

9 PM Current Affairs Weekly Compilation

For UPSC CSE mains examination



2nd Week

December. 2025

Features :

Arranged as per syllabus Topics
Most complete coverage of major
News Papers editorials

INDEX

A black Friday for aviation safety in India	2
The evolution of pension reforms in India.....	4
Why the Rupee Has a Capital Account Problem.....	6
Surveillance apps in welfare, snake oil for accountability	9
A New Step in the Dragon–Elephant Tango	11
Carceral culture: On prisons and disability-related facilities.....	13
Circular Economy in Dairy Sector	16
What Indians Eat, and How Being Unhealthy Is Easier and Cheaper.....	18
Delhi–Moscow ties have a logic of their own	21
India’s small enterprises hold key to job growth	24
Neurotechnology in Focus: Emerging Opportunities and Regulatory Challenges	26
Satellites, Science, and the New Fight for Spectrum in Space.....	28
Drug Abuse Among School children	31
For AI, India can build on the Aadhaar–UPI model.....	33
Is the falling rupee a cause for alarm?	34
Parenting in the AI-age.....	36
From Licence Raj to Jan Vishwas: Freeing India’s Entrepreneurs	38
Supreme Court Rules Forced Narco Tests Unconstitutional	40
Courts must protect, not regulate free speech	41
A people-led climate intelligence movement	44
New Insurance Bill: What’s in & what’s left out?.....	47
The right moment to boost India-Ethiopia ties	48
India-Oman Ties	50
India need to upgrade its biosecurity measures.....	53
50 years of RRBs: A story of reform and transformation in rural India	55

A black Friday for aviation safety in India

Source: The post “A black Friday for aviation safety in India” has been created, based on “A black Friday for aviation safety in India” published in “The Hindu” on 08th December 2025.

UPSC Syllabus: GS Paper-3- Economy

Context: The suspension of the DGCA's revised Flight Duty Time Limitations (FDTL) on December 5, 2025, in order to address Indigo's flight disruptions, highlights a systemic failure to prioritise aviation safety in India. This demonstrated how commercial and operational pressures continue to override essential safety regulations.

Dilution of Flight Safety Norms

1. The DGCA's 2007 Civil Aviation Requirement (CAR) on fatigue management was formulated as a strong safety measure, but it was repeatedly suspended due to pressure from airline owners.
2. The Ministry's intervention in 2008 and again in 2025 shows that safety regulations are often diluted to address commercial concerns rather than operational realities.
3. Despite being aware for over a year that the new FDTL norms would take effect from November 1, 2025, both Indigo and the DGCA failed to prepare adequately, resulting in widespread disruptions and subsequent rollback of safety norms.

Commercial Interests Overriding Safety

1. The public statement by the Aviation Minister indicated that operational stability was being prioritised over essential fatigue management norms for pilots.
2. Indigo's decision not to hire sufficient crew, despite knowing the upcoming requirements, reflects a deliberate focus on commercial savings at the cost of safety margins.
3. The dilution of FDTL directly increases the risk of fatigue-related errors, indicating that passenger safety is being compromised to maintain schedules and profitability.

Regulatory Apathy and Structural Weakness

1. The DGCA's CAR Series C Part II (2022), which mandates only three sets of crew per aircraft, provides airlines with an opportunity to understaff operations while remaining formally compliant.
2. Safe domestic operations require at least six sets of pilots per aircraft, and long-haul operations require at least 12 sets, indicating that existing regulations are inadequate to ensure safety.
3. The DGCA has consistently demonstrated weak enforcement capacity and often acts according to ministerial directives rather than safety imperatives.
4. Judicial inconsistency—such as the Bombay High Court first criticizing and later upholding the dilution of safety norms—further weakens the aviation regulatory framework.

Challenges in India's Aviation Safety Framework

1. **Regulatory Challenges:** India faces regulatory capture because the DGCA functions under direct ministerial control, which compromises its autonomy and ability to enforce safety norms.
 - a. Airlines frequently operate with inadequate pilot and cabin crew strength, leading to chronic fatigue and degraded safety performance.

2. **Institutional Challenges:** India lacks a strong safety culture because operational pressures consistently take precedence over compliance with safety protocols.
 - a. Transparency is compromised when accident investigation reports, such as the AI 171 Ahmedabad report, are delayed, thereby preventing timely corrective action.
 - b. Legal oversight is weakened due to the absence of dedicated aviation expertise within the judiciary.
3. **International Compliance Challenges:** ICAO's recommendation for an independent civil aviation authority, made in 2006, has still not been implemented, indicating a long-standing gap in aligning with global best practices.

Implications for Aviation Safety

1. The dilution of fatigue management norms increases the likelihood of pilot error and raises the risk of major aviation accidents.
2. India risks damaging its international reputation as a safe aviation market, which could affect global partnerships and operational approvals.
3. Passenger confidence may decline due to frequent disruptions and perceptions of unsafe regulatory practices.
4. The long-term sustainability of India's rapidly expanding aviation sector is jeopardised if safety continues to be compromised.

Way Forward

1. **Strengthening Regulation:** India must establish an independent civil aviation safety authority that functions autonomously from the Ministry to ensure unbiased and safety-centric decision-making. The DGCA should reinstate and strictly enforce the revised FDTL norms, ensuring that fatigue management becomes non-negotiable.
2. **Improving Staffing and Operational Standards:** The regulations on minimum crew strength should be revised to mandate at least six sets of pilots for domestic operations and twelve sets for long-haul operations. Airlines must be required to conduct periodic fatigue risk assessments and demonstrate compliance through transparent operational audits.
3. **Enhancing Safety Culture:** A strong safety culture must be built by encouraging pilots and crew to report fatigue without fear of retribution. Regular training on fatigue risk management should be made mandatory for both operational and managerial personnel.
4. **Enhancing Accountability and Transparency:** Accident investigation reports must be published in a timely, transparent manner to enable the adoption of safety lessons. Penalties for non-compliance with safety norms should be strengthened to ensure that airlines cannot treat violations as mere operational costs.
5. **Strengthening Judicial and Oversight Mechanisms:** The judiciary should consider establishing specialised aviation benches or advisory panels to ensure informed adjudication of aviation-related cases.

Conclusion: The events of December 5, 2025 underscore a deeper crisis in India's aviation safety ecosystem, wherein commercial interests, regulatory weakness and institutional complacency continue to undermine passenger safety. India must adopt a decisive, reform-oriented approach to restore credibility, strengthen safety oversight and ensure that aviation safety is treated as an uncompromising national priority.

Question: The suspension of the revised Flight Duty Time Limitations (FDTL) norms in December 2025 exposes deep structural flaws in India's aviation safety governance. Discuss the factors leading to this situation, the challenges it highlights, and suggest a way forward.

The evolution of pension reforms in India

Source: The post "The evolution of pension reforms in India" has been created, based on "The evolution of pension reforms in India" published in "The Hindu" on 08th December 2025.

UPSC Syllabus: GS Paper-3- Economy

Context: India is undergoing a rapid demographic shift, with the elderly population of 153 million in 2025 expected to reach 347 million by 2050, creating a major pension and social security challenge. Pension reforms in India have gradually transitioned from welfare-based support to contributory and inclusion-focused frameworks, especially targeting informal sector workers.

Evolution of Pension Reforms in India

A. Welfare-Based Social Assistance Phase

1. The Indira Gandhi National Old Age Pension Scheme (IGNOAPS), introduced in 1995, was designed to provide a direct, regular income to persons above 65 living below the poverty line.
2. This scheme expanded over time, becoming the first nationwide financial support mechanism for elderly individuals in the unorganised sector.
3. The Old Pension Scheme (OPS) covered government employees by offering defined benefits, although it later became fiscally unsustainable.

B. Contributory and Financial Inclusion Phase

1. The New Pension Scheme (NPS), launched in 2004, replaced OPS and introduced a market-linked, contributory model for formal sector employees.
2. The corporate NPS model extended pension coverage to private sector workers by allowing them to open voluntary pension accounts.
3. The Atal Pension Yojana (APY), introduced in 2015-16, offered informal sector workers a contributory pension plan with flexible payment intervals to account for seasonal income fluctuations.
4. APY ensured a guaranteed minimum pension if investment returns fell short, encouraging formal savings behaviour among low-income households.

C. Recent Pension Innovations

1. The NPS 2.0 reform allowed subscribers to invest up to 100% in equity and introduced a flexible Multi-Scheme Framework, making it attractive for younger and higher-risk investors.
2. The new Labour Codes introduced a uniform definition of wages, ensuring that basic pay constitutes at least 50% of total salary, which increases pension and gratuity contributions and enhances long-term financial security for workers.

Inclusion Measures for Informal Sector Workers

1. The government launched the e-SHRAM portal to create a national database of informal sector workers and provide them with information about pension and social security schemes.
2. The Longitudinal Ageing Survey of India shows that 42% of people over 55 remain unaware of NPS eligibility criteria, which highlights the need for greater awareness.
3. The digital divide continues to pose challenges because 63% of elderly citizens do not know how to use the Internet, limiting their ability to register for schemes on their own.
4. Registration requirements such as Aadhaar-mobile linkage and bank accounts also create risks of exclusion for vulnerable groups.

Analytical Perspective

1. Pension reforms have progressed in a hierarchical manner, with each stage addressing gaps identified in earlier approaches to elderly welfare.
2. The early focus on welfare through IGNOAPS and OPS was followed by the introduction of savings-driven schemes such as NPS and APY, which aimed to strengthen financial inclusion.
3. Recent reforms, including e-SHRAM and NPS 2.0, show a shift towards a data-driven, participatory system that integrates informal workers into formal financial structures.

Key Challenges in India's Pension Framework

1. India continues to face low awareness about pension schemes among informal-sector and rural populations, which prevents eligible elderly individuals from enrolling.
2. The predominance of informal employment, where workers have irregular incomes, makes it difficult for them to commit to consistent contributions under schemes like APY.
3. Digital barriers and weak financial literacy hinder effective utilisation of technology-driven platforms such as e-SHRAM and NPS online services.
4. Administrative challenges such as errors in Aadhaar linkage, banking access, and verification processes create delays and exclusion from benefits.
5. Fragmented implementation across States leads to uneven coverage and inconsistent pension disbursements.
6. The guaranteed pension amounts under some schemes remain low relative to rising living costs, which reduces the adequacy of social protection.

Way Forward

1. The government should strengthen awareness campaigns through community workers, local bodies, and financial literacy programmes to ensure that all eligible groups understand pension schemes.
2. Pension contributions for informal-sector workers can be made more flexible by allowing micro-contributions and government co-contribution for the poorest households.
3. Digital infrastructure must be enhanced by providing assisted digital services at CSCs, panchayat offices, and post offices to overcome digital illiteracy barriers.
4. The e-SHRAM platform should be integrated with NPS and APY to create seamless enrolment, automatic eligibility verification, and timely benefit delivery.
5. Pension adequacy needs improvement through periodic revisions of benefit amounts based on inflation and elderly care costs.
6. Stronger monitoring mechanisms and grievance redressal systems should be instituted to prevent exclusion errors and ensure transparent disbursement.

Conclusion

The evolution of India's pension system marks a decisive movement from state-supported welfare schemes towards contributory and inclusion-based financial security models. Despite challenges such as limited awareness and digital exclusion, ongoing reforms offer a strong foundation for improving the dignity and economic security of India's rapidly growing elderly population. Ensuring widespread awareness, digital support, and effective last-mile delivery will be essential for achieving a universal and robust pension system.

Question: "The evolution of pension reforms in India reflects a shift from welfare-based social assistance towards a participatory financial inclusion framework." Discuss.

Why the Rupee Has a Capital Account Problem

Introduction

India's rupee is under pressure mainly because the capital account has weakened even though the current account deficit remains manageable. Merchandise trade deficits have widened, but rising invisibles have prevented a sharp external imbalance. The real stress today comes from declining foreign investment, persistent portfolio outflows, a strong global dollar, delayed trade decisions, high import demand, and reduced RBI intervention. These forces have lowered capital inflows, raised dollar demand, and pushed the rupee into a prolonged depreciation cycle.

What Is the Capital Account?

The capital account records cross-border money flows for **investment and financial purposes**. It covers foreign investment, external loans, banking capital, and changes in foreign assets and liabilities.

A capital account problem means these inflows are unstable, too small, or very volatile, making the economy dependent on uncertain foreign money.

Role in Financing and the Rupee: Capital inflows help finance the current account deficit and can add to foreign exchange reserves when they exceed this gap. When inflows are strong and steady, the supply of foreign currency rises, which supports the rupee.

Sensitivity to Global and Domestic Conditions: These flows react quickly to global interest rates, risk appetite, geopolitics, and domestic signals. Even high GDP growth cannot prevent outflows if investor sentiment turns cautious.

Why Does India Have a Capital Account Problem?

1. Steep Fall in Net Capital Inflows: Net capital inflows have dropped to **\$18 billion in 2024–25**, the lowest in sixteen years and below the **\$23.1-billion CAD**, creating a clear financing gap. When inflows fail to match the CAD, dollar demand exceeds supply, putting direct pressure on the rupee.

2. Sharp Decline in Foreign Investment

- Foreign investment has weakened sharply. Net inflows fell from **\$54.2 billion (2023–24)** to **\$4.5 billion (2024–25)** and further to **\$3.6 billion** in the first half of 2025–26.

- FDI also collapsed from **\$44 billion in 2020–21** to just **\$959 million in 2024–25**.
- Persistent FPI outflows across 2024–25 and 2025–26 have amplified this decline, reducing capital availability and weakening the currency.

3. Global Dollar Cycle and Risk Aversion: Higher US interest rates and geopolitical uncertainty have strengthened the dollar, pulling funds toward safe-haven assets. This global shift reduces flows to emerging markets, including India, leading to higher dollar demand despite strong domestic GDP growth.

4. Uncertainty Around the India-US Trade Deal: Repeated delays in the proposed trade agreement have created doubts about tariff outcomes. This uncertainty discourages foreign investors and adds to the weakness in capital inflows, intensifying pressure on the rupee.

What Is the Current Account Deficit?

The current account shows all economic transactions between a country and the rest of the world related to **trade, services, income, and transfers**.

In the **Balance of Payments**, the current account has two main parts: **merchandise trade (goods)** and **invisibles**, which include services, remittances, interest, dividends, and transfers.

A Current Account Deficit (CAD) occurs when **payments abroad exceed receipts**.

A persistent CAD means the country must rely on **foreign capital inflows or external borrowing** to meet this gap.

Why Does India Face a Persistent CAD?

1. Widening Goods Trade Deficit

- The goods trade deficit increased from **\$91.5 billion (2007–08)** to **\$286.9 billion (2024–25)**. The current fiscal may cross **\$300 billion**, as seen from April–September trends.
- The deficit widens because India imports large volumes of energy, electronics, and machinery, which increases dollar demand and contributes to CAD persistence.

2. Rising Import Demand During High Growth

- High growth increases demand for fuel, electronics, metals, and machinery. Elevated global metal and bullion prices raise the import bill further.
- This combination drives continuous outflows of foreign currency, tightening external balances and complicating rupee stability.

3. Invisibles Surpluses Offset but Do Not Eliminate Pressure

- Invisibles surpluses rose from **\$75.7 billion (2007–08)** to **\$263.9 billion (2024–25)** and may cross **\$280 billion** this year.

- These surpluses reduce CAD severity but cannot neutralise surges in goods imports. They prevent crisis-level CAD but do not fully shield the rupee when capital inflows weaken.

4. **Structural nature of the CAD:** India has recorded current account surpluses in only four years in more than two decades. Most fiscal years show deficits because imports of goods, services and payments exceed corresponding receipts. This long pattern shows that the CAD is structural and not limited to temporary economic shocks.

5. **Limited relief from temporary improvements:** Periods of narrower deficits, such as 2016-17 or 2020-21, did not result in a lasting change. The strong rebound in imports during recovery phases pushed the deficit back to high levels. This cyclical pattern reinforces the wider structural challenge in goods trade.

6. **Role of external transfers and payments:** India continues to make payments in interest, dividends, and royalty to foreign investors and lenders. These outflows place pressure on the current account, even though they are smaller than receipts from remittances and services. Spending by Indian students abroad also adds to this burden.

Why Is the Rupee Under Pressure?

1. **Heavy Capital Outflows and Weak Inflows:** Foreign portfolio investors sold ₹1.52 lakh crore worth of equities in 2025 (up to December 3). This follows a year of weak inflows in 2024. FPI withdrawals reduce rupee demand and raise dollar demand, directly weakening the currency.

2. **Dollar Strength and Safe-Haven Movements:** A strong dollar cycle, driven by shifting expectations of US rate cuts and elevated geopolitical risks, weakens emerging-market currencies. India's rupee has depreciated from 84.73 to 90 against the dollar in one year, with similar declines against the euro, pound, yen, and yuan.

3. **Trade Deficit Shock and CAD Repricing:** In October, India recorded a **trade deficit of \$41 billion**, the highest ever for a single month. Before this, most economists thought the **CAD would be around 0.7% of GDP**. After seeing the October data, they **raised their CAD estimate to 1.2–1.4% of GDP**. Markets were not prepared for this jump, so the news **hurt rupee sentiment and made its fall faster**.

4. **Reduced RBI Intervention and Tariff Link:** RBI intervention has slowed. It sold \$36.7 billion during June–December 2024 but only \$20 billion during January–September 2025. Analysts suggest the RBI may be allowing gradual depreciation as a defensive response to the **50% US tariff** on Indian exports. This approach helps preserve reserves while smoothing volatility.

5. **High US Tariffs and Export Concerns:** India faces a **50% tariff** on goods sold to the US, far higher than China (30%), Vietnam (20%), Indonesia (19%), and Japan (15%). About **\$45 billion** of exports are affected. This hurts competitiveness, reduces expected inflows, and worsens rupee sentiment.

6. **Structural Vulnerabilities and Import Dependence:** India depends heavily on imported energy, electronics, gold, and intermediate goods. High import dependence increases dollar demand regardless of global conditions. This structural feature amplifies rupee pressures when capital inflows slow.

Conclusion

India's rupee weakness is driven mainly by a capital account slowdown rather than an overstretched current account. Declining foreign investment, large portfolio outflows, tariff uncertainty, dollar strength, and high import dependence have combined to weaken the currency. Strengthening capital flows, improving export competitiveness, and reducing structural vulnerabilities are essential to restore external balance and build long-term rupee resilience.

Question for practice

Examine why the rupee is facing pressure despite a manageable current account deficit.

Source: [Indian Express](#)

Surveillance apps in welfare, snake oil for accountability

UPSC Syllabus Topic: GS Paper 3 -e-Governance

Introduction

Digital tools are increasingly used in welfare programmes to monitor attendance, prevent fraud, and enforce discipline. They promise quick fixes to long-standing problems such as absenteeism, corruption, and weak accountability. Yet their growing use has shifted attention from real work to digital compliance. Many tools create new forms of exclusion, burden, and manipulation. This raises serious questions about whether surveillance-based systems truly strengthen welfare delivery or simply offer an illusion of accountability.

Why Did Digital Tools Become Popular for Accountability?

1. Perception of Digital Solutions as a Quick Fix: Digital systems were seen as a simple way to address absenteeism, delays, and corruption among government employees.

2. Shift in Focus From Work Quality to Compliance: Digital tools redirected attention from actual work to meeting the tool's requirements. Their priority became marking attendance, not completing meaningful tasks. **This shows that digital popularity grew because it provided a measurable but misleading sense of control,** even though it did not ensure better work.

3. Reasons Governments Linked Technology to Accountability: Tools appeared easy to implement and offered quick numbers and dashboards. These created an illusion of control, even though the real problems—poor work culture and social norms—remained untouched.

4. Absence of Parallel Efforts on Motivation: There was little attempt to build responsible behaviour or intrinsic motivation among workers. The emphasis remained on forcing compliance through devices.

What Has Been the Real Impact?

1. Fraud Continued Through New Digital Tricks: Digital tools did not stop manipulation. Fake attendance did not disappear; it only changed form. People uploaded random or recycled photographs to satisfy app requirements. **Fraud shifted from signatures to photos,** showing that digital checks could be easily bypassed.

2. Exclusion of People: Biometric and app-based systems excluded many genuine beneficiaries. Elderly people, persons with disabilities, or workers with poor connectivity faced denial of entitlements because they could not authenticate themselves or upload required photos. **Those who needed support the most were pushed out of the system.**

3. Extra Burden and Stress on Frontline Workers: Workers spent significant time dealing with app errors, low bandwidth, and geo-tagging demands. Their actual work became secondary to uploading proof. Some even received warnings when apps flagged technical mismatches. **This discouraged sincere workers and increased frustration.**

4. Weak Link Between Monitoring and Real Work Quality: Digital tools forced presence but not performance. Being photographed or marked as “present” did not ensure useful work. In some studies, even attendance fell over time after biometric systems were introduced. **Compliance improved on paper, not in practice.**

5. Reduction of Professional Autonomy and Trust: Surveillance-focused apps treated workers as potential defaulters. This constant monitoring weakened trust, limited autonomy, and reduced workers’ ability to respond to real field conditions. **Accountability rules overshadowed meaningful engagement and public service motivation.**

6. Rise of New Inefficiencies and Corruption Pathways: Digital systems created slow service delivery, long queues, and new forms of corruption—such as claiming “biometric failure” to hide under-provision. They also raised privacy concerns, especially when sensitive photographs were uploaded. **Technology introduced fresh problems instead of solving old ones.**

Way Forward

1. Move from control to responsibility: Accountability tools can force basic compliance, but they cannot create care for the public. Systems should encourage workers’ own sense of duty.

2. Stop treating technology as a magic cure: Digital tools are treated like a quick, neat solution to deep problems. This obsession hides issues of work culture, norms, and support. Technology should be used carefully and in a limited way. It should assist workers, not dominate welfare delivery or define what good work means.

3. Support and learn from sincere workers: Many nurses, teachers, and field staff already work well in difficult conditions. Reforms should ask what helps them, not just how to watch them.

4. Review digital systems honestly: When misuse, exclusion, or errors appear, governments should pause, study the damage, and change design or roll back tools instead of adding more layers.

5. Protect people from harm and vested interests: Surveillance tools have caused denial of benefits, delays, new corruption, and privacy risks. Reforms must reduce these harms and avoid punishing honest workers for technical failures.

6. Check Vested Interests and Manufactured Ignorance: The expansion of surveillance apps creates large markets for devices, servers, data, and authentication services. Tech companies benefit when governments ignore the harms of these systems. Decision-makers must resist such capture, question who gains from these tools, and stop cultivating ignorance about their negative effects.

Conclusion

Surveillance apps promise cleaner welfare systems but often deliver exclusion, new corruption, and demotivation. They record compliance without improving real work or public outcomes. Digital control cannot replace responsibility, trust, or supportive work environments. A better path requires honest review of failures, respect for frontline workers, and caution against vested interests. Without these shifts, technology will remain a superficial fix—*snake oil* for accountability.

Question for practice:

Discuss how the growing use of surveillance-based digital tools in welfare programmes affects accountability, exclusion, and the motivation of frontline workers.

Source: [The Hindu](#)

A New Step in the Dragon–Elephant Tango

UPSC Syllabus Topic: GS Paper 2 -International relations

Introduction

China and India are moving through important phases in their national development. China has approved the proposal for its 15th Five-Year Plan, which will guide its progress from 2026 to 2030. India is moving towards its Viksit Bharat 2047 goal. Both place development at the centre of their national vision. Their choices now influence regional stability, trade, technology, and global economic trends. These shifts open new possibilities for cooperation between the two neighbours.

China's Development Foundation

- 1. Centralised Leadership:** China follows the unified leadership of the Communist Party of China (CPC). This leadership ensures policy stability and long-term planning. It links national goals with social and economic priorities.
- 2. Long-Term Planning Culture:** China uses a planning system that builds change step by step. The approach of “drawing a blueprint until it becomes a reality” supports steady transformation across decades.
- 3. Domestic Adjustments:** China now faces population changes, property-sector correction, and lower gains from large infrastructure investment. These changes demand new engines of growth.
- 4. Global Uncertainty:** China sees more global volatility. Strategic risks and opportunities now exist together. This environment increases the need for stronger economic stability.
- 5. Technology Competition:** Technology is now a major area of global rivalry. China aims to reduce vulnerabilities and strengthen innovation self-reliance. This shapes its development path.
- 6. Market-State Coordination:** China blends market forces with state guidance. Top-level design and public consultation support broad participation and smooth implementation of reforms.

China's Progress in the 14th Five-Year Plan

- 1. Stable Growth:** China grew at an average rate of 5.5% during 2021–25. Its economy is expected to reach Renminbi (RMB) 140 trillion this year.
- 2. Higher Per Capita Income:** Per capita income has remained above \$13,000 for two years. China now stands among upper-middle-income countries.
- 3. Innovation Strength:** China ranks among the top ten in the Global Innovation Index. Its research base and technology capacity have expanded.
- 4. Green Energy Shift:** About 60% of China's installed power capacity now comes from renewable energy. Environmental quality has shown steady improvement.
- 5. Global Economic Role:** China contributes about 30% to global economic growth. It is among the top three trading partners for 157 countries and regions.
- 6. Linked Domestic and External Growth:** China has strengthened the connection between domestic upgrading and high-level opening up. This supports stable engagement with global partners.

The 15th Five-Year Plan: China's New Direction

- 1. Focus on Industrial Modernisation:** The new plan places industrial modernisation first. It prioritises advanced manufacturing, semiconductors, aerospace, and next-generation information technology.
- 2. Innovation with Application:** The plan shifts from early-stage breakthroughs to wide application. The goal is to turn research into products, services, and strong industrial ecosystems.
- 3. Selective Opening Up:** China will promote high-standard opening up, but in a more targeted way. Cooperation will deepen in specific regions and sectors linked to long-term stability.
- 4. Stronger Domestic Demand:** The plan links consumption with structural change. Policies on childcare, employment, education, and welfare support productivity and long-term growth.
- 5. Cluster-Based Regional Strategy:** Greater attention will go to major regions such as the Yangtze River Delta and the Greater Bay Area. Inland regions will focus on work that enhances resilience and security.
- 6. Shift Toward Structural Resilience:** The plan focuses less on high-speed expansion and more on stable, high-quality growth. It prepares China for a more complex global environment.

Global Impacts of China's New Path

- 1. Technology Landscape Changes:** China's push in AI, aerospace, new energy, and advanced manufacturing will influence global technology networks. These areas may see new competition and cooperation.
- 2. Supply Chain Reorganisation:** China's focus on resilience will shape supply-chain design. Trade may become more targeted as countries reassess interdependence.

3. Shift in Investment Patterns: High-quality growth emphasises advanced industries. Global investment may move toward sectors linked to China's industrial upgrading.

4. Stronger Role of China's Consumer Market: China's domestic market will continue to expand. Global consumer-facing firms will adjust their strategies to stay relevant in this space.

India-Specific Impacts

1. Expanding Trade Scope: China remains one of India's major trading partners. Bilateral trade reached \$138.46 billion in 2024. India's exports to China have grown, supported by multiple trade platforms.

2. Industrial Complementarity: China leads in manufacturing, electronics, new energy, and AI. India is strong in IT, software, and biopharma. These strengths complement each other and create scope for joint value-chain growth.

3. Revived Mobility: People-to-people exchanges are improving. China has resumed Indian pilgrimages, and India has restored tourist visas for Chinese citizens. More direct flights support tourism, education, and cultural exchange.

4. Shared Multilateral Role: Both countries engage through BRICS, SCO, and G20. They work together on climate change, food security, and public health. This cooperation supports a more balanced global order.

5. Aligned Development Visions: China's modernisation and India's Viksit Bharat 2047 vision share common goals. Both aim for technological progress, economic stability, and social improvement. This creates a natural basis for cooperation.

6. Deeper Economic Opportunities: As China strengthens high-quality development, opportunities open for India in services, technology, and niche manufacturing. Both sides can use these areas to build steady cooperation.

Conclusion

China's new development strategy focuses on resilience, innovation, and stable growth in a world marked by rising uncertainty. India is advancing its Viksit Bharat 2047 vision with similar goals of modernization and long-term stability. Both countries can deepen cooperation in trade, technology, climate action, and multilateral platforms to support balanced regional growth. Their choices will shape supply chains, technology flows, and economic networks, influencing development across Asia and the wider global landscape.

Source: [The Hindu](#)

Carceral culture: On prisons and disability-related facilities

Source: The post "Carceral culture: On prisons and disability-related facilities" has been created, based on "Carceral culture: On prisons and disability-related facilities" published in "The Hindu" on 09th December 2025.

UPSC Syllabus: GS Paper-2- Governance

Context: Prisoners with disabilities in India face significant challenges in terms of **accessibility, healthcare, and dignity**. Despite the legal framework provided by the **Rights of Persons with Disabilities Act, 2016**, prisons have largely failed to ensure the necessary accommodations for disabled prisoners. The **Supreme Court of India** has recently addressed this issue, directing the implementation of disability-related support in prisons. The Court's directions arose from the experiences of prisoners like **G.N. Saibaba** and **Stan Swamy**, who were denied reasonable accommodations leading to severe consequences.

Challenges Faced by Prisoners with Disabilities

1. Lack of Accessible Infrastructure

- Many prisons lack **wheelchair-accessible ramps, disability-friendly toilets**, and other basic accommodations for prisoners with mobility challenges.
- **Inaccessible healthcare and medical support** further exacerbate their conditions, particularly for those with chronic physical and mental illnesses.

2. Inadequate Training for Prison Staff

- **Prison staff** are often not trained to recognize or address the needs of prisoners with disabilities. This leads to **neglect or mistreatment** of disabled inmates.
- Staff may not be aware of how to assist prisoners in daily activities, such as accessing sanitary facilities or moving within the prison.

3. Carceral Austerity

- Prisons often prioritize **security and punitive measures** over the **rights and well-being** of prisoners, including those with disabilities.
- **Underfunding** of necessary services for disabled prisoners results in the neglect of **basic accommodations and medical care**.

4. Caste, Disability, and Discrimination

- **Caste-based segregation** continues to exist in Indian prisons, with **Dalit and Adivasi prisoners** often assigned degrading sanitation tasks. Disabled prisoners from these communities face compounded **discrimination**.
- The **intersectionality** of caste and disability is often ignored, resulting in a double burden on marginalized prisoners.

5. Absence of Data and Monitoring

- The absence of **disaggregated data** on prisoners with disabilities and their condition hinders effective policy formulation and monitoring of conditions inside prisons.
- The **National Crime Records Bureau (NCRB)** does not consistently track **disability** data, making it difficult to assess the scale of the issue and create targeted solutions.

Role of the Judiciary

1. Judicial Interventions

- The **Supreme Court** has played a pivotal role in highlighting the issues faced by prisoners with disabilities. In response to petitions related to the conditions of prisoners like **G.N. Saibaba** and **Stan Swamy**, the Court directed the government to implement disability-related support.
- The Court has also **censured prison authorities** for failing to comply with the **Rights of Persons with Disabilities Act, 2016** and called for specific provisions for disabled prisoners in prison manuals.

2. **Monitoring and Oversight:** The Court has taken **suo motu cognizance** of issues like **caste-based discrimination** and **disability discrimination** in prisons and has set directions to monitor such violations, which must be implemented by state authorities.

Role of Government Policies

1. **Rights of Persons with Disabilities Act, 2016**

- The **Rights of Persons with Disabilities Act** mandates that governments ensure that disabled individuals receive necessary accommodations in all public services, including prisons.
- This law has made it a legal obligation for governments to provide support services to disabled prisoners, including accessible infrastructure and medical care.

2. **National Guidelines and Model Prison Manual**

- The Union government has issued **national guidelines** that acknowledge the special needs of disabled prisoners, calling for accessible infrastructure and support systems.
- However, many **state prison manuals** still fail to reflect these needs and often lack provisions for accommodating prisoners with disabilities.

Prison Reforms for Disability Accommodation

1. **Amendment of Prison Manuals**

- Prison manuals must be **amended** to include clear **duties on disability-related accommodations**. This includes providing accessible infrastructure, medical support, and assistance for mobility-challenged prisoners.
- State and national authorities need to ensure that prison systems comply with the mandates of the **Rights of Persons with Disabilities Act**.

2. **Comprehensive Screening and Support**

- Prisons must establish **screening mechanisms** for identifying disabilities upon a prisoner's admission.
- **Necessary support** such as **medical care**, **assistive devices**, and **personal assistance** should be provided to prisoners with disabilities to ensure their dignity and equality.

3. **Increased Funding and Budget Reallocation**

- **Prison budgets** should be redesigned to prioritize **accessibility** and **non-discrimination**, ensuring that the basic needs of disabled prisoners are met.
- States must allocate **adequate resources** for the development of disability-friendly facilities, including infrastructure and medical support.

4. **Independent Oversight and Data Collection**

- **Independent inspections** by external bodies should be conducted regularly to ensure the implementation of disability-related accommodations.
- The government should **disaggregate data** on prisoners by disability, caste, and gender to ensure transparency and monitor violations effectively.

5. **Public Awareness and Accountability**

- Raising **public awareness** about the **rights of disabled prisoners** is crucial for promoting accountability and transparency in prison management.
- Regular reports on **prison conditions** should be made publicly available to encourage **public oversight** and pressure the government to comply with judicial orders.

Conclusion: The challenges faced by prisoners with disabilities in India's prison system highlight the urgent need for structural reforms. The **Supreme Court's directives** provide a clear path forward, but they must be backed by **effective implementation** of policies, **adequate funding**, and **strong oversight mechanisms**. By ensuring the **rights** of disabled prisoners, India can create a **prison system** that upholds **equality, dignity**, and **justice** for all individuals, regardless of their physical or mental condition.

Questions: Critically examine the challenges faced by prisoners with disabilities in India's prison system and suggest measures for improving their conditions.

Circular Economy in Dairy Sector

Source: The post "Circular Economy in Dairy Sector" has been created, based on "Circular economy to boost dairy farmers' income by 20% in 5 years: Amit Shah" published in "The Hindu" on 09th December 2025.

UPSC Syllabus: GS Paper-3- Indian Economy

Context: The **circular economy** model focuses on maximizing the reuse of resources and minimizing waste. In the dairy sector, it involves innovative approaches such as converting **cattle dung** into **biogas** and **bio-fertilizers**, as well as producing **leather** from hides of cattle that die naturally. Recently, Union Home Minister Amit Shah expressed confidence that the implementation of this model will increase dairy farmers' income by **20%** over the next five years. This initiative is a part of broader efforts to strengthen India's dairy sector under the **White Revolution 2.0**.

Key Aspects of the Circular Economy in the Dairy Sector

1. **Cattle Dung to Biogas and Bio-fertilizers:** Cattle dung, a waste product in dairy farming, can be converted into **biogas** and **bio-fertilizers**. This reduces dependency on chemical fertilizers and promotes **sustainable farming practices**. By selling the biogas and bio-fertilizer, farmers can **earn additional income**, thereby increasing their overall earnings.
2. **Leather Production from Natural Death Cattle:** Another facet of the circular economy involves **producing leather** from cattle that die a natural death. This prevents the waste of hides and creates an opportunity for **value-added products**, offering farmers an alternative source of income.
3. **Global Market Potential:** The dairy sector can expand its product range beyond **traditional items** like milk, curd, and paneer. By focusing on **specialty dairy products**, the sector can tap into **global markets**, further increasing farmers' incomes.

Government Initiatives to Promote Circular Economy in Dairy

1. **Support for Dairy Cooperatives**
 - The government has worked to strengthen **cooperative dairies** across India, focusing on increasing the income of dairy farmers by providing better facilities and access to markets.

- **Banas Dairy** in Gujarat is an example of how the circular economy model has been implemented successfully, with income generated from biogas and fertilizers being shared with the farmers.
- The **Prime Minister's initiative**, under **White Revolution 2.0**, aims to ensure **finance and technology** for the adoption of circular economy practices in the dairy sector.
- 2. **Women Empowerment in the Dairy Sector**
 - The contribution of **women dairy farmers** has been recognized, particularly in regions like Gujarat, where women have played a key role in the sector's growth.
 - Women dairy farmers have been central to creating **direct bank account systems** for income distribution, thereby ensuring financial inclusion and empowerment.
- 3. **White Revolution 2.0**
 - The **White Revolution 2.0** focuses on increasing dairy production, improving the quality of dairy products, and ensuring better income for farmers.
 - By supporting **cooperatives** and the adoption of **new technologies**, the government aims to increase **milk production** and **farmers' earnings**.

Impact on Dairy Farmers' Income

1. **Additional Revenue Streams**
 - The **circular economy** model provides farmers with **additional income** streams through the sale of **biogas, bio-fertilizers, and leather products**.
 - By making use of waste materials such as cattle dung, farmers can diversify their income sources, reducing their reliance solely on milk production.
2. **Sustainability and Cost Reduction**
 - The shift to biogas as an energy source can **reduce energy costs** for dairy farms, while **bio-fertilizers** can help in reducing the need for costly chemical fertilizers, leading to better cost management.
 - The circular economy promotes a more **sustainable** and **resilient farming model**, making the sector more **future-proof**.
3. **Boosting the Local Economy:** By adopting **global best practices** in dairy production, Indian dairy farmers can tap into **international markets** for value-added products, which will further elevate their earnings.

Challenges and Considerations

1. **Infrastructure and Investment**
 - Implementing the circular economy model requires significant **investment** in infrastructure, such as **biogas plants, fertilizer production units, and leather production facilities**.
 - The initial investment required may be a barrier for small-scale farmers, and support from both the government and private sector is essential.
2. **Training and Awareness**

- Farmers need to be **trained** in the technologies and processes involved in the circular economy model, such as biogas production and the use of bio-fertilizers.
- There needs to be **awareness** about the potential financial benefits, which can be facilitated through government outreach programs.

3. Market Access for Leather and Other Products

- The circular economy model's success in generating leather products from cattle that die naturally depends on **market access** and demand for such products.
- Establishing **market linkages** for leather and other value-added products is critical for ensuring farmers' financial success.

Conclusion: The **circular economy** model offers a significant opportunity to increase dairy farmers' income in India by providing them with additional revenue sources beyond traditional dairy products. The **government initiatives** under **White Revolution 2.0**, the promotion of **dairy cooperatives**, and the focus on **sustainability** are steps in the right direction. However, for successful implementation, **infrastructure development, training, and market access** must be prioritized, with continued support from both the government and the private sector.

Questions: Discuss the concept of the circular economy in the context of the dairy sector. How can its implementation improve the income of dairy farmers in India? Highlight the role of government initiatives, particularly the White Revolution 2.0, in promoting this model.

What Indians Eat, and How Being Unhealthy Is Easier and Cheaper

UPSC Syllabus Topic: GS Paper 3 -Indian economy- issues of buffer stocks and food security

Introduction

India has moved from famine to food surplus, yet nutrition security remains weak. People spend more on diverse foods, but diets still depend on low-quality carbohydrates. Processed food intake is rising fast because it is cheap, convenient, and widely available. These shifts are driving obesity, diabetes, and a growing disease burden. India now faces a mix of undernutrition, excess calorie intake, and micronutrient gaps, showing that abundance has not led to better health.

How Are Food Consumption Patterns Changing in India?

1. Shift Toward Higher Food Expenditure:

- Food spending has increased in real terms across households. People now spend more on dairy, eggs, meat, fruits, vegetables, and nuts.
- According to the **Household Consumption Expenditure Survey (HCES) 2022-23**, average spending on **animal-sourced foods has risen by about ₹40 since 1999**, and **spending on fruits and vegetables is now almost twice the 1999 level**. This shift shows a move toward greater dietary variety as incomes rise..
- **However, nutrition security has not improved in the same way**, because the quality of what people eat has not kept pace with higher spending.

2. Drop in Expenditure on Cereals but Higher Intake:

- Spending on cereals has fallen sharply since 1999, even though most Indians still eat large amounts of cereals.
- **The Indian Council of Medical Research (ICMR)-INDIAB study** shows that **62% of dietary energy comes from low-quality carbohydrates**, mainly refined cereals and sugar.

3. Large Inequalities in Food Expenditure: The top 5% of rural households spend almost eight times more on food than the bottom 5%. In urban areas, the difference is almost ten times. **Poor households remain locked into cereal-heavy diets**, while wealthier households seek more variety.

4. Urban Diet Diversification: Urban consumers are choosing better quality and more diverse foods. **Lifestyle changes and evolving food habits** have **increased demand for non-cereal foods**. Yet this **shift has not reduced consumption of refined cereals**, which continue to supply most dietary calories.

5. Cereal-Centric Policies: Policies such as the **National Food Security Act** encourage high cereal intake. This keeps cereals central to Indian diets even when people spend more on other foods.

6. Steep Rise in Spending on Processed Foods: Spending on processed foods has increased by **353% in rural areas** and **222% in urban areas** since 1999. Price elasticity dropped by **90%**, showing that processed foods have shifted from luxury to necessity.

Why Is Processed Food Consumption Increasing?

1. Convenience for Busy Households: People prefer ready-to-eat meals because of long working hours and reduced time for home-cooked food. This shift is linked to changes in work-life balance and less availability of unpaid domestic labour by women, which earlier supported home cooking.

2. Lower Prices: Ultra-processed foods are cheaper than nutritious fresh foods.

3. Aggressive Marketing and Easy Access: Food companies market high-fat, sugar, and salt foods aggressively. These foods are promoted as enjoyable, modern, and affordable. Easy access through shops, supermarkets, and online platforms increases consumption.

4. Dependence Created by Food Systems: The food environment makes unhealthy choices the simplest options. Fresh foods often cost more and are harder to access, especially in rural areas. **More than 75% of Indians cannot afford a diet meeting nutrient adequacy standards**, increasing dependence on cheaper processed foods.

5. Cultural Preferences Supporting High-Carb Diets: Many cultural food habits reinforce high-carbohydrate diets. Even when incomes rise, people continue to depend on cereal-heavy meals, supplemented by processed snacks.

What Are the Consequences of These Dietary Shifts?

A. Impact on Health

1. Rise of Obesity and Metabolic Diseases: Low-quality carbohydrates supply most of the energy in Indian diets, and this is a major driver of obesity and metabolic problems. India is now part of a global rise in obesity, with the **World Obesity Atlas 2025** showing that **one in eight people worldwide lives with obesity**.

2. Growing Burden of Non-Communicable Diseases (NCDs): The **Global Burden of Disease 2023** shows that **poor diets are the largest contributor to years of life lost**. Diet-related NCDs are rising sharply, including cancer, Type-2 diabetes, and respiratory diseases. By 2050, cancer cases may rise by **148%**, Type-2 diabetes by **229%**, and respiratory diseases by **40%**.

3. Increase in Years of Life Lost (YLL):

- A study supported by the **Food Systems Economics Commission** for India projects a **sharp rise in years of life lost due to poor diets**.
- It estimates that YLL from diet-related risks in India will increase from **50 million in 2020 to 72 million by 2050**.

4. Triple Burden of Malnutrition: India faces **undernutrition, excess calorie intake, and hidden hunger**. **More than half of women are anaemic**, while **obesity among women has nearly doubled in 15 years**. Men show similar trends. This mix highlights severe imbalances in diet quality.

5. Weak Immunity and Lower Productivity: Poor diets weaken immunity and reduce overall well-being. People fall sick more often, which lowers productivity and limits their ability to work. **This creates a cycle where poor nutrition leads to lower incomes, which then reduces access to diverse foods.**

6. Low Diet Diversity Among Children: Fewer than one in ten children receive the Minimum Adequate Diet. Low diversity affects growth, immunity, and long-term health. It also increases the risk of future NCDs.

B. Impact on Economy

1. Higher Healthcare Costs: The rise in obesity, diabetes, and other NCDs directly increases healthcare spending. Families face higher medical bills, and the health system carries a greater burden. Since diet-related diseases are long-term, these costs continue to grow over time.

2. Loss of Productivity and Working Years:

- Weak immunity, more frequent illness, and rising YLL reduce the number of productive years people can work.
- Lower productivity affects household income and slows economic growth. Poor nutrition keeps many families trapped in a cycle of low earnings and limited opportunities.

What Actions Are Needed to Correct Dietary Trends?

1. Shift Production Incentives Toward Nutritious Foods: Support should move from cereals to pulses, fruits, vegetables, and millets. These crops improve nutrition and climate resilience.

2. Strengthen Farmer Producer Organisations (FPO): FPOs can improve market linkages and reduce prices of diverse foods. This can make nutrient-rich foods more accessible.

3. Increase Support for Climate-Smart Agriculture: Projects like **RESILIENCE in Odisha and Assam** and the **Mission Organic Value Chain Development for the North-Eastern region** show how crop diversification and climate-smart practices can raise farmer incomes. They also improve local access to healthy foods.

4. Introduce Strong Food-Environment Regulations:

- Clear front-of-pack labelling and limits on marketing **HFSS (High-Fat, Sugar, Salt)** foods can guide consumers toward healthier choices.
- Regulatory standards can push companies to make healthier products.

5. Improve Public Food Programmes: Programmes like **PM Poshan, Anganwadi nutrition, and PDS** should include diverse foods to build steady demand for healthy items.

6. Use Social-Protection Models for Behaviour Change: The **RajPusht model in Rajasthan**, combining **cash transfers to pregnant and lactating women** with **behaviour change communication**, shows how social protection combined with targeted messaging can improve household food choices.

7. Expand Infrastructure for Perishables: Cold storage and better processing facilities for fruits and vegetables can reduce prices and losses, making healthy foods more affordable.

8. Promote Underutilised Protein Sources: Aquatic and marine protein sources should be expanded to improve protein access at low cost.

Conclusion

India's food choices are changing, but unhealthy options remain cheaper and easier than nutritious ones. Rising incomes have not corrected the core imbalance in diets. Correcting this needs coordinated action across policies, markets, communities, and food systems. India can achieve true nutrition security only when healthy foods become accessible, affordable, and desirable for every household.

Question for practice:

Discuss how changing food consumption patterns in India are contributing to rising health risks and widening nutritional imbalances.

Source: [Indian Express](#)

Delhi-Moscow ties have a logic of their own

UPSC Syllabus Topic: GS Paper 2 -International Relation .

Introduction

India and Russia have held a long and steady partnership that continues to evolve despite global tensions. The recent summit showed how both sides see value in each other at a time of shifting power balances, sanctions, and uncertainty. Their cooperation now covers defence, energy, trade, and strategic engagement, and reflects a shared belief in a stable and balanced global order.

India-Russia Strategic Vision in a Multipolar World

1. Stated Vision of Peace and Stability: Both sides expressed an **objective of “global peace and stability in a multipolar world and a multipolar Asia”**. They said this should **rest on “equal and indivisible security”**, challenging exclusive power arrangements and supporting a balanced global order.

2. India’s Stand on the Ukraine Conflict: India stated that it is **“not neutral, but on the side of peace” in Ukraine**. This allowed India to protect its diplomatic space and keep dialogue at the centre while continuing structured engagement with Russia.

3. Rejection of a G2 Order: The summit opposed the idea of dividing the world into fixed spheres of influence. It indirectly **criticised attempts to shape a G2-style order built by the US and China**. This approach underlines India’s interest in ensuring that no single pairing shapes global decisions.

4. Russia’s Need to Demonstrate Wider Partnerships: Russia used the summit to show that it retains major partners despite Western sanctions. **Strong engagement with India helps Moscow counter isolation.**

5. India’s Space in Global Politics: India signalled that its choices flow from strategic autonomy. **Engagement with Russia is part of its wider approach to shape a stable multipolar environment.**

Defence Cooperation and India’s Technological Sovereignty

1. Established Defence Foundation: Defence cooperation remains central to the relationship. Joint platforms like Su-30MKI and BrahMos performed effectively during Operation Sindoor, reinforcing the value of long-term collaboration.

2. Make in India as a Shared Space: Russian participation in Make in India has created new opportunities for Indian workers. **The AK-203 rifle project shows how joint production can build skills and strengthen India’s manufacturing capacity.** It also demonstrates Russia’s willingness to co-produce and transfer know-how.

3. Contrasts with Western Partners: Russia’s approach to technology transfer stands in contrast to the caution shown by some Western partners. The summit highlighted this difference. It showed why defence ties with Russia retain strategic weight even as India diversifies defence imports.

4. High-End Platforms and Strategic Value: The **nuclear attack submarine leasing agreement** reinforced the depth of the partnership. Such a platform gives India significant underwater endurance and deterrence. Very few states access these technologies, making the decision an important marker of strategic trust.

Economic Lifeline and India’s Energy Security Needs

1. Importance of Russian Oil: India became a major Russian energy customer, with **36% of its crude oil sourced from Russia last year**. This supported domestic stability and helped manage inflation.

2. Sharp Growth in Trade: Bilateral trade rose nearly six times from pre-pandemic levels to **\$68.7 billion**, reflecting the expansion of energy and economic engagement.

3. Impact of US Sanctions and Tariffs: India recently reduced its crude purchases because of US sanctions and tariff pressures. These pressures created uncertainties for India. **Russia reassured India that it would continue uninterrupted fuel supplies, helping India balance its external pressures with domestic needs.**

4. Civilian Nuclear Energy Cooperation: Russia remains India's only foreign partner in clean nuclear energy. This cooperation supports India's long-term energy goals. The summit stressed the significance of continued collaboration in nuclear infrastructure.

Note: Currently, Kudankulam is the only foreign-built nuclear power plant producing electricity in India, a contrast to stalled projects involving American and French companies which remain on paper due to pricing and liability disagreements.

5. Trade in National Currencies: Both sides increased the **use of national currencies, which now cover 96 percent of bilateral trade.** This shift reduces exposure to sanctions and currency risks. It also reflects a broader goal to stabilise economic ties in an uncertain global environment.

Geopolitical Balancing Between the US, Russia, China

1. India's Multi-Vector Foreign Policy: India seeks stability through multiple partnerships. It uses **engagement with Russia for energy, defence, and technology, while working with the US for markets and support against China.** This approach strengthens India's strategic autonomy.

2. Russia's Need to Broaden Partnerships: Russia benefits from India's engagement because it **prevents excessive dependence on China.** The summit displayed Russia's intent to keep important ties beyond Beijing. This **helps Moscow diversify its options under sanctions.**

3. China's Concerns About India-Russia Proximity: China closely watches India's defence ties with Russia. **Sensitive military transfers and potential India-US cooperation create concerns for Beijing.** These trends could influence regional balances and limit China's strategic advantage.

4. India as a Rising Power Centre: India presented itself as a growing power that shapes its own choices. Its active engagement with major powers reinforces this image. Its ability to **maintain balanced ties is part of its wider strategic identity.**

Future Challenges in India-Russia Relations

1. US Pressure and Strategic Shifts: If the US continues using tariffs and sanctions, India may deepen ties with Russia. **A shift is possible if the US offers better access, technology, or co-production.**

2. Technology Transfer and Regional Effects: Technology transfer in maritime and missile areas may pose challenges. **Such cooperation could affect the Indo-Pacific balance.** China will observe these developments closely, and India will seek to manage them with care.

3. Balancing Rival Major Powers: The **rise of competing blocs will test India's ability to sustain its "third way".** India must manage engagement with Russia while negotiating major agreements with the US.

Way Forward for the India-Russia Partnership

1. Strengthening Joint Defence Production: Both sides can expand research and co-development. This approach supports India's self-reliance and offers Russia long-term collaboration.

2. Securing Energy Supplies and Reducing Risks: India can diversify within its Russian energy engagement and manage external pressures. Continued cooperation in nuclear energy will provide stability.

3. Expanding Trade Beyond Energy: Both sides can correct trade imbalance by widening cooperation in infrastructure and technology. Stable payment systems will support smoother exchanges.

4. Managing Triangular Dynamics with the US and China: India can maintain its balanced approach. Clear communication and separate tracks for each partnership will protect its strategic space.

Conclusion

India and Russia continue to find strong value in each other despite global shifts. Their cooperation covers defence, energy, and strategic engagement. They share a belief in a balanced global order. The relationship will face pressures from great-power rivalry, but both sides appear ready to preserve a stable and practical partnership that supports their long-term interests.

Question for practice:

Evaluate how recent developments have shaped the strategic relevance of the India–Russia partnership.

Source: [Indian Express](#)

India's small enterprises hold key to job growth

Source: The post “India's small enterprises hold key to job growth” has been created, based on “India's small enterprises hold key to job growth” published in “Indian Express” on 10th December 2025.

UPSC Syllabus: GS Paper-3- Economy

Context: India's small enterprises are pivotal to job growth, yet their potential for generating employment remains severely constrained. The country's workforce, primarily engaged in small, unincorporated household enterprises, faces a fundamental challenge: most workers are self-employed in businesses that lack capital, productivity, and technology adoption. These enterprises, which form the backbone of India's labor market, require targeted interventions to enable them to scale, improve productivity, and ultimately create jobs.

Current State of Small Enterprises

1. The majority of India's non-agricultural enterprises are Own Account Enterprises (OAEs), which do not hire any workers.
2. These OAEs make up 87% of all non-agricultural enterprises and contribute to low productivity levels.
3. A minority of Hired Worker Enterprises (HWEs) employ workers and generate significantly more value than OAEs.
4. However, a large portion of these businesses operate at a subsistence level, earning just enough to sustain the business and family.

5. These enterprises mostly operate in the services sector, which makes up about 74% of non-agricultural establishments. Many are located in rural areas, where educational levels are low, and there is limited technical or vocational training among proprietors.
6. The lack of capital and capability limits their ability to grow and create meaningful employment.

The Role of Productivity in Job Creation

1. Increasing the productivity of these small enterprises is essential for job creation. Data from the Annual Survey of Unincorporated Enterprises (ASUSE) shows that a 10% increase in Gross Value Added (GVA) is associated with a 4.5% increase in the number of hired workers.
2. Therefore, improving productivity not only helps businesses grow but also creates job opportunities. This shift from subsistence entrepreneurship to high-productivity, job-creating enterprises is crucial for India's economic transformation.
3. Although services dominate the sector, manufacturing remains more labor-intensive and continues to add jobs even during periods of economic slowdown. This sector's potential for job creation should be tapped more effectively.

Challenges Confronting Small Enterprises

Several key factors hinder the growth of small enterprises:

a. Non-recovery of Dues: A significant problem facing small enterprises is the non-recovery of dues. The Reserve Bank of India (RBI) identified this as a key issue in its 2019 report on MSMEs, and ASUSE data reveals that many enterprises face this challenge. Recent amendments to the Finance Act in 2024 aim to address delayed payments, but the effectiveness of this move remains to be seen.

b. Unregistered Status: Many small businesses choose to remain unregistered, seeing it as a survival strategy rather than a liability. This self-imposed limitation prevents them from accessing formal credit, legal protections, and growth opportunities.

c. Access to Credit: Access to formal credit is another critical barrier. Only about 10-12% of unincorporated enterprises have outstanding loans, limiting their ability to invest in capital and technology. Studies show that access to formal credit significantly boosts GVA, especially for medium and large enterprises. However, credit must be coupled with training, market access, and managerial support for it to be transformative.

d. Technology Adoption: Small enterprises in India have low rates of technology adoption. Only 5-6% use computers, and less than 26% use the internet. Enterprises that adopt basic ICT tools experience higher GVA across all sizes. By integrating digital tools—such as e-commerce platforms and digital payment systems—these enterprises can increase efficiency and expand their markets, creating new opportunities for growth and employment.

Policy Recommendations for Supporting Small Enterprises

To unlock the potential of small enterprises for employment growth, India must focus on the following:

a. Improving Credit Access: The government must tailor credit policies to address the specific needs of small enterprises. This means providing access to working capital for stabilization and growth capital for expansion,

not just microcredit for survival. Non-performing assets (NPAs) and excessive documentation requirements must be reduced to make credit more accessible.

b. Promoting Technology Adoption: Initiatives like Digital MSME, UPI incentives, and e-commerce platforms need to be better implemented to facilitate the adoption of technology by small enterprises. Businesses need more than just digital payments; they require training, handholding support, and market linkages to fully leverage the potential of digital tools.

c. Vocational Training and Skill Development: With a significant portion of small business owners lacking formal education or vocational skills, there is a need for targeted training programs that enhance their managerial capabilities and technological proficiency. Such training will help boost productivity and enable businesses to expand and hire more workers.

Conclusion: India's employment future lies not in a few large factories but in the millions of small enterprises that already drive the economy. To harness this potential, the government must create an ecosystem that supports these enterprises through easier access to credit, better technology adoption, and targeted skill development. By helping small businesses scale and transition from subsistence to high-productivity ventures, India can create the quality jobs needed for its growing workforce. The entrepreneurship story is already unfolding in small shops, home-run units, and local service establishments; what it requires is multi-pronged support to reach its full potential.

Question: Discuss the challenges faced by small enterprises in India and suggest policy measures to enhance their role in job creation.

Neurotechnology in Focus: Emerging Opportunities and Regulatory Challenges

Source: The post "Neurotechnology in Focus: Emerging Opportunities and Regulatory Challenges" has been created, based on "Neurotechnology in Focus: Emerging Opportunities and Regulatory Challenges" published in "The Hindu" on 10th December 2025.

UPSC Syllabus: GS Paper-3- Science and technology

Context: Neurotechnology, including Brain-Computer Interfaces (BCIs), offers transformative possibilities for healthcare, human enhancement, and various other sectors. Here's how India can benefit from these technologies:

Importance of Neurotechnology for India

1. **Neurological Disease Burden:** India faces a growing prevalence of neurological diseases such as stroke, spinal cord injuries, Parkinson's disease, and mental health disorders. Neurotechnology can provide solutions for these challenges.
2. **Impact on Healthcare:** Neuroprosthetics can restore mobility and communication for paralysed patients. Neural stimulation can reduce long-term dependence on medication for mental health conditions like depression.
3. **Economic Opportunity:** Neurotechnology intersects AI, biotechnology, and engineering—sectors where India is developing global competence, offering an opportunity for economic growth.

Current Developments in India

Created with love ❤ by ForumIAS- the knowledge network for civil services.
Visit academy.forumias.com for our mentor based courses.

1. **Research Initiatives:** IIT Kanpur researchers have developed a BCI-based robotic hand to aid stroke patients. The National Brain Research Centre (NBRC) and IISc, Bangalore, are leading research in neuroscience and neurotechnology.
2. **Startup Innovations:** Dognosis, a startup, uses neurotechnology to study brain signals in dogs, potentially revolutionizing cancer screening for humans.

Global Advances in Neurotechnology

1. **United States:** The BRAIN Initiative accelerates the development of neurotechnologies, with Neuralink receiving FDA approval for human trials of BCIs to restore motor function in paralysed patients.
2. **China:** The China Brain Project focuses on understanding cognition, developing brain-inspired AI, and treating neurological disorders.
3. **European Union & Chile:** These regions are pioneering laws to regulate BCIs and neurorights, focusing on ethical and legal issues surrounding neurotechnology.

Opportunities for India

1. **Global Positioning:** India's growing expertise in AI, biotechnology, and engineering positions it to become a hub for neurotechnology development.
2. **Genomic Diversity:** India's diverse genetic makeup and increasing awareness of brain research provide a unique advantage for advancing neurotechnology.
3. **Economic Growth:** As neurotechnology becomes more integral to healthcare, gaming, and other industries, it can drive economic growth and innovation in India.

Challenges Facing India

1. **Lack of Regulatory Support:** Inadequate regulation hampers the development and adoption of BCIs in India.
2. **Ethical Concerns:** The potential for human enhancement and military applications of BCIs raises ethical issues that require careful consideration.
3. **Infrastructure Gaps:** The current infrastructure for supporting neurotechnology research and development needs strengthening.

Policy Recommendations

1. **Tailored Regulatory Frameworks:** India should develop separate regulations for different types of BCIs, considering their risks, benefits, and applications.
2. **Public Engagement:** Open discussions on the risks and benefits of BCIs can help address public concerns and increase acceptance of the technology.
3. **Increased Investment in Research:** Focusing on funding for neurotechnology research, especially in healthcare and AI, will help India stay competitive globally.
4. **Ethical Oversight:** Establish clear guidelines for ethical use, focusing on data privacy, user autonomy, and ensuring the technology is used for beneficial purposes.

Conclusion: Neurotechnology presents significant opportunities for India, particularly in addressing its neurological disease burden and boosting technological innovation. By implementing strong regulations,

investing in research, and promoting ethical use, India can harness the full potential of neurotechnology to lead in global innovation.

Question: Discuss the potential benefits and challenges of neurotechnology for India and suggest policy measures for its development.

Satellites, Science, and the New Fight for Spectrum in Space

UPSC Syllabus Topic: GS Paper 3 -Science and technology

Introduction

A rapid expansion of satellites, especially megaconstellations, has created intense competition for radio frequencies and orbital slots. These resources are limited, yet they are essential for communication, navigation, and scientific activity in space. As more nations and private companies enter this domain, the pressure on spectrum, orbital safety, and governance frameworks has increased. This expanding activity now shapes global technological competition, economic opportunities, connectivity goals, and national security strategies across the world.

Spectrum, Orbits and the Megaconstellation Boom

1. Spectrum Matters: Satellite communication depends on radio frequencies that enable data transmission between satellites and ground stations. Important bands such as the Ku, Ka, and L bands support high-speed internet and navigation. Because these bands are limited, operators must coordinate to avoid interference.

2. Orbital Slots Are Important: Satellites also need specific orbital positions to provide consistent coverage. Low-Earth orbit offers low latency, while geostationary orbit offers constant visibility. As more satellites enter orbit, the competition for these locations has intensified.

3. Unprecedented Scale of Deployment

- Megaconstellations have grown rapidly. Large constellations now dominate activity in low-Earth orbit.
 - Starlink operates **over 8,000 satellites** and plans up to **42,000**. OneWeb, Kuiper, and GuoWang are also expanding. This growth is driven by falling launch costs and rising demand.
 - The market is projected to rise from **\$4.27 billion in 2024** to **\$27.31 billion by 2032**. For many states, such networks also support goals of technological autonomy in space communications.
- 4. Strategic Dimensions:** For many countries, megaconstellations are not just commercial tools. They represent an effort to build independent space-communication capabilities and reduce dependence on foreign systems.

Global Governance: ITU and the Coordination Challenge

1. ITU's Mandate and Principles

- The International Telecommunication Union (ITU), a UN agency with 194 member states, governs global satellite spectrum and orbital slots.
- It treats these resources as limited assets that must be used rationally and efficiently. Operators must file frequency applications and coordinate with others before receiving recognition.

2. First-Come, First-Served System

The ITU's process gives a natural advantage to early applicants who have the capital and expertise to navigate complex filings. This favours established spacefaring nations and companies. Late entrants may find desirable combinations of spectrum and orbital positions already taken.

3. Reforms Through Resolution (2023)

- To prevent companies from reserving orbits without using them, the **World Radiocommunication Conference 2023 introduced Resolution 8.**
- It requires operators to match declared plans with actual deployments and to meet milestones of **10% in two years, 50% in five years**, and full deployment in **seven years**. These rules bring more transparency but do not fully remove capacity pressures.
- The ITU's 2023 resolution on sustainable use requires satellites to be removed within 25 years of mission completion. This aims to limit debris and protect orbital space for future use.

4. Mounting Pressure on ITU Systems

The ITU framework was designed decades ago for a small number of satellites. Today, it faces enormous strain as thousands of satellites are launched every year. Its 2025-2029 plan identifies spectrum and orbital management as its highest priority due to this growing complexity.

Digital Divide and the Promise and Limits of LEO Satellites

1. Persistent Global Connectivity Gap

- Despite major technological progress, a very large share of the world remains offline. The Global Connectivity Index shows clear inequality: **Switzerland scores 34.41**, while **India scores only 8.59**, reflecting a wide gap in digital readiness.
- At the start of 2025, **about 2.6 billion people** still lacked internet access, with most of the unconnected population living in **South Asia, Africa, and Latin America**.

2. Technical Benefits of LEO Satellites: Low-Earth orbit satellites offer much lower latency compared to geostationary satellites, making applications like online education and telemedicine more practical in areas without terrestrial networks.

3. Affordability Barriers

- High equipment cost remains a major obstacle. The **Starlink user terminal costs around \$600 (₹53,168)**, which is too expensive for most rural households. Monthly fees further increase the burden.
- The ITU's **Connecting Humanity Action Blueprint** estimates that **closing the digital divide globally by 2030 will require \$2.6–2.8 trillion in investments**.

India's Evolving Space Policy

1. Shift from Developmental Focus to Prestige and Security:

- India began with a development-oriented programme but now also pursues exploration and security goals.
- Successes such as Chandrayaan-3, Mangalyaan, Gaganyaan, and Aditya-L1 mark this shift. India plans a national space station by 2035, reflecting rising ambitions.

2. Growing Private Sector Participation:

- Policies now support private involvement across the value chain. IN-SPACe and NSIL guide commercial activity. India's space economy may rise to **\$44 billion by 2033**.
- FDI liberalisation and private missions like Vikram-S show growing capacity. Agreements with Starlink, Jio, and Airtel signal expanding commercial partnerships.

3. Strengthening Military Capabilities

- India uses space for surveillance, communication, and navigation. NavIC, GAGAN, and dedicated military satellites support defence operations.
- Mission Shakti showed India's ASAT capability, though conducted with measures to limit debris.
- New institutions such as the **Defence Space Agency and Defence Space Research Organisation** deepen military integration.

4. Space as a Foreign Policy Tool: India uses satellites to support neighbours and the Global South. The South Asia Satellite offers public goods to regional partners. A G20 climate-observation mission proposal reflects this role.

5. Selective Approach to Global Space Governance

- India supports sustainability guidelines and participates in **United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS)**.
- It backs legally binding agreements like **Prevention of an Arms Race in Outer Space (PAROS)** but remains cautious about voluntary norms that lack inclusive rulemaking.
- India's choices balance autonomy with cooperation, especially with the U.S., including through **Artemis Accords and the TRUST initiative**.

Conclusion

The rapid growth of megaconstellations has intensified competition for limited spectrum and orbital slots, placing heavy strain on global coordination systems and increasing risks from congestion and debris. Connectivity benefits are real, but uneven access, affordability barriers, and weak governance deepen inequality. A sustainable and inclusive global framework is essential to keep space accessible for future needs.

Question for practice:

Discuss how the rise of megaconstellations has intensified competition for spectrum and orbital slots and the implications this has for global governance and digital inclusion.

Source: [The Hindu](#)

Drug Abuse Among School children

Source: The post “Drug Abuse Among School children” has been created, based on “Kids as young as 11 dabbling in drugs, shows 10-city survey” published in “Times of India” on 11th December 2025.

UPSC Syllabus: GS Paper-2- Social Justice

Context: The multi-city survey shows that substance use among schoolchildren begins at an average age of 12.9 years. The findings indicate a growing public-health challenge that needs urgent and coordinated action. The study covered 5,920 students across 10 cities, capturing a broad national pattern.

Key Findings of the Survey

1. **Lifetime Prevalence:** The survey found that 15.1% of students had used a psychoactive substance at least once. It reported that 10.3% had used substances in the past year and 7.2% in the past month.
2. **Common Substances:** Tobacco (4%) and alcohol (3.8%) were the most used, followed by opioids (2.8%), cannabis (2%), and inhalants (1.9%). Most opioid use originated from non-prescribed pharmaceutical pills, showing easy access.
3. **Age Variation:** Students in Classes XI–XII were nearly twice as likely to use substances compared to Class VIII students.
4. **Gender Differences:** Boys reported higher use of tobacco and cannabis, whereas girls reported higher use of inhalants and pharmaceutical opioids.
5. **Under-Reporting Risk:** Over 50% of students admitted they would hide their substance use if questioned, suggesting concealed prevalence.
6. **Mental-Health Link:** Past-year users reported higher psychological difficulties (31%) compared to non-users (25%). Users showed greater conduct problems, hyperactivity, and emotional distress.
7. **Family and Peer Influence:** Around 40% of students reported substance use within their homes, normalizing the behaviour. Students with substance-using peers were significantly more likely to consume substances themselves.
8. **Low Help-Seeking:** Only 1% of young users sought help, indicating a severe treatment gap.

Associated Risk Factors

1. **Easy Availability:** Substances like tobacco, alcohol, inhalants, and opioids are easily accessible to adolescents.

2. **Emotional Distress:** Lack of mental-health support pushes children to use substances as coping mechanisms.
3. **Family Normalisation:** Substance use at home reduces perceived risk and encourages experimentation.
4. **Peer Pressure:** Peer groups strongly influence early initiation and continued use.
5. **Weak Regulation:** Poor control over pharmaceutical sales allows minors to access prescription opioids.
6. **Brain Vulnerability:** The adolescent brain's sensitivity increases the risk of addiction and long-term harm.

Implications

1. **Higher Addiction Risk:** Early initiation significantly increases the likelihood of long-term dependence.
2. **Academic Deterioration:** Substance use contributes to falling grades, absenteeism, and poor school engagement.
3. **Mental-Health Decline:** Emotional instability, anxiety, depression, and behavioural issues intensify.
4. **Gendered Vulnerabilities:** Rising substance use among girls reflects hidden self-medication and secrecy.
5. **Social Impact:** Family conflict, secrecy, and risky behaviours escalate, affecting long-term social functioning.

Measures Needed

1. School-Based Measures

- a. **Early Prevention:** Programmes should begin before middle school to delay experimentation.
- b. **Counselling Strengthening:** Schools must build robust counselling and mental-health support systems.
- c. **Regular Screening:** Routine mental-health assessments should identify at-risk children early.

2. Family-Level Measures

- a. **Open Communication:** Parents must initiate honest conversations about substance risks and emotions.
- b. **Warning Sign Recognition:** Families should be trained to spot mood changes, secrecy, and falling academic performance.

3. Community & Regulatory Measures

- a. **Stricter Enforcement:** Stronger laws must restrict the sale of substances to minors.
- b. **Pharmacy Oversight:** Monitoring is needed to prevent the sale of non-prescribed opioids.
- c. **Awareness Campaigns:** Community programmes should educate both parents and adolescents.

4. Health-System Measures

- a. **Adolescent Services:** More adolescent-friendly treatment and counselling centres are needed.
- b. **Integrated Education:** Substance-use awareness should be included in school health programmes.

5. Research & Monitoring

- a. **Regular Surveys:** Continuous data collection is essential to track emerging trends.
- b. **Targeted Strategies:** Gender- and age-specific interventions must be developed.

Conclusion: The survey signals dangerously early substance initiation among schoolchildren. Effective response requires integrated action from schools, families, communities, and health systems.

Question: Early substance use among schoolchildren is emerging as a major public-health concern in India. Examine the key risk factors behind this trend and suggest multi-level measures to address it.

For AI, India can build on the Aadhaar-UPI model

Source: The post “For AI, India can build on the Aadhaar-UPI model” has been created, based on “For AI, India can build on the Aadhaar-UPI model” published in “Indian express” on 11th December 2025.

UPSC Syllabus: GS Paper-3- Science and technology

Context: India has demonstrated its ability to deploy technology at a population scale through initiatives like **Aadhaar and UPI**, which provided secure digital identity and payment systems to millions of citizens. Artificial Intelligence (AI) now offers India an opportunity to **leapfrog into a knowledge-driven, inclusive, and green economy**, provided the country undertakes the right measures.

Challenges in Building India's AI Ecosystem:

1. **Data Privacy and Security Risks:** Handling sensitive citizen data while ensuring privacy and avoiding misuse remains a significant challenge.
2. **Infrastructure Limitations:** Rapidly expanding AI-ready computing infrastructure, particularly with **green energy sources**, requires heavy investment and long-term planning.
3. **Skilled Workforce Gap:** There is a shortage of professionals trained in AI, machine learning, and related technologies, which could slow adoption.
4. **Regulatory and Governance Issues:** Ensuring compliance with laws, preventing monopolistic practices, and maintaining accountability of AI systems can be complex.
5. **Digital Inclusion:** Making AI tools accessible and usable by citizens in **rural areas and regional languages** is challenging but essential for inclusivity.

Key Measures for India's AI Leadership:

1. **Digital Sovereignty and Regulation:** India must ensure that AI systems operate under **Indian laws and strategic priorities**.
 - a. Foundation models should be **trained, hosted, and regulated within the country** to maintain **data security, algorithmic accountability, and national security**.
 - b. This approach balances **corporate innovation seen in the West** and **state-controlled AI models like China**.
2. **Green AI Infrastructure:** India should rapidly expand its **computing capacity** to host large AI models.
 - a. Development of **data centres powered by renewable energy** such as solar, wind, and green hydrogen can anchor new investment and reduce carbon emissions.
 - b. This will promote **green industrial growth**, including innovation in **semiconductors, power electronics, and cooling technologies**, and position India at the **green frontier** of AI development.
3. **Inclusive AI Access for Citizens:** Every Indian should have a **multilingual AI agent** that they control, which can assist them in daily life.
 - a. For example, farmers can use it for **weather and crop advice**, students for **learning support**, and patients for **healthcare management**.

- b. These agents must be **private, transparent, and accountable**, with data securely stored under user control.
 - c. Building these systems will require **open standards, privacy safeguards, and collaboration between government, academia, and startups**.
4. **Economic and Workforce Implications:** While AI may **automate some service, coding, and back-office roles**, it will also create new opportunities in **data infrastructure, model development, and domain-specific AI applications**.
 - a. Early investment can allow India to **capture higher-value AI services**, similar to how China leveraged the clean-energy revolution to dominate global supply chains.

Conclusion: By focusing on **AI under Indian law, green infrastructure, inclusive citizen access, and workforce readiness**, India can create a **sustainable, globally competitive, and inclusive AI economy**. The principles that made Aadhaar and UPI successful **scalability, inclusion, and reliability** can serve as a guiding framework for developing India's AI ecosystem while addressing challenges.

Question: India has the potential to become a global leader in artificial intelligence by building on its digital infrastructure experience. Discuss the key measures needed to achieve this, the challenges involved, and their implications for inclusive growth and sustainability.

Is the falling rupee a cause for alarm?

Source: The post “Is the falling rupee a cause for alarm?” has been created, based on “Is the falling rupee a cause for alarm?” published in “Times of India” on 12th December 2025.

UPSC Syllabus: GS Paper-3- Indian Economy

Context: The Indian rupee has recently slipped below the ₹90 per dollar mark, prompting concerns about external stability and macroeconomic fundamentals. Such currency movements, however, reflect multiple factors including global conditions, investor behaviour, and domestic economic parameters rather than a single structural weakness.

Reasons Behind the Fall of the Rupee

A. Weakening External Fundamentals

1. The trade deficit has widened because India's import growth has been consistently higher than export growth.
2. The current account deficit has expanded due to higher import bills and weak global demand for exports.
3. Foreign Portfolio Investors (FPIs) have withdrawn funds as they expect better short-term returns in other economies.
4. Foreign exchange reserves have declined slightly, which indicates that the RBI's interventions have remained limited.

B. Policy and Sentiment Factors

1. Uncertainty surrounding the India–U.S. tariff agreement has adversely affected investor sentiment.

2. Elevated valuations in domestic equity markets have encouraged foreign investors to book profits and exit.
3. Global currency trends have favoured the U.S. dollar in the short term, putting additional pressure on emerging market currencies including the rupee.

Whether the Falling Rupee Indicates Weakness in the Economy

1. The depreciation of the rupee does not indicate structural weakness because India continues to record robust GDP growth.
2. Inflation in India remains moderate, supported by an accommodative monetary policy stance.
3. India's foreign exchange reserves still cover around 11 months of imports, indicating a strong external buffer.
4. Fiscal consolidation is progressing as planned, and capital expenditure remains strong, which shows that macroeconomic fundamentals are stable.
5. The fall of the rupee is driven mostly by transient global and sentiment-driven factors rather than domestic economic deterioration.

Benefits of a Depreciating Rupee

1. The depreciation of the rupee increases the price competitiveness of Indian goods, thereby helping exports gain market share.
2. The weaker rupee partially offsets the tariff-related disadvantages arising from recent U.S. policy measures.
3. Services exporters, especially IT and business-process firms, gain higher rupee realisation on dollar earnings.
4. Increased profitability in the services sector may translate into higher employee bonuses and support domestic consumption.
5. The inflationary impact of depreciation remains modest, as a 5% fall contributes only 0.3%–0.4% to the Consumer Price Index.

Downsides of a Depreciating Rupee

1. Import costs rise significantly, especially for crude oil, electronics, fertilisers, and heavy machinery, as more rupees are needed to buy the same dollar value.
2. Rupee volatility creates uncertainty for exporters and importers, complicating hedging strategies and long-term business contracts.
3. The government faces higher subsidy bills, particularly on fertilisers and fuel, which may exert pressure on fiscal balances.
4. Sectors dependent on imported inputs face compressed margins due to increased operational costs.

Challenges Arising from the Rupee's Fall

1. The rising import bill increases the cost burden on industries and the government, especially in energy and fertiliser sectors.
2. Imported inflation could gradually rise if depreciation continues, affecting fuel, metals, and essential commodities.
3. Fiscal stress may increase as subsidy expenditure rises, making fiscal consolidation more difficult to achieve.

4. Currency volatility disrupts business planning for exporters and importers and enhances financial risks.
5. India remains vulnerable to shifts in global investor sentiment because of reliance on volatile FPI flows.
6. A persistent trade imbalance threatens to widen the current account deficit further.
7. The RBI has limited flexibility because excessive intervention may drain reserves while minimal intervention may permit undue volatility.
8. Companies with dollar-denominated loans face higher repayment burdens, thereby increasing financial stress.

Way Forward

1. India must strengthen its external sector by diversifying exports, enhancing competitiveness in high-value manufacturing, and deepening services exports.
2. The government should work to attract more stable long-term Foreign Direct Investment (FDI) by improving the ease of doing business and ensuring policy consistency.
3. Reducing import dependence through domestic production of critical items such as semiconductors, electronics, and defence equipment is essential.
4. Expanding renewable energy capacity will help reduce oil imports and ease pressure on the rupee.
5. The RBI should continue to intervene only to curb excessive volatility rather than defend a specific exchange rate level.
6. Macroeconomic stability should be maintained by adhering to fiscal consolidation targets and keeping inflation within the target band.
7. Exporters and importers, especially MSMEs, should be encouraged to use hedging instruments to manage currency risks more effectively.
8. The government and RBI must improve communication and provide policy clarity to reduce speculation and maintain investor confidence.
9. Fast-tracking pending trade agreements can help stabilise investor sentiment and boost long-term export prospects.

Conclusion

The recent fall of the rupee is largely driven by global portfolio movements and temporary sentiment-related factors rather than fundamental economic weakness. Although depreciation offers some export advantages, it also brings challenges related to higher import costs, fiscal pressures, and business uncertainty. With strong macroeconomic fundamentals and prudent RBI interventions, the situation calls for careful monitoring rather than alarm, supported by structural reforms and stable long-term policies.

Question: The recent fall of the rupee below ₹90 per dollar has triggered debates on economic stability. Discuss the reasons behind the depreciation, its impact on the Indian economy, associated challenges, and the way forward.

Parenting in the AI-age

Source: The post “Parenting in the AI-age?” has been created, based on “Parenting in the AI-age” published in “Times of India” on 12th December 2025.

UPSC Syllabus: GS Paper-3- Science and Technology- Developments and their Applications and Effects in Everyday Life

Context: The rise of advanced AI tools such as ChatGPT has begun influencing everyday parenting practices across the world. Public figures like Sam Altman have highlighted how AI provides instant guidance, reassurance, and personalised support to new parents navigating early childhood challenges.

Changing Nature of Parenting in the AI Age

A. Instant Information and Support

1. AI tools provide quick, accessible answers to routine parenting questions, reducing anxiety and helping parents make informed decisions.
2. Personalised guidance helps new parents feel more confident, especially during uncertain moments related to child growth and behaviour.

B. Reduction in Stress and Isolation

1. New parents often lack immediate human support; AI acts as a 24/7 companion to clarify doubts.
2. Real-time reassurance, such as confirming normal developmental differences, helps prevent unnecessary panic.

Opportunities Created by AI in Parenting

1. **Personalised Parenting Assistance:** AI systems adapt to user inputs and offer contextual advice tailored to individual parenting styles and concerns.
2. **Enhanced Access to Knowledge:** Parents get evidence-based insights without needing extensive reading or specialist consultations for everyday concerns.
3. **Emotional Support and Confidence-Building:** AI tools reduce parental overthinking by offering calm, balanced responses that normalise variations in child development.
4. **Bridging Information Gaps:** AI can be especially useful for first-time parents, nuclear families, and working parents with limited support systems.

Concerns and Risks in AI-Assisted Parenting

1. **Overdependence on Technology:** Excessive reliance may weaken natural intuition and experiential learning that are central to parenting.
2. **Accuracy and Quality of Advice:** AI tools, if misused, may give generalised or incorrect suggestions without understanding deeper medical or emotional contexts.
3. **Privacy and Data Concerns:** Sensitive information about children might be stored or processed, raising ethical and data-protection issues.
4. **Risk of Replacing Human Connection:** Parenting requires empathy, lived experiences, and community support, which AI cannot fully replicate.
5. **Unrealistic Expectations from Children:** AI-driven comparisons may pressure parents to expect accelerated milestones, affecting children's emotional well-being.

Ethical and Social Implications

1. AI alters traditional parenting roles, potentially reshaping family dynamics and decision-making patterns.
2. Unequal access to AI tools may deepen digital divides between urban and rural households.
3. Children growing up with AI may experience shifts in cognitive development, behaviour, and social interactions.

Way Forward

1. Parents must treat AI as a supportive tool and not as a substitute for human judgment or medical advice.
2. Governments and platforms should create clear guidelines for safe and responsible AI use in family settings.
3. Awareness must be raised on verifying AI-generated recommendations, especially for health-related issues.
4. AI literacy programmes can help parents understand limitations, biases, and best practices.
5. Developers should ensure strong privacy safeguards to protect children's data.

Conclusion: Parenting in the AI age offers immense support, accessibility, and reassurance to families, particularly first-time parents. However, it requires balanced use, ethical safeguards, and a continued emphasis on human intuition and emotional connections. AI should complement, not replace the sensitivity, judgment, and care that define the parent-child relationship.

Question: Discuss the opportunities and risks associated with the use of AI in parenting, as highlighted in the context of the rise of advanced AI tools like ChatGPT. How can AI complement, rather than replace, traditional parenting practices?

From Licence Raj to Jan Vishwas: Freeing India's Entrepreneurs

UPSC Syllabus- GS 3-Inclusive growth and issues arising from it.

Introduction- India's entrepreneurial ecosystem has been shaped by its regulatory state—from the restrictive Licence Raj to the partial liberalisation of 1991. However, deregulation remains incomplete. The proposed Jan Vishwas Siddhant promises a shift from permission-based control to trust-based governance, with the potential to boost entrepreneurship, scale enterprises, and create mass employment.

Structural Constraints: Six Regulatory Pathologies

1. **Culture of Prior Approval**
 - Entrepreneurship is inherently **permissionless**, yet businesses confront thousands of licences, NOCs, and approvals.
 - This undermines **Article 19(1)(g)** of the Constitution and discourages innovation at inception.
2. **Proliferation of Regulatory Instruments**
 - In addition to Acts and Rules, compliance extends to circulars, guidelines, SOPs, FAQs, and office orders—often unnotified but enforceable.
 - Entrepreneurs face a compliance maze of **12,000+ non-law instruments**, creating uncertainty and discretion.
3. **Compliance Blind Spot**
 - Policymaking emphasises legislative intent but ignores the **aggregate compliance burden**.
 - As of early 2025, India had **over 69,000 compliances**, though labour code reforms demonstrated that rationalisation can reduce burdens by **up to 75%**.
4. **Enforcing the Unenforceable**
 - Regulatory ambition often exceeds state capacity, leading to selective enforcement and corruption.
 - Unenforceable laws become a substitute for institutional reform and effective governance.
5. **Process as Punishment**
 - Criminal provisions in economic laws are rarely enforced but widely used as threats.

- The criminalisation of cheque-bounce disputes alone has resulted in **43 lakh cases**, nearly **10% of total court pendency**.
- 6. **Absence of a Single Source of Truth**
 - Entrepreneurs lack access to an authoritative, updated database of applicable laws and compliances.
 - This opacity fuels rent-seeking, litigation, and compliance anxiety.

Jan Vishwas Siddhant: Key Provisions

- **Perpetual self-registration for all activities** except those linked to national security, public safety, human health, and the environment.
- **“Everything is permitted unless prohibited”** as the default regulatory principle.
- Risk-based, random, and third-party inspections replacing inspector raj.
- **Decriminalisation of minor offences** with proportionate civil penalties, in line with DPIIT principles.
- Predictable regulation, with mandatory consultation, adequate transition time, and fixed annual implementation dates.
- **Complete digitisation of filings and restriction** of penal provisions strictly to Acts and Rules.
- **Annual Regulatory Impact Assessments (RIA)** by all ministries focusing on compliance costs and enforcement outcomes.

Why it Matters for Growth and Employment

- Despite having **6.3 crore enterprises**, India has only **around 30,000 companies** with paid-up capital above ₹10 crore. This reflects not a deficit of entrepreneurial ambition, but a regulatory ecosystem that discourages scale and risk-taking.
- Over-regulation keeps firms perpetually small, limits capital formation, and constrains labour productivity—directly affecting non-farm job creation and economic transformation.

Way Forward

- **Institutionalise trust-based regulation** across states and sectors, beyond central legislation.
- **Expand compliance rationalisation** beyond labour laws to land, environment, and municipal regulations.
- **Strengthen administrative capacity** to enforce fewer, clearer, and outcome-based laws.
- **Align judicial reforms** with economic decriminalisation to reduce pendency and uncertainty.
- **Monitor implementation** through periodic parliamentary and public review of regulatory impact.

Conclusion

The **Jan Vishwas Siddhant** signals a shift from control to trust, empowering citizens over subjects. By treating entrepreneurship as experimentation rather than planning, it can boost enterprise scale, jobs, and growth—freeing entrepreneurs to focus on effort, not permissions.

Question- India's transition from the Licence Raj to a trust-based regulatory framework remains incomplete." In this context, critically examine the structural regulatory constraints faced by Indian entrepreneurs and discuss how the proposed Jan Vishwas Siddhant can address these challenges to promote enterprise scaling, inclusive growth, and non-farm employment.

Supreme Court Rules Forced Narco Tests Unconstitutional

UPSC Syllabus- GS 2- Judiciary: Functions and powers of the Supreme Court and High Courts; Judicial review; Fundamental rights enforcement.

Introduction- The **Supreme Court of India** has ruled that **compulsory or involuntary narco tests are unconstitutional**, overturning a Patna High Court judgment in *Amlesh Kumar v. State of Bihar* (2025). The Court highlighted that the High Court disregarded the principles laid down in *Selvi v. State of Karnataka* (2010) regarding the protection of fundamental rights during investigative procedures.

What Are Narco Tests?

Narco tests involve administering a **sedative such as Sodium Pentothal** to an accused, lowering inhibitions and encouraging disclosure of information. While non-violent, these tests are similar in nature to **polygraphs or brain-mapping techniques** and are used to aid investigations.

Constitutional Safeguards

The judgment emphasized **Article 20(3)**, which guarantees protection **against self-incrimination**, ensuring no individual can be compelled to testify against themselves without voluntary consent. This aligns with broader constitutional protections:

- **Clause (1):** Prohibition on ex-post facto laws
- **Clause (2):** Protection against double jeopardy
- **Clause (3):** Right against self-incrimination

Additionally, **Article 21** (Right to Life and Personal Liberty) and the **Right to Privacy** were central to the Court's reasoning, stressing that non-consensual testing violates fundamental human rights.

Balancing Rights in Criminal Justice

The Court reinforced that democratic criminal justice requires balancing the **rights of victims** with the **rights of the accused**. Any investigative method must preserve personal liberty, human dignity, and constitutional protections.

The 'Golden Triangle'

The ruling referenced the **Golden Triangle** of Articles **14, 19, and 21** (*Maneka Gandhi v. Union of India*, 1978), noting that infringements of privacy inherently compromise the Right to Life and Personal Liberty.

Judicial Precedents and Procedural Requirements

- Past rulings, including *Manoj Kumar Saini v. State of MP* (2023) and *Vinobhai v. State of Kerala* (2025), clarify that **narco test results alone cannot establish guilt**; corroborative evidence is essential.
- The Court emphasized **informed consent**, to be recorded before a magistrate, with **medical, legal, and procedural safeguards** strictly maintained.

Conclusion

The Supreme Court's ruling affirms that **informed consent, autonomy, and dignity** are paramount, and no investigative method can override **fundamental rights**, reinforcing the balance between law enforcement and individual freedoms in a democratic system.

Question- Examine the Supreme Court ruling declaring forced narco tests unconstitutional and its constitutional implications.

Courts must protect, not regulate free speech

UPSC Syllabus Topic: GS Paper 3-Fundamental Rights

Introduction

Freedom of speech is central to democracy and individual liberty. Threats to this right usually come from the executive or legislature. Recent judicial proceedings have raised concern that courts themselves may begin shaping regulation. When courts move from protecting speech to suggesting regulatory frameworks, it raises serious constitutional and democratic questions about institutional roles and limits.

What is Freedom of Speech and Expression?

- Freedom of speech and expression is broadly understood as the **notion that every person has the natural right to freely express themselves through any media and without outside interference**, such as censorship, and **without fear of reprisal**, such as threats and persecutions.
- Freedom of expression is a complex right as **freedom of expression is not absolute**.
- It carries with it **special duties and responsibilities** therefore it may be subject to **certain restrictions provided by law**.

Constitutional and Legal Backing of Free Speech

1. Constitutional backing

Article 19(1)(a) and its protection: The Constitution guarantees freedom of speech and expression under Article 19(1)(a). This right forms part of the basic framework of democratic participation and accountability.

Exhaustive limits under Article 19(2): Restrictions on free speech are strictly limited to grounds listed in Article 19(2), such as sovereignty, security of the State, public order, defamation, and morality. These grounds are exhaustive and not illustrative.

2. Existing statutory regulation of speech

Information Technology Act, 2000

Section 67 penalises the publication or transmission of obscene content in electronic form.

Section 66 addresses computer-related offences such as hacking.

Section 66E penalises the publication of personal images without consent.

Section 66F deals with cyber terrorism.

Bharatiya Nyaya Sanhita, 2023

Sections 294, 295, and 296 penalise obscene acts and content in public spaces.

3. Intermediary Rules and concerns

The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 create an oversight mechanism and impose obligations on publishers..

Judicial Interpretation of Free Speech in India

1. **Courts as constitutional umpires:** The Constitution assigns courts the role of examining whether restrictions on free speech are reasonable. During the Constituent Assembly debates, it was clearly stated that the Supreme Court must act as the final arbiter on the validity of restrictions, not as a law-maker.

2. **Judicial self-restraint as a guiding principle:** The Court has earlier shown restraint in matters affecting expression. In **Adarsh Co-operative Housing Society Ltd. vs Union of India (2018)**, it refused to direct filmmakers to add disclaimers. It held that such decisions lie with statutory authorities and must follow due process.

3. **Exhaustive nature of Article 19(2):** In **Kaushal Kishor vs State of Uttar Pradesh (2023)**, a five-judge Bench clearly held that the grounds listed in Article 19(2) are exhaustive. It ruled that no additional restrictions can be imposed under the guise of competing fundamental rights.

4. **Regulation versus unlawful restraint:** In **Sahara India Real Estate Corp. Ltd. vs SEBI (2012)**, the Court examined media regulation in detail. It warned against blanket prohibitions and held that pre-censorship must be avoided. Any postponement of publication must be a last resort and meet a high standard of reasonableness.

5. **Caution against judicial overreach:** In **Common Cause vs Union of India (2008)**, the Court cautioned itself against entering areas beyond its institutional competence. It acknowledged that many policy problems are better addressed by the legislature, especially where technical expertise is required.

Challenges in Regulating Free Speech in India

1. **Risk of prior restraint:** Broad and preventive regulatory measures can silence speech even before any legal violation occurs. This undermines democratic debate and contradicts the Court's caution against pre-censorship, as stressed in **Sahara India Real Estate Corp. Ltd. vs SEBI (2012)**.

2. **Vague and subjective standards:** Terms such as “morality,” “offensiveness,” or “well-known moral standards of society” lack clear definition. Such indeterminate standards allow arbitrary enforcement and create uncertainty for speakers.

3. **Chilling effect on legitimate speech:** Fear of FIRs, prosecution, takedowns, or sanctions discourages citizens, journalists, and creators from expressing criticism or unpopular views. This indirect suppression weakens the marketplace of ideas.

4. **Overlap with existing statutory controls:** India already has multiple legal provisions regulating speech under the IT Act and the Bharatiya Nyaya Sanhita. Additional regulation risks duplication and excessive control rather than better enforcement.

5. **Judicial expansion beyond case limits:** When courts extend the scope of individual cases to examine broader regulatory needs, they risk entering the policy domain. This concern echoes the Court’s own warning in *Common Cause vs Union of India* (2008).

6. **Erosion of constitutional boundaries:** Judicial involvement in designing regulatory frameworks blurs the separation of powers. The Constitution assigns law-making to the legislature and review of reasonableness to courts.

7. **Technical complexity of digital speech:** Online platforms operate at massive scale and speed, involving algorithms and evolving technologies. Courts face institutional limits in handling such technical regulation.

8. **Risk of normalising stricter controls:** Repeated judicial calls for stringent laws, coupled with executive readiness, may normalise statutory gags. This risks shrinking constitutional freedoms beyond Article 19(2), contrary to *Kaushal Kishor* (2023).

Comparative Global Practices

1. Democratic model:

- Major democracies mainly follow a takedown-based approach. The **EU’s Digital Services Act, 2022** sets content removal protocols.
- **Germany’s Network Enforcement Act, 2017** pushes prompt action on harmful content without harming free speech.
- The **UK Online Safety Act, 2023** and **Australia’s Online Safety Act, 2021** focus on removal duties and fines for non-compliance.

2. **Authoritarian model: China and Russia** rely more on surveillance and pre-censorship, using harsh laws to restrict online speech.

Way Forward

1. **Stay within Article 19(2):** Courts should test restrictions only on the expressly listed grounds and avoid adding new limits. It should not be judged by shifting moral standards

2. **Do not widen cases into policy:** In FIR-challenge matters, when the Court says it will “extend the scope” to decide what regulation is needed, it crosses into the legislative space. Even suggestions like publishing draft guidelines and inviting comments show this policy drift, which should be avoided.

3. **Avoid pre-censorship:** Any prior restraint should be shunned; postponement or similar orders must be a last resort with a high reasonableness threshold.

4. **Use existing laws first:** Enforce current provisions on obscenity and cyber offences under the IT Act and BNS, instead of seeking fresh controls.

5. **Review the 2021 IT Rules strictly:** Oversight and “due caution” clauses should be examined for overreach and penal excess.

6. **Prefer removal-based compliance** Follow democratic practice that focuses on takedown protocols and penalties for non-compliance, not statutory gags.

7. **Preserve institutional separations:** Legislatures should debate and frame laws, executives should implement them, and courts should review them for constitutionality.

Conclusion

Freedom of speech survives only when courts respect their constitutional role as guardians, not regulators. The Constitution clearly limits restrictions under Article 19(2), and existing laws already address misuse. Judicial expansion into regulation risks prior restraint and democratic erosion. Courts must protect liberty through constitutional review, not policy design.

Question for practice:

Discuss how judicial intervention in regulating free speech can blur constitutional boundaries and affect democratic freedoms in India.

Source: [The Hindu](#)

A people-led climate intelligence movement

UPSC Syllabus Topic: GS Paper 3 -Environment

Introduction

Climate action now depends on how well countries track what is happening on the ground. Monitoring, reporting and verification systems shape climate transparency, finance access, and trust. Yet most systems remain distant from people who face climate impacts daily. A people-led climate intelligence movement seeks to correct this gap by placing communities at the centre of climate data, decision-making, and governance, while strengthening national and global climate commitments.

What is MRV?

Measurement, Reporting, and Verification (MRV) is a multi-step process used to measure how much greenhouse gas emissions are reduced by a specific mitigation activity over a period of time. These results are then reported to an accredited third party. The third party verifies the report so the results can be certified and carbon credits can be issued..

Significance of MRV

1. **Tracking climate commitments:** MRV allows governments to show measurable progress on mitigation, adaptation, and finance goals. It helps link policies and actions with actual climate outcomes.
2. **Access to climate finance:** Strong MRV systems are necessary to unlock climate finance and results-based payments. Reliable data builds confidence among funders and international partners.
3. **Ensuring accountability and trust:** MRV improves credibility by using verifiable data rather than claims. This supports transparency at national and international levels.

What is CbMRV?

- **Community-based MRV (CbMRV)** allows villages to generate systematic and science-ready environmental data. It values local observation as a formal source of climate intelligence.
- **Blending knowledge systems:** CbMRV combines traditional ecological knowledge with field-based monitoring of rainfall, temperature, soil, water, biodiversity, fisheries, crops, livelihoods, and carbon stocks. This creates a fuller picture of climate change at local scales.
- **From data collection to governance:** Community-generated data feeds into a digital dashboard used at village, district, and State levels. This shifts governance from a top-down model to a shared partnership.

About Tamil Nadu's CbMRV

Origin and purpose

Tamil Nadu's community-based environmental MRV (CbMRV) was started in **2023** under the **UK PACT programme** to pilot a community-based MRV system that could support **just transition goals**. It was developed with **Keystone Foundation** and other scientific partners in three pilot landscapes: **Aracode (Nilgiris), Vellode (Erode), and Killai (Cuddalore)**.

Significance

1. **Brings local climate signals into governance:** It makes community observations a formal part of climate decision-making, instead of relying only on coarse datasets.
2. **Creates science-ready village data:** Villages generate systematic data on rainfall, temperature, soil and water health, biodiversity, fish catch, cropping patterns, livelihoods, and carbon stocks and emissions.
3. **Blends traditional and field monitoring knowledge:** It weaves generational ecological knowledge with field instruments and monitoring protocols.

4. **Improves decision-making across levels:** Data goes into a digital dashboard that informs decisions from village to district and State levels.

5. **Builds climate leadership in communities:** It trained **35 Key Community Stakeholders** as climate stewards who collect, interpret, and explain trends.

6. **Supports local planning and programmes:** It can strengthen Gram Panchayat Development Plans and efforts like Climate Resilient Village, crop choices, and natural resource management.

7. **Strengthens State climate pathways:** It can add evidence for the Tamil Nadu Climate Tracker, State climate planning, Green Tamil Nadu Mission, coastal adaptation, and investment pathways under the Tamil Nadu Green Climate Company.

8. **Prepares for long-term scale and jobs:** Tools and training are proposed for integration into colleges, ITIs, and training centres to create a permanent green workforce and maintain long-term baselines.

Way forward

1. **Build political will** to formally include community forest monitoring in national MRV systems and link it with Nationally Determined Contributions (NDCs).

2. **Create early consensus** among all stakeholders on goals, roles, indicators, and basic rules of monitoring before field work starts.

3. **Select indicators that matter to both sides** so the information is useful for communities as well as government planning and reporting.

4. **Use community-friendly methods** so data collection is practical, locally relevant, and possible with available skills and tools.

5. **Define clear end use of data** so everyone knows how the data will be applied in decisions, programmes, and reporting.

6. **Fix benefit-sharing terms in advance** so communities gain direct and agreed benefits for their monitoring work.

7. **Set a simple feedback loop** so communities also receive results and can use findings for local action.

Conclusion

A people-led climate intelligence movement strengthens climate action by placing communities at the centre of monitoring and decision-making. Tamil Nadu's CbMRV shows how local knowledge can become reliable climate data. When community observations guide planning, finance, and governance, climate systems become more transparent, responsive, and resilient at every level.

Question for practice

Discuss how a people-led climate intelligence movement, through community-based MRV, can strengthen climate governance and transparency in India.

Source: [The Hindu](#)

New Insurance Bill: What's in & what's left out?

Source: The post “New Insurance Bill: What's in & what's left out?” has been created, based on “New Insurance Bill: What's in & what's left out?” published in “Indian Express” on 15th December 2025.

UPSC Syllabus: GS Paper-2- Polity

Context: The Union Cabinet approved the Sabka Bima Sabki Raksha (Amendment of Insurance Laws) Bill, 2025 on 12 December 2025. The Bill aims to revamp India's insurance framework, modernize regulations, expand coverage, and strengthen regulatory oversight. It proposes amendments to the Insurance Act, 1938, the Life Insurance Corporation (LIC) Act, 1956, and the IRDAI Act, 1999.

Key Provisions in the Bill

- 1. 100% FDI in Insurance:** The Bill raises the foreign direct investment (FDI) limit in Indian insurance companies from 74% to 100%. This is expected to attract long-term global capital, promote technology transfer, improve insurance penetration, and enhance underwriting, risk management, and customer service.
- 2. Sops for Foreign Reinsurers:** The requirement for Net Owned Funds for foreign reinsurers has been reduced from ₹5,000 crore to ₹1,000 crore. This measure is intended to attract smaller and new-age reinsurers, increase competition, and strengthen reinsurance capacity in India.
- 3. Enhanced Powers for IRDAI:** The Insurance Regulatory and Development Authority of India (IRDAI) will have the authority to disgorge wrongful gains earned by insurers or intermediaries. The Bill also introduces one-time registration for intermediaries, raises the approval threshold for equity transfers from 1% to 5%, and establishes structured procedures for rule-making and penalty enforcement to ensure transparency and accountability.
- 4. Greater Operational Freedom for LIC:** LIC will be allowed to establish new zonal offices without prior government approval and can restructure overseas operations in accordance with foreign regulations. These measures are aimed at making LIC more agile, competitive, and globally aligned.
- 5. Regulatory Improvements:** The Bill aims to strengthen the insurance regulatory framework by streamlining compliance processes, reducing unnecessary administrative burdens, and improving transparency and policyholder protection.

Provisions Likely Excluded or Missed

- 1. Composite Licence:** The Bill does not include provisions for composite licences, which would allow a single insurer to operate across both life and non-life insurance segments. The absence of this reform maintains the existing segregation of life and general insurers and limits the ability to offer bundled insurance products.
- 2. Reduced Capital Norms and New Entrants:** The Bill does not lower the minimum paid-up capital requirement of ₹100 crore for insurers and ₹200 crore for reinsurers. This omission restricts the entry of smaller, specialised, or regional insurers, thereby limiting financial inclusion and market diversity.

3. Other Missed Proposals: The Bill is also silent on earlier proposals such as allowing insurers to sell other financial products like mutual funds and loans, permitting agents to sell policies of multiple companies, and enabling large corporations to establish captive insurance subsidiaries. These omissions leave several opportunities for modernisation and market expansion unaddressed.

Significance of the Bill

1. The Bill is an important step toward modernising India's insurance sector.
2. It facilitates foreign investment, encourages technology adoption, strengthens regulatory oversight, and provides LIC with greater operational flexibility.
3. At the same time, the exclusion of key reforms such as composite licensing, reduced capital norms, and captive insurers limits the Bill's transformative impact on the structural issues in the insurance sector.

Way Forward

1. **Introduce Composite Licences:** Allow insurers to operate across both life and non-life segments to enable bundled insurance products and enhance market flexibility.
2. **Reduce Capital Requirements for New Entrants:** Lower minimum paid-up capital for insurers and reinsurers to encourage smaller, specialised, and regional players, promoting competition and financial inclusion.
3. **Permit Diversification of Financial Services:** Enable insurers to sell other financial products like mutual funds and loans to offer integrated financial solutions to customers.
4. **Facilitate Captive Insurance Subsidiaries:** Allow large corporations to establish captive insurance units to improve risk management and reduce dependence on external insurers.
5. **Strengthen Technology Adoption and Innovation:** Promote digitalisation, insurtech partnerships, and advanced risk modelling to enhance operational efficiency and customer service.
6. **Enhance Policyholder Protection Measures:** Continue to strengthen IRDAI's powers to ensure transparency, timely grievance redressal, and accountability of insurers and intermediaries.

The Sabka Bima Sabki Raksha Bill, 2025 marks a significant step toward modernising India's insurance sector by facilitating foreign investment, enhancing regulatory oversight, and granting LIC greater operational flexibility. While it strengthens transparency, competition, and policyholder protection, the exclusion of reforms like composite licensing, reduced capital norms, and captive insurance limits its transformative potential. To fully realise the sector's growth and financial inclusion objectives, further measures are needed to encourage innovation, diversify financial offerings, and attract new entrants.

Question: Examine the key features and limitations of the Sabka Bima Sabki Raksha (Amendment of Insurance Laws) Bill, 2025, and suggest measures to strengthen India's insurance sector.

The right moment to boost India-Ethiopia ties

Source: The post "The right moment to boost India-Ethiopia ties" has been created, based on "The right moment to boost India-Ethiopia ties" published in "The Hindu" on 15th December 2025.

UPSC Syllabus: GS Paper-2- International Relations

Context: Ethiopia is one of Africa's fastest-growing economies and a strategically important country in the Horn of Africa. As Ethiopia emerges from internal conflict and works towards building a new national consensus, the current phase provides a timely opportunity to strengthen India-Ethiopia relations.

Strategic Importance of Ethiopia

1. Ethiopia has a population of about 109 million, providing a large domestic market and workforce.
2. The country hosts the headquarters of the African Union, giving it significant diplomatic influence across Africa.
3. Ethiopia plays a key role in regional security and stability, including peace operations in Somalia.
4. The country has immense renewable energy potential, particularly in hydropower, positioning it as a future regional energy exporter.
5. Ethiopia is seeking to diversify its access to the Red Sea to enhance trade security and strategic autonomy.

Historical and People-to-People Ties

1. India and Ethiopia share deep historical ties, especially in the field of education, spanning more than a century.
2. Indian teachers and professors played a foundational role in building Ethiopia's modern education system.
3. Ethiopia was the pilot country for the Pan-African e-Network project, reflecting early technological cooperation with India.
4. Ethiopia sends one of the largest numbers of African students to India, including the highest number of PhD scholars.
5. The Indian diaspora in Ethiopia contributes significantly to trade, investment, and bilateral goodwill.

Economic and Investment Cooperation

1. Indian investment in Ethiopia has exceeded 4 billion US dollars, supported by Indian Lines of Credit since 2006.
2. While earlier investments were concentrated in agriculture, current opportunities lie in manufacturing, pharmaceuticals, and agro-processing.
3. Mining, particularly in gold, critical minerals, and rare earth elements, offers strong potential for strategic cooperation.
4. Joint mining ventures can help secure inputs for India's renewable energy, battery, and semiconductor industries.
5. Ethiopian leadership continues to value Indian investment for its long-term and development-oriented approach.

Defence and Security Cooperation

1. Defence cooperation dates back to 1956 with India's assistance in establishing the Harar Military Academy.
2. Indian defence teams have been training Ethiopian armed forces since 2009.
3. The Ethiopian military requires modernisation after prolonged internal and regional deployments.
4. India's affordable and battle-tested defence equipment is well suited to Ethiopia's requirements.
5. A new MoU on defence cooperation and the Joint Defence Cooperation Committee provide a formal framework for expanding engagement.

Multilateral and Regional Cooperation

1. Ethiopia's membership in BRICS creates new avenues for strategic and economic coordination with India.
2. Cooperation through G-20 and South-South platforms strengthens political convergence.
3. Under the African Continental Free Trade Area, Ethiopia can serve as a manufacturing and export hub for Indian companies.
4. India's duty-free tariff preference scheme remains important for Ethiopian exports amid global trade uncertainty.

Challenges in the Partnership

1. Ethiopia faces foreign exchange shortages that constrain business operations and investor confidence.
2. Regulatory uncertainty, taxation issues, and delays in approvals affect the investment climate.
3. Infrastructure and logistics constraints increase costs, particularly in mining and manufacturing.
4. Post-conflict political transition creates short-term uncertainties for long-term investment planning.

Way Forward

1. Ethiopia should address foreign exchange availability and ensure regulatory consistency to improve investor confidence.
2. India and Ethiopia should update the Double Taxation Avoidance Agreement and the Bilateral Investment Treaty.
3. Cooperation in education should be expanded through digital learning, vocational training, and university linkages.
4. Joint mining projects should be prioritised to secure critical mineral supply chains.
5. Defence cooperation should be deepened through training, capacity building, and defence exports.
6. Multilateral platforms such as BRICS, G-20, and AfCFTA should be effectively leveraged.

Conclusion

The present moment is opportune due to Ethiopia's political transition and India's expanding engagement with Africa. With renewed political will, targeted reforms, and strategic alignment, India-Ethiopia relations can evolve into a dynamic and mutually beneficial partnership in the coming decade.

Question: Discuss the significance of India-Ethiopia relations and explain why the present moment is opportune to deepen bilateral cooperation.

India-Oman Ties

UPSC Syllabus Topic: GS Paper 2 -international relation

Introduction

India and Oman share one of the **oldest and most stable partnerships in the Gulf region**. Prime Minister Narendra Modi's visit to Oman in **December 2025** comes at a time of **regional uncertainty, global trade tensions, and energy transition**. The visit marks **70 years of diplomatic relations** and aims to strengthen **strategic, economic, defence, and people-centric cooperation** between the two countries.

India-Oman Shared History

1. **Ancient maritime trade links:** India and Oman have been connected since **Harappan times** through the **Indian Ocean trade network**. Ships from **Lothal and Dholavira** sailed to ancient **Magan**, carrying beads, pottery, cotton, and rice.
2. **Exchange of goods and skills:** Oman supplied **copper, frankincense, stones, and dates**, while its ports acted as **trans-shipment centres** for Indian goods bound for Mesopotamia. **Seals, weights, and measures** show organised trade systems.
3. **Navigation and global trade role:** Omani sailors mastered **monsoon winds and dhow shipbuilding**. They linked India with the **Roman world**, helping Indian spices reach global markets.
4. **Cultural and people contacts:** **Gujarati traders** settled in Oman, while **Omani Muslims** lived along India's western coast. Religious travel and commerce kept people moving across centuries.
5. **Joint resistance to colonial powers:** Indian and Omani rulers cooperated to **counter Portuguese dominance**, strengthening political and commercial ties.

Significance of the India-Oman Relationship

1. Oman's Strategic Importance for India

Trusted partner in West Asia: Oman maintained friendly ties with India even when the region leaned towards Pakistan. Its policy of **moderation and mediation** makes it a stable partner.

Pillar of India's West Asia Policy: India signed a **strategic partnership agreement in 2008**. Oman was also invited as a **guest nation during India's G-20 Presidency in 2023**.

Neutral foreign policy role: Oman's **deliberate neutrality** helps India maintain balanced relations in a conflict-prone region, especially during West Asian tensions.

2. Defence and Maritime Security Cooperation

Institutional defence framework: Defence ties are guided by a **2005 MoU on military cooperation**. Oman is the **first Gulf country** to hold joint exercises with **all three Indian defence services**.

Maritime security collaboration: Since **2012-13**, Indian naval ships have been deployed in the **Gulf of Oman for anti-piracy duties**. Both sides cooperate in the **Indian Ocean Region**.

Strategic access and logistics: The **Duqm Port logistics agreement (2018)** allows basing and turnaround facilities for the **Indian Navy**.

Overflight and transit support: Oman has allowed **overflight and transit facilities** for Indian military aircraft.

Defence procurement milestone (INSAS): Oman became the **first Gulf country** to purchase India's **INSAS assault rifle in 2010**.

Security and surveillance value: Oman's location near the **Gulf of Oman and the Arabian Sea** helps India monitor regional naval activity, including **growing Chinese presence**.

3. Economic, Investment and Digital Cooperation

Bilateral trade growth: India–Oman trade reached **USD 10.613 billion in FY 2024–25**. Oman is India's **third-largest export destination** among GCC countries.

Trade structure and key goods: India's imports are dominated by **petroleum products and urea (over 70%)**, along with polymers, pet coke, gypsum, chemicals, iron and steel, and aluminium.

India's exports to Oman: Exports include **mineral fuels, chemicals, precious metals, iron and steel, cereals, ships and boats, electrical machinery, boilers, tea, coffee, spices, and apparel**.

Foreign direct investment flows: Cumulative FDI from Oman to India stood at **USD 605.57 million (April 2000–March 2025)**.

Oman–India Joint Investment Fund (OIJIF): The **50–50 SBI–Oman Investment Authority JV** has invested **USD 600 million**, including a **USD 300 million tranche announced in 2023**.

Digital payments and fintech cooperation: In **October 2022**, the Central Bank of Oman and **NPCI** signed an MoU, leading to the **launch of RuPay debit cards in Oman** and expansion of **India's Digital Public Infrastructure**.

4. Emerging Areas of Cooperation

Comprehensive Economic Partnership Agreement (CEPA): The India–Oman CEPA aims to **reduce tariffs, boost services trade, and attract investment**. Oman will be India's **second CEPA partner in the Gulf after the UAE**.

Energy transition and green sectors: Cooperation is expanding into **green hydrogen, renewable energy, and critical minerals**.

Connectivity and corridors: Oman may play a role in the **India–Middle East–Europe Economic Corridor (IMEC)** announced at the **G-20 Summit 2023**.

Technology and space cooperation: **Space cooperation** and **joint defence production** in aircraft, naval platforms, and radar systems are under discussion.

5. Education, Health and People-to-People Links

Education cooperation: There is likely to be close cooperation in education, including the **setting up of offshore campuses of IIT and IIM in Oman**.

Health cooperation: **Education and health** are both expected to see closer cooperation during and after the visit.

Indian diaspora: The **Indian diaspora has contributed immensely** to Oman's development and has strengthened the bilateral partnership.

CBSE link in Oman: The **CBSE education system completing 50 years in Oman** is expected to be part of discussions.

What Are the Challenges in the Relationship?

1. **Omanisation policy hurdle:** Oman's Omanisation policy affects CEPA talks due to fixed employment quotas. India seeks a **freeze on current quotas** to protect opportunities for Indian professionals.
2. **Trade heavily oil-linked:** Over **70% of India's imports** from Oman are oil and petroleum products, limiting diversification.
3. **Energy transition impact:** India's move away from fossil fuels may alter trade patterns and requires diversification.
4. **Slow progress of joint projects:** Projects like the **Middle East to India Deepwater Pipeline (MEIDP)** have progressed slowly.
5. **China factor and strategic competition:** China's economic role, port access, and naval presence in the region pose a **strategic challenge for India**.

Conclusion

India-Oman relations rest on **deep history, trust, and strategic alignment**. With **CEPA, defence cooperation, energy transition, and connectivity projects**, the partnership is entering a new phase. Oman remains a **key anchor of India's Gulf engagement**, offering stability and long-term strategic value in a rapidly changing regional order.

Question for practice:

Discuss the key dimensions of the India-Oman strategic partnership and how the recent developments are shaping their future cooperation.

Source: [The Hindu](#)

India need to upgrade its biosecurity measures

Source: The post "**India need to upgrade its biosecurity measures**" has been created, based on "**India need to upgrade its biosecurity measures**" published in "**The Hindu**" on **16th December 2025**.

UPSC Syllabus: GS Paper-3- Technology

Context: Biosecurity refers to the systems and practices aimed at preventing the deliberate misuse of biological agents, toxins, and biotechnologies that can harm humans, animals, or plants. With rapid advances in biotechnology and growing global bio-threats, India needs to upgrade its biosecurity measures to safeguard public health and national security.

Why India Needs to Upgrade Its Biosecurity Measures

1. **Advances in Biotechnology:** Emerging technologies such as synthetic biology, gene editing, and artificial intelligence have increased the possibility of biological agents being misused for malicious purposes.
2. **Threat from Non-State Actors:** Reports of toxins like ricin being prepared for potential terror attacks indicate that non-state actors are exploring biological tools, increasing internal security risks.
3. **Geographical and Ecological Vulnerability:** India's diverse ecology, long borders, and exposure to transboundary diseases make it vulnerable to cross-border biological threats.
4. **High Population Density and Agricultural Dependence:** India's large population and reliance on agriculture amplify the social and economic impact of any biological incident.
5. **Fragmented Biosecurity Architecture:** Multiple ministries and agencies handle biosecurity-related issues, but the lack of a unified national framework hampers coordination and rapid response.
6. **Declining Global Health Security Preparedness:** Despite improvements in detection, India's ability to respond effectively to biological threats has weakened, as reflected in global health security assessments.

International Context and Lessons

1. The United States integrates biosecurity under a National Biodefense Strategy with DNA synthesis screening.
2. The European Union adopts a One Health approach linking human, animal, and environmental health.
3. China treats biotechnology as a national security issue through a comprehensive Biosecurity Law.
4. Australia and the United Kingdom follow unified and forward-looking biosecurity strategies.

Challenges in Strengthening Biosecurity in India

1. **Institutional Fragmentation:** Overlapping responsibilities among health, agriculture, biotechnology, and disaster management agencies create coordination gaps.
2. **Outdated Legal Frameworks:** Many existing laws and guidelines were framed before the emergence of modern biotechnologies and do not adequately address dual-use research and synthetic biology risks.
3. **Capacity and Infrastructure Gaps:** Limited biosurveillance infrastructure, shortage of trained personnel, and uneven laboratory standards across States weaken preparedness.
4. **Balancing Innovation and Regulation:** Over-regulation may stifle scientific research and innovation, while under-regulation increases the risk of misuse.
5. **Surveillance and Privacy Concerns:** New tools such as digital surveillance and social media monitoring raise ethical and privacy-related challenges.
6. **Limited Public Awareness and Training:** Biosecurity remains a niche policy area, with low awareness among local authorities, researchers, and **frontline health workers**.

Way Forward

1. India should establish a **comprehensive national biosecurity framework** integrating human, animal, plant, and environmental health under a One Health approach.
2. Legal and regulatory systems should be **updated to address emerging technologies and dual-use risks**.
3. Investment in **biosurveillance, early-warning systems, and microbial forensics** should be increased.

4. **Inter-agency coordination and capacity-building** at the Centre and State levels must be strengthened.
5. International cooperation through platforms like the **Biological Weapons Convention** should be deepened.

Conclusion: India urgently needs to upgrade its biosecurity measures in response to evolving biological threats and technological advances. While significant challenges exist in terms of coordination, capacity, and regulation, a modern, integrated, and forward-looking biosecurity framework is essential to protect lives, livelihoods, and national security.

Question: Does India need to upgrade its biosecurity measures? Explain, highlighting the challenges involved.

50 years of RRBs: A story of reform and transformation in rural India

Source: The post “50 years of RRBs: A story of reform and transformation in rural India” has been created, based on “50 years of RRBs: A story of reform and transformation in rural India” published in “Business Standard” on 16th December 2025.

UPSC Syllabus: GS Paper-3- Indian Economy

Context: Regional Rural Banks (RRBs) were established in 1975 to promote financial inclusion and provide affordable credit to rural and semi-urban populations, especially small and marginal farmers, artisans, and rural entrepreneurs. Over the last five decades, RRBs have emerged as a critical pillar of India’s rural credit system.

Role of RRBs in Rural Development

1. **Financial Inclusion:** RRBs have provided first-time access to formal banking for millions of rural households, reducing dependence on informal moneylenders.
2. **Support to Agriculture and MSMEs:** A large share of RRB lending is directed towards agriculture, allied activities, and small rural enterprises, supporting local livelihoods.
3. **Implementation of Government Schemes:** RRBs play a key role in schemes such as PM Jan Dhan Yojana, PMJJBY, MUDRA loans, and SHG–Bank linkage programmes.
4. **Localised Banking Model:** Locally recruited staff and region-specific operations help RRBs overcome language and cultural barriers.
5. **Recycling of Rural Savings:** High credit-deposit ratios indicate that local deposits are reinvested in local development.

Reforms and Transformation Over Time

1. RRBs have undergone multiple phases of consolidation to address inefficiencies and improve scale.
2. The number of RRBs has reduced from 196 in 2005 to 28 at present.
3. Technological upgrades such as Core Banking Solutions, digital payments, and RuPay cards have modernised operations.
4. Periodic recapitalisation has improved capital adequacy and profitability.

Challenges Faced by RRBs

1. **Competition from Commercial Banks and Fintechs:** Increased rural penetration by public and private sector banks has reduced RRBs' traditional niche.
2. **Governance Constraints:** Sponsor bank influence sometimes limits autonomy and slows decision-making.
3. **Asset Quality Issues:** Dependence on agriculture exposes RRBs to climate risks and income volatility, leading to NPAs.
4. **Limited Product Diversification:** RRBs largely rely on traditional credit products and struggle to attract bulk deposits.
5. **Technology and Skill Gaps:** While digitisation has improved, advanced analytics and AI-based credit assessment are still limited.

Way Forward

1. A **National Rural Bank Holding Company** can be created as an apex body to oversee governance, capital support, and technology integration across RRBs.
2. RRBs should adopt **data analytics and AI-driven credit scoring** to improve lending efficiency.
3. **Fintech collaborations** can help expand microcredit and digital financial services.
4. Continued **recapitalisation and capacity-building** is needed to improve resilience.
5. Modernisation should preserve the core values of proximity, trust, and empathy in rural banking.

Conclusion: As RRBs complete 50 years, they remain central to India's financial inclusion and rural development agenda. While consolidation and digitisation have strengthened their foundations, sustained reforms in governance, technology, and business models are essential to ensure their relevance in a competitive, digital-first financial ecosystem.

Question: As Regional Rural Banks (RRBs) complete 50 years, critically examine their role in rural development and the challenges they face. Suggest reforms for their future relevance.