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"Nothing is better than a life dedicated to people's service"

"To be able to serve without expecting anything in return, is the beauty of humanity"

UPSC CSE - 2025

CURRENT AFFAIRS



ECONOMY

ECONOMY

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ECONOMY CURRENT AFFAIRS

Index of Industrial Production (IIP)

GS Paper III – Indian Economy | Industrial Growth | Economic Development

Why in News?

According to data released by the Ministry of Statistics and Programme Implementation (MoSPI), **India's IIP growth slowed to 2.7% in April 2025**, marking an **8-month low**, compared to 5.2% in April 2024. This signals early signs of stress in the country's industrial recovery post-pandemic and high inflationary phase.

Understanding IIP:

- The **Index of Industrial Production (IIP)** measures the **volume of production** in industrial sectors like **mining, manufacturing, and electricity**.
- Base Year: **2011–12**, released monthly by the **Central Statistics Office (CSO)**.
- Classified by:
 - **Use-based industries:** Capital goods, consumer durables, etc.
 - **Sectoral breakdown:** Manufacturing, mining, electricity.

Sector-wise Highlights (April 2025):

Sector	Growth Rate	Observation
Mining	-0.2%	First contraction in 8 months
Electricity	+1.1%	Slowest growth in 7 months
Manufacturing	+3.4%	Slight deceleration; backbone of IIP
Capital Goods	+20.3%	Sharp increase due to base effect (2.81% in 2024)

Reasons for the Slowdown:

1. Weak Demand in Consumer Non-Durables

- Decline in rural and semi-urban consumption due to inflationary pressures and job stagnation.
- Low sales in food processing, personal care, and textiles.

2. Deceleration in Infrastructure and Energy Sectors

- Slower execution of public infrastructure projects in Q1 FY 2025–26.
- Reduced electricity output may reflect lower industrial utilization.

3. External Headwinds

- Global slowdown and weak export demand affecting sectors like chemicals, auto components, and electronics.
- Supply chain disruptions due to geopolitical tensions.

4. Weather-Related Volatility

- El Niño conditions impact mining operations and hydropower production.
- Increased input costs due to erratic rainfall affecting primary goods.

5. Base Effect Anomalies

- Some segments show exaggerated growth due to extremely low base last year (e.g., capital goods).

Implications:

Economic Concerns:

- **Signals slowdown in industrial recovery** post-COVID and post-inflation.
- **Reduces employment potential** in formal and informal manufacturing.
- **Investment hesitation** from private sector due to uncertain demand environment.

Policy and Fiscal Impacts:

- Revenue collection via GST and corporate tax may be subdued.
- Monetary policy may remain cautious despite pressure to stimulate demand.
- Central and state capital expenditure might need to be front-loaded to stimulate growth.

Structural Gaps:

- Persistent volatility shows over-reliance on a few high-growth segments.
- Weak MSME contribution, delayed infrastructure clearance, and lack of diversification.

Way Forward / Policy Suggestions:

1. Targeted Industrial Stimulus

- Incentivize MSMEs through **credit guarantee**, **PLI schemes**, and **tax relief**.
- Strengthen **cluster-based development** to spread growth.

2. Accelerate Public Infrastructure Projects

- Fast-track **National Infrastructure Pipeline** and **Gati Shakti** projects to boost core sectors like steel, cement, and transport.

3. Boost Domestic Demand

- Expand rural employment and income support (e.g., MGNREGA, PM-KISAN).
- Cut fuel and utility costs to ease consumer inflation burden.

4. Ease of Doing Business Reforms

- Reduce compliance burden for industrial units, particularly in Tier-2 and Tier-3 cities.
- Encourage **digital adoption and process automation** in traditional industries.

5. Diversify Export Markets

- Leverage FTAs with UK, UAE, Australia to access high-demand sectors.
- Encourage export of processed goods rather than raw materials.

Conclusion:

The April 2025 IIP data reflects a sobering picture of India's industrial momentum. While growth persists in capital goods due to investment cycles, the broader trend of deceleration warrants timely and targeted interventions. Strengthening industrial resilience through diversification, demand stimulation, and institutional reform is critical to achieving sustainable economic growth in the medium term.

Model UPSC Mains Question (GS Paper III)

Q "India's recent industrial performance, as reflected in the Index of Industrial Production, reveals emerging challenges to sustained economic growth." Examine the causes for the slowdown and suggest policy measures to revitalize the industrial sector.

SAARC Currency Swap Arrangement: A Regional Tool for Financial Stability***Background and Context:***

Amid growing concerns over exchange rate volatility, foreign exchange liquidity crunch, and regional financial stability, the Reserve Bank of India (RBI) has revised the **SAARC Currency Swap Arrangement (CSA)** for the period **2024–2027**.

- This move aims to strengthen financial cooperation among **SAARC nations** and enhance regional resilience to global economic shocks.
- The **SAARC CSA was initially introduced in 2012** to support member countries facing short-term balance of payments pressures and liquidity constraints.

What is a Currency Swap Arrangement (CSA)?

A **Currency Swap Arrangement** is a bilateral agreement between two central banks to exchange specified amounts of their domestic currencies at a fixed exchange rate, with a commitment to reverse the transaction at a predetermined date.

Key Objectives:

- To **address short-term foreign exchange liquidity needs**.
- To **stabilize exchange rates** during periods of external volatility.
- To **enhance regional financial cooperation** and self-reliance.

Key Features of the Revised SAARC CSA Framework (2024–2027):

1. INR Swap Window:

- A **dedicated facility** of ₹250 billion (approx. \$3 billion) in Indian Rupees.
- Intended to promote **greater use of INR** in regional trade and finance.
- Offers **concessions** (e.g., favorable terms, lower interest) to SAARC nations opting to borrow in INR.

2. USD and Euro Swap Window:

- RBI will provide foreign currency support worth **\$2 billion** in **US Dollars and Euros**.
- Ensures flexibility for countries preferring hard currency support.

3. Eligibility:

- All **SAARC member central banks**: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.

4. Tenure and Limits:

- Tenures are generally short-term (typically up to 3 months) and renewable.
- Access to the swap line is based on the **economic need** and **macro-stability indicators**.

Significance for India and the Region:

- **Strengthens India's leadership** in South Asia by acting as a lender of last resort.
- Supports **monetary policy coordination** and enhances **macro-financial stability** across the region.
- Promotes the **internationalization of the Indian Rupee**, particularly through the INR swap window.
- Reduces over-dependence on multilateral institutions like the **IMF** in times of external account stress.

Other Major Currency Swap Agreements Involving India:

- **India-Japan CSA**: A bilateral swap agreement worth **\$75 billion**.
- **India-UAE Swap Agreement**: Promotes use of local currencies in bilateral trade.
- **BRICS Contingent Reserve Arrangement (CRA)**: Signed in 2015 to provide support during liquidity pressures.
- **India-Sri Lanka CSA**: India extended support during Sri Lanka's economic crisis under this mechanism.

Challenges and Limitations:

- Limited to **short-term liquidity needs**; does not resolve structural BoP issues.
- **Exchange rate risk** persists, especially for non-INR swaps.
- **Political tensions** within SAARC (e.g., India-Pakistan) may limit full potential of the mechanism.

Model UPSC Mains Questions

- Q What is a Currency Swap Arrangement (CSA)? Discuss the significance of the SAARC CSA in promoting regional financial stability and India's role within it. (GS Paper III – Economy) (10/15 marks)
- Q "Currency Swap Arrangements are becoming essential instruments for economic diplomacy." Examine India's use of CSAs to achieve its foreign policy and economic objectives in the region. (GS Paper II – International Relations) (15 marks)

RoDTEP Scheme Restored for AA Holders, EOUs & SEZ Units

GS Paper III – Indian Economy | External Sector | Trade Policy

Why in News?

The Union Government restored **RoDTEP (Remission of Duties and Taxes on Exported Products)** benefits for exporters operating under the **Advance**

Authorization (AA) scheme, Export-Oriented Units (EOUs), and Special Economic Zones (SEZs), effective June 1, 2025. These categories were excluded in February 2025.

Background and Context:

- **RoDTEP** was introduced in **January 2021** to replace the MEIS (Merchandise Exports from India Scheme), aligning with **WTO norms** that prohibit export-linked subsidies.
- The scheme **remits central and state taxes/duties** not refunded under existing mechanisms (like mandi tax, power cess, etc.).
- Previously excluded categories like **AA holders, EOUs, and SEZ units** faced **cost disadvantages** despite contributing significantly to India's exports.

Key Features of the Restoration:

- Applicable to all eligible exports from June 1, 2025.
- Will use the **same RoDTEP rates** as applicable to normal exporters.
- Processed via the **ICEGATE portal** for duty credit scrip generation.

Significance:

1. Creates a Level Playing Field:

- Ensures **cost parity** among all exporters, regardless of registration or operating model.
- Removes trade distortions between DTA (Domestic Tariff Area) and SEZ/EOU units.

2. Enhances Export Competitiveness:

- Reduces embedded tax burden, boosting price competitiveness of Indian goods in global markets.
- Supports sectors like pharma, electronics, engineering, and garments.

3. Aligns with WTO Compliance

- RoDTEP is a **rules-based, non-incentivized scheme**, not tied to export performance—thus WTO-compliant.

4. Supports SEZ & EOU Performance Post Sunset Clause

- Many SEZ incentives ended post-March 2020. RoDTEP benefits now provide fiscal cushioning for continued viability.

Challenges and Way Forward:

Challenges:

- Budgetary allocation for RoDTEP remains limited, creating delays in refunds.

- Lack of awareness among small exporters about documentation requirements.
- Delay in onboarding sectors like iron and steel, which remain excluded.

Way Forward:

- **Ensure time-bound disbursement** of RoDTEP credits.
- Expand coverage to include **high-value strategic exports**.
- **Digitally streamline** verification of claims to prevent misuse and delays.

Model UPSC Mains Question (GS Paper III)

Q "The restoration of RoDTEP benefits to AA holders, EOUs and SEZs reflects India's commitment to WTO norms while supporting export competitiveness." Critically analyse the scope and impact of RoDTEP on India's external sector.

Miniratna Status to Defence PSUs

GS Paper III – Internal Security | Public Sector Management | Defence Reforms

Why in News?

The Ministry of Defence granted **Miniratna Category-I status** to three defence public sector undertakings (DPSUs):

- **Munitions India Limited (MIL)**
- **Armoured Vehicles Nigam Limited (AVNL)**
- **India Optel Limited (IOL)**

These PSUs were carved out during the restructuring of the Ordnance Factory Board in 2021.

What is Miniratna Status?

- Miniratna-I companies can make **capital investments up to ₹500 crore** without government approval.
- It provides **greater operational autonomy**, faster decision-making, and strategic agility.

Company Profiles:**1. Munitions India Limited (MIL)**

- Manufactures **ammunition, rockets, mortars, grenades**, and related explosives.
- Ensures indigenous supply chain for frontline forces.

2. Armoured Vehicles Nigam Limited (AVNL)

- Produces **combat tanks (T-90, Arjun)**, **infantry vehicles (BMP-II Sarath)**, and mobility solutions (Stallion trucks).

3. India Optel Limited (IOL)

- Specializes in **opto-electronic systems** for battlefield platforms (T-72, artillery guns, night vision for infantry, etc.)

Significance of Miniratna Status:

1. Operational and Financial Autonomy

- Reduces bureaucratic delays in procurement, R&D investment, and exports.
- Empowers PSUs to form **strategic partnerships** and joint ventures.

2. Boost to Indigenization under Atmanirbhar Bharat

- Supports the goals of **Defence Acquisition Procedure (DAP) 2020** and **Positive Indigenization Lists**.
- Reduces defence import dependence, aligns with **Strategic Partnership Model**.

3. Positions India as a Defence Export Hub

- Enhances export potential of combat vehicles, smart ammunition, and night vision systems.
- Strengthens India's diplomatic outreach via **defence cooperation with the Global South**.

Challenges and Way Forward:

Challenges:

- PSUs must compete with **private sector players** post-Miniratna transition.
- Need for **cultural and managerial reforms** within the PSUs to handle autonomy.
- **Technology obsolescence** risk if R&D is not aggressively scaled.

Model UPSC Mains Question (GS Paper III)

Q "Granting Miniratna status to defence PSUs marks a step forward in India's defence indigenization strategy." Examine the implications for national security and public sector efficiency.

National Investment and Infrastructure Fund (NIIF)

[GS Paper III – Indian Economy](#) | [Infrastructure](#) | [Investment Models](#)

Why in News?

The **6th Governing Council meeting** of the National Investment and Infrastructure Fund (NIIF) was held in New Delhi, chaired by the **Union Minister for Finance and Corporate Affairs**. The Council acknowledged NIIF's growing role in **mobilizing capital** for

infrastructure and noted that its **Assets Under Management (AUM)** have surpassed **₹30,000 crore**.

Background and Objectives

- **Established:** 2015
- **Nature:** Category II Alternative Investment Fund (AIF)
- **Ownership:**
 - **49% Government of India**
 - 51% with **domestic and global institutional investors** (e.g., Abu Dhabi Investment Authority, Temasek, HDFC Group)
- **Objective:**
 - To **catalyze infrastructure financing** by crowding in private capital.
 - Invest in **commercially viable projects** (greenfield and brownfield).
 - Enhance **long-term capital access** for core sectors of the Indian economy.

Key Features of NIIF:

Feature	Details
Fund Structure	NIIF operates through 3 funds: Master Fund, Fund of Funds, Strategic Opportunities Fund
Greenfield Projects	Projects built from scratch – NIIF supports them with equity/long-term capital
Brownfield Projects	Existing assets upgraded for better capacity or technology
Sovereign Wealth Role	NIIF is often termed a quasi-sovereign wealth fund for India
Fund Partners	Attracts global investors into Indian infra – builds credibility
Sectoral Focus	Ports, logistics, roads, renewables, real estate, digital infrastructure

Achievements and Developments:

- **AUM Growth:** Exceeded ₹30,000 crore across its three primary funds.
- **Strategic Investments:**
 - Partnered in **renewable energy platforms**
 - Invested in **multimodal logistics parks, airports, and toll roads**
 - Supported affordable housing and **digital infra** projects
- **Blended Finance Model:** NIIF acts as an anchor to attract **co-investment** from multilateral and private funds.

Significance:**1. Addresses India's Infra Financing Gap:**

- India needs ~\$1.4 trillion investment in infrastructure (as per NIP 2020–2025).
- NIIF helps fill long-term equity and quasi-equity funding gaps.

2. Boosts Investor Confidence:

- Government-backed entity provides a **stable, de-risked platform** for global investors.
- Enhances India's reputation as a **viable infrastructure investment destination**.

3. Supports National Development Goals:

- Aligned with **Gati Shakti, PM Gati Shakti Master Plan, National Infrastructure Pipeline, and Make in India**.
- Focuses on **low-carbon, resilient infrastructure** in sync with India's climate targets.

Challenges:

- **Investor risk aversion** in early-stage or greenfield projects.
- Long gestation periods may impact **return expectations**.
- Coordination challenges between **Centre, States, and private partners**.

Way Forward:

- **Expand sectoral coverage** to include social infrastructure (health, education).
- Promote **municipal infra bonds and state-level infra funds** under NIIF umbrella.
- Improve **exit mechanisms** and facilitate listing of infra platforms on capital markets.
- Strengthen governance, transparency, and capacity to **manage large asset portfolios**.

Model UPSC Mains Question (GS Paper III)

Q "The National Investment and Infrastructure Fund (NIIF) plays a catalytic role in addressing India's infrastructure deficit." Examine its structure, functions, and strategic relevance in India's development model.

Digital Payment Intelligence Platform (DPIP)

GS Paper III – Indian Economy | Digital Infrastructure | Cybersecurity

Why in News?

The Reserve Bank of India (RBI), in collaboration with major public and private sector banks, is developing a **Digital Payment Intelligence Platform (DPIP)** as part of India's **Digital Public Infrastructure (DPI)** strategy to combat rising fraud in digital transactions.

Context and Background:

- **Surge in Financial Frauds:**
 - Total fraud value in FY25 rose to ₹35,014 crore, nearly **three times** the value in FY24.
 - **Public sector banks** accounted for over ₹25,667 crore of these frauds.
 - Majority in **digital payments (by number)** and **loan frauds (by value)**.
- **Need for a Platform:**
 - The current **decentralized fraud monitoring systems** are inadequate.
 - Lack of **real-time data sharing** between banks leads to delayed action.
 - Rising digital penetration necessitates **centralized fraud intelligence**.

What is DPIP?

Feature	Description
Objective	Create a centralized system for real-time fraud detection and prevention
Developed by	RBIH (Reserve Bank Innovation Hub) with input from banks
Committee Oversight	A.P. Hota committee formed by RBI in 2023
Functions	Aggregate transaction data, use AI/ML to identify fraud patterns
DPI Integration	Part of India's larger digital governance framework (like Aadhaar, UPI)

Significance:**1. Strengthens Financial Cybersecurity**

- Detects fraud across platforms: UPI, card payments, net banking
- Reduces customer vulnerability, builds trust in digital systems

2. Enables Real-Time Coordination

- Allows **inter-bank intelligence sharing**, curbs serial fraud attempts
- Could prevent **cross-platform laundering and loan frauds**

3. Promotes Data-Driven Regulation

- Enhances RBI's capacity to **formulate policy** based on granular fraud data
- Aids in **standardization of KYC and due diligence practices**

Challenges and Concerns:

- **Privacy and data governance** issues under DPDP Act, 2023
- Possible **false positives** leading to customer service disruptions
- Need for **banking sector readiness** to integrate in real time

Way Forward:

- Establish **robust data anonymization** protocols
- Create **legal frameworks** to define roles, liabilities, and penalties
- Conduct **training and simulation exercises** for bank compliance teams
- Promote **consumer awareness** about digital fraud redressal

Model UPSC Mains Question (GS Paper III)

Q "The rise in digital financial frauds has made it imperative to develop centralized surveillance mechanisms like the Digital Payment Intelligence Platform." Critically evaluate the design, significance, and challenges of DPIIP in the context of India's financial ecosystem.

Household Income Survey – 2026**Why in News?**

The Ministry of Statistics and Programme Implementation (MoSPI) will conduct **India's first-ever nationwide Household Income Survey** in 2026 to fill a major data gap in socioeconomic policymaking.

Background and Need:

- India has historically **relied on expenditure surveys** (like NSSO) rather than income-based metrics.
- Past attempts (1950s, 1960s) failed as **income estimates were lower than expenditure/savings**, indicating reporting bias or data unreliability.

Purpose and Objectives:

Objective	Description
Measure Household Income	Across sources – wages, pensions, rent, interest, remittances
Estimate Wealth Impact	Assess how income relates to asset ownership and living standards
Capture Informal Sector	Understand income trends among gig workers, unorganized sectors
Evaluate Tech Disruption	Examine how technology adoption affects wages and livelihoods

Survey Structure and Oversight:

- **Technical Expert Group (TEG)** led by **Dr. Surjit Bhalla**
 - Will finalize: survey instruments, sampling design, estimation methods
 - Incorporates **international best practices** from Australia, USA, Canada, South Africa
- **MoSPI's Pilot History:**
 - Attempted as part of **Integrated Household Survey**
 - **PLFS revamp (2025)** now includes monthly income from secondary sources

Significance:**1. Enhances Data-Driven Governance**

- Reliable income data improves targeting for welfare schemes like **PM-KISAN, NSAP, Ujjwala, etc.**
- Informs poverty estimates, inequality debates, and UBI design

2. Enables Fiscal Planning and Taxation

- Helps calibrate **direct benefit transfers (DBTs)** and social spending
- Supports evidence-based discussion on **income tax thresholds, subsidies**

3. Global Comparability

- Aligns India with **OECD and ILO income measurement frameworks**
- Supports SDG tracking, especially **Goal 1 (No Poverty)** and **Goal 10 (Reducing Inequality)**

Challenges:

- **Income Underreporting** due to privacy fears, lack of documentation
- Difficulties in capturing **non-monetized rural incomes** (e.g., barter, subsistence farming)

- **Seasonal and volatile earnings** in informal sector may distort annualized estimates

Way Forward:

- Ensure **confidentiality assurances** under the Digital Personal Data Protection Act, 2023
- Use **hybrid data collection** – mix of surveys, digital footprints, and administrative data
- Pilot **mobile-based income diaries** or use fintech platforms to improve tracking
- Conduct **annual or biennial surveys** for trend analysis

Model UPSC Mains Question (GS Paper II)

Q "Accurate estimation of household income is critical for targeted social welfare, yet remains a long-standing gap in India's statistical system." Discuss the rationale, challenges, and implications of the proposed Household Income Survey.

WORLD'S LARGEST GRAIN STORAGE PLAN IN THE COOPERATIVE SECTOR

Context:

India has launched the World's Largest Grain Storage Plan in the Cooperative Sector, which has entered its pilot phase. It aims to decentralize food grain storage infrastructure and reduce post-harvest losses by leveraging PACS (Primary Agricultural Credit Societies).

About the World's Largest Grain Storage Plan:

Aspect	Details
Ministry	Ministry of Cooperation
Purpose	To build decentralized storage at PACS level, integrated with agri-infra like warehouses, FPS.
Convergence Approach	Utilizes existing schemes like AIF, AMI for funding support via subsidies and interest subvention.
Implementing Agencies	NCDC, NABARD, FCI, CWC, NBCC, NABCONS, etc.
Pilot Storage Capacity	9,750 metric tonnes across 13 PACS in 13 States/UTs.
Expansion Plan	500+ additional PACS identified for godown construction by November 2024.

Legal and Constitutional Framework:

- **Article 43B** (*Directive Principles of State Policy*): Promotes cooperative societies as instruments of economic development.
- **Multi-State Cooperative Societies Act, 2002**: Provides legal status and regulatory framework for cooperative bodies.
- **Agriculture Infrastructure Fund (AIF)**: A Central Sector Scheme providing financial support for farm-gate infrastructure, including storage.
- **Essential Commodities Act, 1955 (amended)**: Allows regulation of food stock limits in extraordinary situations, ensuring grain storage is not hoarded.

Challenges and Observations:

- **Land availability issues** at PACS level in densely populated states.
- **Capacity building and training** needed for PACS to operate warehouses efficiently.
- **Delays in inter-agency coordination** between implementing bodies.
- **Maintenance and Quality Control** standards must be enforced uniformly.
- **Digital tracking** of grain stocks remains underdeveloped in rural areas.

Model UPSC Mains Question:

Q "The decentralization of grain storage through cooperatives marks a paradigm shift in India's food security architecture. Critically examine the objectives and challenges of the World's Largest Grain Storage Plan in the Cooperative Sector." (250 words)

INDIA OVERTAKES JAPAN TO BECOME 4TH LARGEST ECONOMY

GS Paper III – Indian Economy | Growth and Development**Context:**

As per the latest **World Economic Outlook (WEO)** released by the **International Monetary Fund (IMF)**, **India has overtaken Japan** to become the **4th largest economy in the world** in terms of **nominal Gross Domestic Product (GDP)**. This significant milestone highlights the **resilience, reform orientation, and structural transformation** of the Indian economy, particularly in a challenging global environment.

Key Drivers for India's Economic Leap**1. Structural Factors**

- **Urbanization and Changing Aspirations**: Rapid urban growth has contributed to increasing **consumption patterns**, better access to services,

and rising productivity. Urban middle classes are driving demand for housing, transport, education, and consumer goods.

- **Demographic Dividend:** With a **median age of approximately 29 years**, India has one of the **youngest populations** globally. This demographic advantage offers a **large, trainable, and mobile workforce**, enhancing productivity and supporting economic expansion.
- **Strong Domestic Demand:** **Private consumption** forms nearly **70% of India's GDP**, acting as a strong buffer against global slowdowns. This consumption-driven growth model is reinforced by rising incomes, expanding digital access, and improved financial inclusion.

2. Policy Measures

- **Taxation and Business Reforms:**
 - **Goods and Services Tax (GST)** simplified India's indirect tax regime, reducing cascading taxes and improving compliance.
 - The **Insolvency and Bankruptcy Code (IBC)** strengthened creditor rights and resolved NPAs, improving ease of doing business.
 - **Corporate tax rate cuts (2019)** improved business profitability and global competitiveness.
- **Infrastructure Development:**
 - **National Infrastructure Pipeline (NIP)** envisages ₹111 lakh crore investments across energy, roads, railways, and urban sectors to boost economic potential.
 - **PM Gati Shakti:** A digital platform integrating infrastructure schemes for better coordination, reduced logistics costs, and faster project implementation.
- **Industrial and Manufacturing Push:**
 - **Atmanirbhar Bharat Abhiyan** focuses on self-reliance through import substitution, supply chain development, and boosting domestic manufacturing.
 - **Production-Linked Incentive (PLI) schemes** across 14 sectors (e.g., electronics, pharmaceuticals, textiles) are attracting investment and increasing exports.

3. Technological Factors

- **Digital Public Infrastructure (DPI):**
 - Initiatives like **JAM Trinity (Jan Dhan–Aadhaar–Mobile)** and **Unified Payments Interface (UPI)** have revolutionized financial inclusion and digital payments.
 - **Direct Benefit Transfers (DBT)** have improved welfare delivery by reducing leakages and increasing transparency.
- **IT and Knowledge-Based Services:**
 - India is a global hub for **IT, consulting, and software exports**, contributing significantly to services GDP and foreign exchange earnings.
 - Indian tech talent is powering global digital transformation, especially in emerging areas like **AI, data analytics, and fintech**.

4. External and Global Factors

- **Foreign Direct Investment (FDI):**
 - India has consistently ranked among the top global FDI destinations. Sectors like services, telecom, fintech, renewable energy, and manufacturing are major attractors.
 - Liberalised FDI policies and sectoral reforms have improved investor confidence.
- **Supply Chain Rebalancing:**
 - Post-COVID, the **“China Plus One” strategy** by global firms is benefiting India as an alternative manufacturing hub.
 - India's participation in initiatives like the **Supply Chain Resilience Initiative (SCRI)** with **Japan and Australia** supports integration into global value chains (GVCs).

Future Prospects for the Indian Economy:

India is projected to become the **3rd largest economy by 2027**, overtaking Germany, driven by the following transformative trends:

1. Energy Transition and Green Growth:

- **Renewable Energy Leadership:** India aims to install **500 GW of non-fossil fuel capacity by 2030**, including solar, wind, and hydro power. This supports the **net-zero by 2070** target.
- **International Cooperation:** Through leadership in initiatives like the **International Solar Alliance (ISA)** and **One Sun One World One Grid (OSOWOG)**, India is shaping the global green agenda.

- **Job Creation and Innovation:** The green transition is expected to create new employment opportunities in **clean tech**, **energy efficiency**, and **electric mobility**.

2. Regulatory and Financial Stability

- **Banking Sector Reforms:** Continued **recapitalization of public sector banks**, governance reforms, and asset quality improvement have strengthened financial institutions.
- **Macro-Financial Resilience:**
 - Institutions like the **RBI** play a key role in ensuring inflation control, monetary stability, and exchange rate management.
 - India's focus on **fiscal prudence**, despite global pressures, helps sustain investor confidence and credit ratings.

Conclusion:

India's rise as the **4th largest global economy** reflects its **structural strengths**, **reform-oriented governance**, and **technological innovation**. However, to sustain this momentum and achieve inclusive growth, challenges such as **job creation**, **income inequality**, **skill development**, and **climate resilience** must be addressed proactively. With continued emphasis on **infrastructure**, **green energy**, **digital transformation**, and **institutional strength**, India is well on course to emerge as a **global economic powerhouse** in the coming decade.

Model UPSC Mains Question

Q "India's emergence as the 4th largest economy reflects the success of structural, policy, and technological reforms, but sustaining this momentum will require addressing deeper challenges." Critically analyse. (250 words)

REVAMPED PERIODIC LABOUR FORCE SURVEY (PLFS)

Context:

The **National Statistical Office (NSO)**, under the Ministry of Statistics and Programme Implementation, has **revamped the PLFS framework** starting January 2025. This restructuring aims to address long-standing issues such as **data delays**, **urban-rural disconnect**, **inadequate sample size**, and the need for **monthly and real-time labour statistics**—especially in light of growing gig, informal, and rural labour market changes post-COVID-19.

About Periodic Labour Force Survey (PLFS):

Aspect	Details
Conducting Agency	National Statistical Office (NSO) – the central statistical authority responsible for compiling official data on employment and unemployment.
Year of Introduction	2017 , replacing the earlier quinquennial Employment-Unemployment Surveys (EUS) of the NSSO.
Objective	To provide reliable, timely and more frequent estimates of labour market indicators for both rural and urban areas across India.
Scope	- Quarterly estimates (now extended to rural areas) using Current Weekly Status (CWS) .

Legal and Constitutional Framework:

Provision/Act	Explanation
Employment Exchange (Compulsory Notification of Vacancies) Act, 1959	Requires establishments to notify job vacancies; foundational for Employment Market Information Programme .
Collection of Statistics Act, 2008	Provides the legal basis for data collection, survey operations, and sample-based statistical analysis by NSO and Labour Bureau.
ILO Guidelines	India is advised to align with ILO's 19th International Conference of Labour Statisticians (ICLS) standards, particularly for informal work.
ILO Conventions	India has not yet ratified ILO Convention 122 on Employment Policy, highlighting a policy gap in long-term employment strategies.

Other Employment Data Sources in India:

Source/Agency	Role/Output
Labour Bureau (MoLE)	Produces the Quarterly Employment Survey (QES) and Annual Employment-Unemployment Survey , focuses on formal sector jobs .
Census of India	Provides data on main and marginal workers across demographic and occupational lines every 10 years.

Annual Survey of Industries (ASI)	Captures data on industrial workers and economic performance of factories registered under the Factories Act, 1948.
Economic Census	Captures enterprise-level data, including unorganised and small-scale sector coverage.
ILO Reports	Global comparisons through World Employment and Social Outlook , helpful in benchmarking India's performance .

Challenges and Observations:

Issue	Explanation
Inconsistent Definitions	The Indian definition of 'employment' (working for even 1 hour/week in CWS) may underestimate true unemployment .
Sample Limitations Size	PLFS covers only ~2.7 lakh households vs. India's ~60 crore workforce, causing representation and accuracy gaps .
Lack of Unemployment Data in QES	Quarterly Employment Survey reports jobs created but ignores unemployment figures, leading to incomplete assessment .
Time Lag and Reporting Delays	By the time reports are published, economic conditions may have significantly changed , reducing policy effectiveness.
Fragmented Data Sources	Different ministries collect labour data in silos using differing methods, reducing harmonisation and comparability .

Model UPSC Mains Question (GS Paper III)

Q “Discuss the significance and challenges of the revamped Periodic Labour Force Survey (PLFS) in **improving India's employment data architecture**. Suggest reforms to enhance labour market statistics for evidence-based policymaking.” (250 words)

UNIFIED PAYMENTS INTERFACE (UPI)

GS Paper III – Economy | Digital Payments & FinTech

Context:

The Reserve Bank of India (RBI) has recently introduced a series of new guidelines and innovations to enhance the capabilities and reach of UPI. These

developments are aimed at making UPI more inclusive, secure, accessible, and internationally competitive, thereby cementing India's leadership in the global digital payments ecosystem.

About Unified Payments Interface (UPI):

Launched: April 11, 2016

Developed by: National Payments Corporation of India (NPCI)

Regulated by: Reserve Bank of India (RBI)

Objective:

- Facilitate seamless, instant, and interoperable peer-to-peer and merchant digital transactions.
- Reduce dependency on cash and improve financial inclusion through digital public infrastructure.

Technology & Mechanism:

- Operates through **Immediate Payment Service (IMPS)** and **Aadhaar Enabled Payment System (AEPS)**.
- Employs a **two-factor authentication** model with **consistent UPI PIN** across platforms.
- Works 24/7 and is integrated across banks and third-party apps for real-time settlement.

Recent Reforms & Enhancements:

1. Enhanced Transaction Limits

- **Hospitals & Education:** Raised from ₹1 lakh to ₹5 lakh per transaction.
- **Capital Markets, Collections & Insurance:** Limit raised to ₹2 lakh.
- **General Limit:** ₹1 lakh remains the standard for other categories.

Significance: Enables UPI to be used for large, critical payments like surgeries, tuition, and insurance premiums, reducing the need for cheques or NEFT/RTGS.

2. Increased e-Mandate Limits

- **Recurring Transactions without AFA (Additional Factor of Authentication):** Raised from ₹15,000 to ₹1 lakh.
- Applies to automatic payments for credit card bills, EMIs, SIPs, insurance premiums, etc.

Significance: Encourages the use of autopay features, improving user convenience and enhancing digital financial discipline.

Key Innovations & Functional Features:

Feature	Description
UPI Lite	A simplified version of UPI for small-value offline transactions. It allows processing without hitting core banking systems, using an escrow-like pre-funded wallet.
Credit Line on UPI	Enables users to access pre-sanctioned digital credit directly via UPI. Unlike traditional UPI transactions (limited to account balance), this allows credit-based purchases.
UPI Lite X	Offline transaction support using NFC (Near Field Communication) on any compatible device. Ideal for low-connectivity regions.
UPI Tap & Pay	Enables contactless payments at merchant locations through NFC-enabled QR codes. Transactions occur via a single tap without entering a PIN.
Hello! UPI	Introduces voice-command-based transactions , allowing users to transfer funds or check balances via voice assistants (multilingual support included).
BillPay Connect	Lets users fetch and pay bills by sending a simple 'Hi' on WhatsApp or giving a missed call. Promotes digital utility bill payments in semi-urban/rural areas.
UPI 123PAY	Designed for feature phone users (non-smartphones), enabling secure UPI transactions through IVR-based systems, missed calls, and voice-based menus.
UPI in Foreign Markets	UPI has been integrated or accepted in multiple countries, including Sri Lanka, Mauritius, France, UAE, Singapore, Bhutan, Maldives, and Nepal.

Significance: Broadens UPI's reach across demographics (feature phone users, rural areas) and geographies (international payments), making it a global model for digital financial inclusion.

Significance of UPI in India's Digital Economy:

Digital Financial Inclusion: UPI 123PAY and UPI Lite democratize access to digital payments even in low-tech, low-connectivity environments. This aligns with the vision of *Jan Dhan-Aadhaar-Mobile (JAM) trinity*.

Zero-Cost Infrastructure: UPI transactions are mostly **free for users and merchants**, unlike debit/credit card systems that involve MDR (Merchant Discount Rate).

Public Digital Infrastructure (PDI): UPI, like Aadhaar and DigiLocker, is a foundational public good that has enabled **API-based innovation** for startups and fintechs, fueling the "India Stack".

Global Recognition: UPI is now seen as a **benchmark for real-time payments** and has inspired similar models abroad. India's partnerships with countries for UPI adoption is enhancing **fintech diplomacy**.

Economic Resilience & Sovereignty: It reduces India's dependency on foreign card networks (e.g., Visa, Mastercard), ensuring **digital sovereignty** in critical financial infrastructure.

UPSC Mains Question:

Q “UPI has emerged as the backbone of India’s digital economy and a global fintech model. Discuss the key reforms and their relevance for financial inclusion and digital sovereignty.” (250 words)

National Road Safety Board (NRSB)

Context:

The Supreme Court has questioned the Central Government for delay in implementing Section 215B of the Motor Vehicles Act, 1988 — which mandates setting up of the National Road Safety Board.

About National Road Safety Board (NRSB):

Aspect	Details
Legal Basis	Section 215B, Motor Vehicles (Amendment) Act, 2019
Ministry	Ministry of Road Transport and Highways (MoRTH)
Established	Notification issued in 2021
Composition	Chairman + 3 to 7 members appointed by the Central Government
Head Office	National Capital Region; other regional offices permissible
Core Functions	Advise governments on road safety, regulate traffic/motor vehicles, research & innovation
Promotion Areas	Good Samaritans, global vehicle tech, best practices, consistency in safety standards

Legal and Constitutional Framework:

- **Section 215B of Motor Vehicles Act (2019):** Provides for creation, powers, and functions of the NRSB.
- **Section 134A of MVA (Good Samaritan Clause):** Protects individuals assisting accident victims from legal harassment.

- **Cashless Treatment Scheme (2025):** Enabled under MVA, provides free treatment to accident victims up to ₹1.5 lakh.

Challenges in Road Safety in India:

- **High Fatalities:** India accounts for 11% of global road deaths (2022 data).
- **Driver Behaviour:** Over-speeding alone caused 71.2% of accident deaths.
- **Poor Road Infrastructure:** Only 20% of India's road network is safety-rated (WHO 2022).
- **State-Level Gaps:** Most states unlikely to meet UN goal of halving deaths by 2030.
- **Other Issues:** Heterogeneous vehicles, weak public transport, poor vehicle standards, passive bystanders.

Initiatives for Road Safety:

International:

- **Global Plan (2021–30):** Led by WHO/UN to cut global road deaths by 50%.
- **Brasilia Declaration (2015):** India committed to SDG 3.6 (halve traffic deaths by 2030).

National:

- **National Road Safety Policy (2010):** Focus on awareness, road audits, and trauma care.
- **Bharat NCAP:** Awards star ratings to vehicles based on safety tests.
- **Vehicle & Road Engineering Standards:** Stricter norms on airbags, ABS, crash tests; safety audits in road planning.
- **Cashless Treatment Scheme (2025):** Covers treatment of accident victims at empanelled hospitals.

Model UPSC Mains Question (GS II)

Q “Despite legislative backing and policy initiatives, road safety in India remains a persistent challenge. Critically examine the role of the National Road Safety Board in improving road safety outcomes.” (250 words)

WORLD BANK LAND CONFERENCE 2025

GS Paper II – Governance | GS Paper III – Infrastructure & Economy

Context:

India assumed the role of a **Country Champion** at the **World Bank Land Conference 2025**, showcasing innovative and scalable land governance solutions to a global audience.

Key Highlights:**1. SVAMITVA Scheme**

- Aims to establish **clear ownership of property in rural areas** using **drone technology** for land parcel mapping.
- **Impact:**
 - **68,000 sq. km** surveyed.
 - Over **₹1.16 trillion** worth of land monetized.
 - Enabled villagers to use property as a **financial asset** (e.g., for loans).

2. Gram Manchitra Platform

- A **geospatial-based planning tool** for Gram Panchayats.
- Enables **data-driven and decentralized planning** of infrastructure and public service delivery.
- Promotes:
 - **Climate resilience**
 - **Scheme convergence**
 - **Localized decision-making**

Significance of Efficient Land Management:

- **Jobs and Economic Growth:**
 - Secure property rights foster **entrepreneurship, livelihood diversification, and investment.**
- **Access to Private Capital:**
 - Registered land titles provide **collateral for credit** and improve **financial inclusion.**
- **Public Infrastructure Funding:**
 - Land/property taxes are a **stable revenue source.**
 - Currently, such taxes generate only **0.6% of GDP** in **low-income countries** (vs. 2.2% in industrial nations).
- **Urban Governance:**
 - Aids in **urban planning**, preserving public spaces, and **disaster risk management.**
- **Food Security and Gender Empowerment:**
 - **Improved women's access to land** can enhance agricultural productivity by **up to 4%.**

Model Question:

Q “India’s land governance reforms like SVAMITVA and Gram Manchitra have emerged as global models of inclusive and technology-driven rural development.” Critically examine their role in promoting economic growth, social equity, and sustainable governance. (250 words)

REPAIRABILITY INDEX (RI)

GS Paper III – Economy | Consumer Protection | Environment

Context:

A committee led by **Bharat Khera** submitted its report to the **Department of Consumer Affairs (DoCA)** recommending a **Repairability Index (RI)** framework to promote sustainable consumption in the electronics sector.

Key Features of the RI Framework

- **Self-Declaration by OEMs:** Manufacturers to declare RI based on standardized criteria.
- **Display Norms:** RI must be visible at:
 - Point of sale
 - E-commerce platforms
 - QR code on packaging
- **Priority Categories:** Initial phase focuses on **smartphones** and **tablets**.
- **Assessment Parameters** (6 core criteria): Includes factors like spare part availability, repair documentation, software support, etc.
 - RI score on a **5-point numeric scale** derived using weighted aggregation.

Significance:

- **Improved Repair Accessibility:** Complaints in mobiles/tablets rose from 19,057 (2022–23) to 22,864 (2024–25).
- **Sustainable Consumption:** Promotes **LiFE (Lifestyle for the Environment)** by extending product lifespan and reducing e-waste.
- **Combating Planned Obsolescence:** Discourages intentional short-lifespan design by incentivizing repair-friendly products.
- **Employment Generation:** Boosts local economy by enabling **third-party repair ecosystems**.

Right to Repair – India Context

- Seeks to mandate that **manufacturers share spare parts, tools, and repair information** with consumers and independent repairers.

- **Right to Repair Portal (2022)** launched by DoCA to centralize and disseminate product repair-related information.

Model Question

Q “The introduction of a Repairability Index (RI) is a significant step towards sustainable consumption and consumer empowerment.”

WORLD AUDIO VISUAL AND ENTERTAINMENT SUMMIT (WAVES), 2025

GS Paper III – Indian Economy | Infrastructure | Innovation & Development

Context:

At the inaugural WAVES Summit 2025 in Mumbai, the Prime Minister emphasized the role of India's **creative economy** as a key driver of future GDP growth, innovation, and inclusive development.

Key Highlights:

1. WAVES Summit Goals

- Aims to unlock a **\$50 billion market by 2029**, positioning India as a major global entertainment economy player.
- Focus on boosting creative sectors like media, entertainment, animation, gaming, and more.

2. Indian Institute of Creative Technology (IICT)

- Announced launch by the Ministry of Information and Broadcasting in partnership with FICCI and CII.
- Envisioned as a **National Centre of Excellence** for skilling, research, and innovation in the creative sector.

What is Creative Economy?

- Also known as the **orange economy**.
- Defined by the **contribution of creative assets** (media, entertainment, advertising, animation, VFX, gaming, comics, extended reality - AVGC-XR) to economic growth and development.
- Recognized globally, with the **UN declaring 2021 as the International Year of Creative Economy for Sustainable Development**.

India's Creative Economy – Snapshot

- **Contribution to GDP:** Around **\$30 billion**.
- **Employment:** Engages about **8% of India's workforce**.
- **Exports:** Creative exports exceed **\$11 billion annually**.

Challenges:

- **Misinformation and Copyright Issues:** Problems related to intellectual property rights and privacy concerns.
- **Market Monopolization:** Concentration of media and entertainment ownership.
- **Digital Divide:** Limited digital access in rural areas hampers inclusive growth.
- **Financing Constraints:** Lack of formal financial channels for creative startups and enterprises.

Significance:

- The creative economy can spur **innovation, job creation, and inclusive development**.
- WAVES and IICT initiatives aim to **formalize and scale** this sector, tapping into new technologies and markets.
- Enhances India's **soft power** and cultural outreach globally.

Model Question:

Q “The creative economy is emerging as a significant contributor to India’s GDP, employment, and global cultural influence. However, it faces several structural and policy challenges.” Analyze the potential of India’s creative economy and discuss the key challenges it faces along with measures to address them. (250 words)

**CREDIT GUARANTEE SCHEME FOR E-NWR BASED PLEDGE
FINANCING (CGS-NPF)**

GS Paper III – Indian Economy | Agriculture and Food Management

Context:

The Ministry of Consumer Affairs, Food and Public Distribution launched the **Credit Guarantee Scheme for e-NWR based pledge financing (CGS-NPF)** to provide post-harvest credit facilities to small farmers and other stakeholders.

About NWR and e-NWR:

- **Negotiable Warehouse Receipt (NWR)** is a document allowing transfer of ownership of goods stored in a warehouse without physical delivery.
- Launched in 2011 by Ministry of Consumer Affairs.
- **e-NWR** is the digital form of NWR, introduced in 2017 to improve transparency and efficiency.

- **Warehousing Development and Regulatory Authority (WDRA)** regulates the system under the Warehousing (Development and Regulation) Act, 2007.
- Since 2019, issuance of NWR in electronic form is mandatory.

About the Credit Guarantee Scheme for e-NWR based pledge Financing

- Provides credit facilities to small farmers to avoid distress sales after harvest.
- Corpus of **Rs 1,000 crore** to support post-harvest financing against e-NWR collateral.
- Loans offered by scheduled banks and cooperative banks.

What is Pledge Financing?

- The holder of an e-NWR can avail a loan by pledging the commodity represented by the e-NWR as collateral.
- The pledged e-NWR remains in the borrower's account but the control is with the lending institution until the loan is repaid.
- Loan limits:
 - Up to **Rs 75 lakhs** for agricultural purposes.
 - Up to **Rs 200 lakhs** for non-agricultural purposes.

Eligible Borrowers and Institutions

- **Borrowers:** Small and Marginal Farmers (SMF), Women, SC/ST, PwD farmers, MSMEs, Traders, Farmer Producer Organizations (FPOs), and Cooperatives.
- **Institutions:** All scheduled banks and cooperative banks.

Guarantee Coverage and Risks

- Coverage includes **credit risk** and **warehouseman risk**.
- Guarantee coverage:
 - **85%** for loans up to Rs 3 lakhs (for SMF, women, SC/ST, PwD).
 - **80%** for loans between Rs 3 lakhs and 75 lakhs (same categories).
 - **75%** for other borrowers.

Significance:

- Prevents distress sale of agricultural produce, ensuring farmers better price realization.
- Promotes use of scientific storage and enhances trust in warehousing system.
- Facilitates access to formal credit, supporting rural economy and reducing dependence on informal lenders.

- Encourages digitization and transparency in agricultural finance.

Model Question:

Q “The Credit Guarantee Scheme for e-NWR based pledge financing is a progressive step towards improving farmers’ access to formal credit and reducing distress sales.”

Q Examine the scheme’s features, its significance for the agricultural sector, and the challenges that need to be addressed for its effective implementation. (250 words)

INDIA BECOMES TOP RECIPIENT OF REMITTANCE

GS Paper III – Indian Economy | External Sector

Context:

The World Bank recently reported that India has become the world’s largest recipient of remittances, with inflows reaching \$129.1 billion in 2024.

What is Remittance?

- Funds sent by migrants working abroad to their families in home countries.
- India leads global remittance inflows with a 14.3% share of total global remittances.

Key Facts:

- India’s remittance inflow: \$129.1 billion (2024), upholding over 10% share since 2000.
- Remittances accounted for 3.4% of India’s GDP in 2023.
- Other top countries: Mexico (\$68B), China (\$48B), Philippines (\$40B), Pakistan (\$33B).
- Remittance dependence is very high in smaller economies (e.g., Tajikistan 45% of GDP).

Significance:

- Provides crucial foreign exchange inflows stabilizing India’s current account balance.
- Supports rural and urban consumption, reducing poverty and improving living standards.
- Enhances financial inclusion through formal banking channels.
- Enables investments in education, health, and entrepreneurship.

Challenges:

- Dependence on migrant-friendly policies of host countries.
- Risk of informal channels leading to loss of government revenue.
- Vulnerability to global economic shocks affecting migrant employment.

Way Forward:

- Promote formal remittance channels with lower costs.
- Strengthen diaspora engagement policies.
- Leverage remittances for productive investments.

INDIA'S EASTERN MARITIME CORRIDOR (EMC)

GS Paper II/III – International Relations / Infrastructure and Logistics

Context:

India surpassed China as the largest buyer of Russian oil in 2024, aided by the development of the Chennai-Vladivostok Eastern Maritime Corridor (EMC).

About Chennai-Vladivostok EMC:

- Sea route connecting Chennai port (India) with Vladivostok port (Russia).
- Passes through Sea of Japan, South China Sea, and Malacca Strait.
- Shortens shipping distance from 8,675 to 5,600 nautical miles and transit time from 40+ to 24 days.

Significance:

- **Reduced logistics costs:** Critical for India, which imports over 85% of its crude oil.
- **Trade diversification:** Enables transport of oil, coal, LNG, fertilizers, and other commodities, boosting bilateral trade.
- **Maritime growth:** Supports India's maritime sector handling 95% of trade volume; aligns with Maritime Vision 2030.
- **Strategic ties:** Strengthens India-Russia relations and provides alternate trade routes amid global geopolitical shifts.

Other Trade Corridors of Importance:

- **Northern Sea Route (NSR):** Arctic route cutting Europe-Asia transit by 50%, gaining importance post-Suez blockage, vital for India's Russian imports.

Challenges and Considerations:

- Geopolitical risks in Indo-Pacific and Arctic regions.
- Navigational and climatic challenges in Arctic shipping routes.
- Need for enhanced port infrastructure and maritime security.

Way Forward:

- Invest in port infrastructure and logistics.
- Enhance maritime security cooperation with Russia and allied nations.
- Develop alternate corridors to mitigate geopolitical risks.

Model UPSC Mains Question

Q “India’s position as the top global remittance recipient and the development of the Eastern Maritime Corridor reflect its growing economic and strategic stature. Discuss the significance and challenges associated with these developments.” (250 words)

GDP BASE YEAR REVISION

GS Paper III – Indian Economy | Growth & Development Statistics

Context:

The Government has constituted a 26-member Advisory Committee on National Accounts Statistics (NAS) to revise India’s GDP base year from 2011–12 to **2022–23**.

Key Highlights:

- Committee chaired by **Biswanath Goldar**, established by the **Ministry of Statistics and Programme Implementation (MoSPI)**.
- Objective: Improve **accuracy, representativeness, and relevance** of GDP estimates by incorporating recent economic trends and refined methodologies.

What is a GDP Base Year?

- A reference year against which all economic performance is measured.
- Ensures **inflation-adjusted (real) growth** comparison across years.
- Current base year: **2011–12**; proposed revision to **2022–23**.

Why Base Year Revision is Important:

- Reflects **structural changes** in the economy.
- Integrates **new sectors**, digital services, and **latest consumption patterns**.
- Impacts other indices: **IIP, CPI, WPI**.
- Helps policymakers and investors with **up-to-date economic insights**.

India's History of Base Year Revisions:

- First GDP estimate in **1956** with **1948–49** as base year.
- Seven revisions so far; the last in **2015** (from 2004–05 to 2011–12), shifting to **GVA at basic prices**.

Methods of GDP Calculation:**1. Production Approach**

$$\text{GDP} = \Sigma \text{GVA} = \text{Gross Output} - \text{Intermediate Consumption}$$

2. Expenditure Approach

$$\text{GDP} = C + I + G + (X - M)$$

3. Income Approach

$GDP = \text{Wages} + \text{Profits} + \text{Indirect Taxes} - \text{Subsidies} + \text{Net Primary Income from Abroad}$

Challenges in Base Year Revision:

- Data collection gaps, especially in **informal sector**.
- Ensuring **timely digitized databases** across states.
- Alignment of **GDP with other macro indicators**.

Way Forward:

- Strengthen **data quality and digitization**.
- Use of **real-time datasets** like GST, e-invoicing, and satellite data.
- Ensure **transparency and clarity** in methodology changes.

Model UPSC Mains Question:

Q “Why is periodic revision of GDP base year necessary? Discuss its implications on economic policy formulation and data credibility.” (250 words)

PUBLIC-PRIVATE PARTNERSHIP (PPP) FRAMEWORK IN INDIA

GS Paper III – Infrastructure | Investment Models

Context:

The World Bank’s **Benchmarking Infrastructure Development Report** analyzed PPP regulatory frameworks across 140 countries, including India.

What is PPP?

A long-term **contractual partnership** between a public authority and a private entity for delivering infrastructure services or assets.

Key Features:

- Private player **finances, constructs, operates, and maintains** the asset.
- Risks and returns are **shared** through contractual terms.
- Monitored by the **Private Investment Unit**, Dept. of Economic Affairs.

Objectives of PPP in India:

- **Bridge infrastructure gap** without excessive public spending.
- Leverage **private expertise and efficiency**.
- Reduce time and cost **overruns**.
- Promote **innovative financing models**.

PPP Models in India (with examples):

Model	Description
BOT (Build-Operate-Transfer)	Private entity builds and operates, then transfers. (e.g., NHDP highways)
BOOT (Build-Own-Operate-Transfer)	Private player owns and operates before transferring.
HAM (Hybrid Annuity Model)	40% public funding; 60% through annuity-based recovery. (e.g., Bharatmala projects)
DBFOT (Design-Build-Finance-Operate-Transfer)	Comprehensive involvement by the private player with eventual handover.
Annuity Model	Govt pays fixed annuity; no toll collection risk.
BOLT/BOOST/BLT/ROMT/LDOT	Variants based on ownership, leasing, and operation roles.

Benefits:

- Promotes **infrastructure development** with private sector efficiency.
- **Reduces fiscal burden** on the government.
- Enhances **public service delivery** (e.g., metro, highways, airports).

Challenges in PPP:

- **Delays in land acquisition** and clearances.
- **Revenue risk** due to lower demand than estimated.
- Lack of capacity in **contract design and enforcement**.
- **Disputes** over risk-sharing (e.g., airport privatization, toll roads).

Model UPSC Mains Question:

Q “Public-Private Partnerships (PPPs) have emerged as a preferred model for infrastructure development in India, but their implementation remains fraught with challenges. Discuss.” (250 words)

INVESTMENT FACILITATION FOR DEVELOPMENT AGREEMENT (IFDA)

GS Paper II – International Relations | WTO & Trade Agreements

Context:

India and South Africa have opposed the **China-led IFDA** at the World Trade Organization (WTO), citing concerns over the plurilateral approach and potential erosion of policy space.

About IFDA:

- **Proposed:** 2017 by developing and Least Developed Countries (LDCs) within WTO.
- **Objective:** To establish **legally binding rules** that improve transparency, streamline investment procedures, and enhance **Foreign Direct Investment (FDI)** flows, particularly to developing and least-developed countries.
- **Nature: Plurilateral** (i.e., binding only on signatories, not on all WTO members).
- **Participation:**
 - 126 WTO members ($\approx 75\%$ of total)
 - Includes 90 developing countries and 27 LDCs
- **MFN Principle:** Uses a **Most-Favoured-Nation-based framework**, ensuring equal treatment across members for similar products/services.

India & South Africa's Opposition – Key Concerns:

1. **Erosion of Multilateralism:** IFDA's plurilateral nature undermines the **WTO's consensus-based framework**.
2. **Regulatory Sovereignty:** May restrict policy space in sensitive sectors (e.g., health, environment, labor).
3. **Legal Overreach:** Concerns about creating **binding obligations on investment** under WTO, which traditionally governs trade.
4. **Uneven Benefits:** Favors countries with established investor networks, not necessarily aiding LDCs as intended.

Significance of IFDA (Supporters' View):

- Encourages **transparent and predictable** investment climates.
- Supports **SDGs** and economic growth through enhanced global capital flows.
- Addresses **non-tariff barriers** affecting FDI.

Model UPSC Mains Question:

Q “Examine the implications of the Investment Facilitation for Development Agreement (IFDA) under the WTO framework. Why has India opposed it?” (250 words)

PROJECT mBRIDGE**GS Paper III – Economy | Digital Currency & FinTech****Context:**

Project mBridge has reached the **Minimum Viable Product (MVP)** stage in 2024, as per the Bank for International Settlements (BIS), marking a key milestone in cross-border digital currency systems.

About Project mBridge:

- **Launched:** 2021
- **Objective:**
 - Facilitate **real-time, peer-to-peer, cross-border** payments.
 - Address challenges like **slow settlements, high costs**, and limited correspondent banking access.
 - Promote **financial inclusion** through central bank digital currencies (CBDCs).
- **Platform:** Built on **mBridge Ledger** using **Distributed Ledger Technology (DLT)**.
- **Participants:**
 - **Founding Central Banks:**
 - People’s Bank of China
 - Hong Kong Monetary Authority
 - Central Bank of UAE
 - Bank of Thailand
 - **Joined in 2024:** Saudi Central Bank
 - **Observers:** 31+ institutions including **Reserve Bank of India (RBI)**

Significance:

- Enhances **transparency, security**, and **interoperability** in cross-border payments.
- Offers an alternative to SWIFT and the **US-dollar-dominated system**.
- Demonstrates a shift toward **CBDC-based international financial architecture**.

About Bank for International Settlements (BIS):

- **Established:** 1930 (The Hague Conference)

- **Nature:** Oldest international financial institution; a “bank for central banks”.
- **Role:** Promotes **global monetary and financial stability** through research and cooperation.
- **Ownership:** 63 member central banks, including RBI.

Model UPSC Mains Question:

Q “Discuss the relevance of Project mBridge in transforming the global financial architecture. How can it benefit India?” (250 words)

KISAN PEHCHAN PATRA

GS Paper III – Agriculture | E-Governance & Agri-Tech

Context:

The Government of India has urged states to adopt a ‘*camp-mode approach*’ for fast-track implementation of **Kisan Pehchan Patra (Farmer ID)** to ensure inclusive and efficient farmer registration across the country. This step is part of a broader strategy to digitize and streamline agricultural governance through the **Agri Stack** initiative.

About Kisan Pehchan Patra (Farmer ID):

Nature:

A **unique, Aadhaar-linked digital identity** assigned to individual farmers, dynamically connected to the state's digitized land records.

Features:

- Captures **demographic details, landholding patterns, crop sown, and ownership** status.
- Acts as a **single-source verified identity** for farmers across schemes and platforms.
- Helps create a **Farmer Registry**, one of the three core registries under **Agri Stack**.

Current Implementation Status:

- **Mandatory for PM-KISAN** new beneficiaries in **10 states** from **January 1, 2025**.
- States: *Andhra Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Uttar Pradesh*.
- **~2 lakh applications per month** under PM-KISAN will now require this ID, enhancing transparency and efficiency.

Significance:

Prevents duplication and fraudulent claims, while enabling faster verification and targeted benefit delivery.

About Agri Stack:

Nature: A proposed **Digital Public Infrastructure (DPI)** platform for agriculture, modelled on India Stack principles.

Components:

- **Farmer Registry, Land Registry, and Crop Registry** form the foundational layers.
- Integrates **satellite data (ISRO), AI/ML, GPS, remote sensing, and visual analytics** for real-time crop monitoring and predictive analytics.

Stakeholders Involved:

- **Union Ministry of Agriculture and Farmers' Welfare**
- **State Revenue and Agriculture Departments**
- **Agri-Tech Startups, Financial Institutions, Input Suppliers**

Purpose:

To create a **comprehensive digital ecosystem** for agriculture that supports:

- **Targeted welfare delivery** (e.g., PM-KISAN, PMFBY)
- **Smart advisory services**
- **Agri-fintech solutions** (e.g., credit, insurance)
- **Policy making** through granular data insights.

Significance of Kisan Pehchan Patra & Agri Stack:

- **Precision Governance:** Data-backed beneficiary identification allows for **more efficient, leakage-free implementation** of welfare schemes.
- **Agri-Fintech Integration:** Enables seamless access to credit, insurance, and market intelligence tailored to each farmer's needs and land profile.
- **Farmer Empowerment:** Digital ID empowers farmers by giving them **control over their data**, with potential to unlock **new services and entitlements**.
- **Agri-Tech Ecosystem Boost:** Provides a standardized, scalable data framework for **agritech startups**, promoting innovation and public-private collaboration.

Model UPSC Mains Question:

Q "How can digital platforms like Kisan Pehchan Patra and Agri Stack transform agricultural governance and service delivery in India?" (250 words)

SEBI'S WHEN-LISTED MECHANISM

GS Paper III – Economy | Financial Markets Regulation

Context:

The Securities and Exchange Board of India (SEBI) is set to introduce the "**When-Listed**" platform, a novel mechanism aimed at regulating the pre-listing trading of IPO shares to bring transparency and reduce risks inherent in the current grey market.

What is the "When-Listed" Platform?

- **Purpose:** Allows trading of shares allotted in an Initial Public Offering (IPO) **before their official listing on stock exchanges.**
- **Regulated Alternative:** Provides a **regulated and transparent substitute to the unregulated grey market** where IPO shares are currently traded unofficially.
- **Bridging Timeline Gap:** It covers the period between **IPO allotment (T+1 day)** and **official listing (T+3 day)**, thereby **curbing speculative trading and market volatility** in the interim phase.

IPO and Current Timeline:

- **IPO Process:** A private company offers shares to the public for the first time to raise capital and get listed on stock exchanges.
- **Timeline:**
 - IPO Bidding closes
 - T+1: Shares allotted to investors
 - T+2: Grey market trading of allotted shares happens unofficially
 - T+3: Shares officially list on stock exchanges

Grey Market (Kerb Trading):

- **Nature:** Unofficial, **unregulated trading** of IPO shares before formal listing.
- **Risks:** No actual delivery of shares, trading happens in cash leading to **market inefficiencies, lack of investor protection, and possible manipulation.**
- **Grey Market Premium (GMP):** Used by investors to gauge IPO demand and pricing; e.g., if IPO price is ₹90-100, GMP may be ₹10-30 higher, reflecting speculative pricing.

Significance of SEBI's When-Listed Platform:

- **Transparency:** Introduces regulatory oversight in the pre-listing trading window.

- **Investor Protection:** Minimizes risks associated with grey market transactions.
- **Market Efficiency:** Reduces information asymmetry and price distortions.
- **Stabilization:** Controls speculative activities and price volatility during the IPO-to-listing window.

NATIONAL CRITICAL MINERALS MISSION (NCMM)

GS Paper III – Economy | Industrial Development & Strategic Sectors

Context:

The Union Cabinet approved the **National Critical Minerals Mission (NCMM)** with an outlay of Rs 34,300 crore over seven years, aiming to secure India's supply chain for critical minerals vital to clean energy, defense, and high-tech industries.

About NCMM:

- **Objective:** To ensure **self-reliance (Atmanirbhar Bharat)** in critical minerals by enhancing domestic exploration, mining, processing, recycling, and strategic stockpiling.
- **Focus:** Critical minerals essential for **clean energy technologies** (batteries, solar, wind), **defense manufacturing**, and **high-tech industries**.

Key Features:

- **Duration:** 7 years
- **Core Objectives:**
 - Boost **domestic exploration and mining** of critical minerals.
 - Provide **financial incentives** for mineral exploration and recovery from waste.
 - Support **Indian PSUs and private firms** in acquiring mineral assets abroad.
 - Promote **recycling and recovery** of minerals from end-of-life products.
 - Establish **strategic stockpiles** of essential minerals.

Implementation Strategy:

- **Exploration & Mining:**
 - Intensify geological surveys, including offshore regions.
 - Expedite mining approvals and auctions under amended mining laws.
- **Processing & Recycling:**
 - Develop **mineral processing parks** to enhance value addition domestically.

- Encourage recovery from industrial waste and tailings.
- **International Collaboration:**
 - Strengthen trade and strategic partnerships with resource-rich countries.
 - Facilitate overseas acquisitions of critical mineral assets.
- **Regulatory & Policy Support:**
 - Amendments to **Mines and Minerals (Development and Regulation) Act, 1957** for faster exploration and mining.
 - Removal of customs duties on critical minerals to promote domestic processing (Union Budget 2024-25).
- **Infrastructure & Innovation:**
 - Establish a **Centre of Excellence** for critical minerals.
 - Expand **PRISM initiative** to fund startups/MSMEs in this sector.

Recent Developments:

- **India's Critical Mineral List:** 30 minerals identified, including Lithium, Cobalt, Nickel, Rare Earth Elements (REEs), Graphite, etc.
- **Legislative Reforms:**
 - Auction of 24 strategic mineral blocks enabled by MMDR amendment 2023.
 - Offshore Areas Mineral (Development & Regulation) Act amended to introduce transparent auctions for offshore mining rights.

Significance of NCMM:

- **Strategic Autonomy:** Reduces India's dependency on imports for critical minerals.
- **Clean Energy Transition:** Secures mineral supply for batteries, solar panels, wind turbines crucial for climate goals.
- **Economic Growth:** Boosts mining, processing industries, and creates jobs.
- **National Security:** Ensures minerals essential for defense technologies are available domestically.

Model UPSC Mains Question

Q “Explain the significance of SEBI's ‘When-Listed’ platform in regulating IPO trading. How does the National Critical Minerals Mission contribute to India's strategic autonomy and sustainable development?” (250 words)

INVESTMENT VEHICLES: INVITs, REITs, AND MUNICIPAL BONDS

GS Paper III – Economy | Financial Markets & Infrastructure Financing

Context:

The Chairperson of SEBI has projected significant growth in fund-raising via **Real Estate Investment Trusts (REITs)**, **Infrastructure Investment Trusts (InvITs)**, and **Municipal Bonds** over the coming decade, highlighting their increasing role in India's capital markets and infrastructure financing.

What are Real Estate Investment Trusts (REITs)?

- **Definition:** REITs are companies or trusts that own, operate, or finance **income-generating real estate assets**. They allow investors to pool resources to invest in real estate without owning physical property directly.
- **Mechanism:** Operate similarly to mutual funds, with units listed on stock exchanges, enabling liquidity and tradability like shares.
- **Key Features:**
 - Must distribute **90% of income as dividends** to unit holders.
 - Minimum **80% investment** in revenue-generating properties.
 - Asset base requirement of at least **₹500 crore**.
 - Leverage capped at **70% of net asset value** to limit risk.
 - Sponsors must hold **15% of units for 3 years** ensuring skin in the game.
- **Investment Focus:** Commercial real estate such as offices, hotels, retail malls, warehouses, healthcare facilities.
- **Non-permitted Assets:** Agricultural land and speculative landbanks to avoid undue risk/speculation.
- **Significance:** Provides **liquidity** in real estate investments, encourages **small investors** participation, and offers **long-term capital appreciation**.
- **Target Investors:**
Both retail and institutional investors; with minimum subscription ranging ₹10,000 to ₹15,000 and tradable in units of one.

What are Infrastructure Investment Trusts (InvITs)?

- **Definition:**
InvITs are trusts or companies pooling funds from investors to invest in **income-generating infrastructure projects** like highways, power plants, pipelines, and bridges.

- **Mechanism:**
Combine equity (ownership in assets) and debt instruments (loans), providing diversified cash flow streams.
- **Key Features:**
 - Distribution of **90% of net distributable cash flows** as dividends.
 - Have a **fixed maturity period** after which trust is wound up or assets are sold.
- **Significance:**
Facilitates **funding of large infrastructure projects** by attracting **long-term investors** such as pension funds and sovereign wealth funds.
- **Target Investors:** Primarily institutional and long-term investors looking for stable, predictable returns.

What are Municipal Bonds (Munibonds)?

- **Definition:**
Debt instruments issued by **urban local bodies (ULBs)** and municipal corporations to raise funds for urban infrastructure projects.
- **History:**
 - First issued by Bangalore Municipal Corporation in 1997.
 - SEBI introduced formal guidelines in 2015 to facilitate easier issuance.
- **Example:**
Ghaziabad's first **green municipal bond** raised ₹150 crore to fund a tertiary water treatment plant.
- **Types of Municipal Bonds:**
 - **Revenue Bonds:** Repaid from revenue generated by specific projects (e.g., user charges from water supply).
 - **General Obligation Bonds:** Repaid through taxation or municipal revenues, not tied to any specific project.
- **Target Investors:** Public investors seeking **fixed returns** and possible **tax benefits**.
- **Use of Funds:** Urban infrastructure development such as sanitation, roads, public schools, water supply systems.

Significance and Future Outlook:

- **REITs and InvITs** offer **alternative avenues** for raising capital, reducing dependence on bank financing and boosting the real estate and infrastructure sectors.

- **Municipal bonds** empower urban local bodies to raise funds directly from the market, crucial for financing smart city projects and sustainable urban infrastructure.
- With India's urbanization and infrastructure development needs growing rapidly, these financial instruments will become increasingly important for **mobilizing long-term, low-cost capital**.
- SEBI's regulatory push and increasing investor awareness will likely result in **robust growth in fundraising** through these instruments in the coming decade.

Model UPSC Mains Question

Q "Explain the role of REITs, InvITs, and Municipal Bonds in infrastructure financing and capital markets. How do they contribute to India's economic growth?" (250 words)

NATIONAL TURMERIC BOARD (NTB)

GS Paper III – Economy | Agriculture & Allied Sectors

Context:

The Ministry of Commerce & Industry launched the **National Turmeric Board (NTB)** to promote turmeric cultivation, production, processing, marketing, and to support stakeholders across the turmeric value chain.

About the National Turmeric Board:

- **Objective:**
To enhance turmeric yield, improve supply chain logistics, promote research & innovation, and boost both domestic awareness and international market expansion.
- **Ministry Oversight:** The Ministry of Commerce & Industry now oversees six product-specific boards including turmeric, tea, coffee, rubber, spices, and tobacco.
- **Composition:**
 - Chairperson appointed by the Central Government
 - Representatives from Ministry of AYUSH, Agriculture, Pharmaceuticals, Commerce & Industry
 - Rotational members from state governments
 - Members from national/state research institutions
 - Turmeric farmers and exporters
 - Secretary from Department of Commerce

- **Mandate:**

- Enhance turmeric production and logistics
- Support research & development (R&D), including medicinal value awareness
- Promote value addition and skill development for farmers
- Expand and regulate international markets ensuring quality and safety
- Coordinate with the Spices Board and other agencies to foster sector growth

- **Headquarters:** Nizamabad, Telangana

Turmeric in India:

- **Scientific Name:** *Curcuma longa* (Ginger family – Zingiberaceae)
- **Active Compound:** Curcumin — known for anti-inflammatory, antioxidant, and antimicrobial properties
- **Major Producing States:** Maharashtra, Telangana, Karnataka, Tamil Nadu, Andhra Pradesh, Madhya Pradesh, Meghalaya
- **Global Standing:**
 - India is the **largest producer, consumer, and exporter** of turmeric worldwide.
 - Produces over **70% of global turmeric** across 30 varieties.
 - In 2022-23, India accounted for **75% of global production** and **62% of global exports**.
 - Key export destinations: Bangladesh, UAE, USA, Malaysia
- **GI-tagged Varieties:**
 - Lakadong (Meghalaya)
 - Kandhamal (Odisha)
 - Erode (Tamil Nadu)
 - Sangli, Waigaon, Vasmata (Maharashtra)

Model UPSC Mains Question

Q “Discuss the objectives and significance of the National Turmeric Board. How does the Tobacco Board contribute to India’s agricultural economy?”
(250 words)

TOBACCO BOARD OF INDIA

GS Paper III – Economy | Agriculture & Allied Sectors

Context:

The Tobacco Board is actively engaged in sustainable growth initiatives for India's tobacco industry.

About the Tobacco Board:

- **Established:** 1st January 1976
- **Governing Law:** Tobacco Board Act, 1975 (Act 4 of 1975)
- **Headquarters:** Guntur, Andhra Pradesh
- **Nodal Ministry:** Ministry of Commerce and Industry

Functions:

- Promotion of export for all tobacco varieties and allied products
- Regulation of production, distribution (both domestic and export), and trade of **Flue-Cured Virginia (FCV) tobacco**
- Ensuring fair remunerative prices for tobacco farmers
- Providing financial assistance through banks for quality tobacco cultivation.
- Undertaking extension and development activities to promote sustainable tobacco farming.
- Training farmers to meet international quality standards and improve competitiveness.

India's Tobacco Industry:

- India is the **second-largest producer of tobacco** globally, after China.
- India ranks **fourth** in production of Flue-Cured Virginia tobacco, after China, Brazil, and Zimbabwe.
- India is the **second-largest exporter of unmanufactured tobacco** by quantity, after Brazil.

Significance of NTB and Tobacco Board:

- Both boards provide **sector-specific governance**, promoting quality standards, research, and market expansion.
- They support farmers with better infrastructure, pricing, and global market linkages, boosting India's export potential.
- The NTB will enhance turmeric's **medicinal and economic value** domestically and internationally.
- The Tobacco Board ensures **sustainable practices** in a controversial but economically significant crop.

ANTI-DUMPING DUTY ON CYPERMETHRIN

Context:

China has imposed an anti-dumping duty on imports of Cypermethrin from India.

What is Anti-Dumping Duty?

- **Definition:** A trade remedy measure to counteract dumping—exporting goods at prices below their normal value (domestic selling price in the exporting country).
- **Purpose:** To protect domestic industries from injury caused by unfairly low-priced imports.
- **WTO Compliance:** Recognized by WTO as a legitimate tool against dumping.
- **Not Protectionism:** Intended to correct unfair trade, not to block competition.

Key Points:

- **Ensures fair trade:** Neutralizes price advantage gained through dumping.
- **Impacts:**
 - Helps domestic producers compete fairly.
 - May increase prices for domestic consumers.
 - Can reduce international competition in the domestic market.

Comparison: Anti-Dumping Duty vs Normal Customs Duty

Aspect	Anti-Dumping Duty	Normal Customs Duty
Concept	Counteracts unfair dumping	Part of trade/fiscal policy for revenue
Purpose	Protect domestic industry from dumping injury	Raise government revenue
Scope	Country/exporter-specific	Applied to all imports universally
Charge	Additional charge over customs duty	Charged as per import duty structure

Significance of Anti-Dumping Duty on Cypermethrin:

- Protects China's domestic pesticide manufacturers from below-cost imports of Cypermethrin from India.
- Reflects growing trade tensions and the use of trade remedies in bilateral trade.

- Encourages Indian exporters to align prices with international norms to maintain market access.

Model UPSC Mains Question:

Q “Discuss the significance of anti-dumping duties in international trade with reference to the recent imposition of anti-dumping duty by China on Cypermethrin imports from India. How do such measures impact bilateral trade relations and domestic industries?” (250 words)

India's First Organic Fish Cluster

Context:

The Ministry of Fisheries, Animal Husbandry and Dairying recently launched India's first organic fisheries cluster in Sikkim under the flagship scheme **Pradhan Mantri Matsya Sampada Yojana (PMMSY)**. This pioneering initiative aims to promote sustainable aquaculture by producing chemical-free, antibiotic-free fish that meet the growing global demand for environmentally responsible and organic food products.

What is the Organic Fisheries Cluster?

- The cluster focuses on **producing fish without the use of antibiotics, harmful chemicals, or pesticides**, making it one of the first dedicated attempts to institutionalize organic fish farming in India.
- It is designed to cater to environmentally conscious consumers worldwide, expanding India's reach in the international organic seafood market.
- Sustainable aquaculture practices promoted under this cluster help **minimize pollution, reduce ecological footprints, and safeguard aquatic ecosystems** — critical for long-term environmental balance.
- A key species in this cluster is the **Amur carp**, a fish known for its adaptability and suitability for organic farming in the region's climatic conditions.

Role of NABARD and Farmer Producer Organizations:

- The **National Bank for Agriculture and Rural Development (NABARD)** plays a pivotal role by providing financial assistance to build infrastructure, promote capacity building, and develop Fisheries-based Farmer Producer Organizations (FFPOs).
- FFPOs help consolidate small and marginal fish farmers, enabling better collective bargaining power, access to markets, inputs, and technical knowledge — thereby making the value chain efficient and sustainable.

About Pradhan Mantri Matsya Sampada Yojana (PMMSY):

- Launched in 2020, PMMSY is the flagship fisheries development scheme with an outlay of **Rs 20,050 crore** for the period 2020-25.
- It aims to fill critical gaps in fish production, enhance fish quality, modernize post-harvest infrastructure, and integrate advanced technologies.
- The scheme promotes a **cluster-based approach** that encourages economies of scale, competitiveness, and better value chain linkages across the fisheries sector.
- Through cluster development, PMMSY facilitates infrastructural improvements, cold chains, hatcheries, feed mills, and better market access for fish farmers.

Significance of the Organic Fisheries Cluster:**1. Environmental Sustainability:**

- Adoption of organic and eco-friendly aquaculture reduces dependency on chemicals, antibiotics, and synthetic feeds, which are detrimental to aquatic biodiversity and water bodies.
- It mitigates risks of antibiotic resistance and contamination of water sources, promoting healthier ecosystems.

2. Economic Benefits and Market Access:

- Organic fish products attract premium prices domestically and internationally, increasing incomes for fish farmers.
- It opens export opportunities to countries with strict organic and environmental standards, enhancing India's competitiveness in the global seafood market.

3. Social and Livelihood Enhancement:

- The cluster model empowers small and marginal fish farmers by organizing them into FFPOs, improving their access to credit, technology, and markets.
- Capacity building and training enhance farmers' skills in organic fish farming, quality assurance, and sustainable practices.

4. Food Security and Quality:

- Organic fish farming ensures safe, nutritious, and chemical-free fish supply, addressing food safety concerns among consumers.
- It contributes to national food security by increasing fish production through sustainable means.

Challenges and Way Forward:**● Challenges:**

- Organic certification processes can be complex and costly for small farmers.
- Maintaining organic standards consistently across diverse farming operations is demanding.
- Market awareness and consumer education about organic fish products need strengthening.

● Way Forward:

- Strengthening institutional support, easing certification, and subsidies for organic inputs.
- Promoting research and innovation in organic aquaculture technologies and disease management.
- Enhancing domestic and international marketing campaigns for organic fish products.

Model UPSC Mains Question

Q “The launch of India’s first organic fisheries cluster under the Pradhan Mantri Matsya Sampada Yojana (PMMSY) marks a significant step towards sustainable aquaculture. Discuss the importance of organic fish farming in India and the challenges involved in promoting organic fisheries. How can this initiative impact the fisheries sector and rural livelihoods?”

Transitioning Industrial Clusters Initiative (TICI)**Context:**

India’s prominent industrial clusters such as **Gopalpur Industrial Park, Kakinada Cluster, Kerala Green Hydrogen Valley, Mundra Cluster, and Mumbai Green Hydrogen Cluster** have joined the **Transitioning Industrial Clusters Initiative (TICI)** to align with global decarbonization and sustainable industrialization goals.

What is TICI?

The **Transitioning Industrial Clusters Initiative (TICI)** is a global collaborative platform that supports **industrial hubs** in reducing **greenhouse gas (GHG) emissions** while maintaining **economic growth, job creation, and industrial competitiveness**.

- **Launched:** COP26, Glasgow, 2021
- **Founder Organizations:**

- World Economic Forum (WEF)
- Accenture
- Electric Power Research Institute (EPRI)
- **Objective:** To facilitate the **net-zero transition** of industrial clusters by providing technological, policy, and collaborative frameworks.
- **Scale:** Currently includes **33 clusters across 16 countries and 5 continents**, making it the **largest coalition** of co-located industrial and public institutions focused on decarbonization.

Why Industrial Clusters Matter?

- **Industrial clusters** are concentrated zones of companies and institutions located geographically together, enabling resource sharing, innovation, and supply chain efficiencies.
- These zones contribute significantly to **economic output** and **GHG emissions**—thus, **targeting them** is essential for achieving **climate goals**.

India's Participation: The 5 Clusters in TICI

1. **Gopalpur Industrial Park (Odisha)**
 - Focus: Attracting **green energy investments**, leveraging Odisha's mineral and port infrastructure.
 - Potential for renewable-based steel and manufacturing processes.
2. **Kakinada Cluster (Andhra Pradesh)**
 - Port-centric location fostering **green ammonia, green hydrogen, and sustainable aviation fuel (SAF)**.
 - Supports clean energy exports and coastal decarbonization.
3. **Kerala Green Hydrogen Valley**
 - Public-private initiative to promote **hydrogen-powered transport** and industrial usage.
 - Vital to India's **National Green Hydrogen Mission**.
4. **Mundra Cluster (Gujarat)**
 - Home to **large-scale industrial activity**, this cluster is being greened through **solar, wind, and battery storage** integration.
 - Supports sustainable logistics and manufacturing.
5. **Mumbai Green Hydrogen Cluster (Maharashtra)**
 - Aims to connect industries with **green hydrogen** supply chains and support decarbonization of petrochemical and transport sectors.

Significance for India:

- **Aligns with National Goals:** Supports India's Net Zero target by 2070 and the National Green Hydrogen Mission.
- **Industrial Decarbonization:** These clusters offer high-impact opportunities for reducing emissions in energy-intensive sectors.
- **Economic Benefits:** Attracts green investments, fosters job creation, and promotes technology transfer.
- **Global Collaboration:** Positions India as a leader in climate innovation and enhances its role in global climate governance.

Challenges Ahead:

- **High Capital Requirements** for green infrastructure and hydrogen adoption.
- **Policy and Regulatory Coordination** between center, states, and private players.
- **Skilling and Capacity Building** needed for transitioning workforce to green sectors.
- **Energy Storage and Grid Stability** as renewable integration increases.

Model UPSC Mains Question

Q "Industrial clusters are key to achieving sustainable industrial transformation in India. In light of India's participation in the Transitioning Industrial Clusters Initiative (TICI), examine how cluster-based decarbonization can support economic growth while ensuring environmental sustainability." (250 words)

Internationalization of the Rupee**Context:**

The Reserve Bank of India (RBI) has recently announced liberalised norms to encourage the use of the Indian Rupee (INR) and local/national currencies in settling cross-border transactions. This is part of a broader strategy to promote the internationalization of the rupee and reduce India's dependency on foreign currencies like the US dollar.

What is Rupee Internationalisation?

- **Rupee internationalisation** refers to the process by which the Indian Rupee is increasingly accepted in global trade, investments, and financial transactions, without needing to be converted into a dominant reserve currency like the US dollar.

- In a **fully internationalised** setup, the INR would be:
 - Used for **pricing and invoicing** of international trade.
 - Accepted for **settlement** of trade and capital account transactions.
 - Held as **reserves** by central banks and financial institutions globally.

Why is it Important for India?

- **Reduces Exchange Rate Risk:** For Indian exporters/importers by enabling invoicing and settlement in INR.
- **Decreases Dollar Dependency:** Enhances India's monetary sovereignty and resilience to dollar shocks.
- **Strengthens Global Economic Standing:** Elevates the Rupee's role in the international financial system.
- **Improves Balance of Payments Flexibility:** Settlements in INR reduce demand for foreign exchange.
- **Boosts Soft Power:** Enhances India's influence in regional trade blocs (e.g., BIMSTEC, SAARC).

Steps Taken by RBI & Government to Promote Rupee Internationalisation:

1. *Bilateral Currency Agreements*

- India has signed MoUs with countries like **UAE, Maldives, and Indonesia** to promote **trade in local currencies**, avoiding third-party currency like USD.

2. *Special Rupee Vostro Accounts (SRVAs)*

- Enables foreign banks to **open and maintain INR accounts** in Indian banks.
- Used for **trade invoicing, payment settlement, and investments** in India.
- Over **20 countries** including **Russia, Sri Lanka, and Mauritius** have opened SRVAs with Indian banks.

3. *Liberalisation of FEMA Regulations*

- Allows **non-residents** to:
 - Invest in Indian G-Secs and corporate bonds using INR.
 - Use INR for payments in export/import contracts.
- **Exporters** now allowed to **maintain foreign currency accounts**, improving trade flexibility.

4. *Development of INR-Based Financial Instruments*

- Promotion of **Masala Bonds** (Rupee-denominated bonds issued overseas).
- Allowing **foreign portfolio investors (FPIs)** and **foreign direct investors (FDIs)** to transact in INR.

Key Concepts: Nostro vs. Vostro Accounts:

Feature	Nostro Account	Vostro Account
Definition	Account of a domestic bank in a foreign country	Account of a foreign bank in a domestic bank
Example	PNB's USD account in Chase Bank (USA)	Chase Bank's INR account in PNB (India)
Use	Helps Indian banks operate abroad	Helps foreign banks transact in India using INR
Relevance	Facilitates outward transactions	Facilitates inward rupee transactions for trade

Challenges to Rupee Internationalisation:

- **Limited Convertibility:** India still has **capital account restrictions**, unlike fully convertible currencies like the USD or EUR.
- **Volatile INR Exchange Rate:** Weakens confidence in rupee-based long-term investments.
- **Underdeveloped Bond Market:** Limits attractiveness for foreign investors to hold INR.
- **Lack of Global Acceptance:** The USD continues to dominate international reserves and invoicing (~85% of global forex transactions).
- **Geopolitical Resistance:** Many nations are cautious about shifting away from established systems (e.g., SWIFT, US-led financial architecture).

Way Forward:

1. **Gradual Capital Account Convertibility:** Calibrated liberalisation to ensure financial stability.
2. **Strengthen Rupee Infrastructure:** Deepen bond markets, streamline currency hedging tools.
3. **Expand Currency Swap Agreements:** With more trade partners to increase INR trade settlements.
4. **Digital INR (CBDC):** Promote cross-border use of **digital rupee** for faster, cheaper transactions.
5. **Enhance Bilateral Trade in INR:** Especially with neighboring and friendly countries with trade imbalances.

Conclusion:

Rupee internationalisation is a **strategic economic goal** that can **enhance India's global stature**, reduce **external vulnerabilities**, and **strengthen monetary autonomy**. However, it requires **robust financial systems**, **macro-economic**

stability, and **global confidence in the rupee** to transition successfully toward becoming a reserve currency of choice.

Model UPSC Mains Question:

Q “What is meant by the internationalisation of the Indian Rupee? Discuss the steps taken by the Government of India and the Reserve Bank of India in this regard. Also, highlight the challenges India faces in making the rupee a global currency.” (250 words)

Depreciation of the Indian Rupee

Context:

The **Reserve Bank of India (RBI)** has recently relaxed its tight control over the rupee's value, allowing it to **depreciate more freely** against the US Dollar. This marks a policy shift from the RBI's earlier stance of aggressive intervention to stabilize the rupee during most of 2024.

What is Rupee Depreciation?

- **Rupee depreciation** refers to a **fall in the value of the Indian rupee (INR)** against a foreign currency, typically the **US Dollar (USD)**.
- Example: If the exchange rate changes from **₹75 = \$1** to **₹80 = \$1**, the rupee has depreciated.
 - Now it takes more rupees to buy the same amount of dollars.

Causes of Rupee Depreciation:

1. Increased Demand for Dollars:

- Rising imports (especially crude oil, electronics).
- More outward remittances, foreign education/travel.

2. Current Account Deficit (CAD):

- A **persistent deficit** reflects that India imports more than it exports, increasing dollar demand and pressuring the rupee.

3. Capital Outflows:

- **FII withdrawals** from Indian equity and debt markets, often triggered by rising US interest rates or global uncertainty.

4. High Inflation:

- Persistent **inflation in India** erodes rupee's real value, affecting investor confidence and purchasing power.

5. Interest Rate Differentials:

- If RBI's **repo rate** is lower relative to the **US Fed rate**, capital tends to flow out of India into the US.

6. Global Factors:

- **US monetary tightening**, global recessions, geopolitical crises (e.g., Russia-Ukraine war, West Asia instability) increase demand for "safe haven" currencies like the USD.

Impacts of Rupee Depreciation:**Negative Impacts:**

Impact	Explanation
1. Costlier Imports	Crude oil, fertilisers, edible oils, machinery become expensive.
2. Imported Inflation	Higher input costs lead to cost-push inflation domestically.
3. Higher External Debt Servicing	Indian corporates and government with foreign currency debt face higher repayment costs.
4. Widening Trade Deficit	Export competitiveness may not always offset expensive imports.
5. Foreign Capital Flight	Currency volatility and macroeconomic uncertainty reduce FDI/FII attractiveness.

Positive Impacts:

Impact	Explanation
1. Export Boost	Indian products become cheaper globally , increasing competitiveness in textiles, IT services, and pharma.
2. Remittance Gains	NRIs benefit as \$1 = more rupees , increasing household income in India.
3. Tourism & Education	Inbound tourism rises as India becomes cheaper for foreigners.
4. Attracting FDI	A depreciated rupee may make Indian assets cheaper for global investors , attracting medium-term capital.

RBI's Role and Policy Shift:**Past Strategy:**

- **Active intervention** in forex markets via selling USD to maintain rupee stability.
- Protecting from **imported inflation** and **external shocks**.

Current Shift:

- Letting the rupee **depreciate gradually**, reflecting **market realities**.

- **Aim:** Allow natural adjustment of exchange rate while conserving **foreign exchange reserves**.

Way Forward & Policy Measures:

1. **Boost Export Competitiveness:**
 - Diversify export basket, support MSMEs, promote value-added products.
2. **Attract Stable Capital Inflows:**
 - Simplify FDI norms, deepen bond markets, promote rupee-based trade.
3. **Control Inflation:**
 - Through coordinated monetary and fiscal policy.
4. **Enhance Forex Reserves:**
 - Through current account surplus periods and inward remittances.
5. **Promote Local Currency Trade:**
 - Use **INR trade settlement mechanisms** (SRVAs) to reduce dollar dependency.

Conclusion:

While rupee depreciation poses **short-term macroeconomic challenges**, a **gradual and market-aligned depreciation** can act as a **shock absorber** for the external sector. The key lies in **balancing exchange rate flexibility** with **inflation control** and **external stability**, ensuring India's continued economic resilience and competitiveness.

Model UPSC Mains Question (GS-III):

Q “What are the causes and consequences of the depreciation of the Indian rupee? How should the RBI and the government respond to ensure macroeconomic stability while maintaining export competitiveness?” (250 words)

CENTRAL BANK DIGITAL CURRENCY (CBDC)

Context:

In a notable geopolitical development, U.S. Presidential candidate Donald Trump signed an executive order prohibiting the development of a **U.S. Central Bank Digital Currency (CBDC)**, citing concerns over privacy and government overreach. Meanwhile, countries like **India, China, Brazil, and Russia** are progressing rapidly in their own CBDC initiatives.

What is CBDC?

- A **Central Bank Digital Currency (CBDC)** is a **digital version of a country's fiat currency**, issued, regulated, and backed by the **central bank**.
- It is **legal tender**, distinct from cryptocurrencies like Bitcoin, which are **decentralized and unregulated**.

Types of CBDC:

Type	Use Case
Retail CBDC	For use by general public —individuals, households, small businesses. Used in day-to-day transactions.
Wholesale CBDC	Used by financial institutions for interbank transfers, settlements , and monetary policy operations.

CBDC vs. Cryptocurrency:

Aspect	CBDC	Cryptocurrency
Issuer	Central Bank	Private / Decentralized
Legal Tender	Yes	No (in most countries)
Stability	Stable, backed by government	Volatile
Regulation	Fully regulated	Unregulated in many jurisdictions
Trust	High (government-backed)	Depends on network/community trust

CBDC in India: The Digital Rupee (₹):

- **Launched by RBI** as a pilot project in 2022.
- Two categories: **₹-R (Retail)** and **₹-W (Wholesale)**.

Key Features:

1. **Issued and Guaranteed by RBI:** Similar to physical cash in terms of legal backing.
2. **Stored in Digital Wallets:** Provided by banks or authorized NBFCs.
3. **Modes of Transaction:**
 - **P2P (Person-to-Person)**
 - **P2M (Person-to-Merchant)** using QR codes.
4. **Programmability:**
 - Funds can be **targeted** for specific uses (e.g., subsidies, DBT, employee welfare).
 - Parameters like expiry, location, or merchant type can be embedded.

5. Legal Status:

- Under **Section 26 of the RBI Act, 1934**, the ₹ holds the same legal status as paper currency.

Benefits of CBDC:

Area	Benefit
Financial Inclusion	Brings the unbanked population into the digital economy.
Cost Reduction	Reduces printing and logistics costs of physical currency.
Faster Payments	Real-time, 24x7 transactions domestically and globally.
Improved Transparency	Reduces black money and tax evasion through traceability.
Programmability	Enables conditional transfers (e.g., welfare linked to school attendance).
Cross-Border Trade	Potential to facilitate quicker, cost-effective cross-border transactions.

Concerns and Challenges:

Challenge	Explanation
Privacy Risks	Governments may track individual transactions, raising surveillance fears.
Cybersecurity	High risk of cyberattacks or technical glitches.
Disintermediation of Banks	If people shift from bank deposits to ₹, it may affect banking liquidity.
Digital Divide	Rural areas with low digital literacy may face exclusion.
Over-centralization	Too much control in the hands of the central bank over financial flows.

Global Status of CBDCs:

- **China:** Most advanced with its **Digital Yuan** (e-CNY), widely tested in cities.
- **Europe:** ECB is in advanced planning stages for a **Digital Euro**.
- **Bahamas:** Among first to fully launch a CBDC (Sand Dollar).
- **U.S.:** Opposed by some political leaders; under research.

India's Way Forward:

1. **Robust Legal & Regulatory Framework:** Amendments to RBI Act and data protection laws.
2. **Gradual Scaling:** Begin with pilot cities, followed by full-scale rollout.
3. **Interoperability:** Ensure CBDC works seamlessly with UPI, wallets, NEFT, and RTGS.
4. **Data Privacy Protections:** Strong encryption and anonymization for retail transactions.
5. **Financial Literacy:** Nationwide campaigns to build user trust and understanding.

Conclusion:

India's Digital Rupee represents a transformational leap in **monetary policy**, **financial inclusion**, and **technological governance**. However, **balancing innovation with privacy, security, and inclusivity** will determine the success and public trust in CBDC adoption. It holds the potential to reshape the future of money, but its implementation must be **calibrated and cautious**.

Model UPSC Mains Question (GS Paper III):

Q “Central Bank Digital Currencies (CBDCs) are being adopted by many countries to modernize their financial systems. Discuss the benefits and challenges of implementing a CBDC in India. How does it differ from private cryptocurrencies?” (250 words)

TREASURY BILLS (T-BILLS)**Context:**

The Government of India is set to borrow ₹3.94 lakh crore from the market through **Treasury Bills (T-Bills)** to manage short-term liquidity and fiscal requirements.

What are Treasury Bills (T-Bills)?

- T-Bills are **short-term money market instruments** issued by the **Government of India** to raise funds for periods **less than one year**.
- They are a type of **zero-coupon government security** — meaning they do **not carry interest**, but are **issued at a discount** and **redeemed at face value**.

Key Features of T-Bills:

Feature	Details
Tenor	91 days, 182 days, and 364 days
Issuer	Government of India, through the Reserve Bank of India (RBI)
Nature	Zero-coupon instruments (no periodic interest payments)
Return Mechanism	Earned through the difference between issue price and face value
Mode of Issue	Issued via weekly auctions on RBI's E-Kuber platform
Introduced in India	1917
Minimum Investment	Usually ₹10,000 and in multiples thereafter (for retail participants)

Example:

A 91-day T-Bill with face value ₹100 may be sold for ₹96.50. After 91 days, the government pays ₹100 to the holder. The **profit of ₹3.50** is the **return** to the investor.

Who Can Invest?

- **Commercial banks**
- **Insurance companies**
- **Mutual funds**
- **Corporates**
- **Trusts**
- **Individuals**
- **Non-resident investors** (as per FEMA guidelines)

Why Does the Government Issue T-Bills?

- To meet **short-term liquidity mismatches**
- To manage **temporary fiscal deficits**
- As part of **monetary policy operations** by the RBI
- To maintain **market liquidity**

T-Bills & Liquidity Management:

- The **return (yield)** on T-Bills varies based on liquidity:
 - In **tight liquidity conditions**, demand for funds is high → T-Bill yields increase.
 - In **surplus liquidity**, demand for T-Bills rises → yields fall.

T-Bills & the Banking System:

Use Case	Explanation
SLR Compliance	Banks use T-Bills to meet the Statutory Liquidity Ratio (SLR) — a regulatory requirement to maintain a specified share of their net demand and time liabilities in liquid assets.
Repo Agreements	T-Bills are used as collateral in repo operations — short-term loans from the RBI.
Safe Investment	Considered risk-free instruments due to sovereign backing, hence preferred for liquidity management .

Advantages of T-Bills:

Advantage	Explanation
Risk-Free	Backed by the central government — no default risk
High Liquidity	Actively traded in the money market
Instrument for Monetary Policy	RBI uses T-Bills for Open Market Operations (OMOs)
Market Benchmark	Yields on T-Bills often serve as benchmark rates for other financial instruments

Limitations of T-Bills:

- **No interest income** — only capital gain
- **Returns lower than long-term instruments** like government bonds
- **Exposure to inflation risk** if held during high inflation periods
- **Limited retail participation** due to preference for higher-yielding assets

Conclusion:

Treasury Bills are a **vital component of India's short-term debt market**, serving both fiscal and monetary policy purposes. Their **risk-free nature, liquidity, and utility in managing banking sector regulations** make them indispensable tools in the Indian financial ecosystem. However, expanding **retail participation and awareness** is essential to further deepen India's bond markets.

Model UPSC Mains Question (GS Paper III):

Q “Treasury Bills (T-Bills) play a crucial role in the management of short-term fiscal requirements and monetary operations in India. Discuss their significance for the government and banking system.” (250 words)

MARKET AND NON-MARKET ECONOMY CLASSIFICATION

Context:

Vietnam has been lobbying the **United States** to change its classification from a “**Non-Market Economy (NME)**” to a “**Market Economy (ME)**” — a designation that significantly impacts **anti-dumping duties** and trade relations.

What is a *Non-Market Economy*?

A **Non-Market Economy (NME)** is one where the **government plays a dominant role** in resource allocation, price setting, wage determination, and control over production.

Key Features:

- **State ownership or control** of key industries.
- Prices and wages **not determined** by free market forces.
- Limited currency convertibility.
- **Weak labor rights** and lack of collective bargaining.
- **Limited or highly regulated foreign investment.**
- Central planning often overrides supply-demand mechanisms.

US Criteria for NME Classification (as per U.S. Department of Commerce):

1. Non-convertibility of currency.
2. Absence of wage-setting by free labor negotiations.
3. Government control over production, prices, and resource allocation.
4. Dominance of state ownership in the means of production.
5. Restrictions on foreign joint ventures or investments.
6. Broader considerations like **rule of law, property rights, and human rights.**

Examples of NME Countries (as per the US):

- **China**
- **Vietnam**
- **Russia**
- **Uzbekistan**
- **Turkmenistan**
- **Belarus, etc.**

What is a *Market Economy*?

A **Market Economy** is one where **supply and demand** drive economic decisions. The role of the state is limited to regulation and protection of property rights.

Key Characteristics:

- **Free price mechanism** determined by market forces.

- **Private ownership** of the means of production.
- **Open foreign investment climate**.
- **Labor freedom** in wage negotiations.
- Innovation, profit motives, and competition drive efficiency.
- **Transparent legal systems** and contract enforcement.

Why Does the Classification Matter?

1. *Anti-Dumping Investigations:*

- In a **market economy**, domestic prices of the exporting country are used to assess whether dumping has occurred.
- In a **non-market economy**, **surrogate country prices** (like those of a third country) are used, often **inflating the dumping margin** and leading to **higher duties**.
- For example, Vietnamese exporters may face **harsher anti-dumping tariffs** than competitors from market economies.

2. *Trade and Investment Relations:*

- Market economy status leads to **better trade deals** and **investor confidence**.
- NMEs face **trade barriers** and **skepticism** regarding economic transparency.

3. *Geopolitical Implications:*

- Classification can be used as a **strategic lever** by developed nations (especially the US) to influence the economic policies of other countries.

Vietnam's Case for Reclassification:

- Vietnam has adopted **economic liberalization** since the *Doi Moi* reforms (1986), promoting **private sector growth**, **foreign investment**, and **export-led development**.
- However, **state-owned enterprises (SOEs)** and **central oversight** still persist, especially in sectors like banking, infrastructure, and energy.
- **U.S. hesitation** also stems from concerns over **labor rights**, **human rights**, and **transparency**.

Global Trade Context:

- **WTO** does not strictly classify countries as NMEs or MEs, but **allows members to use alternate methodologies** when dealing with countries not following market-based pricing.
- The issue is particularly sensitive in **US-China** and **US-Vietnam** trade relations.

Model UPSC Mains Question (GS-III / IR-Eco Interface):

Q “Distinguish between a market economy and a non-market economy. How does this classification affect international trade relations, particularly in the context of anti-dumping investigations?” (250 words)

INDIAN PHARMACEUTICAL SECTOR – "THE PHARMACY OF THE WORLD"**Context:**

The Central Drugs Standard Control Organisation (CDSCO) has withdrawn the authority of State Licensing Authorities to issue No Objection Certificates (NOCs) for manufacturing unapproved, banned, or new drugs for export. Now, manufacturers must obtain NOCs **online via the Sugam Portal**, indicating a move towards centralised, transparent, and uniform drug regulation.

Overview of India's Pharma Sector:

- India is **globally recognized** as the “*Pharmacy of the World*”, producing affordable and quality generic drugs for domestic and international markets.
- It ranks:
 - **3rd globally in pharmaceutical production volume**
 - **14th in terms of value**
 - **Largest supplier of generic medicines**, exporting to over **200 countries**.
 - **Over 62% of global vaccines** are manufactured in India (e.g., Covaxin, Covishield, etc.).
- **Exports:** India exported **pharmaceutical products worth over \$25 billion** in FY 2022–23.

Regulatory Framework for Drug Manufacturing:**1. Legislative Backbone:**

- **Drugs and Cosmetics Act, 1940 & Rules, 1945:**
 - Govern the **import, manufacture, distribution, and sale** of drugs, cosmetics, and traditional medicines (ASU).
 - Allocate powers to **central and state regulators**.

2. Central Drugs Standard Control Organisation (CDSCO):

- Apex drug regulatory body under the **Ministry of Health and Family Welfare**.
- Functions:

- Approval of **new drugs and clinical trials**.
- Regulation of **medical devices**, diagnostics, and cosmetics.
- Coordinates with **State Drug Authorities**.
- Oversight of **drug quality and pharmacovigilance**.

3. *Drugs Controller General of India (DCGI):*

- Head of CDSCO.
- Grants licenses for:
 - Vaccines, blood products, IV fluids, sera.
 - Approval for **clinical trials** and **bioequivalence studies**.
 - Oversees compliance with **manufacturing and distribution norms**.

4. *Sugam Portal:*

- Online regulatory platform to streamline:
 - Filing of applications.
 - Licensing and permission workflows.
 - Transparency in tracking drug approvals and NOCs.

Key Government Schemes Supporting Pharma Sector

Vision Pharma 2047:

- Aims to make India a **global leader in pharmaceuticals and medical devices**.
- Focuses on **innovation, quality, affordability, and resilience in global supply chains**.
- Aligns with the ethos of "**Vasudhaiva Kutumbakam**" – global welfare.

National Pharmaceutical Policy (Draft 2023):

- Seeks to provide a **comprehensive policy framework**.
- Five Pillars:
 1. Global leadership in pharma
 2. Self-reliance in bulk drugs and intermediates
 3. Health equity and accessibility
 4. Regulatory efficiency
 5. Investment promotion and job creation

Bulk Drug Parks Scheme:

- Objective: Reduce dependency on imports of **Active Pharmaceutical Ingredients (APIs)** from countries like China.
- Scheme outlay: **₹3,000 crore**.
- Offers grants-in-aid for infrastructure development in 3 selected states.

PLI Scheme for Pharmaceuticals:

- Focused on **53 critical bulk drugs** including antibiotics, vitamins, and fermentation-based products.
- Offers incentives on **incremental sales over the base year 2019–20** for 6 years.
- Aims to **boost domestic manufacturing**, reduce import dependence, and make India an attractive investment destination.

Challenges in the Indian Pharma Sector:

- 1. Quality Concerns & Regulatory Oversight:**
 - Reports of **substandard drugs** (e.g., cough syrup incidents in Gambia and Uzbekistan) have dented global trust.
 - Fragmented and overlapping roles of **State and Central authorities**.
- 2. Dependency on China:**
 - Over **65% of APIs** are imported from China.
 - Makes India vulnerable to supply chain shocks.
- 3. R&D Deficiency:**
 - Low investment in innovation.
 - **Generics-dominated industry** discourages breakthrough drug development.
- 4. Skewed Infrastructure:**
 - Bulk drug parks and pharma clusters are concentrated in a few states (Telangana, Gujarat, Maharashtra).
- 5. Price Control vs Profitability:**
 - **NPPA (National Pharmaceutical Pricing Authority)** sets price ceilings for essential drugs.
 - Balance needed between **affordability and innovation**.
- 6. Global Regulatory Scrutiny:**
 - Increasing inspections by **USFDA, EMA, MHRA**.
 - Compliance with Good Manufacturing Practices (GMP) is critical.

India's Role in Global Pharma Diplomacy:

- India played a pivotal role during the **COVID-19 pandemic** through its **Vaccine Maitri** initiative.
- Supplies to **GAVI, COVAX, WHO**, and over 100 countries.
- Acts as a **strategic counterweight** to Big Pharma and vaccine monopolies.

Way Forward / Recommendations:**1. Strengthen Regulatory Mechanisms:**

- Build capacity in **CDSCO and state drug controllers**.
- Ensure transparency and accountability through tech-driven platforms like Sugam.

2. Boost Indigenous R&D:

- Collaborate with academia, private players, and global institutions.
- Encourage startups in **biopharmaceutical innovation**.

3. API Self-Reliance:

- Operationalise bulk drug parks quickly.
- Provide long-term capital, energy subsidies, and logistic support.

4. Global Market Diversification:

- Reduce overdependence on the US market.
- Explore Africa, Southeast Asia, and Latin America.

5. Harmonize Regulations:

- Align Indian drug regulations with **international standards** (ICH, WHO-GMP).
- Faster approval mechanisms for global competitiveness.

Model UPSC Mains Questions:

Q “India’s pharmaceutical sector is a global success story, yet it is increasingly under scrutiny. Critically examine the key challenges facing India’s drug industry and suggest a regulatory framework for ensuring quality without stifling innovation.” (250 words)

ELECTRICITY SCENARIO IN INDIA**Context:**

With **peak power demand** in India projected to reach **240 GW in June 2025**, the **Ministry of Power** is taking pre-emptive measures to avoid a supply shortfall. This includes **optimising hydropower generation**, enabling an additional **4 GW capacity** during peak demand periods.

Overview of Power Sector in India:

India has the **third-largest** electricity generation capacity in the world. The sector has seen significant expansion and diversification in recent decades, balancing the goals of **energy security, affordability, and sustainability**.

Installed Capacity (as of March 31, 2024): ~442 GW

By Ownership:

- **Central Sector – 104 GW**

- **State Sector** – 108 GW
- **Private Sector** – 238 GW

By Source:

Source	Installed Capacity (GW)
Coal	211
Renewable Energy (Total)	152.6
→ Solar	92
→ Wind	48
→ Biomass/Cogeneration	10.7
→ Small Hydro	5
→ Waste-to-Energy	0.6
Hydro (Large)	47
Gas	25
Nuclear	8
Diesel	0.5

By Generation (Monthly Avg):

- **Thermal (coal + gas + diesel):** 118 BU
- **Solar:** 12.2 BU
- **Hydro:** 7 BU
- **Wind:** 4.5 BU
- **Nuclear:** 4 BU

Significance of Hydropower in Current Scenario:

- Hydropower is **dispatchable** and can ramp up quickly, making it ideal for managing **peak demand** and **grid stability**.
- In response to the **240 GW peak load forecast**, the government has planned to **front-load hydropower release** to generate an additional **4 GW** of electricity in peak hours.
- This is especially crucial during **summer months**, when coal demand surges and renewable output (e.g., wind) fluctuates.

Key Challenges in India's Electricity Sector:**1. High Dependence on Coal:**

- Over **47% of installed capacity** still comes from coal.
- Although coal is abundant domestically, it contributes to **air pollution** and **carbon emissions**.

2. *Transmission and Distribution (T&D) Losses:*

- India's AT&C (Aggregate Technical and Commercial) losses remain high (~20% in some states), leading to financial strain on DISCOMs.

3. *Financial Stress of DISCOMs:*

- Chronic issues of **subsidies, under-recoveries, and delays** in payments have weakened the power distribution companies.
- Implementation of **UDAY, RDSS** (Revamped Distribution Sector Scheme), and prepaid smart meters aim to address this.

4. *Renewable Integration Challenges:*

- Intermittency of solar and wind power.
- Need for **energy storage solutions**, grid modernization, and **time-of-day pricing**.

5. *Access and Equity:*

- Despite 100% village electrification, issues of **reliability and quality** persist in rural and remote regions.

Government Initiatives to Improve the Power Sector:

Revamped Distribution Sector Scheme (RDSS):

- Focuses on **reducing AT&C losses to <15%**.
- Financial assistance for **infrastructure modernization, smart metering, and IT enablement**.

National Solar Mission (under NSM):

- Aims to install **280 GW of solar power by 2030**.
- Focus on **rooftop solar, solar parks, and PM-KUSUM** scheme for agricultural solarisation.

Green Energy Corridor (GEC):

- Enhances transmission infrastructure to **evacuate renewable energy** efficiently.

Time-of-Day (ToD) Tariff Policy:

- Aims to rationalize power consumption by charging based on demand peaks and valleys.

National Electricity Plan (NEP) 2023–27:

- Envisions an additional capacity of **824 GW by 2047**.
- Focuses on **flexible thermal plants, pumped hydro storage, and battery energy storage systems**.

Emerging Trends and Technologies:

- **Battery Energy Storage Systems (BESS):**
 - India is planning to set up 4,000 MWh of BESS under **Viability Gap Funding (VGF)**.
- **Green Hydrogen Integration** with electricity generation.
- **Privatization of DISCOMs** in Union Territories to improve efficiency.
- **Market-Based Economic Dispatch (MBED):** Aims to create a unified national power market.

Way Forward / Recommendations:

1. **Diversify Energy Mix:**
 - Increase the share of **renewables** and **nuclear energy**.
 - Accelerate the development of **offshore wind** and **green hydrogen**.
2. **Modernize Grid Infrastructure:**
 - Focus on **smart grids**, **real-time monitoring**, and **grid flexibility**.
 - Invest in **substation automation** and **voltage optimization**.
3. **Improve Financial Viability of DISCOMs:**
 - Ensure **tariff rationalization**, **DBT for subsidies**, and **smart metering**.
4. **Promote Demand-Side Management:**
 - Encourage **energy efficiency**, **ToD tariffs**, and **load forecasting** using AI.
5. **Enhance Regional Grid Cooperation:**
 - Promote **cross-border power trade** with SAARC and ASEAN nations for grid balancing.

Model UPSC Mains Questions

Q "India's electricity sector is undergoing a transformation, but challenges of reliability, sustainability, and affordability persist." Discuss the present electricity scenario in India and suggest reforms for ensuring energy security. (250 words)

DRIP PRICING: A Hidden Cost Strategy**Context:**

The **Department of Consumer Affairs (DoCA)** has issued a warning against the practice of **drip pricing**, urging **greater transparency** and **consumer awareness** in digital transactions.

What is Drip Pricing?

- **Definition:** Drip pricing is a marketing strategy where only a **part of the total price** is shown upfront, with **additional mandatory charges revealed gradually** during the checkout process.
- These charges may include:
 - Taxes
 - Booking fees
 - Internet or service access charges
 - Add-ons or optional items that are practically required for functionality

Example:

- An airline shows a fare of ₹2,000. However, by checkout, the price rises to ₹3,000 after including baggage, seat selection, and convenience fees.

Why Is It Problematic?

Issue	Explanation
Consumer Deception	Consumers are mised by the headline price, resulting in unexpected financial burden .
Distortion of Market Competition	Honest businesses showing all-inclusive pricing appear more expensive than competitors who use drip pricing , despite offering better value.
Erosion of Trust	Repeated exposure to hidden fees undermines consumer trust in digital marketplaces.

Techniques Used in Drip Pricing:

- **Bait and Switch:** Attractive pricing is used to lure users, but the actual product is replaced with a costlier or less desirable option.
- **Fake Scarcity:** Creating urgency by saying “only 2 rooms left” or “limited stock”, pressuring consumers into hasty decisions.
- **Confirm Shaming:** Guiltting users into purchases with language like “No, I don’t want to save money”.

Legal and Regulatory Response:

- DoCA has warned **e-commerce platforms, travel portals, and event booking websites**.
- Under the **Consumer Protection Act, 2019**, misleading advertisements and **unfair trade practices** are prohibited.
- DoCA may issue mandatory guidelines for **disclosure of all charges upfront**, enhancing **price transparency**.

UPSC Mains

Q What is drip pricing and how does it affect consumer rights and market competition in India? Evaluate the need for regulatory safeguards in the context of rising e-commerce and digital transactions. (250 words)

INDIA INTERNATIONAL BULLION EXCHANGE (IIBX)**Context:**

State Bank of India (SBI) has become the **first trading-cum-clearing member** at the **India International Bullion Exchange (IIBX)**, marking a key milestone in India's attempt to formalize and globalize its bullion market.

What is IIBX?

- India's **first international bullion exchange**.
- Located at **GIFT City, Gandhinagar**, within the **International Financial Services Centre (IFSC)**.
- Launched to:
 - Provide a **centralized and transparent** bullion trading platform.
 - Enable **qualified jewellers** to directly import gold through a regulated channel.
 - Facilitate investments in **bullion-linked financial products**.

Structure & Regulation:

Feature	Details
Regulator	International Financial Services Centres Authority (IFSCA)
Participants	Qualified jewellers, bullion dealers, banks, and financial institutions
Functionality	Spot trading of physical gold and silver, clearing, and settlement

What is Bullion?

- Refers to **high-purity physical gold or silver**, typically in **bars or ingots**.
- Considered as:
 - A **hedge against inflation**
 - A **safe-haven asset**
 - Part of **foreign exchange reserves** by central banks

Significance of IIBX:

Benefit	Impact
Reduces Import Costs	Direct imports via exchange reduce the role of intermediaries

Formalizes Gold Trade	Promotes transparency in a largely unorganised sector
Boosts Financialization of Gold	Helps launch gold-backed financial products (ETFs, sovereign bonds)
Improves India's Pricing Power	India, as the 2nd largest consumer of gold, can now influence global prices

Role of IFSCA:

- **Established:** 2020 under IFSCA Act, 2019
- **Purpose:** Unified regulator for financial activities in IFSC
- **Headquarters:** GIFT City, Gujarat
- **Powers:** Consolidates regulation of entities previously under RBI, SEBI, IRDAI, PFRDA for activities in IFSC

UPSC Mains

Q Discuss the significance of the India International Bullion Exchange (IIBX) in formalizing the bullion market in India. How can it help reduce India's trade deficit and strengthen financial markets? (250 words)

COMPULSORY CONVERTIBLE DEBENTURES (CCDs)**Context:**

The **Competition Commission of India (CCI)** has approved **International Finance Corporation (IFC)** subscribing to **Compulsory Convertible Debentures (CCDs)** of **Napino Auto & Electronics Ltd.** This underlines the increasing use of CCDs in early-stage financing in India.

What are CCDs?

- **Definition:** CCDs are **hybrid financial instruments** — debt instruments that **must be converted into equity shares** of the issuing company **after a fixed period or upon a specific event.**
- **Key Features:**
 - Carry **fixed interest** until conversion.
 - Treated as **equity** upon conversion.
 - Cannot be redeemed like normal debt securities.

Legal Classification in India:

- As per the **Companies Act, 2013**, and **RBI guidelines**, CCDs are treated as **equity** once conversion is mandated.
- **Foreign investments** via CCDs are considered **FDI** under FEMA regulations if conversion is compulsory.

Advantages of CCDs:

Stakeholder	Benefits
Startups	Raise capital without immediately diluting ownership.
Investors	Secure debt-like fixed returns initially; potential equity upside later.
Companies	Useful for bridging cash-flow gaps while deferring equity dilution.

UPSC Mains

Q Discuss the role of hybrid financial instruments such as Compulsory Convertible Debentures (CCDs) in the capital structure of Indian startups. Examine their regulatory and economic significance. (250 words)

ZIMBABWE GOLD (ZiG): A Gold-Backed Currency Experiment**Context:**

Facing **hyperinflation** and the collapse of its currency, the **Reserve Bank of Zimbabwe (RBZ)** introduced a new **gold-backed currency** called **Zimbabwe Gold (ZiG)** in April 2024.

Background:

- The **Zimbabwean Dollar** lost over **80% of its value** in early 2024.
- Previous attempts to stabilize the currency using USD or bond notes have failed due to **fiscal mismanagement** and **lack of investor confidence**.

What is ZiG?

- **Gold-Backed Fiat Currency:** Pegged to a basket of assets, primarily **gold**, but not **redeemable for physical gold** by the public.
- Issued to **instill confidence**, anchor inflation expectations, and rebuild monetary credibility.

Key Features:

Feature	Description
Backing	Backed by physical gold and foreign reserves held by RBZ.
Non-Redeemable	Currency holders cannot exchange ZiG for gold.
Convertibility	Not fully convertible internationally yet. RBZ plans to work toward full convertibility.

Challenges and Criticism:

- **Lack of Redeemability:** Reduces public trust — unlike true gold-backed tokens or gold ETFs.

- **Poor Fiscal Fundamentals:** No guarantee that gold backing alone can resolve deep-rooted issues like high public debt, weak institutions, and policy inconsistency.
- **Liquidity and Credibility Issues:** The market may lack faith in government commitment or the actual gold reserves.

Lessons for India and Others:

- Gold backing is **not a substitute** for fiscal discipline, sound monetary policy, and strong institutions.
- However, such moves reflect a **global rethinking of fiat currency frameworks** amidst inflation and geopolitical instability.

UPSC Mains

Q What are the advantages and risks associated with asset-backed currencies such as Zimbabwe Gold (ZiG)? Critically evaluate whether gold-backed currencies can offer monetary stability in developing economies. (250 words)

DROP IN SOVEREIGN BOND YIELD

Context:

India's **10-year sovereign bond yield** has fallen to a **near-one-year low** following the **record ₹2.11 lakh crore dividend transfer** by the RBI to the Central Government. This has raised expectations of **reduced government borrowing and a lower fiscal deficit**, driving down bond yields.

What are Sovereign Bonds?

- **Definition:** Debt securities issued by a **national government** to **raise capital**. Investors lend money to the government in return for **periodic interest payments (coupon)** and eventual **repayment of principal**.
- **Examples:**
 - Indian Government: G-Secs (Government Securities)
 - U.S. Government: Treasury Bonds (T-Bonds)

Bond Yield: Explained

- **Bond Yield** = $(\text{Coupon Payment} \div \text{Market Price of Bond}) \times 100$
- It represents the **effective rate of return** an investor earns by holding the bond.

Example:

A bond with face value of ₹100 and annual coupon of ₹5 has a yield of 5%.

If the price rises to ₹105 $\rightarrow \text{Yield} = ₹5 / ₹105 = 4.76\%$.

If price drops to ₹95 $\rightarrow \text{Yield} = ₹5 / ₹95 = 5.26\%$

Thus, **Bond Price and Yield move inversely.**

Factors Affecting Bond Yields:

Factor	Impact
Interest Rates	Fall in interest rates → Rise in bond prices → Fall in yields
Inflation Expectations	High inflation → Higher yields demanded by investors
Fiscal Deficit	High borrowing → Oversupply of bonds → Yields rise
RBI's Monetary Policy	Rate hikes make existing bonds less attractive → Yields rise
Creditworthiness of Government	Perception of risk impacts yield.
RBI Surplus Transfer	Indicates stronger fiscal position → Reduces borrowing → Yields fall

Recent Drop in Bond Yield: Why?

- **RBI Dividend Transfer:** ₹2.11 lakh crore surplus boosted government's finances.
- **Expectations:**
 - **Lower Fiscal Deficit**
 - **Lower Government Borrowing**
 - **Less supply of G-secs in market** → Prices up → Yields down

Implications of Bond Yield Movement:

1. Borrowing Costs

- **Government Borrowing:** Lower yields → Lower interest burden.
- **Private Sector Loans:** G-sec yield is a benchmark → Cheaper credit → Boost to investment.

2. Foreign Portfolio Investment (FPI)

- **Higher US yields** → Outflow from Indian markets
- **Lower Indian yields** may reduce FPI inflows unless accompanied by macroeconomic strength.

3. Stock Markets

- **Inverse relationship:** When **bond yields fall**, **stocks become more attractive**, especially dividend-paying stocks.

4. Monetary Policy Transmission

- Bond yield is a signal for interest rate expectations. A **drop** may indicate room for RBI to hold or cut rates.

Bond Yield vs. Stock Market: Interplay

Scenario	Impact
Bond Yields ↓	Stock markets become more attractive; borrowing cheaper
Bond Yields ↑	Stock markets may correct; borrowing costlier

UPSC Mains Model Question:

Q Discuss the factors influencing sovereign bond yields in India. How do fluctuations in bond yields impact fiscal policy and the broader economy? (250 words)

INDIA'S RECENT TRADE DEALS

Context:

Since 2014, India has signed:

- 14 Free Trade Agreements (FTAs)
- 6 Preferential Trade Agreements (PTAs)

This reflects India's increasing economic engagement with global markets to enhance trade, investment, and strategic ties.

Recent Major Trade Agreements:

Agreement Name	Partner(s)	Year
India-EFTA TEPA (Trade and Economic Partnership Agreement)	Iceland, Liechtenstein, Norway, Switzerland	2024
India-Australia ECTA (Economic Cooperation and Trade Agreement)	Australia	2022
India-UAE CEPA (Comprehensive Economic Partnership Agreement)	UAE	2022
India-Mauritius CECPA (Comprehensive Economic Cooperation and Partnership Agreement)	Mauritius	2021

Ongoing Negotiations With:

- UK
- European Union
- Oman
- Israel

Types of Trade Agreements:**1. Preferential Trade Agreement (PTA):**

- **Scope:** Tariff reductions on **specific products**.
- **Example:** India-MERCOSUR PTA.
- **Does not eliminate all tariffs.**

2. Free Trade Agreement (FTA):

- **Scope:** Eliminates **tariffs/barriers on goods/services** across a broader range.
- **Example:** India-ASEAN FTA.

3. Comprehensive Economic Cooperation Agreement (CECA):

- **Scope:** Trade in goods, services + **investment** and regulatory cooperation.
- **Example:** India-Singapore CECA.

4. Comprehensive Economic Partnership Agreement (CEPA):

- **Wider than CECA**, includes **IPR**, competition policy, **e-commerce**, etc.
- **Example:** India-Japan CEPA.

5. Customs Union:

- **Feature:** No internal tariffs + **common external tariff**.
- **Example:** MERCOSUR (not India's agreement).

6. Common Market:

- **Adds:** Free **movement of labor and capital**.
- **Example:** EU's internal market.

7. Economic Union:

- **Adds:** **Monetary & fiscal policy harmonization**.
- **Goal:** Near-complete economic integration.

Features of Modern Trade Agreements (like ECTA, CEPA, TEPA):

- **Trade in Goods & Services**
- **Rules of Origin** (to prevent re-routing of trade)
- **Sanitary & Phytosanitary measures** (standards for food, health safety)
- **Technical Barriers to Trade**
- **Dispute Settlement Mechanism**
- **Movement of Natural Persons** (mobility of skilled professionals)
- **Customs Cooperation**, e-commerce, and pharmaceuticals

Significance of FTAs for India:**Strategic:**

- Boosts India's **Act East**, **Neighborhood First**, and **Look West** policies.

Economic:

- Enhances **exports**, attracts **FDI**, diversifies supply chains.

Geopolitical:

- Counters China's influence in the Indo-Pacific and RCEP region.

Challenges:

- India faces **non-tariff barriers** (e.g., stringent standards in EU, US).
- **Trade deficits** with some FTA partners.
- Domestic **industry concerns** about cheap imports (e.g., dairy, electronics).
- Need for better **negotiating capacity** and **monitoring of implementation**.

UPSC Mains Model Question:

Q India has increasingly engaged in bilateral and multilateral trade agreements in recent years. Critically examine the strategic and economic significance of India's recent FTAs. Also discuss the challenges in their implementation. (250 words)

OPEC+ EXTENDS PRODUCTION CUTS**Context:**

OPEC+ has **extended oil production cuts into 2025** to stabilize global crude prices in response to:

- Sluggish global demand
- High global interest rates
- Rising oil production in the USA

What is OPEC+?

- **OPEC+ is a coalition of 22 oil-producing countries**, including OPEC and 10 non-OPEC allies.
- Formed in **2016** after the 2014 oil crash to coordinate production levels and stabilize prices.
- Together, they produce over **40% of global oil**, thus influencing global oil prices significantly.

Members of OPEC+:

- **OPEC (12 countries):** Algeria, Congo, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Saudi Arabia, UAE, Venezuela
- **Non-OPEC (10 countries):** Azerbaijan, Bahrain, Brunei, Kazakhstan, Russia, Mexico, Malaysia, South Sudan, Sudan, Oman **Angola exited OPEC in Jan 2024** over disagreements on output limits.

About OPEC (Organization of the Petroleum Exporting Countries):

Feature	Details
Founded	1960 at the Baghdad Conference
Founding Members	Iran, Iraq, Kuwait, Saudi Arabia, Venezuela
Headquarters	Vienna, Austria
Objective	Coordinate and unify petroleum policies; ensure stable oil markets

Purpose of Production Cuts:

1. **Price Stabilization:** Avoid oil oversupply and prevent price crashes.
2. **Demand-Supply Balance:** Match reduced global oil demand due to slow economic recovery.
3. **Revenue Protection:** Help oil-exporting economies sustain revenues amid external shocks.
4. **Offset Rising US Supply:** The US (especially shale oil producers) continues to increase production independently.

Geopolitical & Economic Implications for India:

Factor	Impact on India
Oil Prices	Higher prices strain India's import bill (India imports ~85% of its crude needs).
Inflation	Expensive oil fuels domestic inflation, especially in transport and manufacturing sectors.
Trade Deficit	Increases current account deficit due to higher energy imports.
Rupee Pressure	Larger oil bills can weaken INR against USD.
Strategic Shifts	Push for renewable energy and diversifying energy import sources.

UPSC Mains Model Question:

Q How do decisions of OPEC+ impact India's energy security and macroeconomic stability? Discuss in the context of recent production cuts announced by the group. (150/250 words)

Rise in India's External Debt

Context:

India's external debt stood at **\$663.8 billion** at the end of March 2024, marking an increase of **\$39.7 billion** over the previous year (March 2023). Excluding the valuation effect (changes due to currency fluctuations), the increase was even higher at **\$48.4 billion**. This rising external debt reflects India's growing engagement with international financial markets, but also warrants close monitoring for macroeconomic stability.

What is External Debt?

External debt is the total amount of money borrowed by a country from **foreign lenders**. This borrowing can take various forms including:

- **Loans** (bilateral or multilateral)
- **Bonds**
- **Trade credits**
- Other financial instruments.

These debts must be repaid in foreign currency and can influence a country's balance of payments, exchange rate stability, and economic policy.

Components of India's External Debt:

India's external debt consists of both **long-term** and **short-term** borrowings, predominantly aimed at financing imports, infrastructure, and other developmental activities. The major components are:

- **Commercial Borrowings:** Loans from foreign commercial banks and financial institutions.
- **NRI Deposits:** Deposits made by Non-Resident Indians in Indian banks, which are a stable source of external financing.
- **Short-term Trade Credit:** Credit extended by foreign suppliers to Indian importers, facilitating trade.
- **Multilateral Loans:** Borrowings from international organizations such as the World Bank, IMF, and Asian Development Bank.

Debt Structure – By Currency:

- **US Dollar:** 53.8% (Major share, reflecting global dominance of USD in trade and finance)
- **Indian Rupee:** 37.4% (Represents external debt denominated in INR, often deposits by NRIs)
- **Japanese Yen:** 5.8%
- **Special Drawing Rights (SDRs):** 5.4%

- Euro: 2.8%

Debt Structure – By Borrower Type:

- Non-financial Corporations: 31.5%
- Deposit-taking Corporations (excluding RBI): 28.1%
- General Government: 22.4%
- Other Financial Corporations: 7.3%

Debt Structure – By Debt Type:

- Long-term Debt (more than 1 year): 81.5%
- Short-term Debt (1 year or less): 18.5%
- Loans: 33.4%
- Currency and Deposits: 23.3%
- Trade Credit and Advances: 17.9%

Significance and Implications:

1. **Economic Growth and Development:** External debt allows India to finance infrastructure projects, import essential goods, and support development without immediate domestic resource mobilization.
2. **Balance of Payments:** While external debt helps manage current account deficits, rising debt servicing obligations can strain foreign exchange reserves if not balanced by exports or capital inflows.
3. **Currency Risk:** Since a large portion of debt is denominated in foreign currency, depreciation of the rupee increases the repayment burden in domestic terms, affecting fiscal and monetary stability.
4. **Debt Sustainability:** India's long-term debt proportion is relatively high, indicating manageable repayment timelines; however, continuous monitoring is essential to avoid over-reliance on volatile short-term debt.
5. **Policy Significance:** The Reserve Bank of India (RBI) and the Ministry of Finance closely monitor external debt levels and composition to maintain economic stability and investor confidence.

Conclusion:

India's rise in external debt highlights increased integration with global financial markets, facilitating growth and development. However, prudent management is essential to ensure that external liabilities remain sustainable and do not jeopardize macroeconomic stability. Strengthening export competitiveness, maintaining healthy foreign exchange reserves, and attracting stable capital inflows are crucial to managing external debt effectively.

E-SAMRIDDHI PORTAL**Context:**

The Union Minister of Agriculture & Farmers' Welfare has urged state governments to encourage farmers to register on the **e-Samriddhi portal**. This initiative aims to provide farmers with assured procurement benefits, particularly for pulses, at Minimum Support Prices (MSP).

Key Features of the e-Samriddhi Portal:

Feature	Details
Purpose	Facilitate the registration of farmers for the procurement of pulses at MSP, ensuring transparency, timely payments, and efficient procurement.
Launched by	NAFED (National Agricultural Cooperative Marketing Federation of India Ltd) and NCCF (National Cooperative Consumers Federation of India).
Registration Process	<ul style="list-style-type: none"> - Three-layer verification: Aadhaar, mobile number, and bank details. - Integrated with state land records for accuracy and to avoid duplication. - Farmers can register directly or through PACS (Primary Agricultural Credit Societies) and FPOs (Farmer Producer Organisations).
Procurement System	<ul style="list-style-type: none"> - Keeps updated records of procured and rejected lots. - Assigns unique lot numbers and uses QR codes for inventory tracking. - Payments are made directly by NAFED to farmers' bank accounts, eliminating intermediaries to ensure timely and hassle-free payments.

About NAFED (National Agricultural Cooperative Marketing Federation of India Ltd):

- **Establishment:** October 2, 1958, under the Multi-State Co-operative Societies Act, 2002.
- **Headquarters:** New Delhi, with regional offices in Mumbai, Chennai, and Kolkata.
- **Operating Ministry:** Ministry of Agriculture & Farmers' Welfare.

- **Functions:**

- Implements price stabilization measures under schemes like **Operation Greens** to protect farmers from price fluctuations.
- Collaborates with the Food Corporation of India (FCI) to procure oilseeds, pulses, and copra under the **Price Support Scheme (PSS)** to ensure farmers get remunerative prices.

About National Cooperative Consumers Federation of India (NCCF):

- **Establishment:** October 16, 1965, registered under the Multi-State Co-operative Societies Act, 2002.
- **Headquarters:** New Delhi.
- **Operating Ministry:** Ministry of Consumer Affairs, Food and Public Distribution.
- **Functions:**
 - Acts as the apex body of consumer cooperatives across India.
 - Promotes the consumer cooperative movement and facilitates the voluntary formation and democratic functioning of cooperatives to empower consumers and farmers.

Significance of e-Samridhi Portal:

- **Transparency & Accountability:** Direct registration linked with Aadhaar and bank details reduces fraud and ensures correct beneficiary identification.
- **Efficiency in Procurement:** Use of QR codes and unique lot numbers improves traceability and inventory management.
- **Timely Payments:** Direct transfer to farmers' bank accounts helps in quick realization of dues, enhancing farmers' cash flow and reducing dependency on intermediaries.
- **Empowerment of Farmers:** Farmers, especially those growing pulses, get assured market access and fair prices, incentivizing increased production of pulses, which are vital for nutrition security and soil health.
- **Integration with State Systems:** Syncing with state land records ensures precision in farmer data and reduces duplication.

Conclusion:

The **e-Samridhi portal** is a significant step towards strengthening the agricultural marketing system, ensuring that pulses farmers get their due Minimum Support Price with transparency and efficiency. It reflects the government's commitment to using technology to empower farmers, enhance

procurement processes, and ensure price support schemes reach their intended beneficiaries without leakage.

Model UPSC Mains Question:

Q “The e-Samridhi Portal is a transformative initiative towards ensuring transparency and efficiency in agricultural procurement. Discuss the features and significance of the portal in empowering farmers, particularly in the pulses sector. What challenges remain in realizing its full potential?”
(15 marks, GS Paper III – Agriculture and Farmers’ Welfare)

PUBLIC SECTOR BANKS RAISE MCLR & TRENDS IN REMITTANCE INFLOWS

Context:

- Public sector banks such as SBI and Bank of Baroda have increased their **Marginal Cost of Funds-Based Lending Rate (MCLR)**, which is likely to impact loan EMIs for borrowers.
- Simultaneously, India retained its status as the **largest recipient of global remittances** in 2023, as per the World Bank.

Marginal Cost of Funds-Based Lending Rate (MCLR):

What is MCLR?

- Introduced by **RBI in April 2016**, replacing the **Base Rate system**.
- It is an **internal benchmark rate** below which banks are not permitted to lend (except in specific government schemes).
- Applicable primarily to **corporate loans and floating-rate loans** taken **before October 2019**.

How is MCLR Calculated?

It is based on four components:

1. **Marginal Cost of Funds** – the cost of fresh borrowings by banks.
2. **Negative Carry on CRR** – loss due to cash reserves kept with RBI without earning interest.
3. **Operating Costs** – costs related to bank operations and servicing loans.
4. **Tenor Premium** – compensation for the risk associated with longer-term loans.

Why has MCLR increased now?

- Banks are facing rising **deposit costs** due to higher interest rates.
- As **marginal cost of funds** rises, so does MCLR.
- This leads to **costlier loans**, increasing EMIs for borrowers.

Mains Practice Question

Q “Discuss the evolution of benchmark lending rates in India with special reference to MCLR. How do these reforms impact monetary policy transmission and borrower costs?” (GS Paper III – 15 Marks)

External Benchmark Based Lending Rate (EBLR)

What is EBLR?

- Introduced in **October 2019**, as part of RBI's move to improve **transparency and transmission of monetary policy**.
- Links lending rates to **external benchmarks** such as:
 - RBI's **Repo Rate**
 - Treasury Bills
 - Any other published market interest rate

Current Usage:

- Applicable to:
 - **Retail loans**
 - **Floating rate loans to MSMEs**
- Known also as **Repo Linked Lending Rate (RLLR)**

Advantages over MCLR:

Feature	MCLR	EBLR
Benchmark Type	Internal	External (e.g., repo rate)
Transparency	Moderate	High
Rate Response	Slow to adjust	Fast transmission of RBI policy rates
Applicability	Older loans, corporate lending	Retail & MSME floating rate loans

Impact of Repo Hike:

- Since May 2022, RBI has raised repo rate by **250 basis points**.
- Consequently, EBLR-based loans have become costlier in tandem.

Remittances to India:

What are Remittances?

- Transfer of funds by **migrants to their families** in their home country.
- Categorized under **Current Account** in **Balance of Payments (BoP)**.
- Treated as **unilateral transfers** (non-reciprocal).

Significance for India:

- India received **\$120 billion in remittances in 2023**, retaining top position globally.
- Major source countries:
 - USA, UAE, Saudi Arabia, UK, Singapore
- India has **18.7 million emigrants**, the largest diaspora globally.

Economic Importance:

- Enhances **household consumption** and savings.
- Supports **foreign exchange reserves**.
- Acts as a **cushion during external shocks** (e.g., global slowdown).
- Helps reduce **current account deficit (CAD)** pressure.

Key Challenges and Way Forward:**Challenges with Lending Rates:**

- Dual benchmark system (MCLR + EBLR) creates complexity for borrowers.
- MCLR's slow responsiveness undermines **monetary policy transmission**.
- Frequent rate hikes (via EBLR) can reduce **loan affordability**.

Policy Suggestions:

- Gradually phase out MCLR and base all new floating-rate loans on **external benchmarks**.
- Improve **awareness among borrowers** about the link between repo rate and loan EMIs.
- Expand availability of **fixed-rate options** for consumer protection.

Remittances – Strategic Leverage:

- Encourage use of **formal remittance channels** via tax incentives and digital gateways.
- Collaborate with host countries to protect **migrant workers' rights and earnings**.
- Develop **NRI investment bonds** to channel remittances into productive sectors.

Model UPSC Mains Questions

- Q “India remains the top recipient of remittances globally. Analyze the socio-economic benefits of remittance inflows and suggest policy measures to maximize their developmental impact.”

PROJECT NEXUS

Context:

The Reserve Bank of India (RBI) has joined Project Nexus, a multilateral initiative aimed at enabling instant cross-border retail payments by linking domestic Fast Payment Systems (FPSs).

About Project Nexus:

- Project Nexus was conceptualized by the Innovation Hub of the Bank for International Settlements (BIS).
- Its goal is to improve cross-border payments by connecting multiple domestic Instant Payment Systems (IPS) on a global scale.
- This is the first project under the BIS Innovation Hub in the payments domain that is advancing toward live implementation.

Benefits of Project Nexus:

- It standardizes the method by which IPS connect across countries.
- Through a single connection, a Fast Payment System will gain access to other countries on the network, thereby simplifying and streamlining the process.
- The platform is expected to become operational by 2026.
- Once implemented, Nexus will enhance the efficiency, speed, and cost-effectiveness of retail cross-border payments.

Participating Countries:

- Initially, Project Nexus will connect the Fast Payment Systems of five founding members: Malaysia, the Philippines, Singapore, Thailand, and India.
- India's Unified Payments Interface (UPI) will be linked with the FPSs of these countries through Nexus.
- Over time, the platform is expected to expand and include more countries.

Countries that currently accept UPI:

- Bhutan
- France
- Mauritius
- Nepal
- Singapore
- Sri Lanka
- United Arab Emirates (UAE)

Countries that currently accept RuPay:

- Bhutan
- Nepal
- Mauritius
- Singapore
- United Arab Emirates (UAE)

Question:

Q “Discuss the significance of India joining Project Nexus in the context of cross-border retail payment systems. How can this initiative enhance India's position in the global digital payment ecosystem?”

Zombie Startups: A Threat to Innovation and Capital Efficiency

Background and Context:

The Indian startup ecosystem has witnessed exponential growth over the last decade, with the rise of unicorns and significant inflows of domestic and foreign venture capital. However, the ecosystem is not without challenges. In times of **funding slowdown**, often referred to as a “**funding winter**”, many startups face difficulties in raising capital to sustain operations or scale their ventures. One of the consequences of this phase is the emergence of **zombie startups** — businesses that continue to operate but with **stagnant growth and limited financial viability**.

What are Zombie Startups?

Zombie startups are companies that survive but fail to thrive. These entities:

- Generate **just enough revenue** to cover basic operations and service existing debts.
- Show **no signs of meaningful growth**, innovation, or profitability.
- Remain operational for extended periods without attracting new investments or expanding market share.
- They are sometimes referred to as “**walking dead**” companies because they lack the financial vitality to succeed yet are not officially shut down.

Key Characteristics:

- **Low or negative cash flow** that barely sustains operations.
- **High burn rate**, where the company uses capital faster than it earns.
- **Diminishing runway**, making future funding critical for survival.
- **Inability to pivot** or adapt business models in response to market changes.
- **Risk to investors**, as their capital remains locked in low-return ventures.

Impact on the Economy and Startup Ecosystem:

1. **Inefficient allocation of capital:** Zombie firms occupy resources that could otherwise be invested in more promising ventures.
2. **Distortion of market signals:** They skew the perception of sectoral growth and startup success rates.
3. **Loss of investor confidence:** Especially among angel investors and early-stage venture capitalists.
4. **Job losses and underutilized talent:** Employees remain in stagnant firms with limited career growth.

Related Startup Terminologies:

- **Burn Rate:** Speed at which a startup uses up its capital.
- **Runway:** Time left before a startup runs out of funds.
- **Pivot:** Strategic shift in business model.
- **Venture Capital:** High-risk, equity-based investment in startups.
- **Angel Investor:** Individual investors who fund early-stage startups.
- **Market Saturation:** Point at which no further business growth is possible in a given market.
- **Incubator/Accelerator:** Institutions that support startups with mentorship, infrastructure, and funding.

Model UPSC Mains Questions

- Q “What are zombie startups? Examine their impact on capital allocation and investor sentiment in India's startup ecosystem.”**