the WDRA registered warehouses.
- **National Policy on Handling, Storage and Transportation of Foodgrains, 2000:** To minimize storage and transit losses and to introduce modern technology.
- **Grameen Bhandaran Yojana:** For construction, renovation and expansion of rural godowns.
- **PM Kisan Sampada Yojana:** For Development of cold storage facilities, specialised packaging units, warehousing facilities, etc.
- **Smart Food Grain Storage System (SAFEETY):** It features **conveyorized loading & unloading of grain bags** having RFID for traceability**, online weight and moisture measurement** with **radio frequency-based removal of moisture** from grain.

Challenges associated with India's grain storage

- **Unscientific storage:** Around 80% handling and warehousing facilities are **not mechanized**.
- **Limited storage capacity:** Food Grain Production in India is 311 MMT and total Storage Capacity in India is only 145 MMT, a shortage of 166 MMT.
- **Surplus buffer stock:** FCI has been carrying buffer stocks way in excess of buffer stocking norms.
- **Post-harvest losses:** Traditional storage practices do not guarantee protection against post-harvest losses**.**
- **Lack of private investment in warehousing:** Due to lack of availability of adequate land and preconstruction challenges like multiple regulatory licenses.

Way Forward for revamping India's grain storage System	
Recommendations by Shanta Kumar Committee	**Recommendations by Ashok Dalwai Committee**
• **Scientific storage:** Movement of grains needs to be gradually containerized to reduce transit losses, and have faster turn-around-time. • **Flexibilities to FCI:** To operate in Open Market Sale Scheme (OMSS) and export markets is needed.	• **Decentralization of storage:** Planning for storage needs to be based on unique agricultural practices, local to each district. ○ Building **aggregation units (i.e., modern pack-houses and pooling points) at village level**.

• **Private Sector Participation:** Old **conventional storages** can be converted to **silos with help of private sector**.	• **Promote integrated agri-logistics systems** to enable efficient storage and transfer.

7.4. FERTILIZER SECTOR

Fertilisers Sector at a Glance

Status of Fertiliser sector in India

- India is the 3rd **largest producer of fertilisers** and the 2nd **largest fertilizer-consuming country** after China. (2022)
- **Urea** is the **most produced (86%),** the **most consumed (74%),** and the **most imported (52%)**
- Fertiliser industry **forms a part of the eight core industries.**
- Indian fertilizer market is projected to register a **CAGR of 11.9% (for 2022-2027).**

Key Concerns with Fertiliser Use

- **Soil degradation**, damage to plants and increased **toxicity**.
- **Environmental pollution** including eutrophication, algal bloom, greenhouse gas emissions etc.
- **Harmful effects on human health** such as respiratory diseases, cancer risks etc.
- **High Fiscal Burden** on government in subsidizing fertilisers (0.5% of GDP).
- **Import dependency** for fertilizer materials.

Government Initiatives for Efficient use of Fertilisers

- **PM Programme for Restoration, Awareness Generation, Nourishment and Amelioration of Mother – Earth (PM-PRANAM)** to incentivize States/ UTs to **promote alternate fertilizers** and **balanced use of chemical fertilizers.**
- **Market Development Assistance (MDA) for promoting Organic Fertilizers** from GOBAR-Dhan (Galvanizing Organic Bio-Agro Resources- Dhan) Plants.
- **One Nation One Fertiliser Scheme** under Pradhan Mantri Bhartiya Janurvarak Pariyojana (PMBJP).
- **Nano Urea (Liquid) plants** to boost productivity.
- **Fertiliser Flying Squads** to stop the diversion and black marketing.
- **Nutrient-Based Subsidy (NBS) Scheme**, applicable to 22 fertilisers other than urea.

Way Forward

- **Improving fertilizer efficiency** through need-based use.
- **Promoting local production** of fertilisers to decrease reliance on imports.
- Promote **use of bio and organic fertilisers** and incentivize farmers to shift towards their use.
- Provide **access to affordable soil testing facilities** to rationalize fertilizer use.
- **Continuous R&D** to develop efficient fertilizer delivery systems such as nano urea.

7.5. FINANCIAL SUPPORT TO FARMERS

Financial Support to farmers at a Glance

Status of Financial Support to farmers

- **More than 11 crore farmers** have been given the financial benefits of **approximately Rs 2.81 lakh crores under PM -KISAN (Till feb 2024)**
- **Overall, 2-2.5% of GDP** is provided as subsidy annually in the form of fertilizer, credit, crop insurance and price support subsidies
- **1/5th** of the aggregate farm **income** is in the form of **subsidies**
- **50.2%** of the agricultural households are **under some kind of debt**
- **About 60%** of the loans taken by farmers were **from institutional sources (NSSO Report)**

Key objectives

- **Provide income support** to all landholding farmers' families (irrespective of the size of landholdings) in the country.
- **Supplement financial needs of farmers** for procuring various inputs related to agriculture and allied activities as well as domestic needs.
- Providing additional income sources to keep **farming remunerative** and **Doubling Farm Incomes**.

Schemes/Initiatives

- **Increased Subsidy on Fertilisers** to ensure fair prices for farmers.
- **Transport and Marketing Assistance** for Specified Agriculture Products – to mitigate the freight disadvantage on international component.
- **Farmer Connect Portal** for farmers, FPOs/FPCs, cooperatives to interact with exporters.
- **Assistance to agricultural products' exporters** under the Export Promotion Schemes of APEDA, MPEDA, Tea Board etc.
- **Agristack** to build a digital data stack of information, like land records.
- **Other Schemes:** Kisan Credit Card, PM KISAN, PM Fasal Bima Yojana (PMFBY), Interest Subvention Scheme, PM Kisan Maan Dhan Yojana, PM-AASHA, Kisan Suvidha App etc.

Constraints

- **Increasing farmers' distress** due to **rising input costs, low productivity, indebtedness, monsoon vagaries,** lack of remunerative output prices etc.
- Lack of **farmer database**, increasing difficulty in **Identifying Beneficiary Farmers**.
- **Inadequate financial room** available to government results in creation of a trade-off between farmer support and agri-investment.
- **One-size fits all approach**.
- **Lack of farmer's awareness** regarding various schemes and programs.
- Dependence upon **non-institutional sources for credit requirement**.

Way forward

- Strengthen the **institutional and digital infrastructure**.
- Gradually transitioning all **subsidies to the process of DBT**.
- **Improve irrigation facilities, warehousing and cold storage** to double farmer's income.
- **Support Agricultural R&D** to raise crop production and overcome climate change impact.
- **Adopt Bottom-up strategy** with **region specific schemes** and interventions.
- **Increase awareness** among farmers on various schemes.
- **Promote healthy credit culture** and **address distortion in the agriculture sector.**
- Other efforts like **Farmer Distress Index (FDI)** to act as an early warning system to identify stress.

7.5.1. PRADHAN MANTRI FASAL BIMA YOJANA (PMFBY)

Why in the news?

The enrolment of farmers under the PMFBY has crossed a record **40 million in 2023-24**, an increase of **27% from the 31.5 million enrolled in FY23.**

More on the news

- **Claims:** Around Rs. 500 paid as claims to farmers under PMFBY for every 100 rupees of premium paid (2016 - 2023).
- **Claim recipients:** Over 23.22 crore farmer applicants received claims under PMFBY in the past 8 Years of its implementation.

Key Initiatives under PMFBY

- **DigiClaim**: Under it all the claims are worked out through National Crop Insurance Portal (NCIP).
- **CROPIC** (Collection of Real Time Observations and Photo of Crops)
- Weather Information Network Data Systems **(WINDS) portal**
- Yield Estimation System, based on Technology **(YES-TECH) Manual**
- **Door enrollment app AIDE/Sahayak.**
- Forecasting Agricultural output using Space, Agro- meteorology and Land based observations **(FASAL) project.**
- National Agricultural Drought Assessment and Monitoring System **(NADAMS)**
- **ISRO's Geo-platform, Bhuvan**, provides data on plantation, pest surveillance and weather

Challenges in PMFBY

- **Higher cost of premium subsidy**: In several states, the claims have exceeded the gross premium and the states pay a substantial part of it.
- **Premium deducted from non-participating farmers**: Lack of awareness among farmers about the procedure to opt out of the crop insurance scheme.
- **Crop yield estimation problem:** Disputes on the quality of yield data have been a challenge in the effective implementation of the Scheme.
- **Delays in settlement:** Yield-related disputes between insurance companies and states, and non-receipt of farmers' account details contribute to delayed settlement.
- **Defaulting Insurance Companies**: Delays in taking action against defaulting insurance companies due to procedural complications.
- **Difficulties to assess crop damage:** By the insurance companies due to the localised nature of crop damage, or even false claims by unscrupulous persons and the non-availability of data at the local level.

Way forward

- **Ensure timely release of premium subsidy**: To maintain strict financial discipline, subsidy payment should be streamlined through an escrow account jointly administered by the State government and the Centre.
  - Also, all financial transactions (subsidy or claims) shall be routed through **the National Crop Insurance Portal (NCIP).**
- **Presence of insurance companies in every tehsil of the district:** It will be crucial for farmers in order to mitigate the problems faced in availing the scheme benefits.
- **Penalties for companies:** Effectively penalising defaulters in a time-bound manner.
- **Adoption of smart sampling techniques**: By all states using technological interventions such as satellite data or the use of drones.
- **Corporate Social Responsibility (CSR):** Insurance companies can plan to spend a share of their profits towards CSR in the districts from where profits are earned.

7.6. ALLIED SECTOR

Allied Sector at a Glance

Status of India's allied sector

13.36% CAGR of Livestock sector during 2014-15 to 2021-22, contributing **30.19% in total agriculture GVA in 2020-21** (at constant prices)	**25% of the global milk production** happens in India, contributing **5%** of national economy and employing **more than 8 crore** farmers directly(2024)	**37% of India's total exports** are contributed by the Horticultural Sector(2019)	3^{rd} **largest** fish producer, 4^{th} **largest exporter** and 2^{nd} **largest aquaculture** producer

Key objectives

- **Increasing livestock productivity and production in a sustainable manner**, while protecting the environment, preserving animal bio-diversity, ensuring bio-security and farmers' livelihood.
- Promote holistic growth of **horticulture sector**, augmenting **farmer's income** and strengthen **nutritional security.**
- Ushering in a **rainbow revolution** to ensure balanced and holistic development in all the areas.

Schemes/Initiatives

- **Mission for Integrated Development of Horticulture (MIDH)**- National Horticulture Mission (NHM), National Horticulture Board, Coconut Development Board.
- **Cluster Development Programme - SU RAKSHA** for disbursing subsidies to horticulture farmers.
- **Kisan Credit Card** for animal husbandry and fisheries.
- National Program for Bovine Breeding and Dairy Development (NPBBDD).
- **Pashudhan Jagruti Abhiyaan** to learn latest practices and techniques in animal husbandry.
- **Animal Husbandry Infrastructure Development Fund (AHIDF)**
- **National Livestock Mission (NLM)** to focus on entrepreneurship and breeds improvement.
- **National Transit Pass System (NTPS) - 'One Nation-One Pass'** to facilitate seamless **transit of timber, bamboo, and other Minor Forest Produce (MFP).**

Constraints

- Use of **outdated and inefficient technology** is the primary reason for low productivity of crops and livestock.
- **Affordability of high yielding breeds, farm equipment** becomes a significant constraint.
- A **huge gap exists between the demand for and supply of skills** in agriculture, hindering diversification.
- **Absence of adequate capital** vis-à-vis technological adoption.
- **Limited processing infrastructure** leading to **high post-harvest losses.**
- **Low scale** is a serious constraint on the adoption of improved practices in all the allied activities.

Way forward

- **Modernize and strengthen the value chain** across allied sectors.
- Ensure **social, physical and economic security** for farmers engaged in allied sectors.
- **Convergence of schemes** in different allied sectors such as fisheries sector and **Capacity building** for farmers and fish breeders.
- Encourage **diversification to High Value Crops** for enhanced income and employment generation.
- **Smart horticulture**: using techniques such as **high-density plantation**, **hybrid technology** in vegetables and **Rootstock Technology** in fruits.
- Strengthen **market for organic products**.
- Breed **indigenous cattle.**
- **Reduce post-harvest losses** by facilitating private investment and entrepreneurship in processing.

7.6.1. INLAND FISHERIES

Why in the News?

India has recently overtaken China to become the largest contributor of inland capture water fisheries, thereby emerging as one of the top three fish-producing countries in the world.

About Inland Fisheries

- Inland fisheries refer to the **harvesting, management, and conservation of fishes generally** in freshwater bodies such as rivers, lakes, reservoirs, ponds etc.
- Inland fish production has **doubled over the past 9 years** to 131 lakh tonnes.

Benefits of inland fisheries

- **Nutritional and Food Security**: Rich in protein, omega-3 fatty acids, and Vitamin D.
- **Economic benefits** like Employment opportunities, Development of rural infrastructure, Diverse supply chain, exports of processed products increasing foreign exchange earnings etc.

- **Environmental:**
  - **Maintenance of Healthy ecosystems** by controlling invasive species, supporting biodiversity.
  - **Bioremediation helps in habitat restoration** and reduces the likelihood of toxic algal blooms.
- **Traditional knowledge systems** of the community and their strong cultural ties contribute to cultural heritage.

Challenges associated with Indian Inland fisheries

- **Slow adoption of cutting-edge technologies** such as water-efficient aquaculture practices.
- **Economic Challenges** like lack of timely credit, inadequate price discovery.
- **Infrastructure Challenges** like inadequate cold chain facilities.
- **Environmental Challenges** due to overexploitation or depletion of fish stocks.

Measures Taken

- **Pradhan Mantri Matsya Sampada Yojana (PMMSY)** for developing aquaculture infrastructure, cold storage, fish tourism etc.
- **Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana** for gradual formalization, institutional finance to MSEs, and incentivizing adoption of product safety and quality assurance in fisheries sector.
  - It will **support 6.4 lakh micro-enterprises and 5,500 fisheries cooperatives**, providing access to institutional credit.
- **National Genetic Improvement Facility** for shrimp breeding to reduce reliance on a single species.
- **National Fisheries Development Board (NFDB)** to increase fish production and coordinate fishery development in an integrated manner under the Ministry of Agriculture.
- **National Surveillance Programme for Aquatic Animal Diseases (NSPAAD)** for disease surveillance in aquaculture.
- **Fisheries and Aquaculture Infrastructure Development Fund (FIDF)** to provide concessional finance for the creation of infrastructure facilities.

Way Forward

- **Adoption of emerging technologies such as big data and IoT-based supply chain systems** can help in minimising losses, improving traceability etc.
- **Multi Stakeholder approach** in decision making process, from fishermen to boat owners and government organisations.
- **Adoption of FAO's Code of Conduct for Responsible Fisheries** for sustainable fish farming practices.
- **Fish farmer producer organisations (FFPOs)** can help in collectivisation of fish farmers and serve as an institutional platform for delivery of products and services, market linkages etc.
- **Infrastructure development** such as food parks, **cold storage units, chiller boxes, ice factories**.

7.7. FOOD PROCESSING SECTOR

Food Processing Sector at a Glance

Status of Food Processing Sector

- **Sunrise sector** with **7.26%** AAGR (FY14-FY22), contributing **1.8% of the total GVA in the country (2021-22)**
- **20.05 lakh** employees with **12.2% of total persons engaged in the registered manufacturing sector** in the country
- **24 Operational Mega Food Parks** out of 41 approved across the country
- **Share of processed food exports** in agri-exports has **increased to 25.6% in 2022-23**

Significance of Food Processing

- **Integrating two important pillars of the economy** i.e., economy and agriculture through Food Processing Sector.
- **Exploiting India's food processing (FP) potential due to increasing demand** in sectors like milk, pulses, ginger, bananas and mangoes.
- **Creating global food manufacturing champions.**
- **Supporting branding and marketing** of the Indian products abroad.
- Addressing the problems of currently **low processing level of food products** and **huge wastage in the supply chain.**
- **Rural development** through improved farm incomes due to **increased export and demand of processed food.**

Schemes/Initiatives

- **PM Kisan SAMPADA Yojana** for development of Mega Food Parks, Integrated Cold Chain and Value Addition Infrastructure.
- Expansion of scope of **Operation Greens** from TOP to 22 perishables.
- **Prime Minister-Formalisation of Micro Food Processing Enterprises** (PM-FME).
- **One District One Product (ODOP)** initiative under PMFME to upgrade SMEs on selected products.
- **Production Linked Incentive Scheme** for Food Processing Industry (PLISFPI)
- **100% FDI** and inclusion of food and agro-based processing units and cold chain as agricultural activity under **Priority Sector Lending**.
- **Krishi Udan and Krishi Rail schemes** to ease out freight rates enabling smooth movement of perishables.
- **Institutional measures** such as APEDA, MPEDA, EIC, Agri Export Policy 2018 etc.

Constraints

- **Informalization** in Food Processing Industry.
- **Lack of efficient supply chain** infrastructure, logistical challenges and **cutting-edge technology**.
- Hurdles in getting **access to raw materials and Cold Chain capacity.**
- **High requirement of working capital**, low availability of new reliable and better accuracy instruments, inadequate automation.
- **Under-developed linkages** of farmers/sector with R&D labs, processors, exporters and bulk purchasers.
- **Poor Credit Facility, Bureaucratic hurdles and Stringent Labour Laws.**
- **Inadequate training and skill development.**
- **Inadequate quality control & testing infrastructure** leads to issues such as pest infestations, presence of chemical residues.

Way forward

- **Policy:** Streamline the **regulatory structure**, labour law, food and packaging standards.
- **Financial:** Provide appropriate **tax incentives** and **holidays for setting up food processing industries**, taking care of market promotion and ancillary activities expenses.
- **Infrastructure: Plug supply side and infrastructure bottlenecks** through farmer–producer-investors-R&D labs linkages.
- **Changing the trend from sustenance to market-oriented** by increasing focus on large scale food processing.
- **Promoting better Interaction between** farmers and processors based on market demand.
- Market can be encouraged to buy **directly from farmer producer organisations (FPOs).**

7.8. AGRICULTURAL EXPORTS

Agricultural Exports at a Glance

Status of India's Agricultural Exports

- Agricultural exports and imports in India **registered an 8% decline (2023 – 24) each**
- India has been a **net exporter** of agri-products **since the economic reforms began in 1991**
- **Share of India's agricultural exports** in the **world agriculture trade** in 2023 was **2.4%**
- **Share of agricultural exports** in **India's total merchandise exports** was **11.9% in 2021-22**

Targets of Agri Export Policy 2018

- **Double agricultural exports** to over US$ 60 Billion by 2022 (fell short by US$ ~11 Billion).
- To **diversify our export basket, destinations** and boost high value and value added agricultural exports.
- To promote **novel, indigenous, organic, ethnic, traditional and non-traditional Agri products** exports.
- **Enable farmers to get benefit of export opportunities** in overseas market.
- To provide an **institutional mechanism for pursuing market access, tackling barriers** and deal with sanitary and phytosanitary issues.

Government initiatives

- Issuing **online certificates** for exports with increased **testing facilities.**
- **Transport and Marketing Assistance** (TMA) **Scheme** for Specified Agriculture Products to mitigate freight disadvantage.
- **Farmer Connect Portal** set up for **farmers, FPOs/FPCs, cooperatives** to interact with exporters.
- Assistance to the exporters of agricultural products available under the **Export Promotion Schemes** of APEDA, MPEDA, Tea Board etc.
- **Krishi UDAN 2.0** scheme to facilitate and incentivize movement of Agri-produce by air transportation.

Constraints in Agricultural Exports

- **Poor and inefficient backward integration**, especially for perishables resulting in quality and longevity issues.
- **Lack of training and skill development** at both the farm level and exporters' level.
- **Inadequate harvest and post-harvest management**.
- **Low value addition** in food products.
- **Non-tariff barriers** such as sanitary and phytosanitary standards in attractive markets such as Europe.
- **Inability to export horticultural produce** due to lack of uniformity in quality and losses across the value chain.
- **Virtual water export** as 16.3 million tons of rice equals exporting 32.6 billion cubic meters of water.

Way forward

- **Policy alignment** with WTO rules and emerging technologies such as AI, IoT and Blockchain.
- **Addressing non-tariff barriers** through mutual agreements and standardization of food products.
- **Strengthening agri-food supply chain** through improving logistics, embedding technology, infrastructure etc.
- Create **state led export plans** with the Centre acting as an enabler.
- **Increase investments in R&D** and technology, enabling agri-tech startups, precision farming and productivity growth etc. Ex. Netherlands.
- Focusing on improving domestic production through **productivity growth, product differentiation, and value addition.**

7.9. AGRICULTURAL EXTENSION SERVICES

Agricultural Extension at a Glance

Status of Agri-extension in India

- **Every rupee** invested in agricultural research **yields a return of nearly Rs 13.85.**
- Continued technology backstopping has **increased average productivity** during 2014-23 by 20.2% in cereals, 21.6% in pulses, and 30.4% in spices
- In 2020-21, **India spent about 0.7% of its agri- GDP on agri- Research and Education and Extension and Training**

Importance

- Crucial role in **food security** by increasing agriculture production.
- **Enhancement of yields** of crops, livestock and farmed fish.
- Research generates **new technologies** which are essential for **small-scale farmers**.
- **Carbon sequestration** through improved crop and soil management practices.
- **Role in disseminating agricultural technologies and management practices.**

Schemes/Policies/Initiatives

- R&D is promoted through **Indian Council of Agricultural Research (ICAR) and State Agricultural Universities (SAUs).**
- **Agricultural Technology Management Agency (ATMA) for decentralized decision making to the district level.**
- **Agro-Economic Research Centres (AERCs)** funded under Integrated Scheme on Agriculture Census, Economics and Statistics (ISACES).
- **Rashtriya Gokul Mission** for development and conservation of indigenous bovine breeds.
- **"Innovation and Agri-Entrepreneurship Development"** under Rashtriya Krishi Vikas Yojana (RKVY-RAFTAAR).

Constraints

- Agriculture research and development is **largely public-funded** with **private sector accounting for just 8%.**
- **Lack of sufficient incentives** for private sector research to generate technologies in developing countries.

- **Lacking institutional capacity** and enabling environment for research.
- **Regional disparities** in spending on agriculture research.
- Portfolio of agricultural R&D remains **heavily biased towards crops**.
- **Lack of effective mechanisms of technology transfer** to end users and inadequate research-extension linkage.

Way Forward

- **Targeted public research efforts** and **incentives to private research**.
- Emphasis must be placed on more **holistic research themes** that explore the **linkages between crops, livestock, fish and forests, and humans.**
- **Expand investment** in agriculture research and education to **1% of agri-GDP**.
- **Integration of emerging technologies** such as precision farming, biotechnology, artificial intelligence etc. into agriculture systems through research.
- **Focus on gene revolution** in agricultural research to increase productivity and create climate resilient crop varieties.
- **Bringing convergence** of the Agri extension System to cater to the localised information for farmers.
- **Agri extension needs to receive adequate** policy support in terms of funds, human resource and avenues for skill upgradation.

7.9.1. KRISHI VIGYAN KENDRAS (KVKS)

Why in the News?

The **Indian Council of Agricultural Research (ICAR)** celebrated the **Golden jubilee year** of establishment of the **Krishi Vigyan Kendra (KVK).**

About Krishi Vigyan Kendra (KVK)

- KVKs are the **only institution at the district level in India** for technological backstopping in agriculture and allied sectors.
- They are an **integral part of the National Agricultural Research System (NARS)**.
- KVKs have been functioning as **Knowledge and Resource Centre of agricultural technology** and linking the NARS with extension system (agricultural advisory services) and farmers.
- Currently there are **around 731 KVKs in the country**, established under **eleven** Agricultural Technology Application Research Institute **(ATARI) zones**.

Role of KVKs in Agricultural Extension Services (AES)

- **On-Farm Testing** to assess the adaptability of new agricultural technologies under different farming systems.
- **Frontline Demonstrations** of latest agricultural technologies to the farmers and the extension workers.
  - Surveys suggest that **97.33% of KVK demo-farmers have good knowledge of paddy cultivation** as compared the non-demo farmers.
- **Advisory Services** on various aspects of agriculture like cropping patterns, pest control, post-harvest technology etc.
- **Production of good quality seeds and planting materials** for distribution to the farmers.

Conclusion

There is **need to strengthen the resource base** through increased budgetary allocations and dedicated human resource to address the resource constraints faced by the KVKs. Moreover, **upgrading Infrastructure** through inclusion of equipped laboratories, demonstration farms, and training facilities, can improve KVKs' ability.

7.9.2. INDIAN COUNCIL OF AGRICULTURAL RESEARCH (ICAR)

Why in the News?

ICAR to launch 'one scientist, one product' scheme to improve research in the field of agriculture and animal husbandry.

More on the news

- **Over 5,500 scientists** will come with a product, technology, model or a good publication**.**
- ICAR will develop **100 new seed varieties in 100 days.**
- ICAR will release of **323 varieties of 56 crops, including cereals, oilseeds, forage crops, and sugarcane**

About ICAR

- **Genesis**: Formerly known as Imperial Council of Agricultural Research. It is an **autonomous organisation** under the Department of Agricultural Research and Education (DARE).
- **Function**: **Apex body** for co-ordinating, guiding and managing **research and education in agriculture** including horticulture, fisheries and animal sciences in the entire country.
- **Other information**: With **113 ICAR institutes and 74 agricultural universities** spread across the country, this is one of the **largest national agricultural systems in the world.**

Role of ICAR towards better and resilient agri-food systems

- **Crop varieties:** Played a pioneering role in ushering **Green Revolution** through developing new high yielding varieties of different crops:
  - **Rice varieties** like Pusa Basmati 1121, **Fruit varieties** like Amrapali, Pomegranate Bhagwa etc.
- **Seed programs:** ICAR deposited seeds in **the Svalbard Global Seed Vault** as safety duplicates.
- **Genomics:** Helped establish **the National Gene Bank** in New Delhi (second largest gene bank in the world).
  - ICAR partnered in the **global genome sequencing of rice, wheat, tomato and potato**.
- **Integrated Farming: Developed models of agro-forestry to promote agri-horti, agri-silvi and silvipastoral systems** for raising farmers' income.
  - Improving productivity of **indigenous breeds of cattle** through field progeny testing and selection.
- **Health:** Contributed to **eradication of animal diseases** namely **Rinderpest, contagious bovine pleura-pneumonia,** African horse sickness and Dourine from India.
- **Bio-technology solutions:** ICAR undertook **crop biofortification** to tackle malnutrition. Biofortified crops include Solapur Lal (first biofortified pomegranate variety) etc.
  - India developed **first cloned buffalo** in the world and Pratham, the world's first in-vitro fertilized buffalo calf.
- **Blue Revolution:** Promoted **cage culture** – a low volume high density fish farming system - which raised per unit productivity.
  - ICAR is working towards development of **coldwater fisheries** sector in all the Himalayan states.
- **Agricultural mechanization:** Developed technologies in agricultural engineering including millet mill, drone remote sensing, mulch laying machine etc.

7.9.3. CONTRIBUTIONS OF M S SWAMINATHAN

Why in the News?

Mankombu Sambasivan Swaminathan, popularly known as M.S. Swaminathan, the legendary agricultural scientist passed away recently.

Scientific contributions of M S Swaminathan	Contribution in Economic Ecology
• **Genetic Research:** He worked on breeding programs to develop **high-yielding, pest and disease resistant crop varieties**. • **Rice varieties:** He worked to develop **fertilizer-responsive, high-yielding and short-stature varieties of rice** such as **ADT27, RASI and Pusa Basmati**. • **Participatory Breeding:** He fostered 'participatory breeding' in which **farmers are assisted to develop new locally adapted varieties**.	• **Evergreen Revolution:** He defined "evergreen" revolution as "improvement of productivity in perpetuity without ecological harm". • **Approach:** He proposed idea of **4Cs - Conservation, Cultivation, Consumption and Commercialization** for reconciling conservation and development in the sphere of farming activities.

Policy and Institutional Contributions & its relevance till today

- **National Commission on Farmers (NCF):** Formed under the his chairmanship, it recommended that **Minimum Support Price (MSP)** should be **at least 50% more** than the **weighted average cost of production**.
    - It also **recommended formation of Village Knowledge Centres (VKCs), conservation farming, soil testing laboratories**, expansion of credit system and public distribution system.
- **Protection of plant varieties:** He played a pivotal **role in developing the 'Protection of Plant Varieties and Farmers' Right Act 2001'**.
- **Disaster Management:** He advocated for adoption of **concepts of "drought code", "flood code" and "good weather code",** indicating the proactive measures that need to be taken.
- **Research institutions:** He helped in **establishment of several institutions which include:**
    - International Crop Research Institute for the Semi-Arid Tropics (ICRISAT) at Patancheru, near Hyderabad
    - International Board for Plant Genetic Resources (IBPGR) in Rome (now known as Biodiversity International)
- **Five-year plans:** He played a key role in **shaping the Sixth Five Year Plan (1980–1985)** where he introduced two new chapters - **'Women and development' and 'Environment and development'.**

Conclusion

MS Swaminathan championed the cause of farmers, ensuring that the fruits of scientific innovation reach the roots of our agricultural expanse, fostering growth, sustainability, and prosperity for generations to come.

7.10. DIGITISATION OF AGRICULTURE

Why in the News?

The G20 Delhi declaration has **committed to promote responsible, sustainable and inclusive use of digital technology** by farmers and an ecosystem of Agri-Tech start-ups and MSMEs.

About Digitisation of Agriculture

- It is **integration of cutting-edge digital technologies into the farm production system**, including Artificial Intelligence (AI), robotics, unmanned aviation systems, sensors, and communication networks.
- **Significance of Digitisation of Agriculture**
    - **Across the agricultural value chain:**
        - ✓ **Input Supply**: Helps to optimizes the use of input-resources like fertilisers, pesticides, water etc.. **Ex**: Use of AI with agricultural data.
        - ✓ **Production:** Increases operational efficiency and decreases production cost of farming
        - ✓ **Marketing**: Obtainment of right price for produce thereby increasing profitability. **Ex**: e-NAM.
        - ✓ **Crop management**: Aids scientific decision making, thus reducing burdens of crop loss or failure, low yield, pest attack etc.
    - **Improved Governance:** Better agriculture governance, by using agriculture data for the welfare of farmers and citizens. **Ex**: India Digital Ecosystem of Agriculture (IDEA) framework.
    - **Social benefit**: Bridges the gender gap, through promotion of women centric innovations. **Ex**: PM-KISAN Mobile App.

Challenges in Digitisation of Agriculture in India

- **Digital illiteracy, lack of awareness** and recent **increase in digital fraud** makes the farmers wary.
- **High capital requirement at initial stages** makes it difficult for small and marginal farmers to acquire them.
- **Fragmented landholdings** make **the scalability of a technology difficult.**
    - As per latest Agriculture Census, the average size of operational holdings has decreased from 2.28 hectares in 1970-71 to **1.08 hectares in 2015-16.**
- **Nascent stage of Agritech startups.** Presently, there is **only 1% agritech startup penetration** in India (as per EY India).
- **Lack of infrastructure** in rural areas like access to electricity, internet, service centres etc.
- **Limitations of available products** like lack of content in regional languages, user friendly interface, inadequate farm and farmer-level datasets etc.

Latest initiatives in digitisation of agriculture

- **Unified Portal for Agricultural Statistics (UPAg)** is an advanced agricultural data management platform designed to generate crop estimates.
- **The Kisan Rin Portal (KRP**) offers a comprehensive view of farmer data, loan disbursement specifics, interest subvention claims, and fosters seamless integration with banks.
- **Weather Information Network Data Systems (WINDS) manual** leverages advanced weather data analytics to **provide actionable insights on weather**.
- **YES-TECH** is a technology-driven **yield estimation system**, offering methodologies, best practices, and integration insights for accurate yield assessments at the Gram Panchayat level**.**
- **National e-Governance Plan in Agriculture (NeGP-A)** with an aim to achieve rapid development in India through use of modern technologies in agriculture.

Way forward

- **Improving the access to innovative and affordable products** to farmers by educating them and providing finances to acquire the same.
- **Focus on portable hardware models** such as small, plug and play hardware, which can be commonly shared among a group of farmers.
- **Bridging the gap between field and academic institutes** for them to better address the ground level issues faced by the farmers.
- **Arrangement of better financing options and incubation centres** for the Agritech startups.

8. INDUSTRY AND INDUSTRIAL POLICY

8.1. INDUSTRIAL POLICY

Industrial Policy at a Glance

- **17%** contribution of the manufacturing sector to GDP**,** almost stagnant since 1991.
- **Improvement on several internationally reputed indices** such as the Global Competitiveness Index, Logistic Performance Index and the Global Innovation Index has been seen recently.
- **9 Indian companies** featured in Fortune 500 list of 2022.

Key Objectives

- Transform India into a **major partner and player in the global arena.**
- Maintain a **sustained growth in productivity** and enhance gainful employment.
- Promote in a planned manner the **adoption of 'Industry 4.0'.**
- Attract **$100 bn inward FDI** annually and support outward FDI to assert Indian presence in world markets.
- **Create Indian premium international brands** and showcase them as an **attractive investment destination.**

Policy/Schemes/Initiatives

- Progressive Liberalization of Industrial Policy since 1991 for a bigger role of private initiatives.
- **Infrastructure Development** through SEZ, Technology parks, National Investment and Manufacturing Zones (NIMZs), National Industrial Corridors Programme (NICP) etc.
- **PM Gati Shakti National Master Plan**.
- **Production-Linked Incentive (PLI)** for various sectors to boost manufacturing and export.
- 29 labour laws amalgamated into **4 labour codes.**
- **Other Laws, Policies and Reforms**- Make in India, Competition Act (2002), MSMEs Act (2006) and National Manufacturing Policy (2011), GST Reforms, IBC Code.

Constraints

- Distortions in industrial pattern owing to **selective inflow of investments**.
- **Cyclical slowdown in fresh investment** since 2011-12 with issues of credit constraints, high unit labour costs etc.
- Challenges to **technology development** and **adoption** including Data security, reliability of data and stability etc.

- **Lack of quality industrial infrastructure** and connectivity leading to high logistics costs and reduced export competitiveness of Indian goods.
- Challenges of **regulatory uncertainty**, restrictive **labour laws, IPR issues** and delays, power shortages, absence of firm-level data, supply chain disruptions, rising input costs etc.

Way Forward

- **Revitalising the Manufacturing Economy** through demand generation, augmenting **industrial infrastructure and promotion of MSMEs.**
- Continued **Liberalization to encourage FDI** and private investment in manufacturing.
- Setting up **mega parks and manufacturing clusters** in labour-intensive sectors.
- Introduce a "**single window" regulatory system** in all states.
- **Green Industrial Policy** as part of the New Industrial Policy.
- **Implementing Good Manufacturing Practices (GMP)** guidelines, established by WHO.
- **Tax Reforms** through multilateral and Bilateral Agreements.
- **Increase R&D expenditure and robust IPR regime** for holistic and sustainable development of IPRs.

8.1.1. ECONOMIC NATIONALISM IN INDIA

Why in the news?

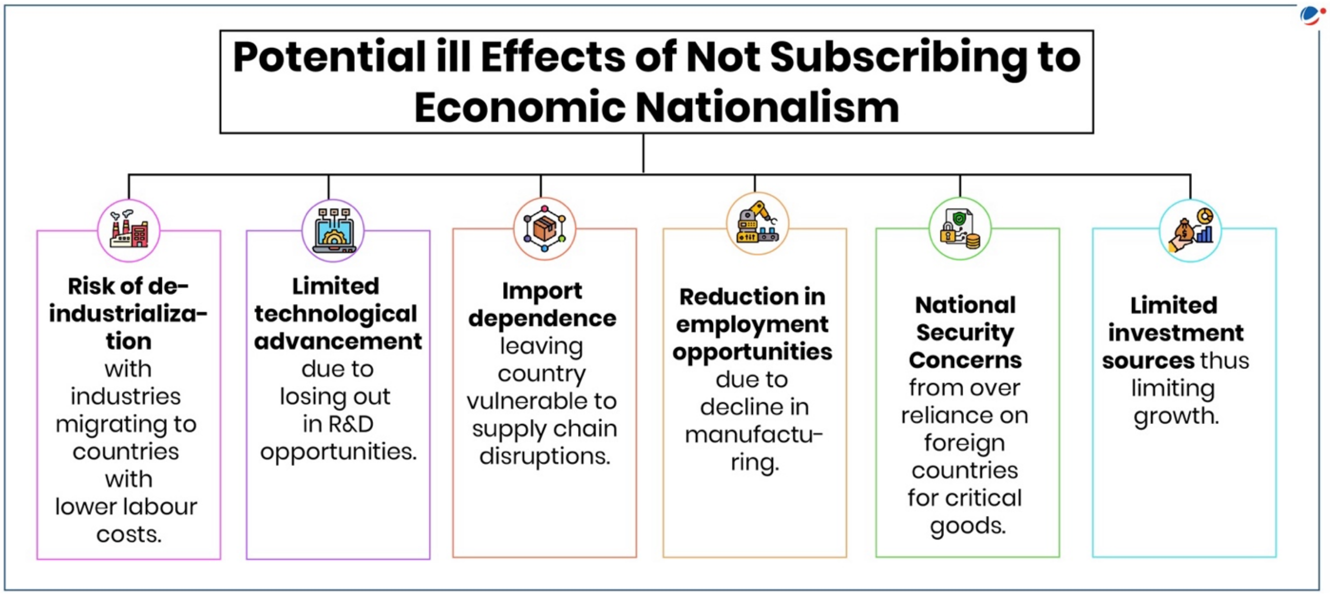
Vice President of India termed economic nationalism as quintessentially fundamental to India's economic growth.

What is Economic Nationalism?

Economic nationalism has been conventionally understood as the economic ideology which **favours domestic control of the economy, labour and capital formation**.

Economic Nationalism in India

- **Development of idea:** It developed in India within the context of its subordination to Britain (Colonial Rule).
- **Early economic critiques of colonial rule:** Cognition of the negative economic consequences of British colonial rule can be traced back to the 1830s in the **writings of Raja Rammohan Roy**.
- **Emerging economic nationalist thought:** During the late 19th century and early 20th century, economic critique widened to **'political economy of nationhood'**.
    - Its most important **proponents** included Dadabhai Naoroji, Mahadev Govind Ranade, Romesh Chunder Dutt, Gopal Krishna Gokhale, G. Subramaniya Iyer, etc.
- **Drain theory:** Dadabhai Naoroji propounded the **theory of 'drain of wealth'** which was conceived as a unilateral transfer of resources from India to Britain without any corresponding economic and commercial gain.



Measures taken to promote Economic Nationalism

Since, independence, India has initiated several policies which can be understood as policies of Economic nationalism and contribute to the realization of Atmanirbhar Bharat.

- **Promoting domestic industry:** These include schemes such as PLI schemes, Make in India, National Infrastructure Pipeline, and Insolvency and Bankruptcy Code (IBC) etc.
- **Participation in Global Supply Chain:** via Infrastructure development initiatives such as PM Gati Shakti, National Logistics Policy, Bharatmala Pariyojana etc. will help in such integration.
- **Strategic autonomy:** India is building its capacity in strategic sectors such as defence, space, clean energy, digital services etc
- **Research and Development (R&D):** Initiatives to promote R&D include the National Research Foundation, Uchhatar Avishkar Yojana (UAY), etc.

Conclusion

The decision to embrace or reject economic nationalism is not a binary one but is a situational decision. For India, the key is to find a balance between promoting domestic industries and remaining open to global trade.

8.1.2. INDUSTRIAL CORRIDOR DEVELOPMENT IN INDIA

Why in the news?

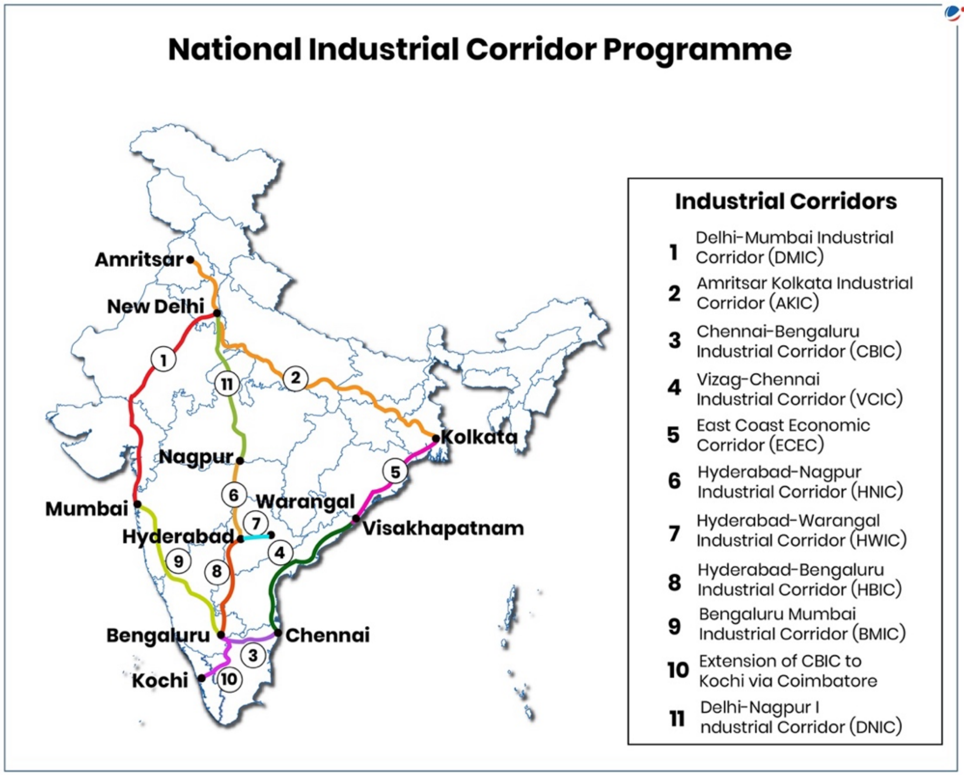
Government of India and **Asian Development Bank (ADB) signed $250 million loan** for Industrial Corridor Development in India.

More on the news

- $250 million policy-based loan will **support industrial corridor development (Subprogramme 2)** to-
  - **Develop alternative financing solutions**, such as green finance for industrial cluster development;
  - **Improve industrial workplace safety** and integrate environment and climate change practices.
- Government has approved **development of 11 Industrial Corridors with 32 Projects** in four phases as part of NICP.
- These Corridors will be **implemented through National Industrial Corridor Development and Implementation Trust.**

Significance of Industrial Corridors

- Position India as a **strong player in Global Value Chain** and **enhance India's competitiveness in manufacturing** by creation of quality infrastructure.
- Create **better jobs** and contribute to **alleviation of poverty with best manufacturing and investment destinations** in world.
- **Industrial corridors** offer effective **integration between industry and infrastructure**, leading to overall economic and social development.



8.2. PRODUCTION LINKED INCENTIVE

Production-Linked Incentive (PLI) Scheme at a Glance

Why PLI Scheme?

- **Stagnant manufacturing** contribution to GDP (**15-17%** since 1991)
- **Large number of MSME's** with nearly 90% workforce in informal jobs
- **Global Push for alternatives to China** (China+1 strategy)
- **Initiatives** like **National Manufacturing Policy**, **Make in India** etc. have had limited success

Potential of PLI Scheme

- **Increase registration of new manufacturing companies**.
- **Add over $500 billion worth of manufacturing** in sunrise and strategic sectors in **next five years**
- Adding nearly **4% to GDP per annum** in terms of incremental revenue, if fully realised.
- **Greater Strategic Autonomy** (e.g. in telecom) and strengthening existing **comparative advantages** (e.g. in pharma) by localising the most critical aspects of the value chain.
- **Achieve $100 bn plus inward FDI** annually and building India's goodwill and **assert Indian presence** in world markets.

Achievements of PLI scheme

- **Significant increase of 76% in FDI** in the Manufacturing sector in FY 2021-22.
- **Exports boosted** by Rs 2.56 Lakh Crore.
- **Employment generation** of around 3,25,000 people.
- Actual **investment** of **Rs. 62,500 Crore** has been realized till March 2023.
- **Import substitution of 60%** has been achieved in the **Telecom sector.**

Challenges to the Scheme

- **Lack of Manufacturing Culture** due to structural issues and limited skilled workforce.
- **Muted domestic manufacturing** since demonetisation due to lopsided initial years of GST, pandemic, etc.

- **Policy and Economic constraints** due to issues of restrictive labour laws, clearance delays and necessary funds to build world-class infrastructure.
- **Availability of Raw Material** with rising commodity prices and supply chain disruptions.
- **Delayed PLI payments** due to funds shortage and other reasons.
- **Other Challenges** like **Tough competition** from Vietnam and China; Implementation issues and availability of technology.

Way Forward

- **Augment industrial infrastructure and connectivity** by increasing expenditure on infrastructure creation for improved competitiveness.
- **Enhance overall business environment** to encourage investments through continued Ease of Doing Business reforms such as "**single window" regulatory system** in all states.
- **Revitalising Manufacturing Economy** through revival of domestic demand and optimizing supply-chain.
- **Increase investments in innovation, research and skill development** to build necessary talent for PLI success.

8.3. ELECTRONICS SECTOR

Electronics Sector at a Glance

Status of Electronics sector in India

- Electronics sector of India contributes **around 3.4% of the country's GDP**
- India's **domestic production in electronics has increased** from $ 29 Billion in 2014-15 to **$ 87 Billion in 2021-22**
- India's **consumer electronics market size** has **reached $73.7 billion in 2022**
- **India's export of electronic goods rose** by almost 88% from **2013-14 to 2022-23**
- **USA is the largest importer of India's electronic exports** followed by UAE, China, the Netherland & Germany

Key objectives

- National Policy on Electronics (NPE) 2019 set a **target of $400 billion turnover by 2025**.
- Make Electronics Goods amongst India's **2-3 top-ranking exports by 2026.**
- India aims to reach **US$300 billion worth of electronics manufacturing and US$ 120 billion in exports** by FY26.
- Positioning India as a **global hub for Electronics System Design and Manufacturing** (ESDM).
- Make India a **Repair Capital of the World**.
- **Improve national cyber security** profile.

Schemes/Initiatives

- **Electronics Development Fund** was set up as a Fund of Funds.
- **Production-linked incentive (PLI) scheme to provide financial incentives** to boost domestic manufacturing.
- **Modified Electronics Manufacturing Clusters (EMC 2.0) Scheme** for the development of world-class infrastructure along with common facilities and amenities.
- **Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS)** to strengthen the manufacturing ecosystem.
- Programme for **Development of Semiconductors and Display Manufacturing Ecosystem in India.**
- **Pilot project on Electronics Repair Services Outsourcing (ERSO)** to promote Indian Repair Industry.

Constraints

- **Meager presence of India** in global manufacturing sector of electronics **at around 3.6%.**
- **Physical infrastructural Gaps** like power shortages, water and land availability etc.
- Compared to China and Vietnam, India provides **lower income tax exemptions and reductions** to electronics manufacturers.
- **Supply chain and logistical constraints** such as high cost for transportation and raw materials.
- **Lacks in manufacturing of components** that are labour intensive, given the availability of cheap and skilled manpower.
- **Trade Barriers** like high import duties, and inverted duty structure.
- **Lack of Free Trade Agreements** with developed countries.

Way forward

- **Upgrade required infrastructure, ultra-modern technological supplies** etc. in electronics manufacturing industry.
- Government should **encourage small and medium scale enterprises engaged in electronics manufacturing sector** with necessary financial aids to sustain growth.
- **Enhance Research and Development** through encouraging collaboration and capacity building of central and state universities.
- Need to **promote semiconductor manufacturing alongside assembly units in India** to induce greater local production of components.
- To attract Global Value Chains, **open trade and investment policies** can be adopted**.**
- **FDI norms need greater clarity** with respect to electronics sector manufacturing.

9. SERVICES

9.1. E-COMMERCE SECTOR

E-Commerce Sector at a Glance

Status of E-commerce sector in India

- **8th largest** e-commerce market globally
- **A sunrise sector with 10-15% share** in India's retail market
- **US$ 55.6 Billion** was generated by the industry in 2021 and expected to reach **US$ 350 billion** by **2030**
- **3rd largest online shopper base** of **140 million** in **2020**
- **10 million** internet users are added monthly (majorly from tier-II cities) due to increasing internet and Smartphone penetration

Key objectives

- Ending **Digital Monopolies** and have a more **inclusive e-commerce industry**.
- Bring **Transparency** in pricing for easy price comparisons.
- **Access** to **Indian** and **Global markets** for small enterprises.
- Help in **promotion of Digital payments**, growth in **logistics sector** or supporting new innovations across digital space like payments, service delivery etc.
- **Better deals and offers** for customers, genuine reviews etc.

Policy/Schemes/Initiatives

- **Consumer Protection (E-commerce) Rules, 2020** to protect consumer interest and encourage free and fair competition.
- **Open Network for Digital Commerce (ONDC)** to control digital monopolies by setting protocols for cataloguing, vendor discovery and price discovery.
- Extension of export benefits under the **Remissions of Duties and Taxes on Export Products (RoDTEP) scheme for e-commerce exports**.
- **Prioritizing Technology** under **Digital India** through initiatives like Umang, Start Up, BHIM, BharatNet etc.
- **Equalisation Levy Rules**, 2016 and its amendment in 2020.
- 100% **FDI allowed in B2B E-commerce** and in **e-commerce marketplace model**.
- **Digital Personal Data Protection Act, 2023**

Constraints

- **Infrastructural problems** such as availability of internet, power, devices, etc.
- Outdated framework of **Cyber Laws**.
- **Privacy and Security** Concerns
- **Payment and Tax Related Issues**
- **Digital Illiteracy.**
- **Evolving regulatory framework** of e-commerce industry with issues of fake reviews, predatory pricing, misuse of data, digital monopolies etc.

Way forward

- **Bring Data protection** law on lines of EU GDPR with proper awareness and enforcement mechanism.
- **Model National Retail Policy** for uniform and favorable environment.
- **Clear definitions of what constitute Unfair Trade Practice** (including flash sale, mis-selling).
- **Corrective mechanism to discourage deceptive tactics** including manipulation of algorithms, fake product reviews, etc.
- Development of a framework to **check fake reviews on e-commerce platforms**

9.2. TELECOM SECTOR

Telecom Sector at a Glance

Status of Telecom Sector in India

- **2nd largest telecom sector** of the world
- Around **66 crore** connections are in **Urban India and 53 crore** in **Rural India** (Rural tele-density **of 59%).**
- India has the **second-highest number of internet subscribers** globally
- One of the **largest sector in terms of FDI inflows,** contributing around 6% of total FDI inflow
- The sector contributes **directly to 2.2 Mn employments and indirectly to 1.8 Mn jobs**

Objectives for the sector

- **Broadband for all**
- Creating **4 million additional jobs**
- Enhancing India's **contribution to Global Value Chains**
- **Ensuring Digital Sovereignty**
  Enhancing contribution of the sector to 8% of India's GDP (from 6% in 2017)

Challenges faced by Telecom sector

- **Debt ridden sector** with estimated industry debt at **over ₹3.6 lakh crore.**
- The definition of adjusted gross revenue (AGR) has been **under litigation for 14 years.**
- **Lack of uniformity in Right of Way (RoW) rules**
- **Pressure on Margins Due to Stiff Competition**
- **Substantial investment in 5G infrastructure**
- **High Spectrum usage charges (SUC)** compared to other countries.
- **Illegal mobile boosters** impacting the **overall cellular network quality and issues like call drops.**
- **Lack of Telecom Infrastructure in Semi-rural and Rural areas - 58% Rural tele-density (October 2022).**

Steps taken to overcome these challenges

- **Four-year moratorium on AGR payments and spectrum dues**
- The telcos would also **not have to pay any spectrum usage charge** for airwaves acquired in future auctions.
- **Cumbersome requirement of licenses** under 1953 Customs Notification for wireless equipment has been replaced with **self-declaration.**
- **Auction calendar has been fixed**
- **Amendment to the Indian Telegraph Right of Way (RoW) Rules, 2016** for rapid expansion of the Telecom Network.
- Creation of **Telecom Technology Development Fund (TTDF)**
- **Universal Service Obligation Fund (USOF)** to provide for quality and affordable mobile and digital services.

Way forward

- Promotion of healthy competition
- Protecting Consumers interest
- Financial space for cash-strapped firms
- Employment protection
- Infuse liquidity
- Embrace technological advancements

9.2.1. BHARATNET

Why in the news?

The Government recently approved Rs 1.39 lakh crore for modernising the BharatNet project.

More about News

- It involves changing its execution strategy and **providing fibre connections to the last mile through Village Level Entrepreneurs (VLEs).**
- With this upgrade, the **government is looking to speed up its process of connecting all 640,000 villages over the next two years.**

Significance of Bharat Net

- **Village Modernization:** By digitalising the basic infrastructures such as banking, post office, etc.
- **Agriculture sector:** Through schemes like Kisan Suvidha, PM-KISAN mobile App, Kisan Sarathi Platform.
- **Improving Quality of Education and medical facilities** through schemes like DIKSHA, , NPTEL, MOOC, PM e-VIDYA etc., in rural areas and operation of **eSanjeevani** app.
- **E-Commerce penetration:** Government initiatives such as Open Networks for Digital Commerce (ONDC).
- **Employment:** As extension program will provide nearly 2.50 lakh jobs.

Challenges in implementing BharatNet

- **Delay in project completion:** The earlier project deadline was 2019, new deadline is 2025.
- **High project costs:** For instance, the cost of laying one kilometre of optic fibre cable (OFC) has doubled between 2020-21 and 2021-22.
- **Low utilisation:** As of March 2022, **only 27% of the expected villages** had received network connectivity.
- **Quality of service (QoS):** Complaints by village officials about frequent line faults, connection outages, and the lack of response to requests for service and repairs
- **Poor Private Participation:** In the 2022 bid, not a single bid was received, and the tender was eventually cancelled.

Conclusion

To improve the performance of the scheme, all stakeholders from Panchayati Raj Institutions (PRIs) to Private sector must be engaged in effective execution of the project.

9.3. TOURISM SECTOR

Tourism Sector at a Glance

Status of Tourism sector in India

- **39th rank out of 117 countries in Global Travel and Tourism Development Index** 2024 of WEF.
- The National Council of Applied Economic Research (NCAER) reports that tourism in India **won't return to pre-pandemic levels until 2026**
- In **2019 - 20, the sector contributed around 5.19 % to the total GDP** of the country
- **Third largest foreign exchange earner** for the country until 2019

Key Objectives

- To develop **Iconic Tourist Sites into world class tourist destinations.**
- Develop a **Brand India** for Medical and Wellness Tourism
- To enhance India's **share in MICE** (Meetings, Incentives, Conferences, and Exhibitions) Tourism **to 2% in five years** from the current share of approximately 1%.
- Achieve **$250 billion** contribution of Tourism to the **GDP by 2030.**
- Make India a **World leader with a revenue** goal of **$1 trillion by 2047.**
- Focus on **sustainable and responsible** tourism.
- Bring in necessary interventions, including **visa reforms, ease of travel, traveler-friendly immigration facilities at airports and openness to international travel.**
- Goals ascertained in **Dharamshala Declaration.**

Schemes/Initiatives

- **Loan Guarantee Scheme for COVID Affected Tourism Sector** (LGSCATSS)- up to Rs 10 lakh collateral-free loans.
- **Swadesh Darshan 2.0** - Integrated Development of Theme-Based Tourist Circuits focusing on sustainable tourism.
- **PRASHAD**- Pilgrimage Rejuvenation and Spiritual, Heritage Augmentation Drive
- **Iconic Tourist Sites Development Project.**
- **RCS-UDAN 3.0** along tourist routes.
- **Adopt a Heritage**: Apni Dharohar, Apni Pehchaan Project.
- **'MEET IN INDIA' and INCREDIBLE INDIA 2.0**
- National Strategy and Roadmap for **Sustainable Tourism**
- **Goa Roadmap for Tourism** (identifies **five priority areas** in Tourism - **Green Tourism, Digitalization, Skills, Tourism MSMEs, and Destination Management)**

Constraints

- **Poor infrastructure, accessibility issues and safety concerns.**
- Well-funded, large B2B companies like Make my Trip and Clear Trip giving **tough competition to smaller players.**
- **Regional competition** from countries like Singapore, Thailand, Malaysia, etc.
- Lack of **reliable data and statistics.**

Way Forward

- Strong **Health and Sanitation protocol** to make tourism COVID resilient.
- **Infrastructure status,** as provided by **the Rajasthan government.**
- **Stimulus Recovery programmes** to help recover the sector.
- **Training and skill development** in hospitality.
- **Promotion and marketing,** especially with respect to cultural sites.

9.3.1. MEDICAL AND WELLNESS TOURISM

Why in the news?

The Ministry of Home Affairs recently notified the creation of a **new category of AYUSH visa for foreign nationals for treatment** under AYUSH systems of medicine, i.e. easing medical and wellness tourism in India.

More about News

- A new chapter, i.e. **Ayush Visa,** has been incorporated under the Medical Visa of the Visa Manual, which deals with treatment under the Indian systems of medicine.
  - Accordingly, **necessary amendments** have been made in various chapters of the **Visa Manual, 2019.**

About Medical and Wellness Tourism

- **Medical tourism** is a term used to describe the rapidly growing **practice of travelling across international borders to seek healthcare services**.
- **Wellness Tourism** includes the pursuit of physical, mental, spiritual or environmental 'wellness' while travelling for either leisure or business."
- Medical and Wellness Tourism are part of **the Wellness economy**.
- India is 7th ranked with 56 million trips in wellness **tourism (As per Global Wellness Tourism).**

Prospects of Medical and Wellness Tourism for India

- **Demand for Wellness and alternate cures:** India is uniquely positioned to attract medical value travellers (MVT) for treatment through AYUSH.
- **Long waiting periods** in developed countries for medical tourism.
- **Demand from countries with undeveloped medical facilities.**
- **Improved Connectivity,** which provides better opportunities for medical and wellness tourism.
    - Such as the **Regional Connectivity scheme-UDAN** connecting smaller cities like **Dharamshala.**
- **Demand from Countries with an ageing population,** with India being able to cater to the needs of such a population.
- **Various other factors like** Low Cost of Treatment, High-Quality Medical Care, Ease of communication, etc., favour India as a Medical and Wellness Tourism destination.

Challenges of Medical and Wellness Tourism

- **Regional Competition** from Malaysia, Thailand, Singapore etc.
- **Lack of international accreditation:** India still has a relatively smaller number of Joint Commission International (JCI) accredited hospitals.
- **Overseas medical care not covered by insurer.**
- Other Issues: **Lack of Skilled Manpower, Exploitation by middleman as Medical tourism facilitators & Lack of uniform Fee structure**, lack of transparency

Way forward

- **Relaxation/Incentives** for import of medical equipment.
- **Medical and Wellness tourism diplomacy** and **attracting Diaspora.**
- **Develop supporting infrastructure:** , such as extending the UDAN scheme to major AYUSH-located regions.
- **Stronger regulation** of the hospitals and wellness
- **Need to establish linkages and understanding amongst the stakeholders** about the role and responsibilities of different stakeholders

Initiatives by Government

- **Market Development Assistance (MDA) Scheme**: Assistance provided to medical/wellness Tourism Service Providers & Centres under the MDA Scheme.
- **National AYUSH Mission:** Launched in 2014 and played a crucial role in preserving and promoting **India's traditional systems of medicine and their integration into the mainstream healthcare system**.
- **First WHO Traditional Medicine Global Summit** "Towards health and well-being for all" in Gandhinagar, Gujarat.
    - The summit aimed to harness the potential of the **evidence-based traditional, complementary and integrative medicine (TCIM).**
- **Promotion of Information, Education, and Communication (IEC) in AYUSH:** Through the organisation of Arogya Fairs, Ayurveda Parv and Yoga Fest/Utsav etc
- **National Accreditation Board for Hospitals & Healthcare Providers (NABH)** is a constituent board of the Quality Council of India, set up to establish and **operate accreditation programme for healthcare organisations.**

9.4. INSURANCE SECTOR

Insurance Sector at a Glance

Status of insurance sector

- **India has a health protection gap (HPG) of 73%**
- **$91** is India's overall **insurance density** in FY21
- Number of **insured farmers declined from 6.1 crore to 5.2 crore in 2023**
- **India** is the **10th largest insurance market** in the world

Key Objectives

- **Ensuring social protection** in the form of health security, financial security etc.
- **Decreasing out-of-pocket expenditure** in case of critical illnesses.
- **Improve accessibility and affordability** of insurance for every citizen in the country.
- **Doubling insurance penetration** by investing close to Rs. 50,000 crore in the sector (IRDAI).

Schemes/Initiatives

- **FDI limit** in insurance increased from **49% to 74%.**
- **Employees' State Insurance** Act, 1948
- Pradhan Mantri Suraksha Bima Yojana (PMSBY), Rashtriya Swasthya Bima Yojana (RSBY) **and Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)**
- **PM-Jan Arogya Yojana (PMJAY)**
- **Atal Bimit Vyakti Kalyan Yojana**
- **Mahatma Gandhi Bunkar Beema Yojana**
- Identification of LIC, GIC and New India as **Domestic Systemically Important insurers** for additional measures to avoid **systemic risks** and **moral hazard.**

Constraints

- **Low insurance penetration and density.**
- **Inflexible policy terms** and lack of standard insurance products.
- **Ambiguity in insurance contracts,** leading to huge pendency of consumer cases in the sector.
- **Multiplicity of government sponsored insurance schemes,** resulting in the fragmentation of the risk pool.
- The **'missing middle'** between the deprived poorer sections and the relatively well-off. They neither qualify under subsidised health insurance (for poor) nor social health insurance (for organised sector) schemes.
  Regulations of IRDAI do not allow composite licensing
- Microinsurance issues **such as small size of instalments, absence of business models**
- **etc.**

Way Forward

- Expanding **private voluntary insurance** through commercial insurers.
- Sharing **Government data and infrastructure** as a public good to reduce operational and distribution costs.
- Ensuring standardization and improving simplicity through a **guaranteed basic minimum package** of services.
- **Customised products** tailored to the unique risks
- Building **consumer confidence** by ensuring quality of services.
  Swift **grievance redressal mechanisms,** and robust auditing procedures.
- **New affordable microinsurance products** need to be developed.
- **Allowing composite licensing,** enabling a single insurance entity to offer both life and non-life insurance products.

9.5. GAMING SECTOR IN INDIA

Why in the News?

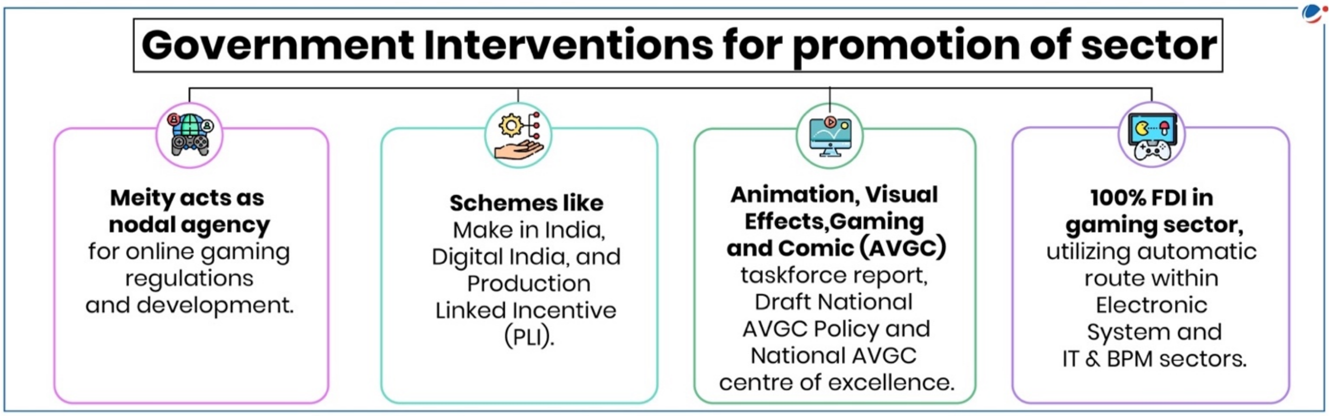
Interactive Entertainment and Innovation Council (IEIC) and WinZO released India Gaming Report 2024 .

About the sector

- With 568 million users, **India is officially the largest gaming market** and accounts for **every one in five online gamers** globally.
- Indian gaming market is expected to reach **$6 Billion by 2028**.
- **Number** of Indian gaming **companies** surged from **25 in 2015 to over 1400 in 2023**.

Factors responsible for boost in gaming industry:

- Rise of **affordable high-speed internet** ($0.17/GB) and increase in **smartphone penetration** (820 million users).
- Burgeoning share of **young population** (~600 million) and rising **disposable income**.
- **Supply side factors** include global investments in game development, rewarding gaming career, vernacular language content and gamification of Indian culture etc.



Gaming's contribution to society

Reduction in social isolation, community building, especially for women gamers, and its role in enhancing research, education and skilling. It also improves penetration of emerging technologies like Virtual Reality, Artificial Intelligence among others.

Challenges to gaming sector	Recommendations:
• Sustainability issues from **'internet pollution' (3.7% of Greenhouse Gas emissions).** • **Financial literacy gaps,** regulatory complexities, **and data security challenges.** • Gaming **can have a detrimental impact on physical and mental health** in certain cases. E.g., issues like 'Blue Whale Challenge'. • Lack of a **cohesive and comprehensive regulatory framework** for gaming industry in India.	• Utilise **green innovations and virtual environments** for sustainable gaming. • Establish a **global gaming cluster** with policy support, supporting startups and talent development. • Prioritise **R&D for online safety and digital literacy.**

10. INFRASTRUCTURE

10.1. PM GATI SHAKTI

PM Gati Shakti at a Glance

- Gati Shakti or National Master Plan for multimodal connectivity aims to **expedite infrastructure project implementation in India.**
- It will encompass the **seven engines** (Roads, Railways, Airports, Ports, Mass Transport, Waterways and Logistics Infrastructure) of the **National Infrastructure Pipeline (NIP).**
- **6 Pillars of Gati Shakti:** Comprehensiveness, Prioritization, Optimization, Synchronization, Analytical and Dynamic.

PM Gati Shakti Targets by 2025

- **Roads:** National highway network to be **2 lakh km.**
- **Railways:** Increasing **cargo handling capacity to 1,600 MMT.**
- **Airports: 220 new** airports/ heliports/ water aerodromes.
- **Ports:** Total cargo capacity to be achieved **1,759 MMT per Annum.**
- **Renewable Energy: 225 GW**
- **Telecommunication:** Total **2.6 lakh gram panchayat** to be connected.
- **Total length of gas pipelines to be built: 34,500 Km**

Impact of the GATI Shakti Initiatives

- **Competitiveness enhancement of domestic process.** E.g., digitization of NOC (No Objection Certificate) for all projects.
- **Increased information availability:** through valuable data on upcoming connectivity projects.
- **Developing Multi-modal logistics** by establishing seamless transportation connectivity through various modes.
- **Reduced distances travelled.**

Challenges in implementation

- **Balancing infrastructure development with environmental considerations.**
- Involvement of multiple authorities **without clear flow of accountability.**
- **Private banks are reluctant to provide credit** due to fear of increasing Non-Performing Assets.
- Securing approvals for **land access, obtaining environmental clearances,** and **resettlement** and **compensation** issues.
- **Assessment** of potential social and environmental impact of **the infrastructure project on local communities.**

Way Forward

- **Better Land-use planning:** Making use of Geographic Information Systems (GIS) and remote sensing technologies.
- Include **training on project management methodologies, engineering techniques,** and the latest advancements in infrastructure technology.
- **Harness the capabilities of digital technologies** like artificial intelligence, big data analytics, blockchain, etc.
- Establishing a mechanism **for resolving disputes or conflicts.**

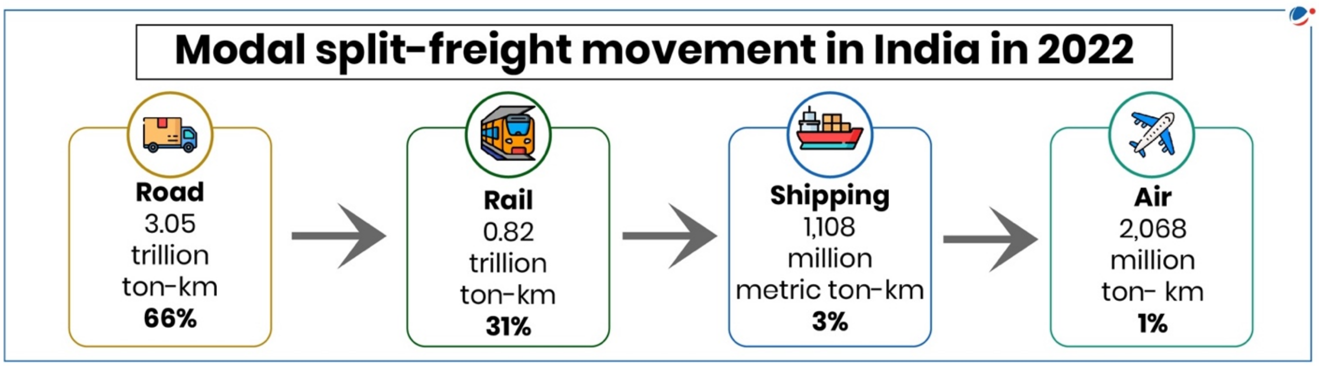
10.1.1. LOGISTICS SECTOR OF INDIA

Why in the news?

India's logistics cost has been worked out to be in the range of **7.8-8.9 %** of Gross Domestic Product (GDP) in **2021-22** (with **India ranking 38th on World Bank's Logistics Performance Index, 2023**, an improvement from 44th in 2018).

Importance of efficient logistics infrastructure:

- **Supply chain efficiency:** vital for businesses to meet consumer demand promptly and optimise production processes.
- **Connectivity and accessibility:** enabling businesses to reach a wider customer base.
- **Cost reduction and competitiveness** due to reduction in transportation, storage and distribution costs.
- **Job creation** in transportation, warehousing, distribution, and related services.



Steps Taken for Improvement of Logistic Sector in India

National Logistics Policy (NLP) 2022

- It addresses the **soft infrastructure** and **logistics sector development aspect**.
- It was launched in **2022** to complement PM Gati Shakti National Master Plan (NMP).
- **The targets of the NLP are to:**
    - **Reduce cost** of logistics in India - Comparable to global benchmarks of **8-9%** of GDP.
    - **Improve** the **Logistics Performance Index ranking –** endeavour is to be among top 25 countries by 2030.
    - Create a **data-driven decision support mechanism** for an efficient logistics ecosystem.
- **Comprehensive Logistics Action Plan (CLAP)** as part of the NLP was launched covering eight action areas.

Other Steps Taken

- **Unified Logistics Interface Platform (ULIP):** It is an indigenous **data-based platform** which integrates 34 logistics-related digital systems /portals across Ministries / Departments.
- **EXIM (Export-Import) Logistics:** To Address infrastructure and procedural gaps in India's EXIM connectivity and create an efficient and reliable logistics network.
- **Logistics given infrastructure status:** It enabled the logistics sector to access infra-lending at easier terms.
- **Logistics Ease Across Different States (LEADS**): An indigenous logistics performance index on lines of the World Bank's LPI.
- **Multimodal Logistics Parks (MMLPs):** Government has planned **35 MMLPs(to act as freight aggregation and distribution hubs)** with an investment outlay of **$6.2 Billion.**

Components	Progress so far
Digitalisation	• **Over 614 industry players** have registered on Unified Logistics Interface Platform. • **106 private companies** have signed Non-Disclosure Agreements (NDAs).
Export Import (EXIM) Logistics	• **60 projects of Ministry of Road Transport** and Highways and **47 Minisrtry of Railways** have been sanctioned to improve last mile connectivity to ports.
State Engagement	• **22 States have notified** their logistics policies so far.
Issues and Grievance redressal	• **Around 29 business associations** have been empanelled on **Ease of Logistics Services (E-logs) Portal** so far.

Challenges before the Indian logistics sector

- **Fragmented supply chain (**numerous small players operating independently across supply chain segments),
- **Regulatory complexity** (**multiple layers of taxation**, compliance requirements and bureaucratic procedures),
- **Inadequate road infrastructure**
- **Lack of qualified personnel proficient** in supply chain management.

Way forward

- **International Collaboration:** E.g., The **India-Middle East-Europe Corridor (IMEC)** envisions a seamless linkage between India and Europe via the Arabian Peninsula.
- **Focusing on sustainable logistics:** complying with key regulations and initiatives such as the **Energy Efficiency Existing Ship Index, carbon intensity rating** and emissions trading system.
- **Technological Innovation: Artificial intelligence (AI)-powered Predictive analytics**, **Internet of Things (IoT)** sensors and connectivity, **Automation technologies** such as robotic process automation and autonomous vehicles
- **Attract investment and investor interest:** E.g**., Singapore continues to invest in transport infrastructure** to maintain the country's position as a world-class city in logistics.
- **Increase the share of rail transport:** The National Rail Plan envisages that the share of freight traffic by rail should go up from the current share of **27% to 45%** by 2030.

10.2. PUBLIC GOODS

Public Goods at a Glance

- Public goods are those that are available to all at zero or negligible marginal cost ("non-excludable") and that can be enjoyed over and over again by anyone without diminishing the benefits they deliver to others ("non-rival").

- **Scope of Public Goods -**
    - **Local** Public Goods such as local **public school, parks etc**.
    - **National** Public Goods such as **national security, law enforcement etc.**
    - **Regional** Public Goods such as **public health, trade regulatory systems etc.**
    - **Global** Public Goods such as environment, culture, technological progress etc.

Significance of Public Goods

- Crucial role in **social, economic, and political progress.**
- **Reduction of poverty** and inequality and achievement of sustainable development goals.
- **Addressing critical common challenges** such as disaster management, droughts, food insecurity etc.
- **Managing unevenly distributed risks** such as climate change, cross-border epidemics, security risks etc.
- Public goods are **excellent investment** as the resultant outcome is huge.

Challenges in implementation

- **Lack of incentives** and free rider problem as individual cannot be charged for their use irrespective of their contribution.
- **Late realization of benefit** in the far future while the costs are realized today.
- **Externalities or spillovers** render the benefit for any single individual too small or too large.
- **Weakest link problem** as success achieved can be eroded by a single act of non-compliance.
- **Summation problem** as provisioning of public good for all requires cooperation at every level of governance and citizenry.

Provisioning of public goods in India

- India is becoming a leader in **Digital Public Goods** such as Aadhaar, UPI, land records etc.
- Vision of **universal healthcare** through Ayushman Bharat Yojana, One Health approach, and other schemes.
- Provision of **quality education** to all through reforms such as National Education Policy and vocational education.
- **Environmental conservation** through its Mission LiFE, climate pledges, phasing out of fossil-based energy sources etc.
- **Affordable housing** for all through various schemes such as PM Awas Yojana.

Way Forward

- Establishment of a **strong institutional framework** for assessing the needs and provide public goods.
- Enforcement of various **regulations and taxation measures** to mobilize resources and eliminate free rider problem.
- Focus on **inclusive government formation** with representation of all sections of society.
- Increase the **demand of public goods** through awareness campaigns, ICT, workshops etc.
- **Incentivize private sector and civil society** to increase their involvement in provisioning of public goods.

10.3. ROADWAYS

Roadways at a Glance

Roadways sector at a glance

- India has the **second-largest road network** in the world, spanning a total of **6.67 million kilometres** (kms).
- Road transport carries **~87% of India's total passenger traffic** and **more than 60% of its freight**
- **2.2%** of the country's total **road network is National Highways which carries over 40% of road traffic.**
- India has **1% of the total vehicle** population in the world, but **accounts for 11% of road crashes and fatalities,** costing 3-5% of GDP.

Key Objectives

- NHAI plans to construct **12,500 kms of national highways in 2023-24.**
- Government has set a target of **developing 40 km of National Highways and Expressways per day** for FY 2023-24.
- Government aims to construct **23 new national highways** by 2025.
- **Reduce the number of road accidents** and fatalities by half by 2025.
- Completing **Bharatmala Pariyojana Phase-I by 2027** (initial target year was 2022).
- Plan to install **charging stations** every 40 to 60 km on national highways.

Schemes Initiatives

- **National Infrastructure Pipeline** spending 18% of its capital outlay on road sector.
- **Bharatmala Pariyojana** to develop 34,800 km of highways, including 27 Greenfield corridors.
- **Multi-Modal Logistics Parks (MMLPs) for integrating multiple modes of transport.**
- **100% FDI** allowed under automatic route.
- **Other schemes** such as Pradhan Mantri Gram Sadak Yojana, Setu-Bharatam project, **Special Accelerated Road Development Programme for North-East region (SARDP-NE) etc.**

Constraints

- **Land acquisition delays, time overruns, local agitation, forest clearance, and increasing cost of the projects.**
- **Inadequate road infrastructure** with poor construction quality.
- **Lack of funding - Annual outlay** earmarked for **maintenance and repair of national highways** is only about **40%** of the funds required.
- Road construction, especially in mountains and Himalayas, frequently **alters drainage networks, induces deforestation and disrupts wildlife habitat.**
- Overstrained NHs and SHs, carrying more than **65% of the road traffic.**
- Other issues like **Poor traffic management and Parking issues.**

Way Forward

- **Earmark funds** from the **Central Road Fund (CRF)** for regular maintenance activities.
- Streamline **land acquisition** to decrease development costs. E.g. **Bhoomi Rashi - Land Acquisition Portal**
- Increase **technology adoption and seamless movement between different modes of transport.**
- **Adopt innovative models of public-private partnership.**
- **Utilization of recycled materials, fly ash, and plastic waste for highway construction.**
- **Reduce road construction's environmental** impact on biodiversity and natural habitats. E.g. Adoption of Green Highways Policy 2015.

10.3.1. BHARAT NEW CAR ASSESSMENT PROGRAM (BHARAT NCAP)

Why in the news?

The Ministry of Road Transport and Highways (MoRTH) has rolled out an indigenous star-rating system for vehicles to assess their safety in cases of collision (as per Automotive Industry Standard (AIS) 197).

About Bharat NCAP

- It is **modelled on the Global New Car Assessment Programme (Global NCAP)** with some modifications.
- **Applicability**: To passenger vehicles with **not more than eight seats in addition to the driver's seat** (8+1) with gross vehicle weight not exceeding 3,500 kg, which are either manufactured or sold in India.
- **Testing protocol:** It will evaluate **Adult Occupant Protection (AOP)**, **Child Occupant Protection (COP)** and fitment of **Safety Assist Technologies**.
- **Format of testing:** Testing will be **voluntary,** and carmakers will be encouraged to offer their models for testing as per the AIS 197.

Significance

- **Road Safety**: Help consumers make an **informed decision** before purchasing a car and spur demand for safer cars.
- **Technology**: Align manufacturing practices with recent road safety regulations, E.g. **dual front airbags**, **anti-lock braking system,** etc.
- **Cost Saving: Reduced cost of safety testing** for car manufacturers under Bharat NCAP (approx. ₹ 60 Lakhs) as compared to a similar test overseas (₹ 2.5 crores).

Conclusion

Bharat NCAP will help reduce casualties and injuries, lessen the strain on healthcare and insurance sectors and foster a positive societal impact by reducing trauma caused by road traffic injuries and deaths.

10.4. INDIAN RAILWAYS

Indian Railways at a Glance

Status of Railways in India

- **4th Largest** Railway Network in the world **behind only US, Russia, and China**
- The Indian Railways consists of a total **track length of 1.26 lakh km with 7,335 stations**
- A daily passenger count of **24 million passengers and 204 million tonnes of freight**
- **1st and 4th** respectively in **passenger and freight transport globally**
- Indian Railways is the **single largest employer in India,** employing approximatey **1.3 Mn people**

Key Targets

- Create a **'future ready' Railway system by 2030.**
- Increase **modal share of the Railways in freight to 45%** from existing 27%.
- **100% electrification** (Green Energy), **multi-tracking** of congested routes, upgradation of speed and **elimination of all Level Crossings** on all GQ/GD route by 2024.
- Identify new **Dedicated Freight Corridors** and new **High Speed Rail Corridors.**
- **Zero fatalities** in Railway transport.
- Increase the **share of non-fare revenues in total revenue to 20%.**

Schemes

- **Rail Kaushal Vikas Yojana** under Pradhan Mantri Kaushal Vikas Yojana (PMKVY).
- **KAVACH** (Automatic Train Collision Avoidance System)
- **Bharat Gaurav and Vande Bharat** Trains and **High-Speed Rail projects** such as Mumbai-Ahmedabad.
- **Rashtriya Rail Sanraksha Kosh** to strengthen safety measures.
- **Adarsh Station Scheme** for the development of Railway Stations and **One Station One Product** for promoting Vocal for Local.
- Research and pilot projects on **all-aluminium wagon rake.**
- **100% FDI is allowed** in the railway sector

Constraints

- **Ageing infrastructure and delays in execution** of new projects.
- **Internal generation of resources is low** with negligible non-fare revenues and high freight tariffs.
- **Poor terminal facilities** lengthen loading and unloading time.
- **Poor finances of Railways** leading to low investment, **poor services** and issues of low speed, delays, and safety concerns.
- **Heavy dependence on transportation of coal** which constituted around **47% of the total freight earnings** during 2021-22.
- **Cross-Subsidization** as profits from freight traffic were utilised to compensate for the loss on operation of passenger services.

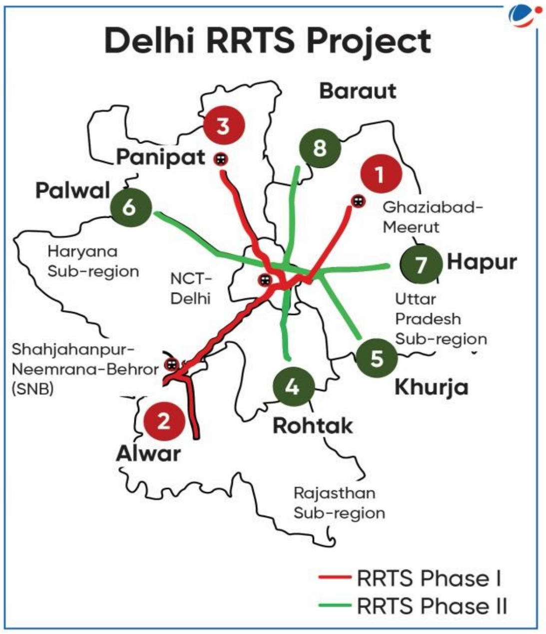
Way Forward

- Major **infrastructure expansion and decongestion programme** with upgradation of technology and judicious track electrification.
- **Use higher horsepower electric and diesel locomotives** which are more fuel efficient.
- **Diversify the freight basket to enhance freight earnings** and also exploit its idle assets to increase other earnings.
- **Revisit the passenger and other coaching tariffs** so as to recover the cost of operations in a phased manner and reduce its losses in its core activities.
- Take steps to **augment internal revenue generation** of railways. E.g., asset monetization of unutilized railway land.

10.4.1. RAPID TRANSIT SYSTEM (RRTS) PROJECT

Why in the news?

Recently, the **First Regional Rapid Transit System (RRTS)** was launched in India with **Namo Bharat RapidX train** completing a 17km stretch from Sahibabad to Duhai Depot in Uttar Pradesh.



About RRTS Project

- It is a new, **dedicated**, **high-speed, high-capacity**, **comfortable commuter service** connecting regional nodes in NCR.
- It is part of India's efforts to **enhance urban transportation**
- These will operate at a speed of **160 km/hour** but are designed to be able to run at speeds up to **180 km/hour.**
- **National Capital Region Transport Corporation (NCRTC)** is responsible for implementing the RRTS in the National Capital Region (NCR).

Significance

- **Increased Economic Activity** with shorter travel times.

- Improved connectivity would lead to **deeper economic integration** in the region
- A faster commute would allow people **access to more employment opportunities and better facilities.**
- Small carbon footprint and high passenger throughput will lead to a **significant reduction in pollution in the region.**
- **Easing of Road Congestion** as RRTS could shift a large amount of traffic from road to rail

Challenges in implementation		
Financial Constraints: Maintaining and operating railway networks demands substantial upfront investment.	**Environmental Concerns:** Construction activities can increase Delhi NCR air pollution in the immediate term.	**Construction Challenges:** Significant engineering challenges, including tunnelling, bridge construction, and alignment considerations.

Way forward

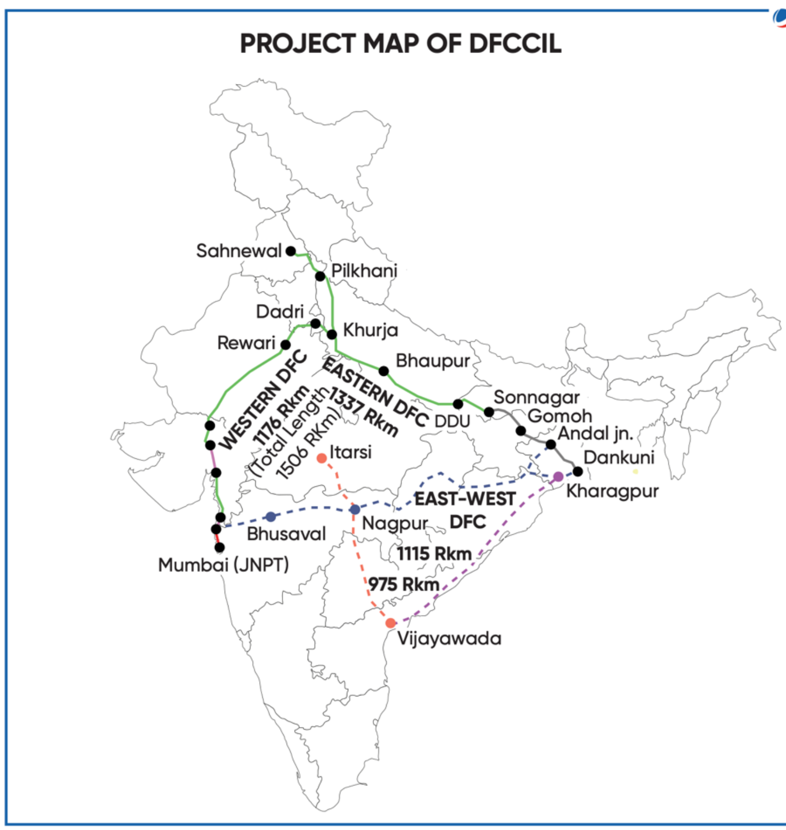
- **Air pollution control** through the establishment of **water pumps at casting yards**, installation of **air monitoring devices** at various points along the route, etc.
- **Ensure that the design aligns with urban planning goals**, environmental sustainability, and existing transportation networks**.**
- **Integrate advanced technologies** like automatic train control systems, communication networks, fare collection systems,

10.4.2. DEDICATED FREIGHT CORRIDORS (DFCS)

Why in the news?

The **Eastern Dedicated Freight Corridor (EDFC)** has been completed fully in October 2023.

What is a Dedicated Freight Corridor?



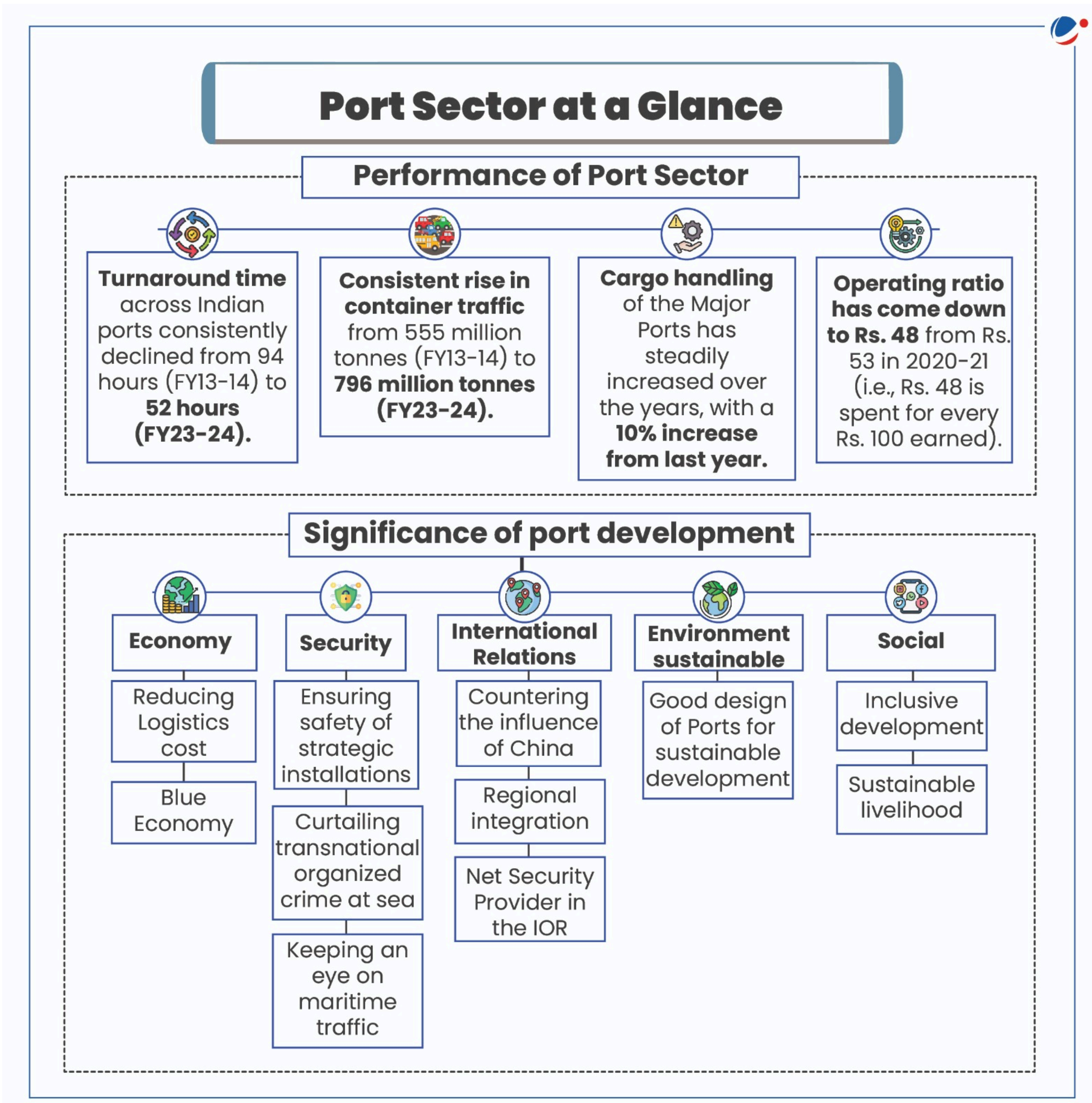
- It is a **railway corridor** designed for the rapid and efficient transportation of goods and commodities, characterized by **high speed** and **high capacity**.
- **Aim**: Decongesting India's railway network by separating **freight traffic** from **passenger traffic** on the railway network.
- **Implementing agency:** Dedicated Freight Corridor Corporation of India Limited (DFCCIL).

Significance of DFC

- **Capacity Enhancement**: DFCs would reduce congestion on existing rail routes.
- **Cost Reduction**: Quicker transit times, reduced fuel consumption, and increased carrying capacity per train can lead to lower transportation costs.
- **Infrastructure Upgradation:** It includes modern signalling systems, electrification of tracks, and the establishment of new rail lines.

- **Environmental Benefits:** DFC will help reduce congestion on highways and lower greenhouse gas emissions.
- **Equitable Regional development:** For example, the Eastern Dedicated Freight Corridor (EDFC) will provide a transportation route for coal from resource-rich regions (e.g., Jharkhand, Odisha) to power plants and industrial centres in other parts (e.g., U. P and Haryana) of the country.

10.5. PORT SECTOR



Steps taken to enhance India's port connectivity

- **Ease of doing business:** Encouraging investments, Centralized web-based Port Community System (PCS), Captive Policy for Port Dependent Industries.
- **Dealing with infrastructural bottleneck: Sagarmala Programme, Bharatmala programme,** Project Unnati - Operational Efficiency Improvement, Capacity, Development of a transshipment terminal (hub) etc.
- **Sagarmanthan Dashboard for regular monitoring of projects**
- **Sagar Setu App** has been launched to give real-time information on vessels.
  - **Digital Modules Launched Within SagarSetu** to facilitate electronic exchange of maritime-related information between stakeholders.
- **Digitisation of Ports: Steps like Vessel Traffic Management System, Enterprise Business System (Port Operation and allied system, and online (Radio Frequency Identification) RFID System** etc.
- **Cooperation with neighboring countries. E.g. Sabroom Land Port along India-Bangladesh Border.**
- Creation of **National Centre Of Excellence for Green Port & Shipping (NCOEGPS)**

Hurdles in enhancing India's port connectivity

- **Infrastructure bottleneck:** Shallow ports, subdued capacity utilization at ports, logistics bottleneck.
- **Regulatory bottleneck:** Lack of level-playing field between major and minor ports, bureaucratic challenges.
- **Issues related to investment:** Lack of financing, subpar private sector participation etc. **Labour issues:** Overstaffed, unskilled and untrained labour.
- Less competitive on global front
- **Non-Optimum Utilization**
- **Limited Capacity:** Only 5 Major Ports and 2 Non-Major Ports have over 100 MTPA
- capacity.

Way ahead

- **Regulatory reforms:** Opening up the dredging market, coordinated efforts for last-mile connectivity to ports.
- **Dealing with the issues of financing:** Investment opportunities in bunkering and using tourism as a revenue source. E.g., promotion of Lighthouse tourism.
- **Improving infrastructure:** Prioritisation of projects under Sagarmala, multimodal connectivity, smart ports and blockchain logistics.
- **Increased PPP Investments, Port Modernization and Modernisation of Projects.**
- **Extensive implementation of Port Community System (PCS).**

10.5.1. MARITIME AMRIT KAAL VISION 2047

Why in the News?

Maritime Amrit Kaal Vision 2047 prepared by the Ministry of Ports, Shipping and Waterways was launched at the Global Maritime India Summit 2023.

Maritime sector in India

- Maritime Sector in India **comprises Ports, Shipping, Shipbuilding and Ship repair and Inland Water Transport Systems.**
- **Ministry of Shipping** is the **nodal central agency** administering the issues related to them.

Maritime Amrit Kaal Vision 2047

It outlines **strategic initiatives** spread across **11 overarching themes** to transform India's maritime sector. These themes include:

- **Sustainable and Green Maritime Sector:** Aims at making all 14 major ports **carbon neutral,**
    - Encouragement to **adoption of multi-fuel engine with alternative fuels**.
    - An **Inland Vessel Green Transition Program** will be launched.
    - 3 ports to set up the **green hydrogen bunkers -** Paradip Port (Odisha), Deendayal Port (Gujarat) and VO Chidambaranar Port (Tamil Nadu).
- **Port modernisation:** Transforming ports into **smart, automated and ports of the future**.
- **Global player in shipbuilding, repair & recycling** to attain a spot in top 5 global shipbuilding centres.
- **Improving India's tonnage: Quadruple port capacity** to reach 10,000 million tons port capacity with **100% PPP** (Public Private Partnership) model at major ports.
- **Enhanced logistics:** Enhance **modal share** of coastal shipping and inland waterways from **6% to 12%** through infrastructural and policy reforms.
- **Offer maritime professional service, World class education, research & training and Maritime cluster development**

Significance of developing India's maritime sector

- **Opportunities in Indian Ocean:** Rich mineral resources and connectivity with global cities.
- **Livelihood opportunities for coastal population:** 250 million people live within a 50-kilometre range of coast.
- **Food security:** India is the **second-largest fish producing nation** in the world
- **International trade:** India is strategically located between Strait of Hormuz and Strait of Malacca.
- **Regional power aspiration:** Role of net security provider in the Indian Ocean region.

Conclusion

The vision may face several challenges such as infrastructural deficiency and security concerns, but India's growth as a maritime power is critical for its economic and strategic security.

10.5.2. BLUE ECONOMY 2.0

Why in the News?

Blue Economy 2.0 Scheme announced in Union Interim Budget 2024-25.

About Blue Economy and Blue Economy 2.0

- It is the "**sustainable** use of **ocean resources** for **economic growth**, **improved livelihoods**, and jobs while preserving the health of ocean ecosystem."
- **Blue Economy 2.0** is a blueprint **to make further progress on India's existing initiatives** to explore the potential of the Indian maritime blue economy by promoting climate resilient activities along with restoration and adaptation.

- It will emphasise on **coastal aquaculture (cultivation of aquatic animals) and mariculture** (marine and estuarine waters) in an integrated and **multi-sectoral approach**.

Factors limiting the development of Blue Economy

- **Threat to Maritime security** e.g. recent Houthi attacks, etc.
- **Other:** Lack of Infrastructure, high operating costs of shipping industry, high installation cost of tidal power plants, climate and pollution due to human activities, etc.

Steps taken by India:

Deep Ocean Mission (mine the metals in the Indian oceans); Pradhan Mantri Matsya Sampada Yojana; SAGARMALA project; Draft Blue Economy Policy; Integrated Coastal Zone Management; Maritime India Vision 2030.

Related News: Regenerative Blue Economy (RBE)

- **IUCN's Report** "Towards a Regenerative Blue Economy – Mapping the Blue Economy" proposes a clear definition and founding principles for RBE.
- **RBE** is an **economic model** that combines **effective regeneration and protection of the Ocean and marine and coastal ecosystems** with **sustainable, low, or no carbon economic activities**.
- **Recommendations for RBE:** Redirecting finance to regenerative activities, expanding science and innovation base in global south, empowering local stakeholders to deliver ocean action etc.
- IUCN has developed a framework **defining three types of Blue Economy- Brown Ocean Economy, Sustainable BE, and RBE** with RBE at the highest sustainability level.
- **Global Initiatives for RBE:** IUCN's Nature 2030, Great Blue Wall Initiative, Clean Seas Campaign, Moroni Declaration and Cape Town Manifesto.

10.5.3. INLAND WATERWAYS

Why in the news?

Recently, the Standing Committee on Transport, Tourism and Culture submitted its report on 'Development and Expansion of Existing and New National Inland Waterways'.

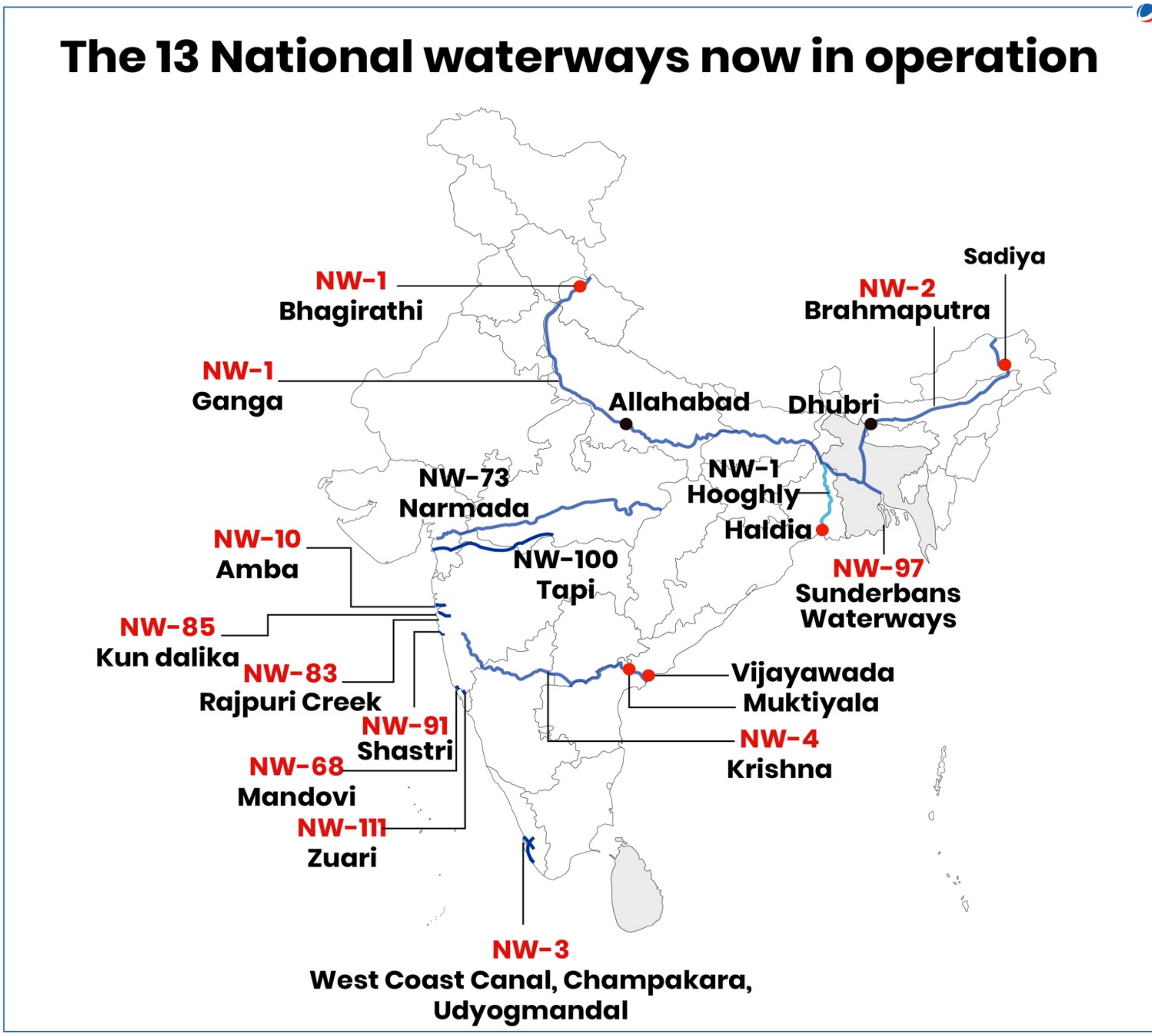
Importance of Inland Water Transport (IWT)

- **Cost savings:** The cost of developing waterways is much lower than rail & road.
- **Environment friendly:**
  - Least fuel consumption per tonne–km.
  - CO2 emission is 50 per cent that of trucks.
  - Safe mode for hazardous and over-dimensional cargo
- **Strategic importance**: IWT system offers **natural navigation channels** connecting the entire northeast region to India.
- **Supplementary mode**
  - Reduces pressure on road and rail.
  - Reduces congestion and accidents on the road.

Issues associated with the development of IWT

- **Unviability of projects**: Around 20 out of the 111 identified national waterways have reportedly been found unviable.
- **Low level of investment** compared to road and rail modes. Due to-
  - The slow pace of development of waterways
  - Poor hinterland connectivity
  - High vessel and equipment costs
- **Maintaining a depth of the river which is navigable for vessels** with a capacity of 1500-2000 tons **is a challenge.**

- **Low Freight Share:** Freight movement on waterways in India **has about 2% of modal share** whereas USA stands at 4 %,
- **Impact on the environment:** While inland waterways have a low environmental impact during operations, their **development alters the ecology of the river.**
  - For instance, dredging and construction on the national waterway-I disrupted the activities of Gangetic Dolphin.



Steps Taken for Inland Water Transport				
Jal Marg Vikas Project (JMVP) for capacity augmentation of navigation on NW-1.	**Ro-Ro (Roll-on-Roll-off) and Ro-Pax (Roll-on/Roll-off with passenger)** in Various National Waterways.	Digital solutions such as **CAR-D (Cargo Data) Portal** and **PANI (Portal for Asset & Navigation Information)**	**Maritime India Vision 2030:** Enhancement and development of infrastructure at 23 priority NWs.	Integral role of IWT in **Blue Economy Vision 2047**

Way forward

- **Financial incentives:** Provide financial incentives and subsidies.
- **Public-Private Partnership:** to ensure greater efficiency and competitiveness.

- **Waterway Connectivity** to rail, road and ports be comprehensively dealt with in the Detailed Project Report (DPR) itself.
- **Environmental Considerations** to assess impact of the increased inland water transport activities on aqua-marine life.
- **International Collaboration** on the development of transboundary waterways, facilitating regional trade and connectivity.

10.6. CIVIL AVIATION

Civil Aviation Sector at a Glance

Status of Civil Aviation in India

- India has become **third largest domestic aviation market** in the world after USA and China.
- Between 2009-2019, India contributed **5.9% to global growth in passenger traffic.**
- Overall, aviation industry **contributes $35 billion annually to India's GDP** and offer **7 million jobs.**
- India has jumped to **48th rank** in ICAO's global aviation safety rankings.

Key Objectives

- **To regulate air transport services** to/from/within India and enforce civil air regulations, and airworthiness standards.
- Establish an integrated ecosystem to **promote tourism, increase employment** and lead to balanced regional growth.
- **Ensure safety, security and sustainability of aviation sector** through use of technology and effective monitoring.
- **Enhance regional connectivity** through fiscal support and infrastructure development.

Schemes/Initiatives

- **National Civil Aviation Policy (NCAP), 2016.**
- **Up to 100% FDI is permitted in Non-scheduled air transport services, h**elicopter services and seaplanes under **automatic route.**
- **Regional Connectivity Scheme UDAN** to make flying affordable for common citizen. **AirSewa app** for air-passengers to register their complaints for swift redressal.
- **e-Sahaj portal** to provide security clearance to citizens in online mode.
- **Digi Yatra to enhance seamless travel experience** for passengers and simultaneously improving security.
- **PLI Scheme** for Drone and Drone Components.
- **Ratification** of three Protocols relating to amendments in **Chicago Convention**
- **ISHAN Initiative i.e., combining India's 4 Flight Information Regions (FIRs) into a single system** overseen from Nagpur.

Constraints

- **High jet fuel prices, increased cost of operations for airlines** which could lead to an **increase in air fares by up to 15%.**
- **Inadequate trained and skilled manpower from airline pilots to maintenance personnel.**
- **Lack of technological advancements in upgrading aircraft communication systems,** causing the entire system to collapse.
- **Commercial liberalization** has led to intense competition and reduction in real yields.
- **Increasing fear of terrorism** leads to stringent check-ins and consequently longer lines and delays.

Way Forward

- **Reduction in fuel cost** which made low-cost airlines model possible and sustainable.
- Need to **promote collaboration between original equipment manufacturers (OEMs),** industry and educational institutes to assimilate latest technology and management practices in aviation industry.
- **Taxation and pricing structure of aviation turbine fuel (ATF) should be aligned to global benchmarks** by bringing it under the ambit of GST.
- **Establishing** India **as a trans-shipment hub in the region** to reap its multiple benefit.
- **Formulation of long-term plans for advanced research in aviation technologies** to create a manufacturing ecosystem for the sector in the country.
- **Developing Maintenance, Repair, and Overhaul (MRO)** facilities in India.

11. MINING AND ENERGY

11.1. MINES AND MINERALS

Mines and Minerals at a Glance

Status of Mines and Minerals

- Mining sector's **contribution to Indian GVA is at ~2%.**
- In terms of **value of mineral production,** about **97% comes from just 7 states.**
- **Only 10% of the Obvious Geological Potential (OGP) area of India has been explored.**
- India is **largely self-sufficient in primary raw materials** including bauxite, chromite, iron ore etc.
- India is deficient in **kyanite, magnesite, rock phosphate, manganese ore** etc.
- **Indian mining industry is characterized by a large number of small operational mines.**

Legislations and policies

- **Mines & Mineral (Development and Regulation) Act** 1957 (MMDR) with amendments from 2015 up till 2023 is the primary legislation of the sector.
- It classifies mining related activities into-
  - **Reconnaissance** (preliminary survey to determine mineral resources),
  - **Prospecting** (exploring, locating, or proving mineral deposits), and
  - **Mining** (commercial extraction).
- **National Mineral Policy, 2019.**

Schemes and Initiatives

- **Pradhan Mantri Khanij Kshtera Kalyan Yojana (PMKKKY) and District Mineral Foundation (DMF).**
- **Project Sudoor Drishti** for monitoring Mining activity through satellite (between Indian Bureau of Mines and National Remote Sensing Centre).
- **Scheme for Accreditation of Private Exploration Agencies** for Undertaking Prospecting Operations of Mineral.
- **National Geoscience Data Repository Portal (NGDRP) will make available all geological, geochemical, geophysical, and mineral exploration data** in the public domain on a digital geospatial platform

Challenges

- **Regulatory challenges** such as **no guarantee of obtaining mining lease** even if a successful exploration is done by a company.
- **Inadequate Infrastructure facilities** such as absence of proper transportation and logistics etc.
- **Sustainability challenges** as **40%** of mining proposals failed to get environmental clearance.
- **Environmental Pollution** from coal mines and smelting operations, leaching of heavy metals & toxic elements and blasting & surface mining.
- **Health and safety challenges** as mining operations can be extremely hazardous.
- **Illegal rat hole mining** in some states like **Meghalaya.**

Way Forward

- Facilitating **private party participation** in exploration through reforms in licensing policy.
- **Single window** and **time-bound** environmental and forest clearances.
- A **National Data Repository (NDR) of Mineral Resources** should be created and uploaded online.
- **Robust and transparent public reporting** mechanism for exploration firms.
- **Capping taxation and other levies** at a maximum of 40% of the sale value, as per global practice. **Effective Utilization of PMKKKY and DMF funds** on drinking water, environment preservation, pollution control, Healthcare, education etc.

11.2. COAL, OIL AND GAS SECTOR

Coal, Oil and Gas Sector at a Glance

Status of Coal and Oil Sector in India

- **~50%** of India's overall energy mix comes from Coal
- **~28%** of India's overall energy mix comes from Oil
- India produced **997 million tonnes** of coal in 2023-24.
- India is **third largest oil consumer** with **4.9 million barrels** of oil being consumed per day.
- **87.7%** of India's Oil needs are being fulfilled through imports in FY2023-24.
- Overall, India's **primary energy demand** is expected to nearly **double to 1,123 million tonnes** of oil equivalent by **2040.**

Key Objectives

- **More than double** the **oil and gas exploration** area by 2030 to increase domestic output.
- Boost the use of **natural gas in India's primary energy mix** from the **current 6.7% to 15% by 2030.**
- **Commercialise 50%** of the Strategic Petroleum Reserves (SPR) to raise funds and build additional storage tanks to offset high oil prices.
- Plan to **invest ₹ 7.5 trillion** on **oil and gas infrastructure** in the **next 5 years** and **double its refining capacity** by **2030.**

Schemes/Initiatives

- Reforms in **Hydrocarbon Exploration and Licensing Policy (HELP) 2016.**
- **Natural Gas Marketing Reforms 2020.**
- **SHAKTI** (Scheme for Harnessing and Allocating Koyala Transparently in India).
- **Simplified mining plan approval** and permission for Commercial coal mining.
- **100% FDI** allowed in various segments of oil and gas sector.
- Promotion of **Rail-Sea-Rail (RSR) Coal transportation.**
- **Dedicated Coal Corridors.**

Challenges

- Arranging **land for Coal Mining** remains a major issue.
- There is a **tendency to expand opencast mining** and discourage underground operation even for better quality coal reserves.
- **Limited competition and private participation** in the Coal Market.
- **High import dependence** for raw material in all three sectors.
- **Declining domestic crude oil and natural gas production** since **FY 2011-12** due to ageing wells, low investments and low interest of foreign players.

Way Forward

- **Diversifying the sources of imports** as far as possible.
- Oil, natural gas, electricity and coal can be brought under **GST to enable input tax credit.**
- Expeditiously complete detailed exploration through exploration-cum-mining leases based on production/revenue sharing model.
- Review and provide the required **flexibility** in contract terms to make **stranded oil and gas assets functional.**
- Provide for **shared infrastructure for evacuation** of oil and gas from small and scattered onshore and offshore fields.
  Promote **city gas distribution** to increase accessibility of piped natural gas (PNG).

11.3. POWER SECTOR

Power sector at a Glance

Status of Power sector in India

- **Third-largest producer and third-largest consumer** of electricity worldwide
- Installed power capacity of **444 GW by May 2024** (193 GW Renewable Energy and 217 GW Coal-based)
- **Solar energy** contributed 84 GW, 46 GW from **wind power,** 10.9 GW from **biomass** and 46.9 GW from **hydropower**
- **1255 kWh** is India's per capita power consumption as against the world average at 3,260 kWh
- **FDI** in power sector reached **$ 18.17 billion (2000-2023)**

Key Targets

- Establish a **renewable energy capacity of 500 GW** by 2030.
- Providing **accessible, affordable, and on-demand access to consumers** across the country.
- **Diversifying the sources of production of energy** to ensure sustainability.
- **Increase distribution efficiency** by minimizing the Aggregate Technical & Commercial (AT & C) losses.
- India is committed **to reducing emission intensity by 45 % in 2030** against the levels of the year 2005.
- India aspires to build a **transnational grid** to enhance energy security.

Schemes/Initiatives

- **Revamped Distribution Sector Scheme - A Reforms based and Results linked Scheme** aims to reduce AT&C losses.
- **Infrastructure status** to energy storage systems, including grid-scale battery systems.
- **Additional borrowing for states** in lieu of reforms in the power sector.
- **PUShP (Portal for Utilization of Surplus Power) portal** for peak demand management.
- **Other schemes: PLI Scheme, Ujwal DISCOM Assurance Yojana** (UDAY), **Integrated Power Development Scheme** (IPDS), **Pradhan Mantri Sahaj Bijli Har Ghar Yojana**, "Saubhagya" etc.

Constraints

- **Power DISCOMS under losses** (about Rs 68,832 crore in 2022-23).
- **Poor efficiency** due to **under-utilisation** of power plants and high **AT&C losses** at nearly **15.4% in FY23.**
- **Installed electricity production capacity** is **not enough** to support an annual economic growth of **7 to 8%.**
- Grid constraints, Theft, **Power cuts, Voltage fluctuation,** and extremely **high tariffs** in some areas.
- **Thermal power plants** are facing a **high deficit of coal and raw materials supplies.**
- **100% metering is yet to be achieved** for certain categories of consumers by many utilities.

Way Forward

- **Improve DISCOMs' revenue recovery** through performance incentives, improving staff capacity and building revenue collection capacity.
    - E.g., Integrated Rating and Ranking of Power Distribution Utilities (DISCOMs).
- **Making fiscal headroom through subsidy reduction** by making them more targeted.
- **Reducing government dues** with better financial management.
- **Regular Tariff revision and addressing idle regulatory assets** through monetization.
- **Liquidity infusion scheme** tied to credible action plan by States for the reduction of AT&C losses.
- **Corporate Governance Guidelines** to **DISCOMs** linking the release of funds by PFC and REC to these guidelines.

11.3.1. CENTRAL ELECTRICITY AUTHORITY (CEA)

Why in the news?

On October 15, 2023, the Central Electricity Authority (CEA) celebrated its **50th foundation day.**

About Central Electricity Authority (CEA)

- It is a **Statutory organization** under the Electricity Act 2003.
- **Objective:**
    - To regulate and oversee the **development of the electricity sector in the country.**
    - To ensure reliable **24x7 power supply** of adequate quality to all consumers in the country.
- **Functions and responsibilities:**
    - **Advise the central government** on National Electricity Policy.
    - **Specify the technical standards** for electrical plants and electric lines.
    - **Specify the condition for installation of meters.**
    - **Promote measures for advancing the skill of persons** engaged in the electricity industry.
    - **Promote and assist in the timely** completion of schemes and projects.

Emerging Challenges for CEA	Way forward
• **Integration challenges** with increasing share of renewable energy sources and other decentralized power generation systems. • **New cyber threats** associated with the growing digitization of Power sector. • **Power Infrastructure** requires substantial upgrades and modernization.	• Explore and promote the adoption of **energy storage technologies.** • **Data Analytics and Predictive Maintenance** for grid planning and management. • Developing and implementing **robust cybersecurity policies and systems.** • **Collaboration with international organizations** and sharing best practices E.g., **BIMSTEC energy centre** set up in Bengaluru

12. INNOVATION AND ENTREPRENEURSHIP

12.1. INNOVATION IN INDIA

Innovation in India at a Glance

Status of innovation in India

- **40th rank** amongst 132 countries in Global Innovation Index (GII) 2023
- **42nd rank** amongst 55 countries in International Intellectual Property Index, 2024
- **Over 1 lakh Patents** were granted by the Patent office (March, 2023 to March, 2024).
- **7th position in terms of Resident Patent Filing** activity in the world (WIPO Report 2022)
- India **still underperforms in innovation** with **0.66% Gross Domestic Expenditure on R&D (GERD)** as compared to 2.8% in USA, and 4.2% in South Korea

Policy/Schemes/Initiatives

- National Science, Technology and Innovation Policy (STIP), 2020.
- **Schemes for innovation and Entrepreneurship** like Make in India, Accelerating Growth of New India's Innovations (AGNII), Uchchatar Avishkaar Yojana, Women Entrepreneurship Platform, etc.
- Around **9,000 Atal Tinkering Labs** under Atal Innovation Mission (AIM).
- Start-up India to promote entrepreneurial mindset through innovation, incubation and incentives.
- **AIM-PRIME** (Program for Researchers on Innovations, Market-Readiness & Entrepreneurship) to promote and support science-based deep-tech start-ups.
- **MSME Innovative Scheme** for awareness about India's innovation and motivate MSMEs to become MSME Champions.
- **Atal Ranking of Institutions on Innovation Achievements (ARIIA)** to rank all major HEIs and universities on Innovation and Entrepreneurship Development indicators.

Constraints

- **Delays in granting patent.** E.g., Average time taken for disposing an application in US is 20- 21 months, which is almost 1/3rd of India.
- Other patent issues such as **evergreening of patents and debates around compulsory licensing.**
- **Fluctuation in IPR policies** making entrepreneurship a riskier affair.
  - For instance, Abolition of the Intellectual Property Appellate Board (IPAB)
- **Risk aversion** in middle class, talent export or Brain-drain.
- **Financial and Non-Financial Constraints** such as access to finance, lack of credit facilitiesetc.
- **No publicly accessible India patent database** for start-ups.
- Weak university research and **poor industry-academia linkage.**

Way Forward

- **Improve DISCOMs' revenue recovery** through performance incentives, improving staff capacity and building revenue collection capacity.
    - E.g., Integrated Rating and Ranking of Power Distribution Utilities (DISCOMs).
- **Making fiscal headroom through subsidy reduction** by making them more targeted.
- **Reducing government dues** with better financial management.
- **Regular Tariff revision and addressing idle regulatory assets** through monetization.
- **Liquidity infusion scheme** tied to credible action plan by States for the reduction of AT&C losses.
- **Corporate Governance Guidelines** to **DISCOMs** linking the release of funds by PFC and REC to these guidelines.

12.1.1. PATENTS

Why in the News?

Patents (Amendment) Rules, 2024 have been notified by the Department for Promotion of Industry and Internal Trade, **Ministry of Commerce and Industry**.

Key Provisions of the Patents (Amendment) Rules, 2024

- **Certificate of Inventorship** to acknowledge the contribution of inventors in the patented invention.
- **Time limit** for filing request for examination, time limit has been reduced from 48 months to 31 months.
- **Renewal fee** reduced by 10% if paid in advance through electronic mode for a period of at least 4 years.
- **Frequency to file the statements of working of patents** reduced from once in a financial year to once in every three financial years.

Regulation of Patents

Global

- **World Intellectual Property Organization (WIPO)** regulates the Patent and other IPR.
- Under **Trade-Related Aspects of Intellectual Property Rights (TRIPS)**, an agreement of the **World Trade Organisation (WTO) was** signed in **1994.**

India

- Regulated by the **Patents Act, 1970.** It repealed the Indian Patents and Designs Act, 1911.
- As per the Act, the **time Period** of patent will be 20 years.
- **National Intellectual Property Rights (IPR) Policy in 2016.** It includes
    - Scheme for Facilitating **Start-Ups Intellectual Property Protection (SIPP)** to encourage filling of Patent applications by Startups.
    - **National Intellectual Property Awareness Mission (NIPAM)**, a flagship program to impart IP awareness and basic training in educational institutes.
    - **Patent Facilitation Programme** has been revamped to scout patentable inventions and provide full financial, technical and legal support in filing and obtaining patents.
    - **IP Mitra** for **Startups in patents, trademarks, and designs** under the extended Scheme for Facilitating Start-Ups Intellectual Property Protection (SIPP).

Conclusion

To create robust patent protection system initiatives like re-establishment of the IPAB etc. can be taken. Also, research and development needs to be promoted in academies/Institutes and Industrial sphere so that filing of patents increases.

12.2. STARTUP ECOSYSTEM IN INDIA

Startup Ecosystem in India at a Glance

Status of India's Start-up Ecosystem

- India has the 3rd **largest startup ecosystem** in the world with over **100+ unicorns** and **98000 Startups (2023).**
- For **tech startups**, India is the **2nd largest ecosystem**
- Around **40%** of startups are in **tier-II and tier-III cities**
- Overall startups are growing at an **average growth rate of 15%** year on year.

Significance of a Strong Startup Ecosystem

- Promote **ideas, innovation, and research.**
- Develop **backward and forward linkages.**
- **Wealth creation** through future scale-ups.
- **Employment generation-** on average 12 jobs are created per startup.
- **Fulfilment of societal needs** in areas like affordable healthcare, education, financial inclusion etc.
- **Stimulate domestic investment**.
- **Women Empowerment:** approximately 47% of recognised startups in the country have at least one-woman director.
- **Promoted democratisation of technology and Inclusivity:** Fintech startups are now reaching **out to remote areas.** E.g., Gpay, PhonePe etc.

Government Initiatives

- **Startup India Seed Fund Scheme (SISFS)** to provide early-stage financial assistance.
- **Fund of Funds for Startups (FFS) Scheme**.
- Providing **global market access** to Indian startups through inter-governmental cooperation.
- Support for **Intellectual Property protection** with fast-tracked patents and simplified rules.
- **AIM-PRIME** to promote and support science-based deep-tech startups.
- **Schemes for Innovation and Entrepreneurship** such as AGNII, Uchchatar Avishkar Yojana, Women Entrepreneurship platform etc.
- LEAP AHEAD INITIATIVE, **National Startup Advisory Council (NSAC).**

Challenges to Startup Ecosystem

- **Complex and time-consuming process of incorporation** of a startup.
- **Difficulties in accessing mentorship and support** due to weak industry linkages and lack of experience.
- **Sporadic supporting infrastructure** such as technology parks, logistics parks with high concentration in metro cities.
- **Bureaucratic hurdles** like regulatory compliances, complex labour laws, tax laws, changing stance on emerging technology etc.
- **Difficulties in protecting and enforcing Intellectual Property Rights (IPR).**
- **Less focus on Agriculture**: Out of the total recognised startups, **only 5.18% are in agriculture sector.**
- **Increased cases of flipping** (shifting of Indian startups to an overseas jurisdiction like Singapore).

Way Forward

- **Strengthening of industry-academia linkages** to provide support, incubate ideas and ensure the availability of essential services to emerging startups.
- **Scale up accelerator networks and incubation ecosystem**.
- Facilitate greater **avenues of domestic investment with innovative funding ideas.**
- Establish **regulatory sandboxes** to test innovative products or services.
- **Encourage the adoption of advanced technologies**: Such as the Internet of Things (IoT), data analytics, etc.,
- Enable **direct overseas listing** of **unlisted Indian startups** and steps to **facilitate reverse flipping** (a company relocating its headquarters back to the home country).

12.2.1. START-UPS IN RURAL INDIA

Why in the news?

Start-ups are emerging as a beacon of hope in Rural India, especially in the realm of agriculture.

Types of Rural Start-ups

- **Founders based in urban areas with solutions catering to rural areas:** ex-Jai Kisan
- **Founders belonging to rural areas with solutions catering torural areas:** ex - Miticool
- **Self-Help Groups:** Ex - Anand Milk Union Ltd. (AMUL)
- **Micro, Small, and Medium Enterprises (MSMEs):** More than 50% of total MSMEs in India are in rural areas.

Role of Start-ups in Rural Economy

- **Rural Development:** Scaling startups can push for overall **rural economic improvement** and achieve the vision of **'Atmanirbhar gaon'**.
- **Employment Generation** and livelihood opportunities in rural India. E.g., **Meesho, Udaan etc.**
- **Education and Skill Development:** Rural-urban divide is being abridged by the emergence of rural Ed-tech startups. E.g., **Paathshaala, Learning Delight etc**.
- **Financial Inclusion:** Affordable financial services like microcredit, insurance, and digital payments in rural areas. E.g., **Bank Saathi**
- **Women Empowerment:** The SHG led startups have led to the socio-political and economic empowerment of rural women. E.g., **Lijjat Papad**
- **Environmental Sustainability:** Focusing on harnessing renewable energy. E.g., **AgriVijay, Earthshastra Ecotech** pvt. Ltd.
- **Water Governance:** Several Start-ups are striving to make water accessible and affordable, save agriculture water etc. E.g., **Water lab India, Kheyti, boon** etc.

Challenges Faced by the Rural Startups				
Connectivity gap with Suppliers in Urban Areas	Financial Accessibility	Lack of Support System	Difficulty in Finding Early Adopters in Rural Areas	Limited Funding Mechanism in Rural Areas

Way Forward

Policy and institutional support are crucial for addressing infrastructure, finance, and skill gaps in rural startups. Fostering a government-NGO collaboration with emphasis sustainability over scalability could be the mantra to encourage rural entrepreneurship.

13. ECONOMY PREVIOUS YEAR QUESTIONS 2013-2023 (SYLLABUS-WISE)

GS-III: Technology, Economic Development, Biodiversity, Environment, Security and Disaster Management

Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment

- Distinguish between 'care economy' and 'monetised economy'. How can care economy be brought into monetised economy through women empowerment? **(2023, 15 marks)**
- Most of the unemployment in India is structural in nature. Examine the methodology adopted to compute unemployment in the country and suggest improvements. **(2023, 15 marks)**
- What is the status of digitalization in the Indian economy? Examine the problems faced in this regard and suggest improvements. **(2023, 10 marks)**
- Faster economic growth requires increased share of the manufacturing sector in GDP, particularly of MSMEs. Comment on the present policies of the government in this regard. **(2023, 10 marks)**
- Economic growth in the recent past has been led by increase in labour activity." Explain this statement. Suggest the growth pattern that will lead to creation of more jobs without compromising labour productivity. **(2022, 15 Marks)**
- Explain the difference between computing methodology of India's Gross Domestic Product (GDP) before the year 2015 and after the year 2015. **(2021, 10 Marks)**
- Do you agree that the Indian economy has recently experienced V- shaped recovery? Give reasons in support of your answer. **(2021, 15 Marks)**
- Define potential GDP and explain its determinants. What are the factors that have been inhibiting India from realizing its potential GDP? **(2020, 10 Marks)**
- Explain the rationale behind the Goods and Services Tax (Compensation to States) Act of 2017. How has COVID-19 impacted the GST compensation fund and created new federal tensions? **(2020, 15 Marks)**
- Enumerate the indirect taxes which have been subsumed in the goods and services tax (GST) in India. Also, comment on the revenue implications of the GST introduced in India since July 2017. **(2019, 10 Marks)**
- Do you agree with the view that steady GDP growth and low inflation have left the Indian economy in good shape? Give reasons in support of your arguments. **(2019, 10 Marks)**
- How are principles followed by the NITI Aayog different from those followed by erstwhile Planning Commission in India? **(2018, 15 Marks)**
- How would the recent phenomena of protectionism and currency manipulations in world trade affect macroeconomic stability of India? **(2018, 15 Marks)**
- Among several factors for India's potential growth, savings rate is the most effective one. Do you agree? What are the other factors available for growth potential? **(2017, 10 Marks)**
- The nature of economic growth in India in recent times is often described as jobless growth. Do you agree with this view? Give arguments in favour of your answer. **(2015, 12.5 Marks)**
- In what way could replacement of price subsidy with Direct Benefit Transfer (DBT) change the scenario of subsidies in India? Discuss. **(2015, 12.5 Marks)**
- Craze for gold in Indians has led to a surge in import of gold in recent years and put pressure on balance of payments and external value of rupee. In view of this, examine the merits of Gold Monetization Scheme. **(2015, 12.5 Marks)**
- "While we flaunt India's demographic dividend, we ignore the dropping rates of employability." What are we missing while doing so? Where will the jobs that India desperately needs come from? Explain. **(2014, 12.5 Marks)**
- Capitalism has guided the world economy to unprecedented prosperity. However, it often encourages short-sightedness and contributes to wide disparities between the rich and the poor. In this light, would it be correct to believe and adopt capitalism for bringing inclusive growth in India? Discuss. **(2014, 12.5 Marks)**

- Discuss the rationale for introducing Goods and Services Tax (GST) in India. Bring out critically the reasons for the delay in roll out for its regime. **(2013, 10 Marks)**

Inclusive growth and issues arising from it

- Is inclusive growth possible under market economy ? State the significance of financial inclusion in achieving economic growth in India. **(2022, 10 Marks)**
- Explain intra-generational and inter-generational issues of equity from the perspective of inclusive growth and sustainable development. **(2020, 10 Marks)**
- It is argued that the strategy of inclusive growth is intended to meet the objectives of inclusiveness and sustainability together. Comment on this statement. **(2019, 15 Marks)**
- What are the salient features of 'inclusive growth'? Has India been experiencing such a growth process? Analyse and suggest measures for inclusive growth. **(2017, 15 Marks)**
- Pradhan Mantri Jan Dhan Yojana (PMJDY) is necessary for bringing unbanked to the institutional finance fold. Do you agree with this for financial inclusion of the poor section of the Indian society? Give arguments to justify your opinion. **(2016, 12.5 Marks)**
- Comment on the challenges for inclusive growth which include careless and useless manpower in the Indian context. Suggest measures to be taken for facing these challenges. **(2016, 12.5 Marks)**

Government Budgeting

- Distinguish between Capital Budget and Revenue Budget. Explain the components of both these Budgets. **(2021, 10 Marks)**
- The public expenditure management is a challenge to the Government of India in context of budget making during the post liberalization period. Clarify it. **(2019, 15 Marks)**
- Comment on the important changes introduced in respect of the Long Term Capital Gains Tax (LTCGT) and Dividend Distribution Tax (DDT) in the Union Budget for 2018-2019. **(2018, 10 Marks)**
- One of the intended objectives of Union-Budget 2017-18 is to 'transform, energize and clean India'.
- Analyze the measures proposed in the Budget 2017-18 to achieve the objective. **(2017, 15 Marks)**
- What were the reasons for the introduction of Fiscal Responsibility and Budget Management (FRBM) Act, 2003? Discuss critically its salient features and their effectiveness. **(2013, 10 Marks)**
- What is the meaning of the term 'tax expenditure'? Taking housing sector as an example, discuss how it influences the budgetary policies of the government. **(2013, 10 Marks)**

Agriculture: Major crops, Cropping patterns in various parts of the country

- Explain the changes in cropping patterns in India in the context of changes in consumption patterns and marketing conditions. **(2023, 15 marks)**
- What is Integrated Farming System ? How is it helpful to small and marginal farmers in India ? **(2022, 15 Marks)**
- What are the present challenges before crop diversification? How do emerging technologies provide an opportunity for crop diversification? **(2021, 15 Marks)**
- What are the major factors responsible for making rice-wheat system a success? In spite of this success how has this system become bane in India? **(2020, 15 Marks)**
- How far is Integrated Farming System (IFS) helpful in sustaining agricultural production **(2019, 10 Marks)**
- How has the emphasis on certain crops brought about changes in cropping patterns in recent past? Elaborate the emphasis on millets production and consumption. **(2018, 15 Marks)**
- Assess the role of National Horticulture Mission (NHM) in boosting the production, productivity and income of horticulture farms. How far has it succeeded in increasing the income of farmers? **(2018, 15 Marks)**
- What are the major reasons for declining rice and wheat yield in the cropping system? How crop diversification is helpful to stabilise the yield of the crops in the system? **(2017, 15 Marks)**
- How do subsidies affect the cropping pattern, crop diversity and economy of farmers? What is the significance of crop insurance, minimum support price and food processing for small and marginal farmers? **(2017, 15 Marks)**
- What is allelopathy? Discuss its role in major cropping systems of irrigated agriculture. **(2016, 12.5 Marks)**

Different types of irrigation and irrigation systems

- How and to what extent would micro-irrigation help in solving India's water crisis? **(2021, 10 Marks)**
- Suggest measures to improve water storage and irrigation system to make its judicious use under depleting scenario. **(2020, 15 Marks)**
- Elaborate the impact of National Watershed Project in increasing agricultural production from water stressed areas. **(2019, 10 Marks)**
- What is water-use efficiency? Describe the role of micro-irrigation in increasing the water-use efficiency. **(2016, 12.5 Marks)**

Storage, transport and marketing of agricultural produce and issues and related constraints

- What are the main bottlenecks in upstream and downstream process of marketing of agricultural products in India ? **(2022, 15 Marks)**
- What are the main constraints in transport and marketing of agricultural produce in India? **(2020, 10 Marks)**
- There is also a point of view that Agricultural Produce Market Committees (APMCs) set up under the State Acts have not only impeded the development of agriculture but also have been the cause of food inflation in India. Critically examine. **(2014, 12.5 Marks)**

E-technology in the aid of farmers

- How does e-Technology help farmers in production and marketing of agricultural produce? Explain it. **(2023, 10 marks)**
- How is science interwoven deeply with our lives? What are the striking changes in agriculture triggered off by the science-based technologies? **(2020, 10 Marks)**
- How can the 'Digital India' programme help farmers to improve farm productivity and income? What steps has the Government taken in this regard? **(2015, 12.5 Marks)**

Issues related to direct and indirect farm subsidies and MSP

- What are the direct and indirect subsidies provided to farm sector in India. Discuss the issues raised by the World Trade Organization (WTO) in relation to agricultural subsidies. **(2023, 15 marks)**
- What do you mean by Minimum Support Price (MSP)? How will MSP rescue the farmers from the low- income trap? **(2018, 10 Marks)**
- Given the vulnerability of Indian agriculture to vagaries of nature, discuss the need for crop insurance and bring out the salient features of the Pradhan Mantri Fasal Bima Yojana (PMFBY). **(2016, 12.5 Marks)**
- "In the villages itself no form of credit organization will be suitable except the cooperative society." — All India Rural Credit Survey. Discuss this statement in the background of agricultural finance in India. What constraints and challenges do financial institutions supplying agricultural finance face? How can technology be used to better reach and serve rural clients? **(2014, 12.5 Marks)**
- What are the different types of agriculture subsidies given to farmers at the national and at state levels? Critically analyse the agricultural subsidy regime with reference to the distortions created by it. **(2013, 10 Marks)**

Public Distribution System- objectives, functioning, limitations, revamping; Issues of buffer stocks and food security

- What are the major challenges of Public Distribution System (PDS) in India ? How can it be made effective and transparent ? **(2022, 10 Marks)**
- What are the salient features of the National Food Security Act, 2013? How has the Food Security Bill helped in eliminating hunger and malnutrition in India? **(2021, 15 Marks)**
- What are the reformative steps taken by the Government to make food grain distribution system more effective? **(2019, 15 Marks)**
- Food Security Bill is expected to eliminate hunger and malnutrition in India. Critically discuss various apprehensions in its effective implementation along with the concerns it has generated in WTO. **(2013, 10 Marks)**

Technology missions

- How was India benefited from the contributions of Sir M. Visvesvaraya and Dr. M. S. Swaminathan in the fields of water engineering and agricultural science respectively? **(2019, 10 Marks)**
- Explain various types of revolutions, took place in Agriculture after Independence in India. How these revolutions have helped in poverty alleviation and food security in India? **(2017, 10 Marks)**
- India needs to strengthen measures to promote the pink revolution in food industry for ensuring better nutrition and health. Critically elucidate the statement. **(2013, 10 Marks)**

Economics of animal-rearing

- Livestock rearing has a big potential for providing non-farm employment and income in rural areas. Discuss suggesting suitable measures to promote this sector in India. **(2015, 12.5 Marks)**

Food Processing & Related Industries: Scope and significance, Location, Upstream and downstream requirements, Supply chain management

- Elaborate the scope and significance of the food processing industry in India. **(2022, 10 Marks)**
- What are the challenges and opportunities of food processing sector in the country? How can income of the farmers be substantially increased by encouraging food processing? **(2020, 10 Marks)**
- Elaborate the policy taken by the Government of India to meet the challenges of the food processing sector. **(2019, 15 Marks)**
- Examine the role of supermarkets in supply chain management of fruits, vegetables, and food items. How do they eliminate number of intermediaries? **(2018, 10 Marks)**
- What are the reasons for poor acceptance of cost-effective small processing unit? How the food processing unit will be helpful to uplift the socio-economic status of poor farmers? **(2017, 10 Marks)**
- What are the impediments in marketing and supply chain management in developing the food processing industry in India? Can e-commerce help in overcoming these bottlenecks? **(2015, 12.5 Marks)**

Economic Reforms: Land reforms in India

- State the objectives and measures of land reforms in India. Discuss how land ceiling policy on landholding can be considered as an effective reform under economic criteria. **(2023, 10 marks)**
- How did land reforms in some parts of the country help to improve the socio-economic conditions of marginal and small farmers? **(2021, 10 Marks)**
- Discuss the role of land reforms in agricultural development Identify the factors that were responsible for the success of land reforms in India. **(2016, 12.5 Marks)**
- In view of the declining average size of land holdings in India which has made agriculture non–viable for a majority of farmers, should contract farming and land leasing be promoted in agriculture? Critically evaluate the pros and cons. **(2015, 12.5 Marks)**
- Establish relationship between land reforms, agriculture productivity and elimination of poverty in the Indian economy. Discuss the difficulties in designing and implementation of agriculture friendly land reforms in India. **(2013, 10 Marks)**
- The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 has come into effect from 1st January, 2014. What are the key issues which would get addressed with the Act in place? What implications would it have on industrialization and agriculture in India? **(2014, 12.5 Marks)**

Effects of liberalization on the economy, Changes in industrial policy and their effects on industrial growth

- Account for the failure of manufacturing sector in achieving the goal of labour-intensive exports. Suggest measures for more labour-intensive rather than capital-intensive exports. **(2017, 10 Marks)**
- “Industrial growth rate has lagged behind in the overall growth of Gross-Domestic-Product (GDP) in the post-reform period” Give reasons. How far the recent changes in Industrial Policy are capable of increasing the industrial growth rate? **(2017, 7+8= 15 Marks)**

- How globalization has led to the reduction of employment in the formal sector of the Indian economy? Is increased informalization detrimental to the development of the country? **(2016, 12.5 Marks)**
- Justify the need for FDI for the development of the Indian economy. Why there is gap between MoUs signed and actual FDIs? Suggest remedial steps to be taken for increasing actual FDIs in India. **(2016, 12.5 Marks)**
- "Success of 'Make in India' programme depends on the success of 'Skill India' programme and radical labour reforms." Discuss with logical arguments. **(2015, 12.5 Marks)**
- There is a clear acknowledgement that Special Economic Zones (SEZs) are a tool of industrial development, manufacturing and exports. Recognising this potential, the whole instrumentality of SEZs require augmentation. Discuss the issues plaguing the success of SEZs with respect to taxation, governing laws and administration. **(2015, 12.5 Marks)**
- Normally countries shift from agriculture to industry and then later to services, but India shifted directly from agriculture to services. What are the reasons for the huge growth of services vis-à-vis industry in the country? Can India become a developed country without a strong industrial base? **(2014, 12.5 Marks)**
- Foreign Direct Investment (FDI) in the defence sector is now set to be liberalized. What influence this is expected to have on Indian defence and economy in the short and long run? **(2014, 12.5 Marks)**
- Examine the impact of liberalization on companies owned by Indians. Are they competing with the MNCs satisfactorily? Discuss. **(2013, 10 Marks)**
- Discuss the impact of FDI entry into Multi-trade retail sector on supply chain management in commodity trade pattern of the economy. **(2013, 5 Marks)**
- Though India allowed Foreign Direct Investment (FDI) in what is called multi-brand retail through the joint venture route in September 2012, the FDI, even after a year, has not picked up. Discuss the reasons. **(2013, 5 Marks)**
- With a consideration towards the strategy of inclusive growth, the new Companies Bill, 2013 has indirectly made CSR a mandatory obligation. Discuss the challenges expected in its implementation in right earnest. Also discuss other provisions in the Bill and their implications. **(2013, 10 Marks)**

Infra: Energy, Ports, Roads, Airports, Railways etc. and Investment models

- Do you think India will meet 50 percent of its energy needs from renewable energy by 2030 ? Justify your answer. How will the shift of subsidies from fossil fuels to renewables help achieve the above objective ? Explain. **(2022, 15 Marks)**
- Why is Public Private Partnership (PPP) required in infrastructural projects ? Examine the role of PPP model in the redevelopment of Railway Stations in India. **(2022, 10 Marks)**
- "Investment in infrastructure is essential for more rapid and inclusive economic growth. "Discuss in the light of India's experience. **(2021, 15 Marks)**
- Explain the meaning of investment in an economy in terms of capital formation. Discuss the factors to be considered while designing a concession agreement between a public entity and a private entity. **(2020, 15 Marks)**
- Describe the benefits of deriving electric energy from sunlight in contrast to the conventional energy generation. What are the initiatives offered by our Government for this purpose? **(2020, 15 Marks)**
- "Access to affordable, reliable, sustainable and modern energy is the sine qua non to achieve Sustainable Development Goals (SDGs)." Comment on the progress made in India in this regard. **(2018, 10 Marks)**
- With growing energy needs should India keep on expanding its nuclear energy programme? Discuss the facts and fears associated with nuclear energy? **(2018, 15 Marks)**
- Examine the development of Airports in India through joint ventures under Public – Private Partnership (PPP) model. What are the challenges faced by the authorities in this regard. **(2017, 10 Marks)**
- What are 'Smart Cities'? Examine their relevance for urban development in India. Will it increase rural-urban differences? Give arguments for 'Smart Villages' in the light of PURA and RURBAN Mission. **(2016, 12.5 Marks)**
- Give an account of the current status and the targets to be achieved pertaining to renewable energy sources in the country. Discuss in brief the importance of National Programme on Light Emitting Diodes (LEDs). **(2016, 12.5 Marks)**

- To what factors can the recent dramatic fall in equipment costs and tariff of solar energy be attributed? What implications does the trend have for the thermal power producers and the related industry? **(2015, 12.5 Marks)**
- Explain how Private Public Partnership arrangements, in long gestation infrastructure projects, can transfer unsustainable liabilities to the future. What arrangements need to be put in place to ensure that successive generations' capacities are not compromised? **(2014, 12.5 Marks)**
- National Urban Transport Policy emphasises on 'moving people' instead of 'moving vehicles'. Discuss critically the success of the various strategies of the Government in this regard. **(2014, 12.5 Marks)**
- Write a note on India's green energy corridor to alleviate the problem of conventional energy. **(2013, 10 Marks)**
- Adoption of PPP model for infrastructure development of the country has not been free of criticism. Critically discuss pros and cons of the model. **(2013, 10 Marks)**

Previous Year Questions	Scan the QR code to download the soft copy of syllabus-wise segregated PYQs from 2013-2023 (Economy).

14. APPENDIX

APPENDIX: KEY DATA AND FACTS

Employment, Labour and Skill Development

Employment

- **Unemployment rate was 3.1%** for calendar year 2023 (PLFS 2023), which Urban at 5.2% and rural at 2.4%.
- **Women's labor force participation rate** was **41% (**PLFS 2023).
- **1 out of every 3 unemployed individuals was young** in India (ILO Report finding).
- **Employment ratios for women in India are below average** (World Bank South Asia Development Update).
- **About 45.76% of the total workforce is engaged in agriculture (Seasonal employment)** and allied sector during 2022-23.

Skill Development

- **In India, only around 5% of the workforce is formally skilled** against **52%** in the **US** and **96%** in **South Korea.**
- India has entered its **37 years long demographic dividend period**, lasting from 2018 to 2055.
- Only **50.3% of India's educated people are employable**, as per India Skills Report, 2023.
- **Quality of jobs is on decline**, highlighted by **Periodic Labour Force Survey (PLFS).**

Growth and Development

Economic Indicators

- India recorded real **GDP growth of 7.8%** during the April-June period of 2023-24, the highest in the past four quarters.
- **In absolute terms, Gross Fixed Capital Formation** in Indian economy increased from Rs. 32.78 lakh crore (constant 2011-12 prices) in 2014-15 to Rs. **54.35 lakh crore in 2022-23** (Provisional Estimates).
- India's gross savings rate stood at **29.7% of Gross National Disposable Income (GNDI)** in 2022-23, with **households** forming 60.9% of aggregate savings.
- Net Financial Savings **declined to 5.3% of GDP** during 2022-23 from an average of 8% during 2013-22.
- At **40.1% of GDP**, the stock of household debt in India is **relatively low when compared to other Emerging Market Economies** (EMEs).
- **India's household debt to GDP ratio** is **one of the lowest** in the world, as also the Debt Service Ratio (DSR), which is estimated at 6.7% at end-March 2023.
- **Average Monthly Per Capita Consumption Expenditure (MPCE)** has been **increasing since 1999-2000**.

Human Development	▶ India's rank in Human Development Report improved to **134 (out of 193) in 2022** from 135 in 2021. ▶ **Life expectancy at birth:** Improved to 67.7 years (in 2022) from 67.2 (in 2021). ▶ **Expected years of schooling**: Increased to 12.6 years from 11.9 years. ▶ **Mean years of schooling:** Increased to 6.57 years. ▶ **Gross National Income per capita:** Improved to $6,951 from $6,542. ▶ **Gender Inequality Index:** India jumped 14 places to **rank 108 in 2022.**
Urban Poverty	▶ There are **more than 230 million people in Multidimensional poverty in 2021 in India.** ▶ **17%** of **urban** households are **slum dwellers** (as per the Ministry of Housing and Urban Poverty Alleviation). ▶ **Continued migration pressure** with urban population to exceed 590 million people by 2030 due to **Urban-pull** and **Rural-push factors**.
Financial Inclusion	▶ **14.7 bank branches** per 100,000 adults in **2020**, higher than **Germany, China and South Africa**. ▶ **50 Crore+ PMJDY** accounts with over 55% accounts held by women. ▶ **Bottom 50% of the global population owns just 2% of wealth and 8% of income. (World Inequality Report 2022).** ▶ In 2021, **49% of Indian adult men-owned smartphones**, while only **26% of women did**, revealing a gender disparity in ownership. ▶ World Bank has estimated that a **10% increase in fixed broadband penetration** would **increase GDP growth by 1.38%** in developing economies.
Urban Planning	▶ India is **at present 35% urban,** which is expected to go to **53% by 2047.** ▶ As per the Census of 2011, **40% of India's Urban population** lives in Tier 2 and 3 cities, which is expected to grow at a very fast pace. ▶ Under Smart Cities Mission, **only 28 cities have received 100% of their share of funds** from States/ULBs. ▶ Till December 2023, out of 7,970 projects taken up by Smart cities, **6,419 projects have been completed with Madurai** being the **only smart city** which has completed **100% of its projects.**
Housing	▶ **3 crore additional rural and urban houses announced in June 2024 under** PM Awas Yojana **(PMAY).** ▶ Over **1 crore houses grounded** under **PMAY (U)** and over **75 lakh houses completed**. ▶ Over **2 crore houses grounded** under **PMAY (R)** and over **2.29 crore houses completed**. ▶ **Around 4.12 lakh housing units** (44% in NCR) **are stalled.**

	Under Pradhan Mantri Awas Yojana – Urban, around **5.62 lakh houses could not be delivered to beneficiaries** due to a lack of basic amenities as of December 2022.
Land record modernization	**95.09% of villages** have completed **Computerization of Land Records (Record of Rights i.e., RoR).** **70% of Cadastral Maps have been digitized.** **1.15 ha** was the average farm size in 2010-11. **<10%** of the land is under non-agricultural uses.

Fiscal Policy

Government Financing	**5.6% of GDP** as fiscal deficit for FY2023-24. **Estimated 81.6%** public debt-to-GDP ratio for FY2023-24. **27.5% combined debt-to-GDP ratio of States** at end-March 2023. **60% debt-to-GDP ratio** (**40% Central Government** and **20% combined debt -to-GDP ratio of States**) by FY25 to avoid the debt spiralling out of control. States consolidated **Gross Fiscal Deficit to Gross Domestic Product (GFD-GDP) ratio declined from 4.1% in 2020-21 to 2.8% in 2021-22.** States' dependence on net market borrowings **declined to 76% in the budgeted GFD for 2023-24.**
Fiscal Deficit	Fiscal Deficit of Union Government reached **9.2% of GDP during pandemic year FY21**. Fiscal deficit for FY2023-24 moderated to **5.6%** of GDP. Government aims to reach a fiscal deficit **level below 4.5% of GDP by 2025-26.** **Combined Gross Fiscal Deficit (GFD) of states**, which increased to 4.1% of GDP in the pandemic-affected year, was brought down to **2.8% in FY22**.
Direct Taxation	**11.6% tax-GDP ratio** in FY2023-24 (6.6% for direct taxes and 5% for indirect taxes); **Net Direct Tax collections (provisional)** for the FY 2023-24 stand at **Rs. 19.58 lakh crore** marking a growth of 17.70% Y-o-Y. **Corporate Tax and Personal Income tax** as the **main contributors** to Direct Tax. **Direct tax buoyancy** at 2.52 in 2021-22 was the **highest in last 15 years** but declined to 1.18 in 2022-23.
Capital Expenditure	Government has budgeted capital expenditure at **₹11.11 lakh crore** (an **increase of 11.1%** over 2023-24) in 2024-25. Total Capex grew at an **average rate of 13% during FY12 and FY22.** The **Centre's Capex** has steadily increased from an average of 1.7% of GDP (Fy09 to FY20) to **3.4% of GDP** in FY2024-25. **Capex by the Corporate sector increased** in FY23, driven by heavy investments in electricity, steel, chemicals, auto and pharmaceuticals sectors.

Banking, Payment Systems and Financial Markets

Banking	▶ **15.4%** Credit Growth for Scheduled Commercial Banks (SCBs) in FY22-23. ▶ **4.5%** Gross NPA ratio and 1.2% Net NPA of SCBs at end-December 2022. ▶ **71.6%** was the Provision Coverage Ratio (PCR) of SCBs in September 2022. ▶ **Annualised Return on Assets (RoA)** and **Return on Equity (RoE)** for **PSBs turned positive** in 2020 after remaining **negative** since March 2016.
Asset Quality and Restructuring	▶ The **Gross Non-Performing Assets (GNPAs)** of **Scheduled Commercial Banks (SCBs)** fell to **3.9% in 2022-23.** ▶ The **sectoral share of the NPAs is dominated by the infrastructure sector.** ▶ **Disproportionate share of Public Sector Banks (PSBs)** i.e., about 9/10th of NPAs. ▶ **India has been one of the worst affected economies** from the Global Financial Crisis of 2008. ▶ **Huge Backlog of 13,000 cases** under Insolvency and Bankruptcy Code with **increase in average resolution time** from 324 to 653 days.
Payment systems	▶ As per RBI, **cash accounts for nearly 50% of all transactions in India**. ▶ **50% volume** of India's digital payments is dominated by Debit Cards, PPIs, and IMPS. ▶ **53% value** of India's digital payments is dominated by RTGS and NEFT. ▶ **22.4 digital transactions** were happening per capita in 2019 (from 2.4 in 2014). Cross-border payments market value is estimated to be **$190 trillion in 2023** and expected to reach $290 trillion by 2030.
Capital Markets	▶ **Consistent growth in terms of size** during the past few decades (**India is the 4th largest stock market).** ▶ Money raised by **Initial Public Offering** has been the **greatest** in the last decade.

External Sector

Export Sector	▶ **US$ 778.22 billion** was India's overall exports (merchandise and services combined) in 2023-24. ▶ **2.4%** was **India's share in world's exports** (China-12% and US-9%). ▶ India's exports are about **23% of its GDP.** ▶ India's **services trade has been a major driver of its exports.** ▶ **India's merchandise** imports from **FTA partners** grew by ~38% whereas **exports grew by just ~14.5%** (Global Trade Research Initiative (GTRI)).

Foreign Direct Investment (FDI)

- FDI into India reached an all-time high of **$84.83 billion** in **2021-22**.
- **Expected to reach to the tune of $100 Billion.**
- From April 2000-March 2024, **India's service sector attracted the highest FDI** equity inflow of 16.13%.
- **Mauritius, Singapore, USA, Netherlands and Japan** emerged as **top 5 countries** for FDI inflows in India in FY2023-24.
- In 2023–2024, FDI inflows **declined by 3.5% to $44 billion**, which is a five-year low.
- 70% of total inbound FDI was **limited to three states** i.e. Karnataka, Maharashtra & Gujarat in FY 2022 – 23.

Global Debt of Developing Countries

- Global public debt reached an **all-time high of $97 trillion in 2023 from $17 trillion in 2000.**
- **30% of global public debt** is held by developing countries.
- 54 developing countries allocated **10% or more of government revenues to interest payments.**
- Median value of **public debt-to-GDP ratio** fell from a peak of 60.4% in 2020 to 54.7% in 2023.
- **India's General Government Debt (GGD) was 80.9% of the GDP.**

Agriculture and Allied activities

Agricultural Credit

- Every 1**% increase in agricultural credit** produces **0.29% increase in agricultural GDP.**
- While small and marginal farmers hold 86% of operational landholdings **only 41%** of such farmers could be **covered by banks**.
- There are more than **65,000 functional Primary Agricultural Credit Societies** and they **account for 41 % of the Kisan Credit Card (KCC) loans.**

Agricultural Mechanization

- **Indian farm mechanisation level is at 40–45%** compared to that of the United States (95%), Brazil (75%) and China (57%) (NABARD, 2018).
- **India's farm equipment market is 7**% of the global market, **with more than 80% of the value contribution coming from tractors.**
- The **trade surplus in non-tractor farm machinery is very small.** India is reliant on **low grade equipment or imports**.

Fertilizer Sector

- India is the **3rd largest producer of fertilisers** and the **2nd largest fertilizer-consuming country** after China. (2022)
- **Urea** is the **most produced (86%),** the **most consumed (74%),** and the **most imported (52%).**
- Indian fertilizer market is projected to register a **CAGR of 11.9% (for 2022-2027).**

Financial Support to farmers	▶ **More than 11 crore farmers** have been given the financial benefits of **approximately Rs 2.81 lakh crores under PM -KISAN (Till feb 2024).** ▶ **Overall, 2-2.5% of GDP** is provided as subsidy annually in the form of fertilizer, credit, crop insurance and price support subsidies. ▶ **1/5th** of the aggregate farm income is in the form of **subsidies**. ▶ **50.2%** of the agricultural households are under **some kind of debt**. ▶ **About 60%** of the **loans** taken by farmers were **from institutional sources** (NSSO Report). ▶ Enrolment of farmers under the PMFBY has crossed a record **40 million in 2023-24.**
Allied Sector	▶ **13.36%** CAGR of Livestock sector during 2014-15 to 2021-22, contributing **30.19%** in total agriculture GVA in 2020-21 (at constant prices). ▶ **25%** of the global milk production happens in India, contributing **5%** of national economy and employing **more than 8 crore** farmers directly (2024). ▶ **37%** of India's total exports are contributed by the Horticultural Sector (2019). ▶ **3rd largest** fish producer, **4th largest exporter** and **2nd largest aquaculture** producer. ▶ Inland fish production has **doubled over the past 9 years** to 131 lakh tonnes.
Food Processing Sector	▶ **Sunrise sector** with **7.26%** AAGR (FY14-FY22), contributing **1.8% of the total GVA in the country (2021-22).** ▶ **20.05 lakh** employees with **12.2% of total persons engaged in the registered manufacturing sector** in the country. ▶ **24 Operational Mega Food Parks** out of 41 approved across the country. ▶ **Share of processed food exports** in agri-exports has **increased to 25.6% in 2022-23.**
Agricultural Exports	▶ Agricultural exports and imports in India **registered an 8% decline (2023 – 24) each.** ▶ India has been a **net exporter** of agri-products **since the economic reforms began in 1991.** ▶ **Share of India's agricultural exports** in the **world agriculture trade** in 2023 was **2.4%.** ▶ **Share of agricultural exports** in **India's total merchandise exports** was **11.9% in 2021-22.**
Agricultural Extention	▶ **Every rupee** invested in agricultural research **yields a return of nearly Rs 13.85.** ▶ Continued technology backstopping has **increased average productivity** during 2014-23 by 20.2% in cereals, 21.6% in pulses, and 30.4% in spices. ▶ In 2020-21, **India spent 0.7% of its agriculture GDP on extension services.**

Industry and Industrial Policy

Industrial Policy

- **17%** contribution of manufacturing sector to GDP**,** almost stagnant since 1991.
- **Improvement on several internationally reputed indices** such as the Global Competitiveness Index, Logistic Performance Index and the Global Innovation Index has been seen recently.
- **9 Indian companies** feature in Fortune 500 list of 2022.
- Government has approved **development of 11 Industrial Corridors with 32 Projects** in four phases.

Electronics Sector

- Electronics sector of India contributes **around 3.4% of the country's GDP.**
- India's **domestic production in electronics has increased** from $ 29 Billion in 2014-15 to **$ 87 Billion in 2021-22.**
- India's **consumer electronics market size** has **reached $73.7 billion in 2022.**
- **India's export of electronic goods rose** by almost 88% from **2013-14 to 2022-23.**
- **USA is the largest importer of India's electronic exports** followed by UAE, China, the Netherland & Germany.
- India aims to reach **US$300 billion worth of electronics manufacturing and US$ 120 billion in exports** by FY26.

Services

E-Commerce Sector

- **8th largest** e-commerce market globally.
- **A sunrise sector with 10-15% share** in India's retail market.
- **US$ 55.6 Billion** was generated by the industry in 2021 and expected to reach **US$ 350 billion** by **2030.**
- **3rd largest online shopper base** of **140 million** in **2020.**
- **10 million** internet users are added monthly (majorly from tier-II cities) due to increasing internet and Smartphone penetration.

Telecom Sector

- **2nd largest telecom** sector of the world.
- Around **66 crore** connections are in **Urban India** and **53 crore** in **Rural India** (Rural tele-density of **59%**).
- India has the **second-highest number of internet subscribers** globally.
- One of the **largest sector in terms of FDI inflows**, contributing around 6% of total FDI inflow.
- The sector contributes **directly to 2.2 Mn employments and indirectly to 1.8 M jobs.**

Tourism Sector	▶ **39th rank out of 117 countries in Global Travel and Tourism Development Index** 2024 of WEF. ▶ The National Council of Applied Economic Research (NCAER) reports that tourism in India **won't return to pre-pandemic levels until 2026.** ▶ In 2019 - **20, the sector contributed around 5.19 % to the total GDP** of the country. ▶ **Third largest foreign exchange earner** for the country until 2019. India is 7th ranked with 56 million trips in wellness **tourism (As per Global Wellness Tourism).**
Insurance	▶ **India has a health protection gap (HPG) of 73%.** ▶ Number of **insured farmers declined from 6.1 crore to 5.2 crore in 2023.** ▶ **$91** is India's overall **insurance density** in FY21. ▶ **India** is the **10th largest insurance market** in the world. ▶ **4.2%** is India's overall **insurance penetration** in FY21.
Gaming Sector in India	▶ With 568 million users, **India is officially the largest gaming market** and accounts for **every one in five online gamers** globally. ▶ Indian gaming market is expected to reach **$6 Billion by 2028.** ▶ **Number** of Indian gaming **companies** surged from **25 in 2015 to over 1400 in 2023**.

Infrastructure

Logistics Sector	▶ India's logistics cost has been worked out to be in the range of **7.8-8.9 %** of Gross Domestic Product (GDP) in **2021-22.** ▶ **India is ranked 38th on World Bank's Logistics Performance Index, 2023**, an improvement from 44th in 2018. ▶ Government has planned **35 MMLPs (to act as freight aggregation and distribution hubs)** with an investment outlay of **$6.2 Billion.** ▶ National Rail Plan envisages that the share of freight traffic by rail should go up from the current share of **27% to 45%** by 2030.
Roadways	▶ India has the **second-largest road network** in the world, spanning a total of **6.67 million kilometres** (kms). ▶ Road transport carries **~87% of India's total passenger traffic** and **more than 60% of its freight.** ▶ **2.2%** of the country's total **road network is National Highways which carries over 40% of road traffic.** ▶ India has **1% of the total vehicle** population in the world, but **accounts for 11% of road crashes and fatalities**, costing 3-5% of GDP.

Indian Railways

- **4th Largest** Railway Network in the world **behind only US, Russia, and China.**
- The Indian Railways consists of a total **track length of 1.26 lakh km with 7,335 stations.**
- A daily passenger count of **24 million passengers and 204 million tonnes of freight.**
- **1st and 4th** respectively in **passenger and freight transport globally.**
- Indian Railways is the **single largest employer in India,** employing approximately **1.3 Mn people.**

Port Sector

- **Turnaround time** across Indian ports consistently declined from 94 hours (FY13-14) to **52 hours (FY23-24).**
- **Consistent rise in container traffic** from 555 million tonnes (FY13-14) to **796 million tonnes (FY23-24).**
- **Cargo handling** of the Major Ports has steadily increased over the years, with a **10% increase from last year.**
- **Operating ratio** has **come down to Rs. 48** from Rs. 53 in 2020-21 (i.e., Rs. 48 is spent for every Rs. 100 earned).

Civil Aviation

- India has become **third largest domestic aviation market** in the world after USA and China.
- Between 2009- 2019, India contributed **5.9% to global growth in passenger traffic.**
- Overall, aviation industry **contributes $35 billion annually to India's GDP** and offer **7 million jobs.**
- India has jumped to **48th rank** in ICAO's global aviation safety rankings.

Mining and Energy

Mines and Minerals

- Mining sector's **contribution to Indian GVA is at ~2%**.
- India continues to be **largely self-sufficient** in **primary raw materials** including **bauxite, chromite, iron ore** etc.
- India is deficient in **kyanite, magnesite, rock phosphate, manganese ore** etc.
- Indian mining industry is **characterized by a large number of small operational mines**.
- In terms of **value of mineral production**, about **97% comes from just 7 states.**
- **Only 10% of the obvious geological potential (OGP)** area of India has been **explored**.

Coal, Oil and Gas Sector

- **~50%** of India's overall energy mix comes from Coal.
- **~28%** of India's overall energy mix comes from Oil.
- India produced **997 million tonnes** of coal in 2023-24.
- India is **third largest oil consumer** with **4.9 million barrels** of oil being consumed per day.
- **87.7%** of India's Oil needs are being fulfilled through imports in FY2023-24.
- Overall, India's **primary energy demand** is expected to nearly **double to 1,123 million tonnes** of oil equivalent by **2040.**

Power Sector

- **Third-largest producer and third-largest consumer** of electricity worldwide.
- Installed power capacity of **444 GW by May 2024** (193 GW Renewable Energy and 217 GW Coal-based).
- **Solar energy** contributed 84 GW, 46 GW from **wind power,** 10.9 GW from **biomass** and 46.9 GW from **hydropower.**
- **1255 kWh** is India's per capita power consumption as against the world average at 3,260 kWh.
- **FDI** in power sector reached **$ 18.17 billion (2000-2023).**

Power DISCOMS under losses (about Rs 68,832 crore in 2022-23).

Innovation and Entrepreneurship

Innovation

- **40th rank** amongst 132 countries in Global Innovation Index (GII) 2023.
- **42nd rank** amongst 55 countries in International Intellectual Property Index, 2024.
- **Over 1 lakh Patents** were granted by the Patent office (March, 2023 to March, 2024).
- **7th position in terms of Resident Patent Filing** activity in the world (WIPO Report 2022).
- India **still underperforms in innovation** with **0.66% Gross Domestic Expenditure on R&D (GERD)** as compared to 2.8% in USA, and 4.2% in South Korea.

Startup Ecosystem

- ·India has the **3rd largest startup ecosystem** in the world with over **100+ unicorns** and **98000 Startups (2023).**
- ·For **tech startups**, India is the **2nd largest ecosystem.**
- ·Around **40%** of startups are in **tier-II and tier-III cities.**
- ·Overall startups are growing at an **average growth rate of 15%** year on year.
- Approximately **47% of recognised startups** in the country have **at least one-woman director**.

WEEKLY FOCUS- ECONOMY

S. No.	Topic	Lean More
1.	Oil Prices Its Determinants And Effects	
2.	Infrastructure Financing and Business Models	
3.	Informal Economy in India and COVID-19	
4.	Reform and Codification of India's Labour Laws	
5.	Agricultural Marketing in India	
6.	India and FTAs	
7.	India and World Trade Organization	
8.	Infrastructure Development in the North Eastern Region	
9.	Post Pandemic Economy: New destination, New path	
10.	Non-Performing Assets (NPA) From 'a Crisis' to 'a Catalyst'	
11.	Changing Nature of Work	
12.	Port connectivity: India's conduit to the world	
13.	30 years of 1991 Economic Reforms from one revolution to another	
14.	Urban Planning in India: Building Future Cities of India	
15.	Agriculture Overview: From Production-centric to Farmer-centric	
16.	Agricultural Inputs - Part I Soil and Water: Elemental Agricultural Inputs	
17.	Agricultural Inputs- Part II Seeds and Pesticides: Essential Consumable Inputs	
18.	Agricultural Inputs- Part III Agricultural Mechanisation and Credit: Growth driving capital inputs	

S. No.	Topic	Lean More
19.	Micro, Small, and Medium Enterprises (MSMEs): Backbone of the Indian Economy	
20.	India 75 and Beyond	
21.	Rural Industrialisation: Stepping Stone for an Atmanirbhar Bharat	
22.	Fintech Sector: Navigating the technological revolution in Financial Sector	
23.	Capital market in India: Channelling Finance for Growth	
24.	Global Value Chains (GVCs)- Prospects and Challenges for India	
25.	Future of Work	
26.	Power Sector Reforms: A Journey Towards Sustainable Energy and Universal Access	

S. No.	Topic	Lean More
27.	Internationalisation of Rupee: Indian Currency's Global Ascent	
28.	India: Pharmacy of the World	
29.	Indian Statistical System: Decoding Data to Drive Development	
30.	Digital Inclusion in India: Building a Connected and Empowered Nation	
31.	Investment Ecosystem in India	
32.	India's Creative Economy: From Imagination to Innovation	
33.	Beyond Metros- The Ascent of India's Tier 2 and Tier 3 Cities	
34.	Threads of Transformation: India's Textile Industry Weaving a Modern Future	