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Features :

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What the eMudhra fiasco means to users, investors

Source: The post **"What the eMudhra fiasco means to users, investors"** has been created based on **"What the eMudhra fiasco means to users, investors"** published in "**Business Line**" on 24th October 2026.

UPSC Syllabus: GS 3– Science and technology

Context: eMudhra is a Bengaluru-based company providing Digital Signature Certificates (DSCs), website security certificates, electronic signatures (eSign) and digital identity management solutions. In October 2026, a serious security lapse involving its digital cryptographic keys raised concerns about the reliability of digital trust infrastructure.

About eMudhra

1. It is an Indian digital trust company for providing digital certificates and identity verification services to ensure secure online transactions.
2. It is India's largest certifying authority in the digital signature certificate market. It was founded in 2008.
3. It is listed by India's Controller of Certifying Authorities (CCA) under the Information Technology Act, 2000.
4. It is also associated with Aadhaar-linked electronic know-your-customer (e-KYC) services.
5. It issues digital signature certificates, provides electronic signing services and supplies technology for authenticating online identities and securing digital transactions.

Nature of the security breach

1. On April 30, 2025, an error in a computer script used to transfer security keys resulted in the creation and publication of weak private keys belonging to eight intermediate certificate authorities.
2. The weakness remained undetected for nearly 18 months until an independent security researcher discovered it in October 2026.
3. The compromised keys could potentially be used to issue fraudulent website certificates or make malicious software appear to originate from a trusted source.
4. Google and Mozilla responded by blocking the affected certificates, while Google announced plans to stop trusting a related root certificate authority from October 27, 2026.
5. As of October 22, 2026, no confirmed exploitation of the affected keys to steal information had been reported.

Implications for users and investors

1. **Cybersecurity risks:** Fraudulent certificates could enable website impersonation, interception of internet communications and theft of sensitive information.
2. **Limited confirmed damage:Investor confidence:** eMudhra shares fell around 36% over two trading sessions, reflecting concerns about reputational damage and future business prospects.
3. **Business impact:** The affected global SSL/TLS certificate business contributed approximately 1% of revenue. The company announced its decision to exit this business, while its Indian DSC and eSign operations remained unaffected.
4. **Uncertain outlook:** Investigations, regulatory developments and customer confidence will determine the long-term impact on earnings.

Measures to strengthen digital security

1. Organisations must follow rigorous procedures for generating, transferring, storing and auditing private keys.
2. Regular independent security audits and continuous monitoring should be undertaken to detect vulnerabilities at an early stage.
3. Businesses should replace affected certificates and update security-sensitive applications wherever necessary.
4. Users should keep browsers and devices updated, verify website addresses and never bypass browser security warnings.
5. Regulatory oversight and incident-response mechanisms should be strengthened to ensure accountability among trusted certificate authorities.

Conclusion: The eMudhra incident highlights that digital security depends on the reliability of trusted institutions as much as on individual precautions. Stronger cybersecurity standards, timely vulnerability detection and effective incident response are essential for maintaining trust in India's digital ecosystem.

Question: What does the eMudhra security breach reveal about the vulnerabilities of digital infrastructure? Discuss its implications for users and investors and suggest measures to strengthen digital security.

Source: Business Line

This isn't the UN we need

Source: The post **"This isn't the UN we need"** has been created based on **"This isn't the UN we need"** published in "**Times of India**" on 24th October 2026.

UPSC Syllabus: GS 2- International Relations

Context: The United Nations (UN) was established with the aims to maintain international peace and security, promote cooperation and protect human rights. However, its effectiveness and representativeness have increasingly been questioned due to geopolitical rivalries, unequal decision-making and the inability to address several global conflicts.

About the United Nations

1. The United Nations (UN) was established in 1945.
2. It is an international organisation **comprising 193 member states, established to prevent future wars and promote collective security.**
3. Its **six principal organs include the General Assembly, Security Council, Economic and Social Council, International Court of Justice, Secretariat and Trusteeship Council.**
4. The **Security Council has primary responsibility for maintaining international peace and security.** It consists of 15 members, including five permanent members—China, France, Russia, the United Kingdom and the United States—with veto power.
5. The UN also **contributes to humanitarian assistance, sustainable development, human rights protection and global health** through its specialised agencies and programmes.
6. Despite these contributions, its effectiveness is increasingly questioned due to geopolitical rivalries, unequal representation and difficulties in enforcing international decisions.

Major challenges faced by UN

1. **Declining Public Confidence:** Several countries, including India, have expressed dissatisfaction with the UN's performance, reflecting concerns about its effectiveness in addressing global challenges.
2. **Outdated Representation:** The composition of the UN Security Council reflects the post-Second World War power structure and does not adequately represent contemporary geopolitical realities, particularly the interests of developing countries.
3. **Veto Power:** Differences among the five permanent members of the Security Council often create political deadlocks and prevent timely action on international conflicts.
4. **Weak Enforcement Mechanisms:** The UN faces difficulties in implementing its decisions when powerful member states refuse to cooperate or comply with its resolutions.
5. **Selective Application of Principles:** Perceived differences in the treatment of powerful and weaker countries undermine the credibility of the UN and raise concerns about the equal application of international law.
6. **Limited Conflict-Resolution Capacity:** The persistence of international conflicts despite UN interventions highlights the gap between its objectives of maintaining peace and security and its ability to achieve these goals effectively.

Measures to make the UN more effective

1. **Security Council Reform:** The UN should expand both permanent and non-permanent membership of the Security Council to reflect contemporary geopolitical realities and ensure adequate representation of developing countries, including India and Africa.
2. **Veto Reform: T**he use of veto power by permanent members should be restricted, particularly in situations involving mass atrocities and serious violations of international law, to prevent political deadlocks.
3. **Greater Accountability:** The UN should ensure transparent decision-making and apply international law consistently to all member states, irrespective of their economic or military power.
4. **Stronger Implementation Mechanisms:** The UN should strengthen monitoring and compliance mechanisms to ensure that member states implement its resolutions effectively.
5. **Public Engagement:** The UN should communicate its achievements, limitations and failures transparently to rebuild public trust and strengthen its legitimacy among citizens worldwide.

Conclusion: The UN remains indispensable for global cooperation, but its legitimacy depends on meaningful institutional reform. A more representative, accountable and effective UN is essential for addressing contemporary challenges and maintaining international peace and security.

Question: "The United Nations needs reform to remain relevant in a changing world order." In the light of declining public confidence in the UN, critically examine its challenges and suggest measures to make it more effective.

Source: Times of India

Limits of satellite internet plan

UPSC Syllabus: Gs Paper 2-Science and Technology

Introduction

Satellite internet can extend broadband access to remote and underserved areas where terrestrial networks are difficult to deploy. Yet its role in India's connectivity strategy must be assessed against limited bandwidth, scarce spectrum and service costs. Although satellite networks can complement existing infrastructure, they cannot independently meet the country's mass household broadband needs. Fibre expansion therefore remains essential. It matters for realistic targets and public investment decisions.

What Is Satellite Internet?

1. **Meaning:** Satellite internet delivers internet connectivity through communication satellites, enabling access in places without direct last-mile fibre or mobile-network coverage.

2. **Working Mechanism:** A user terminal communicates with a satellite, which relays data through a ground station connected to the wider internet network.

3. **Types of Satellite Internet:** Communication satellites mainly operate in **LEO and GEO** for internet services.

   - **LEO Satellites:** LEO satellites orbit roughly 300–1,200 km above Earth. Their shorter signal path generally enables **lower latency**, making them better suited to interactive applications such as video calls and remote work.
   - **GEO Satellites:** GEO satellites orbit about 35,786 km above the equator.Their high orbit provides broad-area coverage, but the longer signal path creates **higher latency**, limiting responsiveness for some applications.

4. **Satellite Constellations:** LEO services require multiple satellites and frequent handovers to maintain coverage as satellites move across the sky.

5. **Technological Advancement:** Optical links using lasers can connect satellites and may improve inter-satellite data transmission, but they do not remove spectrum and capacity constraints.

Significance of Satellite Internet

1. **Bridging the Digital Divide:** Around **40% of the global population** lacks efficient internet access, while rural communities often face weak connectivity and limited broadband infrastructure.

2. **Connecting Remote Communities:** Satellite links can serve hill hamlets, forest check posts and border posts beyond economical fibre reach, including locations around **40 kilometres from fibre**.

3. **Supporting Maritime Connectivity:** Ships and trawlers can access internet services in areas where terrestrial networks cannot provide direct connectivity.

4. **Enabling Rural Enterprises:** Reliable broadband can help businesses process real-time data, respond to market or customer changes and strengthen cybersecurity monitoring.

5. **Supporting Remote Work:** Satellite connections can provide underserved workers access to cloud applications and corporate resources, making remote work more practical.

6. **Reaching Underserved Locations Quickly:** LEO networks can be deployed comparatively quickly in remote areas, providing interim connectivity while terrestrial infrastructure is expanded.

Limitations of Satellite Internet

1. **Limited National Capacity:** Starlink's Gen1 constellation has a reported potential throughput of approximately **600 Gbps over the entire Indian territory**, highlighting its limited capacity relative to mass broadband demand.

2. **Limited Simultaneous Connections:** At **10 Mbps per household**, this capacity could theoretically support around **60,000 simultaneous connections** across India, before accounting for network overhead and other demands.

3. **Subscriber Limitations:** Assuming a **20:1 sharing ratio**, the theoretical capacity could support around **12 lakh subscribers** at 10 Mbps per simultaneous connection, but peak-hour demand may affect service quality.

4. **Large Connectivity Gap:** India has **19.36 crore rural households**. Even this satellite capacity can serve only a small fraction of the country's potential household connectivity demand.

5. **Spectrum Scarcity:** Radio spectrum is finite and internationally coordinated, constraining satellite capacity even as operators add spacecraft.

6. **Limited Frequency Reuse:** Mobile networks reuse frequencies across small cells, whereas satellite networks face greater constraints because their beams cover larger areas.

7. **Shared Beam Capacity:** At around **550 km altitude**, a satellite beam may cover an area roughly **20 km across**, requiring many users to share its available bandwidth.

8. **Operator Coordination:** Constellations must coordinate spectrum use to reduce interference. More providers can improve competition and redundancy, but do not multiply available bandwidth.

9. **Cost Constraints:** Limited bandwidth and high service costs can restrict affordability, making satellite internet less suitable for mass household connectivity.

Satellite Internet vs Fibre Optic Networks

1. **Transmission Capacity:** A modern fibre route can carry **tens of terabits per second**, far exceeding the reported satellite capacity over India.

2. **Tanker vs Pipeline Analogy:** Satellite internet is like a **water tanker**, delivering limited supplies to specific locations, while fibre is like a **pipeline**, capable of carrying much larger volumes continuously.

3. **Scalability:** Fibre capacity can be expanded through network upgrades, while satellite systems face tighter constraints from spectrum, beam coverage and radio physics.

4.**Deployment:** Fibre rollout takes time and substantial investment, whereas satellite connectivity can reach remote locations more quickly.

5. Latency and Responsiveness: LEO services generally offer lower latency than GEO systems, but **fibre remains superior in capacity and latency** for broadband backbones.

6. **Ground Infrastructure:** Satellite services still rely on fibre-connected gateways, data centres and internet exchanges to connect users to the wider internet.

7. **Complementary Roles:** Fibre is better suited to mass connectivity; satellite is most valuable where terrestrial deployment is difficult or uneconomical.

Way Forward for India's Broadband Expansion

1. **Prioritise Fibre Targets:** Do not count satellite subscriptions as a substitute for household connectivity targets; retain fibre as the foundation of mass broadband expansion.

2. **Accelerate BharatNet:** Implement the cited **₹1.39 lakh crore BharatNet programme**, which targets fibre connectivity for **1.5 crore rural homes**.

3. **Support Shared Terminals:** Prioritise public terminals at village hotspots or towers, enabling **hundreds of people** to share connectivity instead of relying only on individual household dishes.

4. **Target Remote Locations:** Focus satellite support on border posts, hill hamlets, forest check posts and other areas where fibre cannot be deployed economically.

5. **Use Targeted Subsidies:** Direct public assistance towards shared access and underserved communities rather than broadly subsidising individual terminals that consume scarce capacity.

6. **Strengthen Ground Links:** Develop fibre-connected gateways and supporting data infrastructure, since satellite connectivity still depends on terrestrial links to reach the internet.

7. **Set Realistic Investment Expectations:** Model satellite businesses around a **limited, high-value subscriber base**, plausible margins and capacity ceilings rather than mass-market mobile-broadband assumptions.

8. **Recognise Enterprise Competition:** LEO services may pressure established VSAT providers through latency and pricing, while satellite backhaul can also help connect difficult tower locations.

Conclusion

Satellite internet can extend connectivity to remote areas, but limited bandwidth and spectrum prevent it from meeting India's mass household needs. Fibre should remain the backbone of broadband expansion, with satellites complementing it where terrestrial rollout is uneconomical. India should accelerate BharatNet and prioritise shared terminals and targeted support for underserved locations.

Question for practice:

Discuss the potential and limitations of satellite internet in expanding broadband connectivity in India, and explain why fibre optic networks remain essential.

Source: Businessline

Rethinking the defence PSU model

UPSC Syllabus: Gs Paper 3- changes in industrial policy and their effects on industrial growth.

Introduction

India's ordnance factories have long supported **defence preparedness** through specialised manufacturing and technical expertise. In **October 2021**, the government corporatised **41 factories** under the Ordnance Factory Board (OFB) into **seven Defence Public Sector Undertakings (DPSUs)** to improve efficiency, competitiveness and quality. Despite reported profits and export growth, concerns remain over accounting, strategic manufacturing, technological self-reliance and governance. The central question is whether **commercial efficiency serves defence sovereignty**.

Evolution of India's Ordnance Factories

1. **Strategic Importance:** Ordnance factories have supported India's defence preparedness by manufacturing weapons, ammunition, equipment and other essential military supplies.
2. **Specialised Expertise and Strategic Manufacturing:** Ordnance factories developed expertise in metallurgy, chemicals and ballistics, functioning as Original Equipment Manufacturers (OEMs) for critical defence products and earning the reputation of the 'Fourth Arm' of defence.

3. **Corporatisation of OFB:** In October 2021, the government corporatised 41 ordnance factories under the Ordnance Factory Board (OFB) into seven Defence Public Sector Undertakings (DPSUs) to improve efficiency, competitiveness and product quality.
4. **Seven New DPSUs:** The restructuring created:
    - Munitions India Limited (MIL)
    - Armoured Vehicles Nigam Limited (AVNL)
    - Advanced Weapons and Equipment India Limited (AWEIL)
    - Troop Comforts Limited (TCL)
    - India Optel Limited (IOL)
    - Gliders India Limited (GIL)
    - **Yantra India Limited (YIL)**

Performance of the New DPSU Model

1. **Reported Profitability:** Except Yantra India Limited (YIL), the newly formed DPSUs reportedly recorded profits and increased export orders, indicating some positive outcomes after corporatisation.
2. **Historical Supply Contribution:** Comptroller and Auditor General (CAG)-validated data recorded OFB supplies worth ₹20,876 crore in 2016–17, highlighting its earlier contribution to defence production.
3. **Possible Base Effect:** Revenue growth based on the pandemic-disturbed Financial Year (FY) 2019–20 baseline may exaggerate the apparent improvement in the DPSUs' financial performance.
4. **Accounting Changes and Reported Turnover:** Inter-factory transfers, earlier treated as internal transactions, are now recorded as commercial sales, potentially increasing aggregate turnover without a proportionate rise in physical output.

Key Issues and Concerns in Defence Corporatisation

1. **Commercial Metrics and Long-Term Investment:**
    - Greater emphasis on Earnings Before Interest, Taxes, Depreciation and Amortisation (EBITDA) may encourage short-term returns, potentially affecting modernisation, Research and Development (R&D) and investment in complex defence technologies.
    - The shift from user satisfaction and operational reliability towards EBITDA may prioritise short-term returns over modernisation and long-term research and development.
2. **Declining Public-Sector OEM Role:** Private firms may secure prime contracts using foreign designs and technology transfers, while public factories undertake subcontracted manufacturing, weakening their Original Equipment Manufacturer (OEM) capabilities.
3. **Uneven Distribution of Strategic Risks and Gains:** Private entities may retain commercial benefits from defence contracts, while public factories undertake hazardous and strategically important manufacturing activities.
4. **Intellectual Property and Sovereign Knowledge:** Technology transfers and collaboration may expose valuable public-sector expertise, requiring IP safeguards and fair public value retention.
5. **Limits of Export-Led Self-Reliance:** Exports concentrated in semi-finished components, castings and foundational chemicals may not translate into greater exports of complete defence platforms.
6. **Leadership Vacancies and Appointment Delays:** Defence Public Sector Undertakings (DPSUs), including Bharat Electronics Limited (BEL), Bharat Dynamics Limited (BDL), BEML Limited and Mazagon Dock Shipbuilders Limited (MDL), have faced leadership vacancies. Selection delays, changing criteria and administrative clearances can affect institutional continuity.

7. **Implications for Critical Defence Projects:** MDL's prolonged leadership vacancy raised concerns during preparations for the Project 75 India (P-75I) submarine project, highlighting the importance of timely appointments in strategic defence institutions.

Way Forward

1. **Adopt Strategic Performance Indicators:** Evaluate DPSUs through operational reliability, equipment quality, indigenous technology and user satisfaction, alongside financial indicators.
2. **Assess Actual Production:** Separate accounting changes and inter-factory transactions from genuine increases in physical production and value addition.
3. **Strengthen Modernisation and R&D:** Ensure sustained investment in research, advanced manufacturing capabilities and long-term technological development.
4. **Preserve Indigenous Manufacturing Capabilities:** Strengthen public-sector OEM capabilities and ensure that strategic production knowledge remains available within India.
5. **Protect Intellectual Property:** Establish clear safeguards for technology transfers, public-sector expertise and fair sharing of commercial benefits.
6. **Reform Leadership Appointments:** Ensure timely Public Enterprises Selection Board (PESB) selections, stable eligibility criteria and faster administrative clearances to strengthen institutional continuity.
7. **Rationalise ACC Approval Processes:** Consider appropriate delegation of appointment powers by the Appointments Committee of the Cabinet (ACC), while retaining necessary accountability and oversight.

Conclusion

Corporatisation should be judged not only by **profits, turnover and exports**, but also by **reliable equipment, indigenous technology and manufacturing depth**. Better accounting, protected expertise, sustained modernisation and timely leadership appointments can strengthen the DPSUs. **Commercial discipline must support India's long-term defence preparedness and sovereignty**, rather than displace these strategic goals.

Question for practice:

Examine the impact of corporatisation of India's ordnance factories on defence preparedness, indigenous manufacturing and strategic autonomy.

Source: Businessline ; The print

Cost of Fertiliser Imbalance in India

Source: The post **"Cost of Fertiliser Imbalance in India"** has been created based on **"Cost of Fertiliser Imbalance in India"** published in "Financial Express" on 26th October 2026.

UPSC Syllabus: GS 3: Indian Economy

Context: The Union Agriculture Minister, Shivraj Singh Chouhan, launched the Khet Bachao Abhiyan on October 22, 2026, in Karnal, Haryana, to promote balanced fertiliser use during the rabi season. However, the existing fertiliser pricing and subsidy policies continue to encourage excessive nitrogen use and inadequate application of phosphorus and potassium.

Present Status of Fertiliser Imbalance

1. Nitrogen use has increased from 7% below the recommended level in 2009–10 to 6% above it in 2024–25.

2. The phosphorus deficit has narrowed from 29% to 22%, while the potassium deficit has widened from 48% to 72%.
3. Farmers apply only 9 kg of potash per hectare against the recommended requirement of 32 kg.
4. The national NPK ratio stands at 10.5:4.1:1, compared with the recommended ratio of 2.8:1.5:1.
5. Eleven of the 20 major states overuse nitrogen, with Jharkhand and Punjab recording excessive use of 72% and 65%, respectively. Every state underuses potash.

Major Causes

- **Distorted pricing policy:** The Nutrient-Based Subsidy (NBS) scheme, introduced in 2010, allowed phosphatic and potassic fertiliser prices to fluctuate with global markets, while urea remained under price control.
- **Rising relative prices:** Between 2010–11 and 2024–25, DAP prices nearly trebled to ₹54/kg and MOP prices rose six-fold to ₹52/kg, whereas the price of nitrogen in urea increased by only 1%.
- **Visible benefits of urea:** Nitrogen makes crops appear greener, while the effects of potassium deficiency are less immediately visible.
- **Distorted cropping incentives:** Minimum Support Price (MSP)-based procurement and subsidised electricity encourage the rice-wheat cropping cycle, particularly in Punjab and Haryana.

Consequences of Imbalanced Fertiliser Use

1. **Soil degradation:** Of the 96 lakh soil samples tested under the Soil Health Card scheme in 2025–26, 72% were low in nitrogen, 52% in organic carbon, 42% in boron and 37% in zinc.
2. **Environmental pollution:** Crops absorb only 30–40% of applied nitrogen. Some of the remainder escapes as nitrous oxide, a greenhouse gas 273 times as potent as carbon dioxide, while some leaches into groundwater.
3. **Public health risks:** Nitrate contamination above safe limits has been found in parts of 502 districts, posing risks such as blue baby syndrome in infants and chronic illnesses in adults.
4. **Declining crop resilience:** Potassium deficiency reduces drought and disease resistance and grain quality, while phosphorus deficiency delays flowering.
5. **Hidden hunger:** Micronutrient-deficient soils produce nutrient-poor grains, contributing to micronutrient deficiencies among people.
6. **Fiscal burden and regional inequality:** Against a fertiliser subsidy budget of ₹1.71 lakh crore for 2026–27, the disruption in the Strait of Hormuz could raise the bill to ₹2.5 -- 3 lakh crore. Punjab receives approximately ₹25,700 per hectare in nitrogen subsidy, nearly ten times Kerala's allocation.

Way Forward

1. **Reform fertiliser subsidies:** Introduce a nutrient-neutral, per-hectare Direct Benefit Transfer (DBT) system. Alternatively, bring urea under NBS and reduce DAP and MOP prices in a calibrated manner, keeping the overall subsidy budget around ₹2 lakh crore.
2. **Strengthen PM-PRANAM:** Reform and implement the scheme to reward states for reducing fertiliser use and promoting balanced nutrient application.
3. **Promote efficient technologies:** Reinvest subsidy savings in drip irrigation, fertigation, customised and coated fertilisers, triple super phosphate as an alternative to DAP, biofertilisers, nano fertilisers and nitrogen-efficient gene-edited seeds.
4. **Adopt the 4Rs:** Encourage the right source, right rate, right time and right place of fertiliser application through plot-level recommendations based on soil tests.

5. **Diversify cropping patterns:** Rotate cereals with pulses to reduce the nitrogen requirement of the subsequent crop by 20–30%.
6. **Address structural distortions:** Reform electricity pricing and procurement policies in Punjab and Haryana and improve the identification of tenant farmers through AgriStack and digital land records.

Conclusion: India must shift its focus from the quantity of fertilisers consumed to the balance of nutrients applied. Rationalising subsidies, improving soil health and promoting sustainable farming practices are essential to protect agricultural productivity, public health, fiscal stability and long-term food security.

Question: Imbalanced fertiliser use in India has emerged as a serious challenge to soil health, environmental sustainability and agricultural productivity. Examine the causes and consequences of this imbalance and suggest suitable measures to address it.

Source: Financial Express

Old values, new avenues: On India-Poland ties

Source: The post **"Old values, new avenues: On India-Poland ties"** has been created based on **"Old values, new avenues: On India-Poland ties"** published in "The Hindu" on 26th October 2026.

UPSC Syllabus: GS 2: International Relations

Context: India and Poland share historical goodwill and growing economic interests. The recent visit of Polish Prime Minister Donald Tusk to Delhi and Bengaluru reflects a renewed commitment to strengthen bilateral relations amid changing geopolitical circumstances and progress in the India–European Union Free Trade Agreement (FTA).

Major Areas of Cooperation

1. **Trade and investment:** Bilateral trade currently stands at approximately $6 billion, with both countries aiming to double it by 2030.
2. **Economic partnership:** Poland, the EU's sixth-largest economy, has crossed the $1 trillion nominal GDP milestone and possesses a technology economy worth around $120 billion.
3. **Technology and manufacturing:** Cooperation in artificial intelligence, advanced technology, machinery and mining technology can strengthen industrial collaboration, including trilateral manufacturing partnerships involving Germany.
4. **Defence cooperation:** Both countries agreed to establish a Defence Industry Dialogue and explore greater cooperation in defence production and counter-terrorism.
5. **Energy and critical minerals:** Poland's expertise and India's large-scale industrial capacity create opportunities in renewable energy, nuclear energy and critical minerals.
6. **Geopolitical cooperation:** Both sides discussed the Ukraine war, grain exports and the safety of seafarers. Poland also supported India's four-pronged initiative for addressing related concerns, announced by External Affairs Minister S. Jaishankar during his September visit to Warsaw.

Major Challenges

1. **Divergent defence partnerships:** India maintains a longstanding strategic partnership with Russia, whereas Poland has defence ties with Pakistan, including a defence cooperation agreement signed in 2018.

2. **Trust deficit:** Differences over India's military engagement and exercises with Russia have created diplomatic friction.
3. **Geographical distance:** Physical distance and different regional priorities can increase the costs of business and strategic cooperation.
4. **Implementation gap:** Translating signed memoranda of understanding (MoUs) and diplomatic discussions into actual joint ventures remains a major challenge.
5. **Confidentiality concerns:** Negotiations on protecting classified information must be completed to enable deeper defence cooperation.

Way Forward

1. **Strengthen economic engagement:** Finalise and leverage the India–EU FTA to expand trade, investment and market access.
2. **Promote joint ventures:** Encourage business-to-business partnerships in technology, machinery, manufacturing and mining.
3. **Institutionalise defence cooperation:** Establish the proposed Defence Industry Dialogue and complete arrangements for the secure exchange of classified information.
4. **Respect strategic autonomy:** Both countries should acknowledge each other's independent foreign policy choices and avoid allowing third-country relationships to dominate bilateral engagement.
5. **Expand multilateral cooperation:** Work together on counter-terrorism, energy security, critical minerals and the humanitarian consequences of the Ukraine conflict.

Conclusion: India and Poland have no fundamental conflict of interest, but their respective relationships with Russia and Pakistan create strategic sensitivities. By building trust, implementing economic agreements and respecting each other's strategic autonomy, both countries can transform their historical goodwill into a durable and mutually beneficial partnership.

Question: India and Poland share significant opportunities for cooperation, but geopolitical differences continue to constrain their bilateral relationship. Discuss the potential areas of cooperation and the challenges in strengthening India–Poland ties.

Source: The Hindu

Questions Arising Out of PHP Breach

UPSC Syllabus: Gs Paper 3- Cyber security

Introduction

Cybersecurity has relied on measures such as firewalls, timely patching and employee training to prevent attacks. However, artificial intelligence (AI) is reducing the time, cost and expertise required to discover and exploit weaknesses. The PHP2Shell vulnerabilities exposed millions of internet-facing systems to potential remote attacks, highlighting risks to digital infrastructure. The incident raises questions about AI's dual-use potential, India's preparedness and the need to strengthen cyber resilience.

What Is PHP and Why Are Its Vulnerabilities a Global Concern?

1. **Meaning of PHP: PHP (Hypertext Preprocessor)** is a **free, open-source scripting language** that processes website functions such as logins, application submissions and online purchases.

2. Origin: PHP originated as Personal Home Page Tools and was created by Rasmus Lerdorf in 1994. Its source code was publicly released in 1995.

3. Management: The PHP Foundation supports development and maintenance, but does not control PHP language decisions. Those remain with the PHP Internals community through its RFC (Request for Comments) process.

4. **Global Dependence: Around 70%** of websites with identifiable server-side languages use PHP, making its vulnerabilities a widespread concern. WordPress, which powers **over 40%** of websites globally, also uses PHP.
5. **PHP2Shell: PHP2Shell** refers to **two critical vulnerabilities** in PHP that could allow attackers to execute malicious code on affected web servers remotely without logging in.
    - **Two vulnerabilities:**
        - **Memory problem:** When an **error interrupts a process, PHP may treat incomplete information as valid,** creating a security weakness.
        - **Leftover information:** PHP **may use information left from an earlier request while processing a new request**, causing incorrect handling**.**
6. **Severity and Exposure:** The vulnerabilities received a severity rating of **9.2/10**. **Over 22.6 million internet-exposed instances** worldwide could be vulnerable.
7. **Potential Risks:** Attackers could **install malware**, remove website content, **access sensitive information**, including passwords and login credentials, and **disrupt server operations**.
8. **Security Fixes:** The PHP Foundation released **security patches** and urged **immediate installation**. If affected systems cannot be secured promptly, cyber agencies advise **temporarily taking websites offline**.
9. **Difficulty of Fixing:** Small website owners, shared hosting users and older systems may **struggle to identify PHP installations and apply updates**. Compatibility, performance and third-party extensions can further **complicate upgrades**.

How Did AI Contribute to the Discovery of PHP Vulnerabilities?

1. **Faster Vulnerability Detection:** AI models can scan software code and identify weaknesses that human researchers might take **months or years** to discover.
2. **Role of AI Research:** The PHP Foundation worked with **Anthropic's frontier model** to scan its code. PHP was also included in **OpenAI's Patch the Planet programme**.
3. **Independent Discovery:** OpenAI's programme identified the vulnerabilities **around the same time as a researcher**, demonstrating AI's potential to support cybersecurity research.
4. **Responsible Disclosure:** Disclosure was initially embargoed **until 22 October** to **allow websites time to apply fixes**. It was advanced after vulnerability details began circulating.
5. **Exploitation Attempt:** Amazon Threat Intelligence identified an exploitation attempt dating **four days before public disclosure**. However, how the actor obtained the information **remained unclear**.
6. **Dual-Use Nature of AI:** AI can help **defenders** discover vulnerabilities and coordinate protections. However, **attackers** can also use it to identify and exploit weaknesses.

Why Are Indian Organisations Particularly Concerned?

1. **Legacy System Exposure: Banks, telecom companies, power utilities** and consumer applications using **older PHP 5 and 7 versions** face challenges where official fixes are unavailable.
2. **Delayed Modernisation:** Security patching across affected systems could continue **until 2027**, **increasing exposure** where upgrades and mitigation remain incomplete.
3. **Government Website Security:** Government agencies are applying patches and following **CERT-In advisories**. **No government website disruptions had been reported**.
4. **Ownership and Accountability:** Older government websites often depend on vendors, hosting providers or state data centres, creating **uncertainty over server ownership and responsibility**.
5. **Financial Sector Preparedness:** Banks are auditing applications, taking some non-critical services offline and preparing **backup channels** to maintain customer transactions during possible disruptions.
6. **Digital Infrastructure Exposure:** India's **interconnected digital ecosystem** requires careful risk assessment. However, major DPI platforms such as **Aadhaar, GSTN, UPI and MCA21** were reported to operate on other technology stacks.

What Are the Emerging Cybersecurity Risks and Why Is Traditional Defence Inadequate?

1. **Attackers' Advantage:** Attackers need only **one exploitable weakness**, while defenders must secure **thousands of interconnected systems**, applications and interfaces.
2. **Shrinking Response Windows:** Some vulnerabilities can be weaponised **within 24 hours**, whereas organisations take an average of **55 days** to fix them.
3. **Coordinated Financial Fraud:** AI agents could potentially **coordinate mule accounts**, transfer stolen funds across institutions and alter transaction patterns to **evade conventional fraud detection**.
4. **Smartphone Malware:** AI-assisted malware could **imitate legitimate user behaviour**, manipulate payment applications and **adapt to security checks**, challenging static security rules.
5. **Systemic Infrastructure Risks:** Attacks on shared technology providers, payment infrastructure or critical services could **disrupt multiple institutions** because of **interconnected dependencies**.
6. **Uncontrolled AI Permissions:** AI agents using **shared credentials** to access customer accounts raise concerns about distinguishing **customer-authorised actions** from independently initiated activities.
7. **Wider Economic Consequences:** Attacks on banking, telecommunications, energy, healthcare and public services could threaten **economic resilience and national security**.

Way Forward

1. Adopt an Assume-Breach Approach: Organisations must prepare for possible breaches by strengthening prevention, detection, containment and recovery.

2. Strengthen Network-Level Detection: Financial institutions should identify coordinated patterns across accounts, devices, merchants and institutions instead of examining individual transactions alone.

3. Enable Secure Intelligence Sharing: Banks should develop privacy-protecting intelligence-sharing mechanisms to detect threats across the financial network.

4. Redesign AI Permissions: AI agents should operate with clear permissions, accountability and controls, avoiding unlimited authority through legitimate customer credentials.

5. Improve Board-Level Oversight: Boards should assess detection, containment, operational continuity and recovery capabilities, beyond cybersecurity spending.

6. Strengthen Institutional Coordination: Governments, regulators, financial institutions and critical infrastructure operators must coordinate cybersecurity responses to protect essential services.

7. Identify Vulnerable Systems and Clarify Responsibility: Organisations must identify PHP installations, establish system ownership and define responsibilities among IT teams, vendors, hosting providers and data centres.

8. Prioritise Patching and Mitigation: Organisations should urgently apply available security patches and use vendor fixes, distribution backports or migration to supported versions. Systems that cannot be secured immediately may require temporary shutdown.

9. Strengthen Monitoring and Operational Continuity: Security teams should monitor unusual activity, command execution and unauthorised access. Banks should maintain alternative channels and backups to sustain essential transactions.

10. Use AI for Cyber Defence: Organisations should use AI-powered tools to identify vulnerabilities earlier, improve threat monitoring and accelerate security responses.

Conclusion

The PHP2Shell incident highlights how AI is reshaping cybersecurity by accelerating vulnerability discovery and widening risks. India must combine timely patching and clear accountability with stronger detection, containment and recovery. Coordinated action by governments, regulators and organisations, alongside controlled AI permissions and defensive AI tools, is essential to protect critical digital services.

Question for practice:

Discuss the emerging cybersecurity risks posed by AI, with special reference to the PHP2Shell vulnerabilities and measures to strengthen India's cyber resilience.
Source: Businessline

Soil Health in India Challenges and the Way Forward

UPSC Syllabus: Gs Paper 3- Agriculture

Introduction

Soil health is essential for agricultural productivity, food security, environmental sustainability and human nutrition. However, **imbalanced fertiliser use, unsustainable farming practices and declining soil biological health** are weakening India's agricultural foundation. Despite the Nutrient-Based Subsidy (NBS) reform introduced in 2010, nutrient imbalance has worsened, highlighting the need for better fertiliser policies and sustainable soil management.

Present Status of Soil Health in India

1. **Worsening Nutrient Imbalance:** India's nitrogen (N): phosphorus (P): potassium (K) ratio stands at **10.5:4.1:1**, against the derived normative ratio of **2.8:1.5:1**, reflecting highly imbalanced nutrient application.
2. **Excessive Nitrogen Application:** Nitrogen use has shifted from **7% below** recommended doses to **6% above** them, while **11 of 20 major states** overuse nitrogen, led by **Jharkhand (72%)** and **Punjab (65%)**.
3. **Widening Potassium Deficiency:** The potassium deficit has increased from **48% to 72%**, with farmers applying only **9 kg per hectare** against the recommended **32 kg**.
4. **Persistent Phosphorus Deficiency:** The phosphorus deficit has narrowed only from **29% to 22%**, showing that nutrient-based pricing has not ensured balanced fertiliser application.
5. **Widespread Soil Nutrient Deficiencies:** Among **96 lakh soil samples** tested under the Soil Health Card scheme in 2025-26, **72%** were low in nitrogen, **52%** in organic carbon, **42%** in boron and **37%** in zinc.
6. **Neglected Biological Health:** Soil monitoring mainly focuses on nutrients, while **microbial communities and biological functions** remain largely unmeasured, limiting a complete assessment of soil health.

Major Challenges Affecting Soil Health

A. Imbalanced Fertiliser Use and Pricing Policy

1. **Distorted Fertiliser Pricing:** NBS (Nutrient Based Subsidy) allowed phosphatic and potassic fertiliser prices to fluctuate with global markets but **kept urea prices fixed**, encouraging excessive nitrogen use.
2. **Rising Relative Fertiliser Costs:** Between 2010-11 and 2024-25, DAP (Diammonium Phosphate) prices nearly tripled to **₹54/kg** and MOP (Muriate of Potash) rose six-fold to **₹52/kg**, while nitrogen prices in urea increased by **only 1%**.

B. Unsustainable Agricultural Practices

4. **Degradation of Soil Ecosystems:** Indiscriminate pesticide and agrichemical use, crop-residue burning, monocropping and dependence on high-yielding varieties **disturb natural soil communities and plant microbiomes**.
5. **Loss of Soil Organic Matter: Poor organic matter recycling** and excessive tillage weaken soil conditions, while **soil compaction** caused by mechanisation further affects soil functioning.
6. **Low Nutrient Use Efficiency:** Crops absorb only **30-40% of applied nitrogen** and **15-20% of phosphorus**, while unhealthy soil biology further limits nutrient availability and uptake.

C. Weak Monitoring and Institutional Support

7. **Limited Biological Testing Capacity:** Existing soil laboratories mainly test nutrients and **lack the infrastructure and expertise** to measure biological functions, restricting comprehensive soil health monitoring.
8. **Weak Policy Implementation:** Existing policies promoting non-chemical farming have achieved limited progress, while centralised soil testing **has not sufficiently changed fertiliser use, cropping patterns or farmer decisions**.

Implications of Declining Soil Health

1. **Environmental Pollution:** Excess nitrogen escapes into the atmosphere as nitrous oxide, a greenhouse gas **273 times as potent as carbon dioxide**, while nitrate leaching contaminates groundwater.

2. **Human Health Risks:** Nitrate levels above safe limits have been found in parts of **502 districts**, increasing the risk of **blue baby syndrome** in infants and chronic illnesses in adults.
3. **Declining Crop Productivity and Quality:** Potassium deficiency **weakens drought and disease resistance** and **reduces grain quality**, while phosphorus shortage **delays flowering** and affects crop development.
4. **Nutritional Insecurity:** Zinc and other micronutrient deficiencies reduce grain nutritional quality, contributing to **hidden hunger**, micronutrient deficiencies, **stunting and wasting** among children.
5. **Rising Fiscal Burden:** The fertiliser subsidy budget is **₹1.71 lakh crore** for 2026-27, potentially rising to **₹2.5-3 lakh crore** due to Strait of Hormuz disruptions, with urea accounting for **two-thirds**.
6. **Unequal Subsidies and Resource Pressure:** Punjab receives approximately **₹25,700 nitrogen subsidy per hectare**, **ten times Kerala's benefit**, while MSP-based procurement and subsidised power reinforce rice-wheat cultivation and increase pressure on aquifers.
7. **Farmer Livelihood Concerns:** Poor nutrient uptake increases dependence on fertilisers, while healthier soil biology can **improve yields, reduce input requirements** and support better farmer livelihoods.

Way Forward: Towards Sustainable Soil Management

A. Reform Fertiliser Subsidies and Incentives

1. **Introduce Nutrient-Neutral Support:** Shift from input price subsidies to **per-hectare direct benefit transfers**, neutral across nutrients and crops, so farmers face market prices **without urea's artificial price advantage**.
2. **Ensure Practical Subsidy Transition:** If direct transfers seem too abrupt, **bring urea under NBS** while reducing DAP and MOP prices proportionately, keeping the overall subsidy budget around **₹2 lakh crore**.
3. **Strengthen Digital Fertiliser Delivery:** Link **AgriStack farmer IDs**, land records and crops sown with fertiliser sales through the Framework for Fertiliser Sale (FFS), while addressing **tenant identification challenges**.
4. **Reward Balanced Fertiliser Use:** Fix and expedite **PM-PRANAM**, which aims to reward states for balanced fertiliser consumption, as **no disbursements** have been made so far.
5. **Set Measurable Reduction Targets:** Establish state-level goals to reduce chemical fertiliser use by **25-30% over five years**, supported by monitoring and financial incentives for sustainable farming transitions.

B. Improve Soil Management and Nutrient Efficiency

6. **Follow the 4Rs Principle:** Apply the **right source, rate, time and place** of fertilisers through plot-level soil testing and crop-specific recommendations to improve nutrient management.
7. **Promote Crop Diversification:** Rotate cereals with pulses to reduce the next crop's nitrogen requirement by **20-30%**, while improving crop diversity and supporting healthier soil systems.
8. **Adopt Soil-Friendly Farming:** Reduce excessive tillage, stop puddling of rice, improve organic matter recycling and promote **cover crops, mulching and intercropping** to maintain **living roots** and microbial communities.
9. **Promote Efficient Irrigation:** Redirect fertiliser subsidy savings towards **drip irrigation and fertigation** to improve resource efficiency and support sustainable nutrient application.

C. Strengthen Monitoring and Innovation

10. **Integrate Biological Health Monitoring:** Include soil biological parameters in **routine national monitoring**, using affordable dehydrogenase and urease tests costing **₹100-200 per test**.
11. **Develop Farmer-Friendly Testing:** Promote **simple, visual, real-time point-of-care soil tests**, while improving validation, accuracy, awareness and farmer adoption.
12. **Support Region-Specific Biofertilisers:** Encourage decentralised biofertiliser production and develop **locally adapted microbial formulations** suited to regional soils, crops and growing conditions.
13. **Encourage Fertiliser Innovation:** Support customised and coated fertilisers, **triple super phosphate (TSP)** as an alternative to DAP, nano fertilisers and gene-edited seeds that **use nitrogen efficiently**.

D. Align Agricultural Policies

14. **Reform Procurement and Power Pricing:** Reform **MSP-based procurement and electricity pricing** in Punjab and Haryana to reduce the policy incentives that sustain rice-wheat cultivation and excessive resource use.
15. **Support Sustainable Farming Transitions:** Redirect financial support towards farmers adopting organic and natural farming, using an **area-based approach** supported by knowledge, training and financial assistance.

Conclusion

India must shift its focus from the quantity of fertilisers applied to **balanced nutrient supply and overall soil health.** Integrating biological monitoring, sustainable farming, subsidy reforms and farmer support can improve productivity and nutrition while reducing environmental damage. Timely reforms in fertiliser pricing, procurement and power policies are essential to protect soil resources and ensure long-term food security.

Question for practice:

Examine the major challenges of soil health in India and suggest suitable measures to address them.
Source: Indian Express; Downtoearth

India's power dilemma: Surplus during the day, deficits at night

Source: The post **"India's power dilemma: Surplus during the day, deficits at night"** has been created based on **"India's power dilemma: Surplus during the day, deficits at night"** published in "Indian Express" on 27th September 2026.

UPSC Syllabus: GS-3- Indian Economy

Context: India's power sector has transitioned from persistent electricity shortages to a situation of surplus generation during solar hours and deficits at night. This reflects the rapid expansion of installed capacity, particularly renewable energy, but also creates new challenges for grid management.

Reasons for the changing power scenario

1. Rapid growth in renewable energy: India's renewable energy capacity, including large hydropower, has reached nearly 292 GW, accounting for about 53% of total installed capacity, while solar capacity stands at around 162 GW.

2. Declining power deficits: Increased generation capacity has reduced peak demand and energy deficits from historically high levels to around 1–2%.

3. Concentration of solar generation: Solar power generation peaks during the day, resulting in surplus electricity that cannot always be utilised.

4. Nighttime supply constraints: Unplanned coal plant outages, high airconditioning demand and poor reservoir levels reduce the availability of electricity at night.

5. Inadequate flexibility: Frequent ramping up and down of coal plants and backing down solar generation lead to energy wastage and increased wear and tear of equipment.

Measures to address the challenges

1. Develop energy storage: Battery storage and pumped storage hydropower can store surplus daytime electricity for use during peak nighttime demand.

2. **Strengthen transmission infrastructure:** An improved transmission network can facilitate the efficient transfer of electricity across regions.

3. **Improve demandside management**: Consumers should be encouraged to shift flexible electricity consumption towards solarrich daytime hours.

4. **Create suitable market mechanisms**: Electricity markets should adequately reward flexibility and incentivise storage and other balancing resources.

5. **Ensure financial viability:** Competitive bidding and appropriate remuneration mechanisms should make storage projects financially viable and encourage investment.

Conclusion: India must move beyond expanding installed capacity towards ensuring the availability of reliable, flexible and affordable electricity when it is needed. Integrating storage, strengthening transmission and improving market incentives are essential for reducing renewable energy wastage and ensuring power security.

Question: India's power sector has transitioned from an era of electricity shortages to a situation of daytime surplus and nighttime deficits. Discuss the reasons for this shift and suggest measures to address the emerging challenges.

Source: Indian Express

What are the powers and functions of a Special Executive?

Source: The post **"What are the powers and functions of Special Executive?"** has been created based on **"What are the powers and functions of Special Executive?"** published in "The Hindu" on 27th September 2026.

UPSC Syllabus: GS-2-Governance

News: The detention and subsequent release on bail of Cockroach Janta Party (CJP) activists Saurav Das and Ashutosh Ranka, along with a notice issued to AISA president Neha Bora, have renewed debate over the powers of Special Executive Magistrates (SEMs).

Appointment of Special Executive Magistrates

1. **Legal provision:** Section 15 of the Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023, provides for the appointment of Special Executive Magistrates.
2. **Appointing authority:** The State Government may appoint SEMs for particular areas or for the performance of specified functions.
3. **Purpose of appointment:** SEMs are appointed to maintain public order, prevent breaches of peace and deal with situations requiring preventive administrative action.
4. **Nature of office:** SEMs exercise executive and preventive powers conferred upon them by law and the State Government. They do not possess the full judicial powers exercised by Judicial Magistrates.

Powers and Functions of SEMs

1. **Preventive Action:** SEMs may intervene when there is a likelihood of disturbance of public peace and tranquillity, without necessarily waiting for a criminal offence to occur.
    a. Their primary objective is to prevent anticipated disturbances rather than punish offences that have already been committed.
    b. They may initiate or conduct proceedings within their statutory jurisdiction to prevent a breach of peace.
2. **Requiring Security for Maintaining Peace:** Under Section 126 of the BNSS, an Executive Magistrate may require a person likely to breach the peace or disturb public tranquillity to show cause why they should not execute a bond for maintaining peace.
    a. The objective is to prevent future disturbances rather than punish an individual for a past offence.
    b. The person concerned must be dealt with in accordance with the prescribed legal procedure.
3. **Preventive and Administrative Orders:** SEMs may exercise the powers specifically conferred upon them to prevent disturbances, public nuisance or threats to public tranquillity.
    a. Under Section 163 of the BNSS, a competent Executive Magistrate may issue urgent orders in cases of nuisance or apprehended danger to human life, health, safety or public tranquillity.
    b. Such powers must be exercised on legally relevant grounds and within the limits prescribed by law.
4. **Preventive Arrest:** Section 170 of the BNSS authorises the police to make preventive arrests in specified circumstances when necessary to prevent the commission of a cognisable offence that cannot otherwise be prevented.
    a. This is a police power and is not exclusive to SEMs. Preventive arrest must satisfy statutory conditions and cannot be used as an unrestricted means of detaining individuals expressing dissent.
5. **Acceptance of Bonds and Release:** There is a role of SEMs in accepting sureties and bonds in preventive proceedings.
    a. A person may be released subject to the applicable legal requirements and conditions. However, the authority to accept a bond or order release depends on the particular legal provision and the powers conferred upon the magistrate.

b. This authority should not be confused with an unrestricted power to grant bail in ordinary criminal cases.

About Peace Bond

1. **Meaning:** A peace bond is a legal undertaking intended to ensure that a person maintains peace and does not engage in conduct likely to disturb public tranquillity. It is preventive in nature and is not equivalent to a criminal conviction or sentence.
2. **Objective:** Peace bonds aim to prevent anticipated breaches of peace and protect public tranquillity without resorting to criminal punishment where preventive action is legally appropriate.
3. **Section 126 of the BNSS:** An Executive Magistrate may require a person likely to breach the peace or disturb public tranquillity to show cause why they should not execute a bond for keeping the peace for a period of up to one year.
4. **Section 135 of the BNSS:** The Magistrate conducts an inquiry into the information received to determine whether the allegations justify requiring the person to furnish security.
5. **Security during inquiry**: In specified circumstances, the Magistrate may require security while the inquiry is pending, provided the statutory conditions are satisfied and reasons are recorded in writing.
6. **Consequences of breach:** Under Section 141(1)(b) of the BNSS, the Magistrate may order detention for the remaining period of the bond in the circumstances specified by law.

Difference Between SEMs and Judicial Magistrates

1. **Legal provision:** Section 15 of the BNSS provides for the appointment of SEMs, whereas Section 9 provides for Courts of Judicial Magistrates of the first and second classes.
2. **Appointment:** SEMs are appointed by the State Government for specified areas or purposes, whereas Judicial Magistrates are appointed within the statutory framework involving the High Court.
3. **Primary role:** SEMs primarily perform preventive and administrative functions to maintain public peace, whereas Judicial Magistrates exercise judicial functions in criminal proceedings.
4. **Preventive proceedings:** SEMs exercise preventive powers conferred upon them by law, whereas Judicial Magistrates exercise judicial powers within their statutory jurisdiction.
5. **Criminal trials:** SEMs cannot conduct criminal trials or convict individuals through SEM proceedings, whereas Judicial Magistrates can conduct criminal trials within their legally prescribed jurisdiction.
6. **Bail and release:** SEMs may order release in proceedings falling within their legal authority, including certain proceedings involving peace bonds. Judicial Magistrates consider bail applications and other matters relating to judicial custody within their jurisdiction.
7. **Custody:** SEMs may order detention in specified preventive proceedings, subject to statutory requirements, whereas Judicial Magistrates exercise judicial remand powers in criminal cases as provided by law.
8. **Institutional framework:** SEMs function within the executive framework, whereas Judicial Magistrates form part of the judicial system and exercise judicial functions independently.

Can SEMs' Orders Be Challenged

1. **Judicial review:** The orders of SEMs may be examined by competent courts to determine whether the magistrate has acted within the authority conferred by law.
2. **Protection of individual rights:** Judicial review helps ensure that preventive powers do not result in arbitrary detention or unlawful restrictions on personal liberty.

3. **Challenge to orders**: An affected person may approach the appropriate court or authority, depending on the nature of the order and the remedy available under law.
4. **Procedural safeguards**: SEMs must comply with the statutory requirements governing inquiries, bonds, detention and the recording of reasons. Failure to follow applicable legal procedures may render an order vulnerable to challenge.
5. **Administrative oversight:** SEMs are also subject to the applicable administrative framework, which helps ensure accountability in the exercise of executive powers.

Constitutional and Governance Dimensions

1. **Rule of law:** Preventive powers must be exercised according to law rather than administrative discretion alone. Every action must have a valid legal basis and comply with prescribed procedures.
2. **Fundamental rights:** Arbitrary detention or disproportionate restrictions may raise concerns under Article 21 of the Constitution, which protects life and personal liberty.
3. **Freedom of assembly:** Restrictions on protests must comply with Article 19(1)(b), which guarantees the right to assemble peacefully and without arms, subject to reasonable restrictions under Article 19(3).
4. **Separation of powers:** The distinction between executive and judicial functions is essential to ensure accountability, prevent the concentration of power and preserve independent adjudication.
5. **Administrative accountability:** Judicial review acts as a safeguard against the misuse of executive authority and ensures that preventive measures remain within legal limits.
6. **Public order versus civil liberties:** The State must maintain public peace while protecting lawful dissent and individual liberty. Preventive measures should be necessary, proportionate and consistent with constitutional safeguards.
7. **Due process:** The exercise of preventive powers must follow the applicable legal procedures and provide the safeguards required by law to protect individuals against arbitrary action.

Key Legal Provisions

1. **Section 9 of the BNSS:** It deals with Courts of Judicial Magistrates of the first and second classes.
2. **Section 15 of the BNSS:** It provides for the appointment of Special Executive Magistrates.
3. **Section 126 of the BNSS:** It deals with security for keeping the peace in cases where a person is likely to breach the peace or disturb public tranquillity.
4. **Section 135 of the BNSS:** It deals with the inquiry into the truth of information received in proceedings concerning security for keeping the peace or good behaviour.
5. **Section 141(1)(b) of the BNSS:** It addresses detention for the remaining period of a bond in the circumstances specified by law.
6. **Section 163 of the BNSS:** It provides for the power to issue orders in urgent cases of nuisance or apprehended danger.
7. **Section 170 of the BNSS:** It deals with arrest to prevent the commission of cognisable offences.

Conclusion: Special Executive Magistrates are important instruments of preventive administration and public order management. However, their powers are not unlimited and must be exercised within the framework of the BNSS, with appropriate procedural safeguards, judicial oversight and respect for constitutional freedoms. The central governance challenge is to maintain public peace without undermining the rule of law, individual liberty and the right to peaceful dissent.

Question: Who are Special Executive Magistrates? Discuss their powers, functions and limitations vis- à- vis Judicial Magistrates.

Source: The Hindu

Beyond Kudankulam's fence, a cybersecurity challenge

UPSC Syllabus: Gs Paper 3- Infrastructure and Cyber security

Introduction

India's critical infrastructure increasingly depends on contractors, suppliers and data centres, extending cybersecurity risks beyond facility boundaries. In July 2026, ransomware group **World Leaks** claimed to have leaked **nearly 19,000 files totalling 14.3 GB linked to Kudankulam.** Reliance Infrastructure confirmed a breach involving data **hosted by Yotta. NPCIL said** the material concerned non-nuclear infrastructure, and **no compromise of reactor controls or nuclear safety systems was publicly established.**

Changing Nature of Critical Infrastructure Security

1. **Expanding Security Perimeter:** Critical infrastructure increasingly depends on interconnected contractors, suppliers, cloud platforms and service providers that hold sensitive project information, extending cybersecurity risks beyond operators' direct safeguards.
2. **Growing Private Sector Dependence:** Infrastructure development increasingly involves **private engineering firms, technology partners and commercial data centres**, making their cybersecurity practices **essential** for national infrastructure protection.
3. **Shift in Attack Strategies:** Attackers may target **less-protected vendors** instead of heavily secured facilities, exploiting **legitimate access, shared credentials and interconnected systems** to compromise information.
4. **Information as Strategic Intelligence:** Documents unrelated to reactor controls **may collectively reveal** infrastructure layouts, equipment configurations, maintenance dependencies, suppliers and **potential access points**.
5. **Earlier Warning at Kudankulam: In 2019**, Dtrack malware was detected on a computer connected to the plant's Internet-facing administrative network, while NPCIL stated that **critical internal networks remained unaffected**.

Challenges in Critical Infrastructure Cybersecurity

1. **Third-Party and Digital Vulnerabilities: Weak vendor security**, compromised credentials, phishing, insecure remote access, inadequate identity management and vulnerable cloud infrastructure **can expose sensitive project information**.
2. **Ransomware and Double Extortion:** Attackers may **steal valuable information** and **threaten public disclosure** while demanding ransom, making **data confidentiality** as important as preventing operational disruption.
3. **Information Aggregation Risk:** Individually routine documents can **collectively reveal** infrastructure layouts, suppliers, personnel and technical dependencies, enabling **targeted reconnaissance, phishing and potential future attacks**.

4. **Limited Visibility Across Supply Chains:** Infrastructure operators may **lack sufficient visibility** into contractors, subcontractors and hosting providers, making it **difficult to assess risks** throughout interconnected digital ecosystems.
5. **Fragmented Accountability:** Operators, contractors and hosting providers may **shift responsibility** after a breach, leaving **sensitive information exposed** despite individual organisations claiming compliance.
6. **Uncertainty in Incident Assessment: Exaggerated ransomware claims and limited visibility** into compromised systems can complicate the verification of stolen data, affected systems and potential security implications.

Strategic and National Security Implications

1. **Espionage Risks:** Leaked engineering drawings, procurement records and supplier information can help hostile actors understand infrastructure arrangements and **identify valuable targets** for intelligence gathering.
2. **Potential Sabotage:** Information about equipment configurations, maintenance dependencies and access arrangements **may assist future sabotage attempts**, although document leakage alone **does not establish operational access**.
3. **Targeted Social Engineering:** Supplier records, organisational charts and personnel details can help attackers design **convincing phishing campaigns** against contractors and infrastructure employees.
4. **Economic Security:** Cyberattacks against interconnected infrastructure can **threaten economic stability** by disrupting essential services, business operations and public service delivery.
5. **Cascading Infrastructure Risks:** Compromise of interconnected digital systems **may affect multiple sectors**, including electricity, telecommunications, banking and transportation, **amplifying the consequences** of cyber incidents.
6. **Public and Institutional Trust:** Weak cybersecurity governance can **undermine public confidence, corporate credibility and investor confidence** in institutions responsible for protecting critical infrastructure.
7. **Strategic Sovereignty:** Dependence on commercial digital infrastructure and global technology supply chains makes cybersecurity essential for **national security, economic resilience and strategic autonomy**.

India's Cybersecurity Governance and Legal Framework

1. **CERT-In's Role:** The Indian Computer Emergency Response Team handles cybersecurity incident response, while its 2022 directions require specified cyber incidents to be reported **within six hours** of noticing them or being brought to notice.
2. **NCIIPC's Responsibility:** The National Critical Information Infrastructure Protection Centre, established under **Section 70A** of the IT Act, is responsible for **protecting critical information infrastructure**.
3. **Data Protection Framework:** The Digital Personal Data Protection Act, 2023 primarily concerns **digital personal data**; technical documents without personal data **generally fall outside its scope**.

4. **Applicable Legal Provisions: Depending on the facts**, Sections 43 and 66 of the IT Act may apply to unauthorised access and computer-related offences, while Section 66F **requires specific elements of cyber terrorism**; other laws may apply where their conditions are met.
5. **Corporate Governance Obligations:** Listed entities must disclose details of cybersecurity incidents or breaches, or loss of data or documents, with their quarterly corporate governance reports, as specified under **Regulation 27(2)(ba)** of SEBI's LODR (Listing Obligations and Disclosure Requirements) Regulations.

Way Forward

1. **Uniform Security Standards:** Extend defined **cybersecurity standards, oversight and accountability** to contractors, subcontractors and data centres handling critical infrastructure information.
2. **Clear Legal Accountability:** Establish **clear responsibilities** for protecting sensitive information across the supply chain, including when data is stored or processed outside the operator's systems.
3. **Strengthen Contractual Safeguards:** Include cybersecurity standards, **audit rights, liability clauses, breach notification requirements, encryption and incident-response protocols** in vendor contracts.
4. **Adopt Risk-Based Assessments:** Replace annual certifications with **regular third-party risk assessments, supply-chain audits and red-team exercises** to identify vulnerabilities.
5. **Implement Zero Trust Security: Verify every access request**, enforce **multi-factor authentication**, strengthen privileged access management and **monitor vendor access continuously**.
6. **Strengthen Technical Defences:** Improve **network segmentation, endpoint detection, security monitoring** and secure remote access to limit unauthorised access and lateral movement.
7. **Ensure Need-Based Data Sharing:** Classify sensitive project information and share **only essential data** for a **limited duration**, reducing exposure and potential misuse.
8. **Improve Institutional Coordination:** Establish a **unified national supply-chain cybersecurity framework** involving CERT-In, NCIIPC, sectoral regulators and infrastructure operators, with **clearly assigned responsibilities** for incident response.

Conclusion

The Kudankulam incident underscores that **critical infrastructure security extends beyond facility boundaries**. India needs **enforceable supply-chain standards, clear accountability, risk-based vendor assessments and coordinated incident response**. Protecting sensitive information across contractors and service providers is essential to strengthen cyber resilience, preserve public trust and safeguard national security as infrastructure becomes increasingly interconnected.

Question for practice:

Discuss the cybersecurity challenges associated with protecting India's critical infrastructure and suggest measures to strengthen supply-chain cyber resilience.

Source: The Hindu; Times of India

A Ready Solution to Tackle Anaemia

UPSC Syllabus: Gs Paper 2- Issues relating to development and management of Social Sector/Services relating to Health And GS Paper 3: Food security

Introduction

Anaemia remains a major public health challenge in India, affecting women, children and adolescents despite sustained health interventions. Iron deficiency is a key contributor, but other micronutrient deficiencies and non-nutritional conditions also play a role. Its consequences include maternal risks, impaired cognition, reduced productivity and intergenerational malnutrition. Effective control requires an integrated approach combining food fortification, supplementation, screening, treatment, dietary diversification and stronger nationwide public health delivery.

Anaemia Burden and Its Underlying Causes

1. **High Prevalence:** NFHS-5 reports anaemia among **67.1% of children and 59.1% of adolescent girls**, reflecting the scale of the challenge.
2. **Historical Burden:** NFHS-2 (1998) found anaemia among **56% of adolescent girls aged 15–19 years** and **69% in tribal communities**.
3. **Intergenerational Consequences:** Anaemia during adolescent pregnancy increases the risks of **maternal death, premature delivery and low-birth-weight (LBW) babies**.
4. **Health and Economic Consequences:** Anaemia contributes to maternal mortality, impaired cognition and reduced productivity. Iron deficiency anaemia's economic burden has been estimated at **4% of GDP**.
5. **Multiple Nutritional Causes:** Besides iron deficiency, deficiencies of **vitamin B12, vitamin A, folate and zinc** contribute to nutritional problems.
6. **Micronutrient Deficiencies: Comprehensive National Nutrition Survey (**CNNS) found vitamin B12 deficiency in **one-sixth of preschool children and one-third of adolescents**, alongside widespread folate deficiency.
7. **Poor Hygiene and Sanitation: Inadequate sanitation and poor hygiene** can increase exposure to parasitic infections, such as hookworm, which may cause blood loss and contribute to anaemia.
8. **Poor Dietary Diversity:** Low consumption of **fruits, vegetables, milk, pulses, meat and poultry** restricts essential nutrient intake.
9. **Inadequate Dietary Intake:** Only **6% of children aged 6–23 months** received a minimum acceptable diet, while **9% consumed iron-rich foods**.
10. **Affordability of Nutritious Diets:** Nearly **two-thirds of rural poor** cannot afford nutritious diets meeting national guidelines, limiting access to balanced food.

Food Fortification as a Preventive Solution

1. **Double-Fortified Salt (DFS):** DFS contains **iron and iodine** and delivers essential micronutrients through routinely consumed salt.

2. **Existing Infrastructure:** Around **95% of households** use iodised salt, providing an established platform for expanding iron fortification.
3. **Existing Reach:** DFS has reached an estimated **76 million people across four States** through government safety-net programmes.
4. **Evidence of Effectiveness:** A global review found that DFS could reduce anaemia by **up to 21%**, while Indian trials demonstrated improvements in iron status.
5. **Consumer Acceptability:** Trials in **Bengaluru, Darjeeling and Punjab**, alongside implementation in **Uttar Pradesh**, showed improved iron status and acceptability with validated specifications.
6. **Affordability and Returns:** DFS costs approximately **₹14–₹20 per person annually**, with an estimated **4.2:1 benefit-cost ratio**.
7. **Rice Fortification:** Fortified rice containing **iron, folic acid and vitamin B12** provides another preventive delivery channel through a widely consumed staple.
8. **Potential Population Coverage:** Rice is consumed by **65% of the population**, averaging **6.8 kg per person monthly**, making it suitable for micronutrient delivery.
9. **Economic Benefits:** A cited assessment estimated that an annual outlay of **₹2,800 crore** could avert **16.6 million disability-adjusted life years (DALYs) annually**. Another estimate projected **94.1 million fewer anaemia cases** and **₹8,098 crore in savings over five years**.

India's Anaemia Control Strategy

1. **Anaemia Mukt Bharat (AMB):** Launched in **2018**, its revised **7X7X7 framework** covers seven beneficiary groups, seven interventions and seven institutional mechanisms.
2. **Beneficiary Coverage:** Children aged **6 months–19 years**, pregnant and lactating women, women of reproductive age (**20–49 years**) and **Low Birth Weight (LBW)** babies aged **0–6 months**.
3. **Key Interventions:** Prophylactic iron-folic acid (**IFA**) supplementation, **screening, treatment, deworming**, delayed cord clamping, behaviour change communication, dietary diversification and management of non-nutritional causes.
4. **Adolescent Programme:** India's universal adolescent anaemia programme targets **116 million adolescents**. In Q2 FY 2024–25, **15.4 crore children and adolescents** received IFA supplements.
5. **Nutrition-Based Interventions: Fortified rice and double-fortified salt** complement supplementation and dietary diversification through public welfare delivery systems.
6. **Dietary Diversification:** India has adopted measures to promote dietary diversity, **including millets under nutrition programmes, nutrient-rich crop varieties, POSHAN Vatikas (nutrition gardens) and locally available iron-rich foods** to improve nutritional intake and prevent anaemia.
7. **Monitoring and Follow-up:** India has adopted the **T4 approach (Test, Treat, Talk and Track)** under the revised **Anaemia Mukt Bharat Abhiyaan** to strengthen anaemia screening, treatment, counselling and digital monitoring for beneficiary follow-up.

Institutional Framework and Supporting Services

1. **Institutional Mechanisms:** The revised **Anaemia Mukt Bharat (**AMB) framework includes intra-ministerial coordination, the **National Centre of Excellence and Advanced Research on**

Anaemia, **National AMB Unit**, strengthened supply chains, inter-ministerial convergence, AMB portal and digital monitoring.

2. **Maternal Healthcare: Surakshit Matritva Aashwasan (SUMAN)** ensures respectful maternal care; **Janani Shishu Suraksha Karyakram (JSSK)** provides free delivery services; **Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA)** offers specialist antenatal care on the **9th of every month**, including anaemia screening. Extended PMSMA supports high-risk pregnancies.
3. **Community Outreach:** Monthly **Village Health, Sanitation and Nutrition Days (VHSNDs)**, **Accredited Social Health Activist (ASHA)**-supported postnatal referrals, tribal outreach camps and Mother and Child Protection Cards strengthen access and awareness.
4. **Healthcare Infrastructure:** Functional **First Referral Units (FRUs)**, blood storage facilities, Obstetrics High Dependency Units and **Intensive Care Units (ICUs)** improve maternal emergency care.
5. **Awareness and Research: Solid Body, Smart Mind**, **Information, Education and Communication (IEC)** campaigns and Safe Motherhood Booklets promote preventive practices. The **Indian Council of Medical Research (ICMR)**'s National Health Priority Programme supports solution-oriented research and scalable interventions.
6. **Quality Assurance: Food Safety and Standards Authority of India (FSSAI)** standards, accredited laboratories and manufacturing standardisation support the quality of fortified foods.

Challenges in Scaling Up Fortification and Anaemia Prevention

1. **Uneven PDS Integration:** DFS integration into the **Public Distribution System (PDS)** remains uneven, requiring stronger state-level implementation and last-mile delivery.
2. **Institutional and Financial Barriers:** Wider adoption requires sustained **policy commitment, dedicated financing**, commercial availability, consumer awareness and dependable distribution.
3. **Quality Assurance:** Consistent fortification quality requires **validated manufacturing specifications, laboratory testing** and regulatory monitoring.
4. **Multiple Causes of Anaemia:** Fortification alone cannot address non-nutritional causes such as **malaria, haemoglobinopathies and fluorosis**, requiring appropriate screening and treatment.
5. **Public Health Safeguards:** DFS implementation must complement AMB, align with **sodium reduction goals** and include screening for **thalassaemia and sickle-cell disease**.

Way Forward

1. **Expand DFS Distribution:** Strengthen **financing, policy support and PDS integration** to improve access through public distribution and safety-net programmes.
2. **Strengthen Quality Monitoring:** Improve **manufacturing standards, laboratory testing, regulatory oversight** and supply chains to maintain fortified food quality.
3. **Integrate Prevention and Treatment:** Combine **fortification with IFA supplementation, screening, treatment**, deworming and digital tracking under AMB.
4. **Promote Dietary Diversification:** Encourage **millets, nutrient-rich crop varieties**, locally available iron-rich foods and POSHAN Vatikas.
5. **Improve Diet Affordability:** Expand **access to nutritious diets** and encourage healthier food choices through sustained behaviour change.

6. **Strengthen Community Participation:** Use **Jan Bhagidari** and awareness campaigns to improve screening uptake, supplement adherence and public participation.
7. **Ensure Institutional Convergence:** Coordinate **health, education, nutrition and food distribution departments** for effective implementation and beneficiary follow-up.
8. **Build a Scalable Model:** Build on India's experience with **universal salt iodisation** to demonstrate an affordable fortification model for other low- and middle-income countries.

Conclusion

Anaemia reduction requires coordinated fortification, supplementation, screening, treatment and dietary diversification. Double-fortified salt and fortified rice can improve micronutrient delivery, but cannot replace comprehensive care. Sustainable progress depends on quality assurance, affordable nutritious diets, institutional coordination, public awareness and reliable last-mile access to prevention and treatment services, especially for vulnerable populations and communities.

Question for practice:

Examine the major causes of anaemia in India and discuss the role of food fortification and government interventions in addressing this public health challenge.

Source: The Hindu; PIB

Clean air needs targets, timelines and accountability

Source: The post **"Clean air needs targets, timelines and accountability"** has been created based on **"Clean air needs targets, timelines and accountability"** published in **"Indian Express"** on 28th September 2026.

UPSC Syllabus: GS 3- Environment

Context: Air pollution threatens public health and economic productivity in India. Despite initiatives like NCAP and GRAP, air quality remains poor in several cities. Swachh Vayu Sarvekshan focuses mainly on administrative activities, while actual pollution reduction accounts for only 2.5% of a city's score. In this context, it is important that India must move beyond fragmented measures and focus on clear targets, fixed timelines, interdepartmental coordination and accountability.

Key Issues in India's Clean-Air Policy

1. Focus on administrative activities: The Swachh Vayu Sarvekshan rankings assess activities such as road sweeping, waste management, sidewalk paving and action-plan preparation. Actual reductions in particulate matter account for only 2.5 per cent of a city's total score.

2. Limited improvement in air quality: Lucknow's annual average PM10 level has declined from 253 micrograms per cubic metre in 2017–18 to around 135, but it remains more than twice the national standard of 60 micrograms per cubic metre.

3. Ineffective pollution-control measures: Delhi has shown no appreciable improvement in winter air quality over the last four years, despite pollution-control measures and activities under the Graded Response Action Plan.

4. High economic and health costs: According to an assessment by UNEP and the Climate and Clean Air Coalition, South Asia loses the equivalent of 10 per cent of its regional GDP annually due to reduced productivity and healthcare costs associated with air pollution.

5. Fragmented institutional responsibilities: Transport, electricity generation, industry, waste management, agriculture and household cooking contribute to air pollution. Their management by different ministries and agencies creates coordination problems and weakens accountability.

6. Economic losses due to delays: If Delhi and the NCR meet national air quality standards on schedule from 2026, their cumulative PM2.5 exposure burden could decline by 20 per cent by 2040. An eight-year delay would halve this reduction.

Measures to Improve Clean-Air Policy

1. Set clear targets and timelines: The National Clean Air Programme (NCAP) should establish measurable pollution-reduction targets and fixed deadlines for every responsible agency.

2. Measure actual outcomes: The government should assess clean-air programmes based on reductions in pollution exposure and the speed at which people receive relief, rather than administrative activities alone.

3. Fix institutional accountability: The government should clearly define the responsibilities of ministries, departments and urban agencies and take action when deadlines are missed.

4. Link funding with performance: Central grants and Finance Commission transfers should reward cities that achieve sustained reductions in pollution exposure.

5. Strengthen interdepartmental coordination: Clean-air planning should integrate transport, energy, industry, agriculture and waste management policies rather than treating air pollution solely as an environmental issue.

6. Improve economic efficiency: Investment in climate and clean-air measures should be prioritised because the assessment estimates that every rupee invested in a package of 25 such measures could generate ₹21 in economic and health benefits.

7. Reform NCAP 2.0: The government should focus on timely implementation, measurable outcomes and consequences for agencies that fail to meet their targets.

Conclusion: India needs to move from administrative compliance to measurable improvements in air quality. Clear targets, time-bound implementation, coordinated governance and performance-linked funding can reduce pollution, protect public health and prevent avoidable economic losses.

Question: India's clean-air policy needs clear targets, fixed timelines and accountability rather than merely administrative measures." Discuss the challenges in achieving clean air and suggest measures to improve the effectiveness of India's clean-air policy.

Source: Indian Express

China's Grey-Zone Warfare along the LAC: Challenges for India and the Way Forward

Source: The post "China's Grey-Zone Warfare along the LAC: Challenges for India and the Way Forward" has been created based on "To counter China along LAC, why its grey-zone warfare tactics must be understood" published in "Indian Express" on 28th September 2026.

UPSC Syllabus: GS 3: Internal Security

Context: China is increasingly using Grey-Zone Warfare (GZW) along the Line of Actual Control (LAC) to alter the ground situation in its favour without triggering a full-scale war. India needs an integrated national strategy combining military preparedness, border surveillance, infrastructure, diplomacy and credible deterrence to prevent China from changing the status quo.

About Grey-Zone Warfare (GZW)

1. Grey-Zone Warfare (GZW) refers to actions taken by a state between peace and conventional war to achieve strategic objectives without triggering a full-scale military conflict.
2. These tactics include military infrastructure development, incremental territorial advances through "nibble and negotiate", border villages, psychological and legal warfare, and diplomatic pressure.
3. China uses these tactics along the LAC to gradually change the ground situation in its favour.

China's Grey-Zone Warfare Tactics

1. Military infrastructure development: China has strengthened its military presence along the Himalayan frontier by constructing strategic highways, railway lines, airfields and heliports near the LAC.

2. "Nibble and negotiate" strategy: The People's Liberation Army (PLA) attempts to alter the status quo through small, incremental advances and changes in patrolling patterns, thereby avoiding the risks of a full-scale conflict.

3. Border villages: China has established 628 Xiaokang villages along its borders, around 90 per cent of which are concentrated near Arunachal Pradesh. These villages can serve as forward defence posts and military support centres.

4. Psychological and legal warfare: China uses public opinion campaigns, psychological pressure, legal claims and the renaming of places in Arunachal Pradesh to strengthen its territorial claims.

5. Economic and geopolitical influence: China expands its influence through economic partnerships, connectivity projects and security arrangements across Asia, Africa and the Indian Ocean Region. Its partnership with Pakistan also creates pressure on India along two fronts.

6. Diplomatic ambiguity: China sometimes uses diplomatic engagements to reduce tensions while continuing activities that may alter the ground situation.

7. Cyber and non-state actors: Cyber operations and the involvement of non-state actors form part of the broader Grey-Zone Warfare approach.

Challenges Faced by India

1. Unresolved border disputes: Despite disengagement at selected friction points, differences over the alignment of the LAC remain unresolved.

2. Surveillance and intelligence gaps: India needs stronger surveillance, intelligence gathering, rapid reinforcement and logistical support in difficult border areas.

3. Fragmented command structure: The Indo-Tibetan Border Police (ITBP) functions under the Ministry of Home Affairs, while the Army operates under the Ministry of Defence. This can complicate coordination during border confrontations.

4. Lack of an integrated strategy: India needs a coherent national strategy that connects military preparedness, border management, infrastructure development, diplomacy and economic policy.

5. Risk of diplomatic complacency: Improved high-level relations do not necessarily guarantee peace along the border, as China may continue its strategic activities during periods of diplomatic engagement.

Measures India Should Adopt

1. Develop an integrated national strategy: India should coordinate military, diplomatic, economic, technological and border-management policies to counter Grey-Zone Warfare.

2. Strengthen border infrastructure: India should improve roads, surveillance systems, communications, logistics and rapid-reinforcement capabilities along the LAC.

3. Improve command and control: Better coordination between the Army and ITBP is essential for a swift and effective response. It is also suggested considering a dedicated border-guarding force under the Army's operational control.

4. Build credible deterrence: India should strengthen its defence capabilities to make unilateral attempts to change the status quo costly for China.

5. Counter information and legal warfare: India should respond to misleading narratives and territorial claims through accurate information, diplomatic engagement and consistent assertion of its position.

6. Maintain firm diplomacy: India should continue dialogue with China but ensure that diplomatic normalisation is linked to respect for border agreements and established arrangements.

7. Adopt a whole-of-government approach: The government should integrate the efforts of the armed forces, intelligence agencies, border forces and relevant ministries.

Conclusion: China's Grey-Zone Warfare seeks to secure strategic gains through gradual and ambiguous actions rather than open conflict. India must move beyond reactive responses and adopt a coordinated strategy based on strong deterrence, effective border management, integrated command and firm diplomacy to protect the status quo along the LAC.

Question: What is Grey-Zone Warfare? Examine how China uses it along the Line of Actual Control (LAC) and suggest measures India should adopt to counter it.

Source: Indian Express

Is India to Be World's Oil Refiner?

UPSC Syllabus: Gs Paper 3- Infrastructure

Introduction

India's refining capacity and advanced infrastructure have strengthened its position in global energy markets. The country is emerging as a major supplier of petroleum products amid changing global oil trade. However, geopolitical tensions, crude supply risks and climate commitments create new challenges. The key question is whether India can achieve global refining leadership while protecting energy security, economic interests and long-term sustainability.

India's Emergence as a Global Refining Power

1. **Global Position:** India is the world's **fourth-largest refining nation and second-largest in Asia**, with a capacity of **267.11 million metric tonnes per annum (MMTPA)**, equivalent to approximately **5.6–5.97 million barrels per day**.
2. **Comparison with Major Refiners:** China leads global refining capacity with around **18.5 million barrels per day** (mb/d), followed by the United States (US) at **18.4 mb/d** and Russia at **6.8 mb/d**.
3. **Petroleum Production:** India produced **284.9 million tonnes** of petroleum products in FY 2025–26, including **281.5 million tonnes** from crude oil and other inputs processed in refineries.
4. **Export Performance:** India exported **61.5 million tonnes** of petroleum products in FY 2025–26, supplying international markets and strengthening its position in global fuel trade.
5. **Domestic Demand:** Refinery expansion is primarily driven by **rising domestic demand** for transportation fuels, aviation turbine fuel (ATF) and petrochemicals, while exports remain important.
6. **Capacity Expansion:** The government plans to increase refining capacity to **309.5 MMTPA by 2030**, while the broader **450 MMTPA ambition** raises questions about long-term investment planning.

Foundations of India's Refining Competitiveness

1. **Complex Refining Infrastructure:** India's advanced facilities can **process different crude grades** and extract valuable petroleum products, giving domestic refiners greater procurement flexibility.
2. **Crude Oil Characteristics:** Light crude is relatively easier to process, whereas **heavy, high-sulphur crude** requires complex facilities to produce valuable fuels meeting quality standards.
3. **High Refinery Utilisation: High utilisation rates** improve operational efficiency and help Indian refiners strengthen their competitiveness in international petroleum product markets.
4. **Product Diversification:** Refineries convert crude oil into **petrol, diesel, ATF, liquefied petroleum gas (LPG), naphtha** and industrial feedstock, supporting transportation and industrial requirements.
5. **Competitive Economics:** Refining margins depend **not only on crude discounts** but also on freight, crude quality, processing complexity and product yields.

Jamnagar Refinery: A Strategic Asset in Global Energy Politics

1. **Global Refining Scale:** Reliance Industries Limited's (RIL) Jamnagar complex has a combined capacity of **1.4 million barrels per day**, making it the **world's largest single-site refining complex**.
2. **Crude Processing Capability:** Jamnagar has processed **more than 216 different crude grades**, including heavy and high-sulphur varieties, strengthening its ability to adapt to changing supply conditions.
3. **Venezuelan Crude Processing:** Jamnagar can process **Venezuelan heavy crude**, including **Merey-16**, making it a potential destination for additional supplies when commercial and regulatory conditions permit.

4. **Export Significance:** Jamnagar exports **millions of tonnes of diesel** to the US and Europe, making its operations important for international fuel availability and prices.
5. **Indian Capital Abroad:** Reliance's investment commitment for a **proposed Texas refinery** reflects India's potential to contribute capital and refining capabilities to American energy infrastructure.

US Energy Needs and India's Geopolitical Leverage

1. **American Fuel Requirements: Tight US diesel inventories** and **rising pump prices** before midterm elections have increased the importance of reliable petroleum product supplies from major exporters.
2. **US Interest in Jamnagar:** Washington is exploring opportunities to process **more Venezuelan crude** in Indian refineries and increase American energy purchases by India.
3. **Changing American Approach:** US engagement reflects **domestic energy needs** alongside geopolitical interests, showing how commercial requirements can reshape diplomatic priorities.
4. **Russian Oil Pressure:** Washington has threatened **punitive sanctions** over India's Russian oil purchases, while recognising India's progress in **diversifying its crude supply sources**.
5. **Shifting Crude Economics: Higher freight costs** have eroded Russian crude's earlier pricing advantage, while **Venezuelan crude remains among the cheapest** available feedstocks for Indian refiners.
6. **Strategic Leverage:** India's refining capabilities strengthen its importance in global energy trade, but refining leadership **does not automatically make India a global oil price setter**.

Challenges to India's Refining Ambitions

1. **Russian Crude Dependence:** Russian barrels remain a **significant part of India's crude import basket**, making sudden supply disruptions a concern for refinery operations.
2. **Procurement Planning:** Crude procurement deals are typically concluded **8–12 weeks before delivery**, limiting refiners' ability to respond immediately to unexpected supply disruptions.
3. **Venezuelan Supply Uncertainty: Political changes in Venezuela** and **tighter sanctions** could disrupt crude supplies, creating uncertainty for refiners dependent on commercially viable sourcing.
4. **Import Cost Pressures:** Venezuelan crude's heavy composition and long shipping distance **increase processing and transportation costs**, requiring sufficient discounts to justify its delivered cost.
5. **Public Sector Vulnerability:** Sudden losses of discounted Russian crude could test **public sector refiners'** ability to adapt procurement strategies and maintain operational efficiency.
6. **Global Refining Competition:** Europe may shut **500,000–700,000 barrels per day** of refining capacity **by 2030**, while **US capacity also declined in 2025**, creating opportunities and competition for Indian refiners.
7. **Corporate Investment Risks:** Reliance's proposed Texas refinery could face **commercial risks** if energy market conditions change, raising concerns about the viability of long-term overseas investments.

Refining Expansion vs. Climate Commitments

1. **Carbon Emission Burden:** Expanding fossil fuel infrastructure could increase India's **long-term carbon burden** while the country pursues its **net-zero commitment**.
2. **Unequal Global Transition:** The concern is that India may bear the **environmental costs** of refining volatile crude while Western economies pursue cleaner energy transitions.
3. **Carbon-Related Trade Risks:** The European Union's **Carbon Border Adjustment Mechanism (CBAM)** raises concerns about future trade costs, but refined petroleum products are **not currently covered**.
4. **Changing Fuel Demand: Electric vehicles**, improved fuel efficiency and cleaner energy transitions may gradually **weaken demand** for conventional transportation fuels in some export markets.
5. **Stranded Asset Risks:** Large investments in long-lived refineries could become **financially risky** if future petroleum demand declines or environmental regulations tighten.

Way Forward

1. **Diversified Crude Procurement:** India should maintain a **diverse supplier base**, including Middle Eastern and other commercially viable sources, to reduce exposure to geopolitical supply disruptions.
2. **Strengthening Public Sector Refiners:** Public sector refiners need **flexible procurement strategies** and efficient processing capabilities to manage sudden changes in crude availability and delivered costs.
3. **Prudent Capacity Planning:** Refinery investments should reflect **domestic demand, export prospects, operating costs** and changing global fuel consumption to limit future financial risks.
4. **Cleaner Refining Operations:** Greater **energy efficiency and lower-emission technologies** can reduce the environmental burden of refining while maintaining industrial competitiveness.
5. **Balanced Energy Strategy:** Refining expansion should **align with India's clean energy transition**, ensuring that petroleum infrastructure investments do not weaken long-term climate commitments.
6. **Strategic Energy Cooperation:** India should pursue commercially beneficial energy partnerships without allowing external political pressure to compromise its **supply security and procurement flexibility**.

Conclusion

India can strengthen its position as a global refining hub. However, capacity alone cannot ensure energy sovereignty or price-setting power. Diversified supplies, resilient refiners, prudent investment and cleaner operations are essential. Aligning expansion with demand and climate goals will determine whether refining becomes a lasting economic advantage rather than a future liability.

Question for practice:

Examine India's emergence as a global oil refining hub and discuss the key challenges to its refining ambitions.

Source: Businessline; New Indian Express

India's Next Investment Cycle Will Shape Its Carbon Future

UPSC Syllabus: Gs Paper 3- Environment

Introduction

India must expand housing, industry, power networks and urban infrastructure. The United Nations Environment Programme (UNEP) warns that the world could cross the 1.5°C warming threshold within the next few years. Much of India's future infrastructure remains unbuilt. Investment choices can embed efficiency, support energy security and growth, advance the net-zero target by 2070, reduce costly future retrofits, and improve public health and infrastructure resilience nationwide.

Present Status and Opportunities

1. Infrastructure Expansion: India's next investment cycle will shape emissions for decades. NITI Aayog estimates that **86% of India's building stock** expected in 2070 is yet to be built, while floor space may rise from **18 billion sq m in 2020 to 42 billion sq m by 2070**.

2. Industrial Growth: Crude steel capacity was about **200 million tonnes in 2024–25** and is targeted to reach **300 million tonnes by 2030–31**. Cement production rose to **427 million tonnes in 2024** and is projected to reach **660 million tonnes by 2030**, making industrial choices consequential.

3. Renewable Energy: India is rapidly expanding clean power. Renewable capacity, including large hydropower, reached **295.6 gigawatts** in August 2026, while record solar additions show the opportunity to support energy security and reduce carbon intensity.

4. Green Finance: The Reserve Bank of India estimates green finance needs of at least **2.5% of GDP annually** through 2030. A draft climate-finance taxonomy estimates about US$2.5 trillion, at 2014–15 prices, is required for climate commitments by 2030.

5. Innovation and Productivity: Green finance and predictable standards can stimulate innovation in solar modules, batteries, electrolyzers, electric vehicles and efficient machinery. Such directed technological change can improve productivity, competitiveness and emissions performance.

6. Employment Potential: The International Renewable Energy Agency estimated **1.3 million renewable-energy jobs** in India in 2024, including **503,000 in hydropower**, **385,000 in solar photovoltaic** and **165,000 in biofuels**.

Key Challenges in Aligning Investment with Decarbonisation Goals

1. Long-Lived Carbon Lock-in: Steel, cement, buildings and transport assets operate for decades. High-emission design choices today can lock in emissions and create expensive retrofits later.

2. Uneven Building-Code Implementation: The Energy Conservation Building Code (ECBC) 2017 has been notified by **27 States** but legally incorporated in only 21. Weak integration into approvals limits compliance and the gains from efficient construction.

3. Grid and Transmission Bottlenecks: The International Energy Agency (IEA) estimates transmission constraints held back around **60 gigawatts** of renewable capacity. Generation additions without timely transmission and storage can leave clean power underused.

4. Technology and Cost Uncertainty: Green hydrogen-based steel is not yet viable in India, while large-scale carbon capture in cement remains further along the transition pathway. Mandating immature options risks higher costs and inefficient technological lock-in.

5. High Cost of Capital: The IEA estimates India's grid-scale renewable cost of capital is about **80% higher** than in advanced economies. Front-loaded investment needs and payment or offtaker risks constrain projects.

6. Limited Public Finance: Climate investment requirements exceed the capacity of public budgets. Guarantees or concessional support can help, but poorly designed public finance may transfer excessive technology and commercial risks to the **public balance sheet**.

7. Greenwashing and Job-Quality Risks: Weak verification can undermine green-finance credibility. Renewable projects can also be capital-intensive with few permanent jobs, while headline employment estimates may conceal differences in skills, gender, geography and job duration.

Government Initiatives and Policy Instruments

1. Building-Efficiency Standards: The Bureau of Energy Efficiency (BEE) issued the Energy Conservation and Sustainable Building Code (ECSBC) 2024 for commercial and office buildings, and Eco-Niwas Samhita (ENS) 2024 for residences, building on ECBC 2017.

2. Green Bond Issuance: The Government raised **₹16,000 crore** through sovereign green bonds in FY2022–23 and **₹20,000 crore** in FY2023–24. These issuances establish a benchmark and can help develop corporate and municipal green-debt markets.

3. Clean-Technology Support: Production-linked incentive (PLI) support can encourage domestic supply chains. One tranche was expected to attract **₹93,041 crore** in investment and generate **101,487 direct and indirect jobs**; these projections require credible tracking.

4. Green-Steel Procurement Proposal: The Steel Ministry proposed aggregated procurement through competitive bidding. Public agencies, Railways and the National Highways Authority of India (NHAI) can create demand for lower-emission materials.

5. Carbon-Market Framework: The Carbon Credit Trading Scheme (CCTS) provides a policy reference for aligning progressively tighter industrial performance expectations with emissions targets.

Way Forward

1. Enforce Building Codes: Integrate building-efficiency requirements into permits, occupancy certificates and grid connections, with clear compliance checks and consequences. Apply mature efficiency solutions at the design stage to avoid future retrofit costs.

2. Plan Power Systems Together: Coordinate renewable generation with transmission and storage, and develop networks ahead of or alongside new demand. The Power Ministry's plan envisages about **590 gigawatts** of generation additions during 2023–2032, reinforcing the need for system-wide planning.

3. Use Performance-Based Procurement: Set **emission-intensity thresholds** rather than prescribing production methods for steel and cement. Competitive bidding can reveal the green premium; tighten thresholds over time as technology scales and align them with CCTS targets.

4. Share Financial Risks Carefully: Use payment-security mechanisms, partial credit guarantees and concessional debt to address identifiable financing barriers. Public support should mobilise private capital without indiscriminately socialising unproven technology risks.

5. Develop Green-Finance Integrity: Use clear taxonomies, independent verification, allocation reporting and impact metrics. Green bonds should complement carbon pricing, regulation and public investment, addressing environmental and health costs that markets may not price.

6. Link Investment with Local Jobs: Build domestic supply chains and support rooftop solar, decentralised energy, retrofits, public transport and ecosystem restoration. Track employment by gender, location, skills and duration rather than relying only on projected totals.

7. Secure a Just Transition: Reskill workers, protect incomes, diversify micro, small and medium enterprises (MSMEs), and invest in affected districts. Educational institutions should build skills in renewable engineering, climate-risk evaluation, carbon accounting, sustainable finance and environmental data analysis.

Conclusion

India must align investment with growth, energy security and its net-zero target by 2070. Mature technologies should be adopted now. Emerging options require flexibility as costs and performance evolve. Affordable finance, credible standards, productive jobs and a just transition can deliver resilient, low-carbon assets.

Question for practice:

Discuss how India can align its next investment cycle with its decarbonisation goals while ensuring sustainable and inclusive economic growth.

Source: The Hindu

9 PM Articles - October 29th

India Must Build a Holistic Care System

UPSC Syllabus: Gs Paper 2- Issues relating to development and management of Social Sector/Services relating to Health.

Introduction

India's development strategy has prioritised highways, metro lines, electrification and digital platforms, but **care remains an under-recognised foundation of growth.** Without affordable services, families, especially women, bear unpaid work and lose economic opportunities. With an ageing population and rising demand for caregivers, India must connect childcare, eldercare, disability support and healthcare through an accessible, quality, adequately funded care system to advance inclusive development and Viksit Bharat 2047.

Understanding the Holistic Care System

1. **Holistic Care System:** It is a **broader framework** that connects childcare, eldercare, disability support and healthcare to meet people's care needs throughout life.
2. **Holistic Healthcare:** It is an approach that addresses a person's **physical, mental and social well-being** through preventive, promotive, curative, rehabilitative and palliative care.
3. **Relationship Between the Two: Holistic healthcare is one component of a holistic care system**, which also includes wider caregiving services and support for families and caregivers.
4. **Person-Centred Approach:** Care should respond to individual needs and support people's **dignity, well-being and participation** through accessible and quality services.
5. **Shared Responsibility:** Care requires coordinated efforts by governments, communities, workplaces, families and trained caregivers rather than placing the burden mainly on women.

Significance of the Care Economy for India's Development

1. **Women's Employment Opportunities:** Affordable childcare can reduce caregiving barriers and allow more women to pursue employment, leisure and participation in public life.
2. **Unpaid Care Burden:** The **Time Use Survey 2024** found that **41% of women aged 15–59** provided unpaid care, averaging **140 minutes daily**.
3. **Women's Labour Force Participation:** The **Periodic Labour Force Survey 2025** found that **44.4% of women outside the labour force** cited childcare and homemaking as their main reason for staying out.
4. **Economic Growth:** Recognising care as **productive economic activity** can strengthen women's participation and connect care provision with India's broader development strategy.
5. **Employment Generation:** Rising global demand for caregivers offers **skill-based employment opportunities for lakhs of Indian youth**, requiring suitable training models.
6. **Ageing Population:** India's growing elderly population will increase demand for accessible care services, making long-term care planning increasingly important.
7. **Social Inclusion:** Affordable care services can improve access to support for children, senior citizens and persons with disabilities, strengthening their participation and well-being.
8. **Healthier Population:** Preventive and community-based healthcare can help address chronic conditions and support healthier, longer and more balanced lives.

India's Existing Care Infrastructure and Policy Framework

1. **Early Childhood Care and Nutrition:** The **Anganwadi network**, strengthened through **Saksham Anganwadi and POSHAN 2.0**, provides an important foundation for early childhood care and nutrition.
2. **Childcare and Child Protection: Palna under Mission Shakti** supports crèche services, while **Mission Vatsalya** addresses child protection needs.
3. **Eldercare and Disability Support:** Social security provisions and support measures for senior citizens and persons with disabilities address care needs beyond early childhood.
4. **Healthcare Infrastructure and Access:** Hundreds of new medical colleges have strengthened health infrastructure, while **Ayushman Bharat wellness centres** have extended access to health services in villages.
5. **Emergency Healthcare Infrastructure:** The **Union Budget 2026–27** proposed establishing emergency and trauma care centres in district hospitals to **increase emergency and trauma care capacity by 50%**.

6. **Digital Healthcare:** The **Ayushman Bharat Digital Mission (ABDM)** and **Ayushman Bharat Health Account (ABHA)** support interoperable digital health records and a more integrated healthcare ecosystem.
7. **Telemedicine Services:** Telemedicine has improved healthcare access in remote areas, but simpler user experiences and greater public awareness remain necessary.

Key Challenges in Building a Holistic Care System

1. **Fragmented Governance:** Care programmes operate across ministries without a common framework, creating service gaps between childcare, eldercare and other support services.
2. **Inadequate Childcare Coverage:** The **United Nations Development Programme (UNDP)** estimates that **9–10 million women in low-income urban households** need childcare, indicating substantial unmet demand.
3. **Eldercare Service Gaps: 24% of older persons face limitations in daily activities**, while national data on care service availability and coverage remain limited.
4. **Inadequate Care Infrastructure:** Some crèches close before factory shifts end, while existing schemes may not adequately address eldercare needs.
5. **Undervalued Care Workforce:** Anganwadi workers, home-based caregivers and domestic workers often face inadequate remuneration or honorary employment arrangements.
6. **Weak Professional Recognition:** Limited standards, certification, social protection and career pathways prevent care work from receiving adequate recognition as skilled and paid employment.
7. **Inadequate Financing:** Care is often budgeted as welfare expenditure rather than investment in economic and social development, limiting its recognition in growth planning.
8. **Gendered Caregiving Norms:** Workplace policies often assume that caregiving is women's responsibility, restricting their employment opportunities and reinforcing unequal care responsibilities.

Way Forward

1. **National-Level Coordination: NITI Aayog's** *Reimagining Care: Strategies for Empowering Caregivers in Viksit Bharat@2047* proposes a **National Caregiving Council** to strengthen coordination.
2. **National Care Economy Mission:** The **Ministry of Social Justice and Empowerment's** May 2026 national workshop discussed a proposed mission with inter-ministerial governance, aligned financing and shared data.
3. **State-Level Care Roadmaps:** States should map demographic trends, care needs and existing services, identify gaps and prepare **costed plans with clear responsibilities**.
4. **Sustainable Financing:** Governments should align financing across programmes and recognise care services as **essential development investments**, not merely welfare expenditure.
5. **Professional Care Workforce:** Introduce **clear standards, certification, decent working conditions, social protection and career pathways** to recognise caregiving as skilled and paid work.
6. **Gender-Sensitive Workplace Policies:** Consider **statutory paid paternity leave in the private sector**, as recommended by the **Economic Advisory Council to the Prime Minister (EAC-PM)**.
7. **Outcome-Based Emergency Care:** Strengthen coordination among hospitals, ambulance networks and government programmes through **digital technologies, real-time monitoring, implementation research and continuous skilling** of emergency care personnel.

8. **Preventive and Holistic Healthcare:** Promote **community-based prevention, health awareness and lifestyle interventions**, while integrating appropriate medical care to address chronic conditions and improve well-being.
9. **Technology-Enabled Healthcare:** Use **artificial intelligence (AI), machine learning (ML) and digital health infrastructure** to improve healthcare efficiency, quality, interoperability and continuity of health records.
10. **Mental Health Awareness:** Promote supportive environments in workplaces and educational institutions to address **stress, burnout and students' mental health needs**.
11. **Global Policy Learning: Colombia's 2025 National Care Policy** coordinates 34 government entities; Brazil's national policy and plan use inter-ministerial committees, while Nepal's care mapping informed funding for care pilots.
12. **Women-Led Care Enterprises:** Support women-led childcare enterprises through government partnerships, including initiatives involving the **Ministry of Housing and Urban Affairs** and the **Women Entrepreneurship Platform**.
13. **International Collaboration: UNDP and UN Women's Transform Care initiative**, operating in more than 50 countries, support care mapping, workforce skilling and childcare enterprise development.

Conclusion

India must treat care as **essential social and economic infrastructure** for Viksit Bharat 2047. Connecting existing programmes, closing coverage gaps, financing services and improving care workers' conditions can make support more accessible and reliable. A coordinated care system can widen women's opportunities, create skilled jobs and improve well-being across people's lives.

Question for practice:

Discuss the significance of a holistic care system for India's inclusive development and the key challenges in building an integrated and sustainable care economy.

Source: The Hindu

How Neoliberalism Turned the World Against Its Young

UPSC Syllabus: Gs Paper 3- Mobilisation of resources, growth, development and employment.

Introduction

Young people across France, Albania, Spain, India, Bangladesh and Sri Lanka have taken to the streets, although their demands differ. Their anger reflects deeper economic problems, including unemployment, low growth, rising living costs and falling real wages. The neoliberal economic model, with its emphasis on reduced public expenditure and welfare spending, provides a broader explanation of this discontent, particularly in developed economies and Group of Seven (G7) countries.

Global Youth Unemployment and Economic Discontent

1. **Youth Protests:** Young people in several countries are protesting against **economic hardship, unemployment and declining living standards**. Although their immediate demands vary, their protests reflect growing dissatisfaction with existing economic conditions.
2. **France's Economic Discontent:** France faces **high unemployment, low economic growth, rising living costs and falling real wages**. Public expenditure cuts have added to dissatisfaction. Protests were triggered by a lack of resources and staff at Lycée Antoine-de-Saint-Exupéry in Créteil.
3. **Rising Youth Unemployment:** Youth unemployment in G7 countries is **nearly twice the overall unemployment rate or higher**, highlighting the difficulties faced by young job seekers.
4. **Demographic Contradiction:** Developed societies are ageing, and the youth population forms a shrinking share of their population. Yet, youth unemployment continues to rise, suggesting that the problem may lie in **inadequate labour demand rather than an excessive supply of young workers**.
5. **Generation Z:** Generation Z generally refers to those born between **1997 and 2012**. Young people entering the labour market face growing **economic insecurity and uncertainty** about their future.

Economic and Political Roots of Youth Unemployment

1. **Labour Market and Full Employment:** Capitalists create labour demand, while workers supply labour. In a simplified labour market model, their intersection represents **full employment at the prevailing wage rate**, assuming the model's conditions hold.
2. **Involuntary Unemployment:** When labour demand is lower than labour supply at the prevailing wage rate, some workers willing to work remain unemployed. This represents involuntary unemployment, where available jobs are insufficient for all job seekers.
3. **Orthodox Explanation:** Orthodox economists often attribute unemployment to **rigid labour markets, high wages, restrictive labour laws, powerful trade unions and skill shortages**. They argue that greater labour market flexibility can improve employment opportunities.
4. **Heterodox Explanation:** Heterodox economists emphasise **capitalists' hiring and investment decisions**. They argue that unemployment cannot be explained merely through workers' wages, skills or labour market restrictions.
5. **Investment Deficiency:** In the heterodox framework, investment drives economic activity and employment. Higher investment generates demand, production and jobs, while **low investment reduces labour demand**, leading to unemployment and slower growth.
6. **Consumption and Investment Relationship:** Under the simplified assumption that **workers consume their entire wages while capitalists save profits**, consumption depends on employment and the wage bill. Investment becomes crucial because insufficient investment weakens demand and employment.
7. **Keynesian Fiscal Expansion:** John Maynard Keynes emphasised the role of government expenditure in addressing deficient demand. **Higher public investment and fiscal expansion** can increase employment, production and profits by filling the investment gap.
8 **Kalecki's Disciplinary Argument:** Michal Kalecki argued that **permanent full employment could weaken employers' control over workers**. When jobs are readily available, workers become less dependent on employers, challenging the existing balance of power.

9 **Golden Age of Capitalism:** The period **1945–1973** witnessed **high economic growth** in the global North and an increasing working-class share. Greater government intervention and public welfare supported economic expansion and improved workers' position.

10. **Monetarist Counterrevolution:** During **1973–1980**, inflation increased amid **oil price shocks**. Monetarists, led by Milton Friedman's ideas, blamed excessive government intervention and advocated controlling inflation through monetary discipline rather than expansionary policies.

11. **Rise of Neoliberalism:** Ronald Reagan in the United States and Margaret Thatcher in the United Kingdom implemented neoliberal policies. These emphasised **reduced welfare expenditure, privatisation, flexible labour markets and restrictions on trade unions**, shifting economic power towards capitalists.

12. **Declining Working-Class Share:** Neoliberal policies weakened workers' bargaining power and reduced their share of national income. **Falling wage shares** weakened consumption demand, contributing to **underconsumption and slower investment**.

Consequences of Neoliberalism for Young People and the Economy

1. **Underconsumption: Falling wages reduce workers' purchasing power**. Since workers constitute a major source of consumption demand, declining incomes can weaken demand for goods and services.

2. **Declining Investment and Growth:** Weak consumption demand reduces business sales and profits. Idle production capacity discourages further investment, creating a cycle of **low demand, low investment and slow economic growth**.

3. **Persistent Unemployment:** Insufficient investment **limits job creation**. Weak economic growth and the replacement of workers by machinery further intensify employment challenges.

4. **Growing Youth Insecurity:** Young people face unemployment, low wages, rising living costs and uncertain career prospects. These conditions make **economic independence and financial security** increasingly difficult.

5. **Artificial Intelligence and Employment:** Artificial intelligence (AI) and technological advancement **may intensify employment insecurity** if machines replace workers without sufficient creation of new jobs.

6. **Commercialisation of Education:** Young people are encouraged to acquire skills and higher qualifications to improve employability. However, neoliberalism has turned education into a **profit-oriented industry**, increasing the **financial burden on students**.

7. **Uncertain Returns on Education:** Rising education costs **do not guarantee remunerative employment**. Young people may invest heavily in degrees but still face unemployment, underemployment or inadequate earnings.

8. **Growing Resistance:** Economic insecurity and the perception of an unfair economic system are encouraging young people to challenge existing institutions and policies through **protests and collective resistance**.

Way Forward

1. **Strengthen Public Investment:** Greater government investment can **support aggregate demand, production and employment**, particularly when private investment remains inadequate.

2. **Reinforce Public Welfare:** Adequate public expenditure and welfare support can **reduce economic insecurity** and help protect vulnerable sections of society.

3. **Improve Workers' Bargaining Power:** Protecting **workers' bargaining power and fair wages** can strengthen household consumption and improve the distribution of economic gains.
4. **Make Education Affordable: Reducing the financial burden of education** can prevent young people from facing excessive costs without assured employment opportunities.
5. **Promote Employment-Generating Growth:** Economic growth should be accompanied by **productive investment and sufficient job creation** to ensure that young people benefit from economic progress.

Conclusion

Youth anger reflects weaknesses in the neoliberal economic order, including weak labour demand, declining wage shares and rising education costs. Addressing these problems requires greater attention to employment, public welfare and workers' bargaining power. Sustainable prosperity must support productive investment and workers' economic security, rather than leave young people facing uncertain futures.

Question for practice:

Examine how neoliberal economic policies have contributed to rising youth unemployment and economic insecurity, and suggest measures to address these challenges.

Source: The Hindu

Operationalise life cover for delivery workers

Source: The post **"Operationalise life cover for delivery workers"** has been created based on **"Operationalise life cover for delivery workers"** published in **"Business Line"** on 30th September 2026.

UPSC Syllabus: GS 2- Governance

Context: A 33-year-old delivery rider in Hyderabad recently died of a heart attack after a long shift. His family later discovered that the platform's insurance covered only accidental deaths, leaving them without financial support. Such cases highlight the lack of comprehensive life insurance for gig workers. Also, India has approximately 1.2 crore gig workers, and their number is projected to reach 2.3 crore by 2030 (NITI Aayog), making effective social security measures increasingly important.

Background and Existing Provisions

1. **Code on Social Security, 2020:** Sections 113 and 114 of the Code on Social Security, 2020 require the Central and State Governments to frame social security schemes for gig and platform workers, including life and disability cover, accident insurance, health and maternity benefits.
    a. **Implementation gap:** The Code came into force on 21 November 2025, but life insurance coverage for gig workers has not been fully operationalised.
    b. **Motor Vehicle Aggregator Guidelines:** The 2020 guidelines prescribed ₹10 lakh term life insurance for registered drivers of aggregators, and the revised guidelines of July 2025 reiterated this requirement.
2. **Karnataka's initiative:** The Platform Based Gig Workers (Social Security and Welfare) Act, 2025, provides ₹2 lakh life cover payable on natural death.

Major Challenges Faced by Gig Workers

1. **Inadequate insurance coverage:** Most platforms provide personal accident insurance, which generally does not cover natural deaths, such as deaths caused by heart attacks.
2. **Financial insecurity:** The death of a gig worker can leave the family without financial support, particularly when the worker is the primary earner.
3. **Occupational risks:** Night-time deliveries, traffic accidents, pressure for quick deliveries, frequent mobile use while driving and irregular meals increase the health and safety risks faced by delivery workers.
4. **Poor implementation:** Despite existing legal provisions and guidelines, adequate life insurance coverage has not been effectively implemented.
5. **Limited state-level protection**: Karnataka is the only state whose legislation provides life cover payable on natural death.

Suggested Measures

1. **Make PMJJBY and PMSBY basic insurance covers:** The government should use these existing schemes to provide immediate and affordable insurance protection to gig workers.
2. **Expand insurance coverage:** PMJJBY provides ₹2 lakh cover for death due to any cause at an annual premium of ₹436, while PMSBY provides ₹2 lakh cover for accidental death at an annual premium of ₹20.
3. **Share the premium burden:** Platforms should bear the insurance premiums or deduct them from workers' initial earnings at the time of onboarding.
4. **Enforce aggregator guidelines:** The Ministry of Road Transport and Highways should ensure compliance with the prescribed ₹10 lakh term life cover for registered drivers and link licence renewal to compliance.
5. **Operationalise the Social Security Code:** The Ministry of Labour should implement a clear scheme that provides life insurance as a defined benefit for delivery workers.
6. **Develop suitable insurance products:** IRDAI should issue specific guidelines for platform workers by defining the policyholder, enrolment conditions and insurance amounts.
7. **Use platform data for risk assessment:** Insurers should use information on working hours, night shifts, accident history, traffic zones and telematics to assess risks and develop suitable insurance products.

Conclusion: Ensuring life insurance for gig workers is essential for inclusive social security and the financial protection of vulnerable families. Making PMJJBY and PMSBY basic insurance covers, enforcing existing guidelines and operationalising the Social Security Code can bridge the gap between legal provisions and actual protection.

Question: Gig and platform workers face significant social security gaps, particularly in life insurance coverage. Discuss the challenges and suggest measures to ensure adequate life cover for them.

Source: Business Line

For federalism to be truly cooperative, revive the Inter-State Council

Source: The post **"For federalism to be truly cooperative, revive the Inter-State Council"** has been created based on **"For federalism to be truly cooperative, revive the Inter-State Council"** published in **"Indian Express"** on 30th September 2026.

UPSC Syllabus: GS 2- Governance

Context: India is a country with great diversity. Different states have different languages, cultures, economic conditions and political interests. Therefore, the Central Government cannot make every important decision without consulting the state, especially with regard to issues like delimitation. In this context, India needs to revive the Inter-State Council to strengthen cooperative federalism and improve relations between the Centre and the states,

About Inter-State Council

1. **Constitutional basis:** Article 263 of the Indian Constitution empowers the President to establish an Inter-State Council when it is considered to serve the public interest.
2. **Establishment:** The Inter-State Council was formally established in 1990 on the recommendation of the Sarkaria Commission, which examined Centre-State relations.
3. **Main objective:** The Council aims to promote coordination between the Centre and the States by providing a common platform to discuss matters of shared interest.
4. **Dispute resolution:** The Council can inquire into and advise on disputes between States, discuss subjects of common interest and make recommendations for better coordination of policies and action.
5. **Role in federalism:** The Council provides an institutional mechanism through which State governments can communicate their concerns to the Centre and participate in discussions on national policy issues.

Why is the Revival of the Inter-State Council Necessary?

1. **Strengthening Centre-State trust:** Regular meetings can reduce misunderstandings between the Centre and the States and help build relationships based on mutual respect and cooperation.
2. **Promoting cooperative federalism:** The Council can ensure that the Centre and the States jointly discuss and address issues that require coordinated action rather than relying on unilateral decisions.
3. **Addressing centralised decision-making:** The revival of the Council can provide States with an opportunity to express their views before major national policies affecting their interests are finalised.
4. **Resolving political differences:** The Council can provide a formal platform for dialogue between governments belonging to different political parties and reduce unnecessary political confrontation.
5. **Addressing complex governance challenges:** Issues such as taxation, public health, environmental protection, internal security and resource sharing require coordination between the Centre and the States.
6. **Building consensus on delimitation:** Delimitation can affect the distribution of parliamentary representation among States. The Council can facilitate consultation with State governments before decisions are taken on such a significant constitutional issue.
7. **Improving implementation of national schemes:** State governments are responsible for implementing many national policies. Their participation in policy discussions can help ensure that schemes reflect regional needs and administrative realities.

Reason behind Inter-State Council Remaining Ineffective

1. **Irregular meetings:** The Council has experienced prolonged gaps between meetings, which have weakened its ability to function as a continuous forum for consultation.
2. **Limited institutional autonomy:** The Council has functioned under the administrative control of the Union Home Ministry, limiting its independent role in setting the national agenda.

3. **Weak influence on policy decisions:** The Council has not acquired sufficient institutional authority and prominence to effectively influence major legislative and policy decisions affecting State interests.
4. **Preference for unilateral decisions:** Successive governments have often relied on centralised policymaking or informal negotiations instead of regular institutional consultation with States.
5. **Declining trust between governments**: Inadequate consultation has contributed to tensions between the Centre and States, particularly where different political parties govern them.
6. **Lack of continuous deliberation:** The absence of a systematic process of consultation prevents governments from discussing emerging issues and resolving disagreements before they become major political or constitutional disputes.

Measures Suggested for Strengthening the Council

1. **Institutionalise regular meetings:** The Council should meet at fixed and predictable intervals, with the Prime Minister, relevant Union Ministers and Chief Ministers participating in discussions on important national issues.
2. **Ensure greater institutional autonomy:** The Council's Secretariat should be strengthened as an independent statutory authority with adequate administrative capacity and technical expertise.
3. **Promote consultation before major decisions:** The Centre should consult State governments on significant policy reforms and constitutional changes that may affect their powers, finances or political representation.
4. **Strengthen dispute resolution:** The Council should be used more effectively to facilitate negotiations on inter-State disputes involving natural resources, infrastructure and revenue sharing.
5. **Improve policy coordination:** The Council should provide a platform for evaluating the impact of national schemes on States and identifying practical solutions to implementation problems.
6. **Ensure equal participation:** All States should have a meaningful opportunity to present their concerns, irrespective of the political party governing them, so that the Council remains an inclusive federal institution.
7. **Promote evidence-based discussions:** Technical experts and relevant officials should assist the Council in examining complex issues and developing practical recommendations based on facts and regional requirements.

Conclusion: The Inter-State Council can play an important role in transforming cooperative federalism from a stated objective into an effective governance practice. Its revival through regular meetings, greater autonomy and meaningful consultation can strengthen Centre-State relations, improve policy coordination and protect the interests of India's diverse States.

Question: "Cooperative federalism in India requires institutionalised consultation between the Centre and the States rather than centralised decision-making." In this context, examine the role of the Inter-State Council under Article 263 of the Constitution and suggest measures to make it more effective.

Source: Indian Express

Greenland Deal but Not the End of the Arctic Contest

UPSC Syllabus: Gs Paper 2- International Relations

Introduction

The United States, Denmark and Greenland signed a security agreement on September 22, 2026, amid tensions over President Donald Trump's interest in gaining control of Greenland. The agreement expands U.S. military access while reaffirming Danish sovereignty and Greenlanders' right to self-determination. Yet its investment restrictions and lasting security commitments raise wider questions about Arctic competition, NATO cohesion, Greenland's political future and India's economic interests and regional cooperation.

Greenland's Strategic Importance in Changing Arctic Geopolitics

1. **Strategic Location**: Greenland occupies a strategically important position in the Arctic, connecting North America and Europe and influencing regional security and military calculations.
2. **Military Significance**: Its geographical position supports military surveillance, defence operations and monitoring of strategic movements across the Arctic region.
3. **Critical Mineral Resources**: Greenland's mineral resources have attracted strategic interest, as access to resources can influence industrial competitiveness and supply-chain security.
4. **Emerging Shipping Routes**: Changing Arctic conditions and growing shipping opportunities are increasing the region's economic and geopolitical importance for major powers.
5. **Infrastructure and Strategic Competition**: Investment in infrastructure, resource development and connectivity has become an important dimension of competition among Arctic and non-Arctic powers.
6. **Space and Defence Interests**: Arctic infrastructure and military facilities also support broader strategic interests, including defence capabilities and space-related activities.
7. **Major Power Rivalry**: Russia's Arctic presence and China's growing regional interests have contributed to strategic competition, although the immediate military threat should not be exaggerated.

Key Provisions of Greenland Agreement: Expanded U.S. Access Without Territorial Transfer

1. **Reaffirmation of Sovereignty**: The agreement reaffirms Danish sovereignty over Greenland and Greenlanders' right to self-determination, without transferring Greenland's territorial ownership to the United States.
2. **Expanded Military Access**: The agreement expands U.S. military access to Greenland, strengthening American defence capabilities and operational flexibility in the Arctic.
3. **Military Facilities**: The arrangement involves military facilities and expanded access, including strategic locations such as Pituffik, Narsarsuaq and Mestersvig.
4. **Wider Operational Access**: The United States receives wider access for military aircraft and ships, supporting its ability to operate across Greenland and the surrounding Arctic region.
5. **Golden Dome Cooperation**: The agreement provides for cooperation linked to the Golden Dome initiative, connecting Greenland's strategic position with broader U.S. defence objectives.
6. **Investment Screening Restrictions**: Article 10 of the 2026 U.S.-Denmark-Greenland Agreement, which amends and supplements the 1951 Defence of Greenland Agreement, restricts certain investments and influence in sensitive sectors by non-eligible states and investors, subject to agreed exceptions.
7. **Military Presence Restrictions**: The agreement seeks to prevent non-NATO states, particularly Russia and China, from establishing military bases or maintaining a military presence in Greenland, subject to agreed exceptions.

8. **Approval and Duration**: The agreement remains subject to required parliamentary procedures in Denmark and Greenland. It has no expiry date, and some provisions would continue if Greenland becomes independent.

Broader Implications of Greenland Agreement

1. **Denmark's Diplomatic Position**: Denmark seeks to balance its sovereignty and Greenland's political rights with American security interests, while maintaining its wider transatlantic relationships.
2. **Greenland's Political Concerns**: Expanded military commitments and investment restrictions may raise concerns about Greenland's autonomy, economic choices and ability to determine its political future.
3. **Limits on Investment Choices**: Restrictions on certain investors could reduce Greenland's economic flexibility and influence its ability to attract capital, technology and infrastructure investment.
4. **Western Security Consolidation**: The agreement strengthens U.S. strategic access and reinforces Western defence arrangements, making Greenland more closely integrated into Arctic security planning.
5. **NATO's Internal Vulnerabilities**: Although the agreement may strengthen regional defence, tensions over sovereignty and unequal influence could expose disagreements within the North Atlantic Treaty Organization (NATO).
6. **Transatlantic Distrust**: Earlier American interest in acquiring Greenland has created diplomatic tensions, highlighting the importance of trust, consultation and respect for sovereignty among allies.
7. **Economic and Strategic Competition**: Arctic resources, infrastructure, military facilities and shipping opportunities are likely to remain important sources of competition among major powers.
8. **Risk of Strategic Fragmentation**: Exclusionary investment and security arrangements may deepen geopolitical divisions, encourage competing partnerships and complicate broader international cooperation in the Arctic.

Implications for India

1. **Restricted Economic Access**: India is neither a NATO member nor a NATO partner. Its position may limit access to opportunities affected by the agreement's investment restrictions, depending on the applicable eligibility conditions.
2. **Investment and Mining Opportunities**: India has potential interests in Greenland's mining, infrastructure and resource sectors, particularly for diversifying critical mineral supply chains.
3. **Diplomatic Engagement**: On September 22, India's diplomat Manish Prabhat held meetings in Nuuk, reflecting India's interest in investment, mining, skilled labour, tourism and cultural cooperation.
4. **Scope for Joint Ventures**: Indian businesses may explore joint ventures with eligible NATO- or European Union-linked partners where the relevant parties permit such participation.
5. **Supply-Chain Resilience**: Access to Arctic resources could support India's efforts to diversify sourcing, strengthen industrial resilience and reduce dependence on concentrated supply chains.
6. **India-Nordic-EU Cooperation**: Greater cooperation with Nordic countries and the European Union could provide India with opportunities in mining, investment, technology and wider economic partnerships.

7. **Arctic and Indo-Pacific Linkages**: India can connect its Arctic interests with its Indo-Pacific engagement through economic cooperation, strategic partnerships and broader international collaboration.
8. **Potential Russian Advantage**: Restrictions on India's economic participation could encourage greater Indian engagement with Russia's Arctic region. This may create additional economic opportunities for Russia, depending on India's choices.

Way Forward

1. **Respect Sovereignty and Self-Determination**: Arctic security arrangements should respect Greenland's political rights, Danish sovereignty and the legitimate interests of Greenland's population.
2. **Ensure Inclusive Decision-Making**: Greenland should have meaningful participation in decisions concerning military facilities, investment restrictions, resource development and long-term economic priorities.
3. **Balance Security and Economic Development**: Security commitments should be balanced with investment opportunities, infrastructure development and economic choices that support Greenland's sustainable prosperity.
4. **Strengthen Diplomatic Consultation**: The United States, Denmark and Greenland should maintain dialogue to address disagreements, improve trust and prevent tensions from undermining wider NATO cohesion.
5. **Diversify India's Arctic Partnerships**: India should deepen cooperation with Nordic countries, European partners and other relevant stakeholders while evaluating investment opportunities within applicable legal restrictions.
6. **Promote Broader International Cooperation**: Cooperation on resources, connectivity and economic development can help manage Arctic competition and strengthen links between Arctic and Indo-Pacific interests.

Conclusion

The agreement eases an immediate diplomatic crisis but does not settle the Arctic contest. Its success depends on balancing security, sovereignty and economic cooperation. **An inclusive approach could connect Arctic and Indo-Pacific interests,** while excessive restrictions may deepen fragmentation and encourage India to expand engagement with Russia's Arctic region.

Question for practice:

Examine how the Greenland security agreement reflects the changing geopolitics of the Arctic and discuss its implications for India.

Source: The Hindu; Financial express ; The Arctic Institute

CONCERNS OVER THE COLLEGIUM SYSTEM

UPSC Syllabus: Gs Paper 2- Constitution of India

Introduction

Judicial appointments in India raise a key constitutional question: how can **judicial independence** be protected while ensuring **transparency and accountability**? The collegium system gives primacy to judges in selecting higher judiciary members, but concerns persist over closed-door decisions, unclear selection criteria,

alleged favouritism and unequal representation. Debate has also emerged over **possible government pre-approval** of names before collegium deliberations, renewing questions about executive influence and institutional autonomy.

Constitutional Provisions Governing the Appointment of Judges

1. **Appointment of Supreme Court judges:** Article 124(2) provides that the President appoints Supreme Court judges through a warrant under his hand and seal.
2. **Appointment of High Court judges:** Article 217(1) provides that the President appoints High Court judges after consultation with the CJI, Governor and, where applicable, the High Court Chief Justice.
3. **Executive's original role:** The original constitutional framework provided for executive appointments after consultation with the judiciary, retaining government responsibility while incorporating judicial expertise.
4. **Safeguarding judicial independence:** Judicial consultation aimed to protect independence and reduce political favouritism by involving judges able to assess candidates' professional and technical merits.
5. **Constitutional basis of the collegium:** The Constitution does not expressly establish the collegium; it emerged through Supreme Court interpretations of constitutional provisions.

Evolution of the Collegium System: From Executive Primacy to Judicial Primacy

1. **First Judges Case (1981):** In S.P. Gupta v. Union of India, a seven-judge bench upheld executive primacy in judicial appointments.
    - **Meaning of consultation:** The Court treated judicial opinions as consultative rather than binding, allowing the government to reject recommendations, including unanimous ones.
    - **Need for a better mechanism:** The judgment also suggested a broad-based advisory body comprising people familiar with candidates' suitability and judicial requirements.
2. **Second Judges Case (1993):** A nine-judge bench overruled the First Judges Case and established judicial primacy, creating the collegium framework to safeguard judicial independence.
    - **Collective judicial opinion:** The CJI's opinion was to reflect collective consultation with other senior judges, limiting unilateral discretion.
3. **Third Judges Case (1998):** The Court clarified that consultation required multiple judges' opinions and expanded the collegium framework for appointments and transfers.
4. **Fourth Judges Case (2015):** The Supreme Court struck down the 99th Constitutional Amendment and the National Judicial Appointments Commission (NJAC) Act, holding them incompatible with judicial independence, a basic-structure feature.
5. **Continuity:** The NJAC's invalidation preserved the collegium as the existing appointment mechanism.

Composition and Procedure of Judicial Appointments

1. **Supreme Court collegium:** Comprises the CJI and the four senior-most Supreme Court judges.
2. **High Court collegium:** Comprises the High Court Chief Justice and two senior-most judges; proposals also undergo consideration at the Supreme Court level.
3. **Initiation of proposals:** The collegium initiates appointment proposals and forwards its recommendations to the Central Government.

4. **Memorandum of Procedure (MoP):** Prepared by the Union Law Ministry in 1998 on the basis of the Second and Third Judges Cases; it guides the appointment process.
5. **Government reconsideration:** The Centre may return recommendations with objections or reservations for reconsideration.
6. **Reiteration:** If the collegium reiterates a recommendation, the appointment should be made under the established procedure, limiting the scope for government rejection.
7. **NJAC composition:** The proposed National Judicial Appointments Commission included the CJI, two senior Supreme Court judges, the Union Law Minister and two eminent persons selected by a committee comprising the Prime Minister, CJI and Leader of Opposition.
8. **Revision of MoP:** Following the **striking down of the NJAC in 2015, the Supreme Court directed the government to revise the Memorandum of Procedure (MoP)** to improve transparency, objectivity and institutional accountability, including a structured secretariat. However, differences between the government and judiciary delayed its finalisation for 11 years.

Major Concerns over the Collegium System

1. **Lack of transparency:** Closed-door deliberations and limited public information about selection decisions weaken public understanding; the process has also been criticised for lacking official minutes.
2. **Weak institutional accountability:** The absence of an established secretariat raises concerns about systematic records, institutional oversight and responsibility for decisions.
3. **Lack of objective criteria:** No sufficiently clear, publicly known standards for evaluating candidates may leave selection vulnerable to subjective judgment, including in discussions concerning the CJI.
4. **Nepotism and favouritism:** Allegations that relatives or associates of sitting judges may receive preference raise questions about fairness and equal opportunity.
5. **Concentration of power:** Authority concentrated within a small judicial group, with limited external participation, can weaken checks and balances.
6. **Unequal representation:** Women remain significantly underrepresented in the higher judiciary, highlighting the need for wider and more inclusive consideration of candidates.

International Practices

1. **United States:** The President nominates Federal Supreme Court judges, and the Senate confirms the nominees.
2. **United Kingdom:** A 15-member Judicial Appointments Commission, drawing from the judiciary, legal profession and public, selects judicial candidates.
3. **UK Supreme Court:** Its selection commission includes the UKSC President, a senior UK judge and three other members, including a JAC member.
4. **South Africa:** A 23-member Judicial Service Commission, including representatives from the judiciary, legislature, executive, legal profession and academia, recommends candidates to the President.
5. **Relevance for India:** These models illustrate options for broader participation, but differences in constitutional structures mean no model establishes automatic superiority.

Way Forward

1. **Finalise the revised Memorandum of Procedure (MoP):** Resolve outstanding differences and establish a clear, predictable appointment procedure.

2. **Improve transparency:** Publish appropriate selection criteria and meaningful reasons, while protecting confidential and sensitive information.
3. **Strengthen accountability:** Maintain systematic records and clear procedural standards to make decisions more consistent and reviewable.
4. **Broaden participation:** Consider structured inputs from the legislature, Bar Council and academia without compromising judicial independence.
5. **Explore institutional reform:** Consider a reformed appointments commission informed by international practices, including lessons from the UK and South Africa.
6. **Preserve judicial independence:** Any redesigned mechanism should include credible safeguards against executive dominance; a judicial veto over final recommendations is one option for consideration.

Conclusion

The collegium system has helped protect **judicial independence**, but limited transparency, accountability and representation require reform. Finalising the revised **Memorandum of Procedure** can improve clarity and consultation. Any broader appointment mechanism should widen participation while preserving safeguards against executive control, ensuring selections remain fair, merit-based and credible.

Question for Practice:

Discuss the major concerns associated with the collegium system of judicial appointments in India and suggest measures to make it more transparent and accountable while safeguarding judicial independence.

Source: The Hindu

Operationalise life cover for delivery workers

Source: The post **"Operationalise life cover for delivery workers"** has been created based on **"Operationalise life cover for delivery workers"** published in **"Business Line"** on 30th September 2026.

UPSC Syllabus: GS 2- Governance

Context: A 33-year-old delivery rider in Hyderabad recently died of a heart attack after a long shift. His family later discovered that the platform's insurance covered only accidental deaths, leaving them without financial support. Such cases highlight the lack of comprehensive life insurance for gig workers. Also, India has approximately 1.2 crore gig workers, and their number is projected to reach 2.3 crore by 2030 (NITI Aayog), making effective social security measures increasingly important.

Background and Existing Provisions

3. **Code on Social Security, 2020:** Sections 113 and 114 of the Code on Social Security, 2020 require the Central and State Governments to frame social security schemes for gig and platform workers, including life and disability cover, accident insurance, health and maternity benefits.
    a. **Implementation gap:** The Code came into force on 21 November 2025, but life insurance coverage for gig workers has not been fully operationalised.
    b. **Motor Vehicle Aggregator Guidelines:** The 2020 guidelines prescribed ₹10 lakh term life insurance for registered drivers of aggregators, and the revised guidelines of July 2025 reiterated this requirement.

4. **Karnataka's initiative:** The Platform Based Gig Workers (Social Security and Welfare) Act, 2025, provides ₹2 lakh life cover payable on natural death.

Major Challenges Faced by Gig Workers

6. **Inadequate insurance coverage:** Most platforms provide personal accident insurance, which generally does not cover natural deaths, such as deaths caused by heart attacks.
7. **Financial insecurity:** The death of a gig worker can leave the family without financial support, particularly when the worker is the primary earner.
8. **Occupational risks:** Night-time deliveries, traffic accidents, pressure for quick deliveries, frequent mobile use while driving and irregular meals increase the health and safety risks faced by delivery workers.
9. **Poor implementation:** Despite existing legal provisions and guidelines, adequate life insurance coverage has not been effectively implemented.
10. **Limited state-level protection**: Karnataka is the only state whose legislation provides life cover payable on natural death.

Suggested Measures

8. **Make PMJJBY and PMSBY basic insurance covers:** The government should use these existing schemes to provide immediate and affordable insurance protection to gig workers.
9. **Expand insurance coverage:** PMJJBY provides ₹2 lakh cover for death due to any cause at an annual premium of ₹436, while PMSBY provides ₹2 lakh cover for accidental death at an annual premium of ₹20.
10. **Share the premium burden:** Platforms should bear the insurance premiums or deduct them from workers' initial earnings at the time of onboarding.
11. **Enforce aggregator guidelines:** The Ministry of Road Transport and Highways should ensure compliance with the prescribed ₹10 lakh term life cover for registered drivers and link licence renewal to compliance.
12. **Operationalise the Social Security Code:** The Ministry of Labour should implement a clear scheme that provides life insurance as a defined benefit for delivery workers.
13. **Develop suitable insurance products:** IRDAI should issue specific guidelines for platform workers by defining the policyholder, enrolment conditions and insurance amounts.
14. **Use platform data for risk assessment:** Insurers should use information on working hours, night shifts, accident history, traffic zones and telematics to assess risks and develop suitable insurance products.

Conclusion: Ensuring life insurance for gig workers is essential for inclusive social security and the financial protection of vulnerable families. Making PMJJBY and PMSBY basic insurance covers, enforcing existing guidelines and operationalising the Social Security Code can bridge the gap between legal provisions and actual protection.

Question: Gig and platform workers face significant social security gaps, particularly in life insurance coverage. Discuss the challenges and suggest measures to ensure adequate life cover for them.

Source: Business Line

For federalism to be truly cooperative, revive the Inter-State Council

Source: The post **"For federalism to be truly cooperative, revive the Inter-State Council"** has been created based on **"For federalism to be truly cooperative, revive the Inter-State Council"** published in **"Indian Express"** on 30th September 2026.

UPSC Syllabus: GS 2- Governance

Context: India is a country with great diversity. Different states have different languages, cultures, economic conditions and political interests. Therefore, the Central Government cannot make every important decision without consulting the state, especially with regard to issues like delimitation. In this context, India needs to revive the Inter-State Council to strengthen cooperative federalism and improve relations between the Centre and the states,

About Inter-State Council

6. **Constitutional basis:** Article 263 of the Indian Constitution empowers the President to establish an Inter-State Council when it is considered to serve the public interest.
7. **Establishment:** The Inter-State Council was formally established in 1990 on the recommendation of the Sarkaria Commission, which examined Centre-State relations.
8. **Main objective:** The Council aims to promote coordination between the Centre and the States by providing a common platform to discuss matters of shared interest.
9. **Dispute resolution:** The Council can inquire into and advise on disputes between States, discuss subjects of common interest and make recommendations for better coordination of policies and action.
10. **Role in federalism:** The Council provides an institutional mechanism through which State governments can communicate their concerns to the Centre and participate in discussions on national policy issues.

Why is the Revival of the Inter-State Council Necessary?

8. **Strengthening Centre-State trust:** Regular meetings can reduce misunderstandings between the Centre and the States and help build relationships based on mutual respect and cooperation.
9. **Promoting cooperative federalism:** The Council can ensure that the Centre and the States jointly discuss and address issues that require coordinated action rather than relying on unilateral decisions.
10. **Addressing centralised decision-making:** The revival of the Council can provide States with an opportunity to express their views before major national policies affecting their interests are finalised.
11. **Resolving political differences:** The Council can provide a formal platform for dialogue between governments belonging to different political parties and reduce unnecessary political confrontation.
12. **Addressing complex governance challenges:** Issues such as taxation, public health, environmental protection, internal security and resource sharing require coordination between the Centre and the States.
13. **Building consensus on delimitation:** Delimitation can affect the distribution of parliamentary representation among States. The Council can facilitate consultation with State governments before decisions are taken on such a significant constitutional issue.
14. **Improving implementation of national schemes:** State governments are responsible for implementing many national policies. Their participation in policy discussions can help ensure that schemes reflect regional needs and administrative realities.

Reason behind Inter-State Council Remaining Ineffective

7. **Irregular meetings:** The Council has experienced prolonged gaps between meetings, which have weakened its ability to function as a continuous forum for consultation.
8. **Limited institutional autonomy:** The Council has functioned under the administrative control of the Union Home Ministry, limiting its independent role in setting the national agenda.
9. **Weak influence on policy decisions:** The Council has not acquired sufficient institutional authority and prominence to effectively influence major legislative and policy decisions affecting State interests.
10. **Preference for unilateral decisions:** Successive governments have often relied on centralised policymaking or informal negotiations instead of regular institutional consultation with States.
11. **Declining trust between governments**: Inadequate consultation has contributed to tensions between the Centre and States, particularly where different political parties govern them.
12. **Lack of continuous deliberation:** The absence of a systematic process of consultation prevents governments from discussing emerging issues and resolving disagreements before they become major political or constitutional disputes.

Measures Suggested for Strengthening the Council

8. **Institutionalise regular meetings:** The Council should meet at fixed and predictable intervals, with the Prime Minister, relevant Union Ministers and Chief Ministers participating in discussions on important national issues.
9. **Ensure greater institutional autonomy:** The Council's Secretariat should be strengthened as an independent statutory authority with adequate administrative capacity and technical expertise.
10. **Promote consultation before major decisions:** The Centre should consult State governments on significant policy reforms and constitutional changes that may affect their powers, finances or political representation.
11. **Strengthen dispute resolution:** The Council should be used more effectively to facilitate negotiations on inter-State disputes involving natural resources, infrastructure and revenue sharing.
12. **Improve policy coordination:** The Council should provide a platform for evaluating the impact of national schemes on States and identifying practical solutions to implementation problems.
13. **Ensure equal participation:** All States should have a meaningful opportunity to present their concerns, irrespective of the political party governing them, so that the Council remains an inclusive federal institution.
14. **Promote evidence-based discussions:** Technical experts and relevant officials should assist the Council in examining complex issues and developing practical recommendations based on facts and regional requirements.

Conclusion: The Inter-State Council can play an important role in transforming cooperative federalism from a stated objective into an effective governance practice. Its revival through regular meetings, greater autonomy and meaningful consultation can strengthen Centre-State relations, improve policy coordination and protect the interests of India's diverse States.

Question: "Cooperative federalism in India requires institutionalised consultation between the Centre and the States rather than centralised decision-making." In this context, examine the role of the Inter-State Council under Article 263 of the Constitution and suggest measures to make it more effective.

Source: Indian Express

Greenland Deal but Not the End of the Arctic Contest

UPSC Syllabus: Gs Paper 2- International Relations

Introduction

The United States, Denmark and Greenland signed a security agreement on September 22, 2026, amid tensions over President Donald Trump's interest in gaining control of Greenland. The agreement expands U.S. military access while reaffirming Danish sovereignty and Greenlanders' right to self-determination. Yet its investment restrictions and lasting security commitments raise wider questions about Arctic competition, NATO cohesion, Greenland's political future and India's economic interests and regional cooperation.

Greenland's Strategic Importance in Changing Arctic Geopolitics

1. **Strategic Location**: Greenland occupies a strategically important position in the Arctic, connecting North America and Europe and influencing regional security and military calculations.
2. **Military Significance**: Its geographical position supports military surveillance, defence operations and monitoring of strategic movements across the Arctic region.
3. **Critical Mineral Resources**: Greenland's mineral resources have attracted strategic interest, as access to resources can influence industrial competitiveness and supply-chain security.
4. **Emerging Shipping Routes**: Changing Arctic conditions and growing shipping opportunities are increasing the region's economic and geopolitical importance for major powers.
5. **Infrastructure and Strategic Competition**: Investment in infrastructure, resource development and connectivity has become an important dimension of competition among Arctic and non-Arctic powers.
6. **Space and Defence Interests**: Arctic infrastructure and military facilities also support broader strategic interests, including defence capabilities and space-related activities.
7. **Major Power Rivalry**: Russia's Arctic presence and China's growing regional interests have contributed to strategic competition, although the immediate military threat should not be exaggerated.

Key Provisions of Greenland Agreement: Expanded U.S. Access Without Territorial Transfer

1. **Reaffirmation of Sovereignty**: The agreement reaffirms Danish sovereignty over Greenland and Greenlanders' right to self-determination, without transferring Greenland's territorial ownership to the United States.
2. **Expanded Military Access**: The agreement expands U.S. military access to Greenland, strengthening American defence capabilities and operational flexibility in the Arctic.
3. **Military Facilities**: The arrangement involves military facilities and expanded access, including strategic locations such as Pituffik, Narsarsuaq and Mestersvig.
4. **Wider Operational Access**: The United States receives wider access for military aircraft and ships, supporting its ability to operate across Greenland and the surrounding Arctic region.
5. **Golden Dome Cooperation**: The agreement provides for cooperation linked to the Golden Dome initiative, connecting Greenland's strategic position with broader U.S. defence objectives.
6. **Investment Screening Restrictions**: Article 10 of the 2026 U.S.-Denmark-Greenland Agreement, which amends and supplements the 1951 Defence of Greenland Agreement, restricts certain investments and influence in sensitive sectors by non-eligible states and investors, subject to agreed exceptions.

7. **Military Presence Restrictions**: The agreement seeks to prevent non-NATO states, particularly Russia and China, from establishing military bases or maintaining a military presence in Greenland, subject to agreed exceptions.
8. **Approval and Duration**: The agreement remains subject to required parliamentary procedures in Denmark and Greenland. It has no expiry date, and some provisions would continue if Greenland becomes independent.

Broader Implications of Greenland Agreement

1. **Denmark's Diplomatic Position**: Denmark seeks to balance its sovereignty and Greenland's political rights with American security interests, while maintaining its wider transatlantic relationships.
2. **Greenland's Political Concerns**: Expanded military commitments and investment restrictions may raise concerns about Greenland's autonomy, economic choices and ability to determine its political future.
3. **Limits on Investment Choices**: Restrictions on certain investors could reduce Greenland's economic flexibility and influence its ability to attract capital, technology and infrastructure investment.
4. **Western Security Consolidation**: The agreement strengthens U.S. strategic access and reinforces Western defence arrangements, making Greenland more closely integrated into Arctic security planning.
5. **NATO's Internal Vulnerabilities**: Although the agreement may strengthen regional defence, tensions over sovereignty and unequal influence could expose disagreements within the North Atlantic Treaty Organization (NATO).
6. **Transatlantic Distrust**: Earlier American interest in acquiring Greenland has created diplomatic tensions, highlighting the importance of trust, consultation and respect for sovereignty among allies.
7. **Economic and Strategic Competition**: Arctic resources, infrastructure, military facilities and shipping opportunities are likely to remain important sources of competition among major powers.
8. **Risk of Strategic Fragmentation**: Exclusionary investment and security arrangements may deepen geopolitical divisions, encourage competing partnerships and complicate broader international cooperation in the Arctic.

Implications for India

1. **Restricted Economic Access**: India is neither a NATO member nor a NATO partner. Its position may limit access to opportunities affected by the agreement's investment restrictions, depending on the applicable eligibility conditions.
2. **Investment and Mining Opportunities**: India has potential interests in Greenland's mining, infrastructure and resource sectors, particularly for diversifying critical mineral supply chains.
3. **Diplomatic Engagement**: On September 22, India's diplomat Manish Prabhat held meetings in Nuuk, reflecting India's interest in investment, mining, skilled labour, tourism and cultural cooperation.
4. **Scope for Joint Ventures**: Indian businesses may explore joint ventures with eligible NATO- or European Union-linked partners where the relevant parties permit such participation.
5. **Supply-Chain Resilience**: Access to Arctic resources could support India's efforts to diversify sourcing, strengthen industrial resilience and reduce dependence on concentrated supply chains.

6. **India-Nordic-EU Cooperation**: Greater cooperation with Nordic countries and the European Union could provide India with opportunities in mining, investment, technology and wider economic partnerships.
7. **Arctic and Indo-Pacific Linkages**: India can connect its Arctic interests with its Indo-Pacific engagement through economic cooperation, strategic partnerships and broader international collaboration.
8. **Potential Russian Advantage**: Restrictions on India's economic participation could encourage greater Indian engagement with Russia's Arctic region. This may create additional economic opportunities for Russia, depending on India's choices.

Way Forward

1. **Respect Sovereignty and Self-Determination**: Arctic security arrangements should respect Greenland's political rights, Danish sovereignty and the legitimate interests of Greenland's population.
2. **Ensure Inclusive Decision-Making**: Greenland should have meaningful participation in decisions concerning military facilities, investment restrictions, resource development and long-term economic priorities.
3. **Balance Security and Economic Development**: Security commitments should be balanced with investment opportunities, infrastructure development and economic choices that support Greenland's sustainable prosperity.
4. **Strengthen Diplomatic Consultation**: The United States, Denmark and Greenland should maintain dialogue to address disagreements, improve trust and prevent tensions from undermining wider NATO cohesion.
5. **Diversify India's Arctic Partnerships**: India should deepen cooperation with Nordic countries, European partners and other relevant stakeholders while evaluating investment opportunities within applicable legal restrictions.
6. **Promote Broader International Cooperation**: Cooperation on resources, connectivity and economic development can help manage Arctic competition and strengthen links between Arctic and Indo-Pacific interests.

Conclusion

The agreement eases an immediate diplomatic crisis but does not settle the Arctic contest. Its success depends on balancing security, sovereignty and economic cooperation. **An inclusive approach could connect Arctic and Indo-Pacific interests,** while excessive restrictions may deepen fragmentation and encourage India to expand engagement with Russia's Arctic region.

Question for practice:

Examine how the Greenland security agreement reflects the changing geopolitics of the Arctic and discuss its implications for India.

Source: The Hindu; Financial express ; The Arctic Institute

CONCERNS OVER THE COLLEGIUM SYSTEM

UPSC Syllabus: Gs Paper 2- Constitution of India

Introduction

Judicial appointments in India raise a key constitutional question: how can **judicial independence** be protected while ensuring **transparency and accountability**? The collegium system gives primacy to judges in selecting higher judiciary members, but concerns persist over closed-door decisions, unclear selection criteria, alleged favouritism and unequal representation. Debate has also emerged over **possible government pre-approval** of names before collegium deliberations, renewing questions about executive influence and institutional autonomy.

Constitutional Provisions Governing the Appointment of Judges

1. **Appointment of Supreme Court judges:** Article 124(2) provides that the President appoints Supreme Court judges through a warrant under his hand and seal.
2. **Appointment of High Court judges:** Article 217(1) provides that the President appoints High Court judges after consultation with the CJI, Governor and, where applicable, the High Court Chief Justice.
3. **Executive's original role:** The original constitutional framework provided for executive appointments after consultation with the judiciary, retaining government responsibility while incorporating judicial expertise.
4. **Safeguarding judicial independence:** Judicial consultation aimed to protect independence and reduce political favouritism by involving judges able to assess candidates' professional and technical merits.
5. **Constitutional basis of the collegium:** The Constitution does not expressly establish the collegium; it emerged through Supreme Court interpretations of constitutional provisions.

Evolution of the Collegium System: From Executive Primacy to Judicial Primacy

1. **First Judges Case (1981):** In S.P. Gupta v. Union of India, a seven-judge bench upheld executive primacy in judicial appointments.
    - **Meaning of consultation:** The Court treated judicial opinions as consultative rather than binding, allowing the government to reject recommendations, including unanimous ones.
    - **Need for a better mechanism:** The judgment also suggested a broad-based advisory body comprising people familiar with candidates' suitability and judicial requirements.
2. **Second Judges Case (1993):** A nine-judge bench overruled the First Judges Case and established judicial primacy, creating the collegium framework to safeguard judicial independence.
    - **Collective judicial opinion:** The CJI's opinion was to reflect collective consultation with other senior judges, limiting unilateral discretion.
3. **Third Judges Case (1998):** The Court clarified that consultation required multiple judges' opinions and expanded the collegium framework for appointments and transfers.
4. **Fourth Judges Case (2015):** The Supreme Court struck down the 99th Constitutional Amendment and the National Judicial Appointments Commission (NJAC) Act, holding them incompatible with judicial independence, a basic-structure feature.
5. **Continuity:** The NJAC's invalidation preserved the collegium as the existing appointment mechanism.

Composition and Procedure of Judicial Appointments

1. **Supreme Court collegium:** Comprises the CJI and the four senior-most Supreme Court judges.

2. **High Court collegium:** Comprises the High Court Chief Justice and two senior-most judges; proposals also undergo consideration at the Supreme Court level.
3. **Initiation of proposals:** The collegium initiates appointment proposals and forwards its recommendations to the Central Government.
4. **Memorandum of Procedure (MoP):** Prepared by the Union Law Ministry in 1998 on the basis of the Second and Third Judges Cases; it guides the appointment process.
5. **Government reconsideration:** The Centre may return recommendations with objections or reservations for reconsideration.
6. **Reiteration:** If the collegium reiterates a recommendation, the appointment should be made under the established procedure, limiting the scope for government rejection.
7. **NJAC composition:** The proposed National Judicial Appointments Commission included the CJI, two senior Supreme Court judges, the Union Law Minister and two eminent persons selected by a committee comprising the Prime Minister, CJI and Leader of Opposition.
8. **Revision of MoP:** Following the **striking down of the NJAC in 2015, the Supreme Court directed the government to revise the Memorandum of Procedure (MoP)** to improve transparency, objectivity and institutional accountability, including a structured secretariat. However, differences between the government and judiciary delayed its finalisation for 11 years.

Major Concerns over the Collegium System

1. **Lack of transparency:** Closed-door deliberations and limited public information about selection decisions weaken public understanding; the process has also been criticised for lacking official minutes.
2. **Weak institutional accountability:** The absence of an established secretariat raises concerns about systematic records, institutional oversight and responsibility for decisions.
3. **Lack of objective criteria:** No sufficiently clear, publicly known standards for evaluating candidates may leave selection vulnerable to subjective judgment, including in discussions concerning the CJI.
4. **Nepotism and favouritism:** Allegations that relatives or associates of sitting judges may receive preference raise questions about fairness and equal opportunity.
5. **Concentration of power:** Authority concentrated within a small judicial group, with limited external participation, can weaken checks and balances.
6. **Unequal representation:** Women remain significantly underrepresented in the higher judiciary, highlighting the need for wider and more inclusive consideration of candidates.

International Practices

1. **United States:** The President nominates Federal Supreme Court judges, and the Senate confirms the nominees.
2. **United Kingdom:** A 15-member Judicial Appointments Commission, drawing from the judiciary, legal profession and public, selects judicial candidates.
3. **UK Supreme Court:** Its selection commission includes the UKSC President, a senior UK judge and three other members, including a JAC member.
4. **South Africa:** A 23-member Judicial Service Commission, including representatives from the judiciary, legislature, executive, legal profession and academia, recommends candidates to the President.

5. **Relevance for India:** These models illustrate options for broader participation, but differences in constitutional structures mean no model establishes automatic superiority.

Way Forward

1. **Finalise the revised Memorandum of Procedure (MoP):** Resolve outstanding differences and establish a clear, predictable appointment procedure.
2. **Improve transparency:** Publish appropriate selection criteria and meaningful reasons, while protecting confidential and sensitive information.
3. **Strengthen accountability:** Maintain systematic records and clear procedural standards to make decisions more consistent and reviewable.
4. **Broaden participation:** Consider structured inputs from the legislature, Bar Council and academia without compromising judicial independence.
5. **Explore institutional reform:** Consider a reformed appointments commission informed by international practices, including lessons from the UK and South Africa.
6. **Preserve judicial independence:** Any redesigned mechanism should include credible safeguards against executive dominance; a judicial veto over final recommendations is one option for consideration.

Conclusion

The collegium system has helped protect **judicial independence**, but limited transparency, accountability and representation require reform. Finalising the revised **Memorandum of Procedure** can improve clarity and consultation. Any broader appointment mechanism should widen participation while preserving safeguards against executive control, ensuring selections remain fair, merit-based and credible.

Question for Practice:

Discuss the major concerns associated with the collegium system of judicial appointments in India and suggest measures to make it more transparent and accountable while safeguarding judicial independence.

Source: The Hindu

Why the WHO must declare climate change a public health emergency

Source: The post **"Why the WHO must declare climate change a public health emergency" has** been created based on **"Why the WHO must declare climate change a public health emergency"** published in **"Down To Earth"** on 31st September 2026.

UPSC Syllabus: GS 3- Environment

Context: Climate change has emerged as one of the greatest health threats of the 21st century. Rising temperatures and extreme weather events are causing heat-related deaths, malnutrition, disease outbreaks and disruptions in healthcare services. Considering this, it is argued that the World Health Organization (WHO) should declare climate change a Public Health Emergency of International Concern (PHEIC) to mobilise international cooperation and protect vulnerable populations.

Major health impacts of climate change

1. Heat-related mortality: Rising temperatures and prolonged heatwaves are increasing heat-related deaths, particularly among the elderly, pregnant women, children and people with chronic illnesses.

2. Maternal and child health: Extreme heat can adversely affect maternal health, pregnancy outcomes and the long-term health of unborn children.

3. Malnutrition and food insecurity: Climate-induced crop failures reduce food availability and worsen malnutrition, particularly among children in vulnerable communities.

4. Spread of infectious diseases: Changing climatic conditions can intensify disease risks, including malaria, threatening the lives of vulnerable populations.

5. Disruption of healthcare services: Floods, cyclones and other extreme weather events can damage healthcare infrastructure, isolate communities from clinics and interrupt access to essential medicines.

6. Displacement and livelihood loss: Climate-related disasters force communities to leave their homes, destroy livelihoods and increase their exposure to health risks.

7. Impact on healthcare workers: Climate change also affects healthcare workers, reducing their ability to provide essential services to communities in need.

About Public Health Emergency of International Concern (PHEIC)

1. A PHEIC is defined in the IHR (2005) as, "an extraordinary event which is determined to constitute a public health risk to other States through the international spread of disease and to potentially require a coordinated international response".
2. This definition implies a situation that is:
    a. **serious, sudden, unusual or unexpected;**
    b. **carries implications for public health beyond the affected State's national border; and**
    c. **may require immediate international action.**

Reasons why should WHO declare climate change a PHEIC

1. To recognise the urgency of the crisis: A formal declaration would acknowledge that climate change is an immediate public health threat rather than a distant environmental risk.

2. To mobilise international financing: The declaration could help catalyse financial resources for prevention, preparedness and healthcare interventions.

3. To strengthen international cooperation: It would facilitate coordinated action among countries and international institutions to address the cross-border consequences of climate change.

4. To provide evidence-based recommendations: WHO could support countries with scientific guidance and public health strategies to reduce climate-related health risks.

5. To protect vulnerable populations: It would promote an equitable response prioritising those most affected, especially people in developing countries who have limited resources to adapt.

6. To improve surveillance and prevention: Greater coordination could strengthen monitoring of climate-related health impacts and enable early identification of emerging risks.

7. To overcome slow global action: Despite successive international commitments, progress on climate change has been inadequate, while efforts under the consensus-based UN climate framework have faced delays and setbacks.

Need of the immediate action

1. Intensifying extreme weather: Heatwaves, floods, wildfires and droughts are affecting communities across the world, causing displacement and loss of life.

2. The El Niño factor: It is highlighted the risks associated with an intensifying El Niño, which can aggravate heat and extreme weather conditions.

3. Growing evidence of health impacts: Scientific research increasingly demonstrates the contribution of climate change to adverse health outcomes, strengthening the case for urgent public health action.

4. Unequal burden of climate change: Countries in the Global South often face greater climate-related risks despite having contributed relatively little to the problem.

5. Limited adaptive capacity: Many affected communities understand the risks but lack adequate financial resources and infrastructure to protect themselves.

How can a PHEIC declaration help

1. Application of International Health Regulations: The WHO can initiate the prescribed assessment process under the International Health Regulations (IHR) to examine whether the situation warrants a PHEIC declaration.

2. Expert assessment of risks: An expert committee can evaluate the seriousness and unusual nature of the threat, its potential international spread and the risks of international travel or trade restrictions.

3. Coordinated global response: A declaration could strengthen international coordination, public health preparedness and the sharing of scientific knowledge.

4. Equitable and preventive action: Countries could prioritise healthcare for affected populations, large-scale prevention and systematic surveillance of climate-related health impacts.

Conclusion: Climate change is an immediate and unequal public health threat that demands a coordinated international response. The WHO should assess the crisis through the International Health Regulations framework and consider a PHEIC declaration to strengthen financing, prevention, surveillance and international cooperation. Timely action is essential to protect vulnerable populations and prevent avoidable loss of life.

Question: Climate change is no longer merely an environmental concern but an escalating public health emergency. Discuss the need for the World Health Organization (WHO) to declare climate change a Public Health Emergency of International Concern (PHEIC).

Source: Down to Earth

Beyond gullibility: On digital arrest scams

Source: The post **"Beyond gullibility: On digital arrest scams" has** been created based on **"Beyond gullibility: On digital arrest scams"** published in **"The Hindu"** on 31st September 2026.

UPSC Syllabus: GS 2- Governance

Context: Around ₹800 crore was lost to digital arrest scams in 2026, even after recoveries, prompting serious concern over the growing threat of cyber fraud. During the Supreme Court's hearing on October 29, 2026, the Chief Justice of India expressed concern that such scams continued despite repeated public warnings and court orders. In response, the Supreme Court urged the Reserve Bank of India (RBI) to finalise its KYC Amendment Directions, 2026, to identify suspected mule accounts and temporarily restrict suspicious transactions. It has been observed that, he issue extends beyond public gullibility, highlighting deeper concerns relating to banking safeguards, public trust in law enforcement, protection of victims' rights and international cooperation against organised cybercrime.

About Digital Arrest Scam

1. Fraudsters impersonate police officers, CBI officials or other law enforcement authorities, often through video calls.
2. They threaten victims with arrest by falsely accusing them of involvement in criminal activities.
3. Using fear and intimidation, they force victims to transfer money to accounts controlled by the fraudsters.
4. The money is then routed through mule accounts to conceal its origin and facilitate laundering.

Reasons behind the rise of digital arrest scams

1. Fear of law enforcement: Fraudsters exploit citizens' fear of police and investigative agencies, particularly among older people, by threatening them with arrest.

2. Misuse of institutional credibility: Scammers impersonate legitimate agencies such as the CBI and police to make their threats appear credible.

3. Use of mule accounts: Fraudsters transfer and launder stolen money through bank accounts used to receive illicit funds, known as mule accounts.

4. Possible bank staff complicity: Investigations have revealed instances where bank employees allegedly assisted in opening mule accounts.

5. Cross-border criminal networks: Some scams operate through compounds in Myanmar, Cambodia and Laos, where trafficked Indians are exploited and criminal operations reportedly benefit from some degree of official patronage.

Measures to prevent digital arrest scams

1. Strengthening banking safeguards: The RBI's proposed KYC Amendment Directions, 2026, seek to help banks identify suspected mule accounts and impose temporary debit holds to prevent further transfers.

2. AI-based transaction monitoring: Banks should use artificial intelligence and complete transaction histories to identify suspicious and anomalous transactions quickly.

3. Accountability of banks: Banks must exercise due diligence while opening and monitoring accounts. Victims should receive appropriate compensation where bank failures or negligence are established.

4. Effective legal remedies: The existing RBI zero-liability provisions, which cover unauthorised transactions, do not adequately address cases where victims are coerced into making transfers themselves. This gap needs to be addressed.

5. Public awareness: Citizens, particularly older people, should be educated about impersonation scams and encouraged to verify suspicious calls independently before transferring money.

6. International cooperation: India should use its diplomatic influence to pressure the concerned countries to dismantle scam centres, investigate criminal networks and rescue trafficked Indians.

Challenges in implementing preventive measures

1. Risk of wrongful account freezing: Excessively broad screening may affect genuine account holders whose transactions appear unusual but are legitimate.

2. Disproportionate hardship: Small traders and Jan Dhan account holders who unknowingly receive money from mule accounts may lose access to essential banking services if their accounts are frozen for two months or longer.

3. Privacy concerns: Automatic police reporting and physical verification of every unusual transaction may result in excessive surveillance and intrusion into citizens' privacy.

4. Difficulty in victim compensation: Making banks liable for every loss without carefully establishing their failure to exercise due diligence may encourage excessive flagging of legitimate transactions.

Way forward

1. Adopt a risk-based approach: Banks should assess transactions using multiple indicators rather than treating every unusual transaction as suspicious.

2. Ensure proportionality and due process: Account freezes should be justified, time-bound and subject to timely review, with safeguards for genuine account holders.

3. Strengthen grievance redressal: Victims and innocent account holders should have access to quick complaint resolution, restoration of legitimate banking access and compensation wherever legally justified.

4. Balance security with privacy: Transaction monitoring and information-sharing with law enforcement should follow clear legal safeguards and appropriate oversight.

5. Improve institutional trust: Fair, accountable and citizen-friendly policing can reduce the fear that fraudsters exploit to make threats of arrest appear believable.

Conclusion: Digital arrest scams cannot be tackled through banking controls alone. India needs a coordinated strategy combining financial vigilance, public awareness, accountable policing, international cooperation and victim protection. The objective must be to disrupt criminal networks without penalising innocent citizens or compromising their privacy and access to banking services.

Question: Digital arrest scams reveal not only weaknesses in banking security but also deeper institutional and regulatory challenges. Discuss the measures required to tackle such scams while safeguarding citizens' rights.

Source: The Hindu

Suboptimal Outcomes Social Security Boards for Unorganised, Gig and Platform Workers

UPSC Syllabus: Gs Paper 2- Constitution of India

Introduction

The Union Labour Ministry has constituted the National Social Security Boards for Unorganised Workers and Gig and Platform Workers under the Code on Social Security. These Boards aim to strengthen social protection for vulnerable workers through welfare schemes and institutional oversight. However, their **centralised composition and representation gaps** raise concerns about inclusive decision-making and cooperative federalism. **Effective implementation, adequate financing and stakeholder participation** are essential to achieve meaningful social security.

Social Security: Meaning, Significance and Constitutional Basis

1. **Meaning:** Social security protects individuals against economic and social distress arising from **old age, unemployment, sickness, disability, work injury, maternity and loss of the breadwinner**.
2. **Constitutional Basis: Entries 23 and 24 of the Concurrent List** cover social security, social insurance, employment and welfare-related matters, enabling both the Centre and States to legislate in relevant areas.
3. **Directive Principles of State Policy (DPSP): Article 41** provides for public assistance in cases of unemployment, old age, sickness and disability, subject to the State's economic capacity. **Article 42** promotes humane working conditions and maternity relief, while **Article 43** calls for a living wage and decent standard of life.

Gig and Platform Workers: Growing Workforce and Social Security Needs

1. **Workforce Size:** The NITI Aayog's June 2022 report estimated **77 lakh gig workers in 2020–21**, projecting an increase to **2.35 crore by 2029–30**. These figures are estimates and projections.
2. **Employment Share:** Gig workers constituted **2.6% of the non-agricultural workforce** in 2020–21, projected to rise to **6.7% by 2029–30**. Their corresponding shares of the total workforce were estimated at **1.5% and 4.1%**, respectively.
3. **Welfare Measures:** The **Union Budget 2025–26** announced identity cards, e-Shram registration and healthcare coverage under **Pradhan Mantri Jan Arogya Yojana (PM-JAY)** for gig workers, with **nearly 1 crore workers** expected to benefit.

4. **Registration:** The e-Shram portal had registered **31.82 crore unorganised workers** as of 3 August 2026, including workers from different categories. Registration **does not necessarily establish actual receipt of social security benefits**.

National Social Security Boards: Composition, Functions and Financing

1. **Legal Basis: Section 6 of the Code on Social Security** provides for the constitution of the **National Social Security Board for Unorganised Workers**, chaired by the Union Minister for Labour and Employment. The **separate Board for Gig and Platform Workers** is constituted under the relevant provisions of the Code.
2. **Board for Unorganised Sector Workers:** The Board has **40 members** nominated by the Union Government, including **7 representatives of unorganised sector workers** and **7 representatives of employers**.
3. **Board for Gig and Platform Workers:** The Board has **22 members**, including **5 representatives each from aggregators and gig and platform workers**, besides representatives of relevant institutions, experts and **5 representatives of State Governments**.
4. **Chairperson:** Both Boards are chaired by the **Union Minister for Labour and Employment**.
5. **Functions:** The Boards **recommend social security schemes**, advise the Central Government, **monitor central welfare schemes**, **review State-level recordkeeping** and examine expenditure from funds and accounts, besides performing other assigned functions.
6. **Nature of Powers:** The Boards primarily perform **advisory and monitoring functions**. Scheme notification and implementation remain dependent on the competent government and designated agencies, **limiting the Boards' direct enforcement role**.
7. **Social Security Benefits: Section 114 of the Code on Social Security** provides for schemes covering life and disability insurance, accident insurance, health and maternity benefits, old-age protection, crèche facilities and other benefits.
8. **Financing Framework:** Schemes may be financed by the **Central Government, State Governments, aggregators, workers** or through combined contributions, depending on the scheme. Eligible **Corporate Social Responsibility (CSR)** funds may also support welfare initiatives.
9. **Aggregator Contribution:** Section 114 provides for a notified contribution rate of **1%–2% of annual turnover**, subject to a **ceiling of 5% of the amounts paid or payable to gig and platform workers**. Taxes, levies and cesses paid or payable to the Central Government are excluded from annual turnover.

Key Concerns: Centralisation, Representation and Federalism

1. **Centralised Governance:** The Union Government's **dominant role** in constituting and nominating Board members may **limit decentralised decision-making and stakeholder participation**.
2. **Representation Gaps:** Concerns arise regarding adequate representation of **opposition Central Trade Unions**, **opposition-governed States** and diverse worker groups, potentially weakening **inclusive decision-making**.
3. **Federal Concerns:** Since labour is in the Concurrent List, social security requires **Centre-State coordination**. Centralised decision-making may **weaken cooperative federalism** despite State Governments' role in implementation.
4. **Stakeholder Influence:** Representation alone may not ensure **meaningful participation** unless workers' concerns influence scheme design, recommendations and implementation.

5. **Parallel State Frameworks:** State-level initiatives, including those in **Rajasthan, Karnataka, Bihar and Jharkhand**, highlight the need to coordinate national and State frameworks. Their legal and implementation status should be distinguished to **avoid fragmented protection**.

Persistent Social Security Deficit and Implementation Gaps

1. **Inadequate Protection:** A large section of India's workforce remains in informal or unorganised employment, facing **limited access to predictable income, insurance and welfare benefits**.
2. **Coverage versus Adequacy:** Reported social protection coverage rose from **19% in 2015** to **64.3% in 2025**, covering **over 94 crore people**. However, receipt of at least one benefit **does not necessarily ensure comprehensive protection**.
3. **Financing and Implementation:** Effective welfare delivery depends on **timely contribution notifications, adequate fund collection, predictable disbursement** and transparent expenditure.
4. **Portability Challenges:** Migrant and platform workers operating across States may face difficulties accessing benefits due to fragmented databases, registration systems and **inadequate portability**.

Way Forward

1. **Inclusive Representation:** Ensure **meaningful participation** of workers, trade unions, employers, aggregators, civil society and State Governments.
2. **Cooperative Federalism:** Institutionalise **Centre-State consultation**, coordination mechanisms and clear implementation responsibilities.
3. **Sustainable Financing:** Operationalise contribution mechanisms, ensure **timely fund collection and expenditure**, and strengthen **financial accountability**.
4. **Portable Protection:** Develop interoperable databases and **portable entitlements** to enable workers to access benefits irrespective of location or platform.
5. **Effective Implementation:** Establish **measurable targets**, transparent monitoring, **grievance-redress mechanisms** and regular reporting on actual benefit delivery.
6. **Institutional Reforms:** Strengthen **worker participation, accountability and federal cooperation** to translate welfare recommendations into **tangible outcomes**.

Conclusion

The Boards are an important step towards protecting vulnerable workers. However, their success depends on **inclusive representation, adequate financing and effective implementation**. Cooperative federalism and portable benefits must be strengthened. Social security commitments must translate into **accessible and reliable protection**.

Question for practice:

Examine the concerns associated with the composition and functioning of the National Social Security Boards for unorganised, gig and platform workers in India.

Source: The Hindu

Can India and China Coexist Peacefully?

UPSC Syllabus: GS Paper 2- India and its neighbourhood- relations.

Introduction

India and China remain in **managed coexistence** as they are not at war, yet border tensions and strategic distrust limit normal relations. Their unresolved boundary dispute, military competition and differing geopolitical interests raise a central question about whether two neighbouring civilisations can live peacefully in the coming decades. India's current approach **places peace and tranquillity along the Line of Actual Control (LAC) at the centre** of wider bilateral normalisation efforts.

Historical Roots of Mistrust and the Unresolved Border Dispute

1. **1962 War:** The **1962 war** deepened mistrust between the neighbours. China retained control of **Aksai Chin**, while the boundary dispute remained unresolved.
2. **Legacy of Betrayal:** The earlier slogan "**Hindi-Chini Bhai Bhai**" reflected hopes of friendship. The war shattered these expectations and left a lasting impact on Indian strategic thinking.
3. **Unsettled Boundary:** The border is not jointly delineated across sectors. Disagreements persist in **Ladakh** and along the **McMahon Line** in the eastern sector, making differing perceptions of the Line of Actual Control a recurring source of friction.
4. **Galwan Clash:** In **June 2020**, a violent clash in the Galwan Valley led to the deaths of **20 Indian soldiers**. It sharply damaged trust and transformed the political context of bilateral engagement.

Policy Evolution: From Compartmentalised Engagement to Security-First Diplomacy

1. **Compartmentalised Engagement:** During the 1990s and 2000s, India sought to expand trade and diplomacy while managing the boundary dispute separately. This approach enabled cooperation without resolving core disagreements.
2. **Confidence-Building Agreements:** Agreements in **1993, 1996, 2005 and 2013** created principles and mechanisms to maintain **border peace**. They aimed to reduce the risk of incidents, though implementation could not remove underlying mistrust.
3. **Rajiv Gandhi's Visit:** Prime Minister **Rajiv Gandhi's 1988 visit** to China and his meeting with Deng Xiaoping helped revive high-level dialogue. It demonstrated that sustained engagement could proceed despite unresolved differences.
4. **Galwan as a Turning Point:** The **2020 Galwan clash** exposed the limits of separating economic cooperation from security concerns. India consequently linked broader normalisation more closely to the restoration of **border peace**.
5. **Present Approach:** India now follows a **security-first approach**: **peace and tranquillity along the LAC** are treated as prerequisites for normal bilateral relations. Diplomatic and economic engagement therefore depends on credible border stability.

Strategic Challenges

1. **China-Pakistan Partnership:** China's close strategic and defence partnership with Pakistan complicates India's security calculations. It raises concerns about pressure across India's western and northern fronts.

2. **Indian Ocean and Connectivity:** China's growing presence in the **Indian Ocean** and its infrastructure connectivity initiatives, including the Belt and Road Initiative, contribute to India's strategic concerns over regional influence and security.
3. **Quad and Strategic Suspicion:** India's participation in the **Quad (Quadrilateral Security Dialogue)** with the United States, Japan and Australia supports Indo-Pacific cooperation. Beijing views some such groupings with suspicion, while India regards them as useful strategic partnerships.
4. **Economic Interdependence:** Bilateral economic links create opportunities but also vulnerabilities in **trade, technology and supply chains**. Trade imbalance and uncertain market access complicate the relationship despite substantial commercial engagement.
5. **Domestic Manufacturing:** India's dependence on Chinese imports in key sectors creates strategic vulnerabilities. Strengthening domestic manufacturing through Make in India and Production Linked Incentive (PLI) schemes remains challenging due to competitiveness and capacity constraints.
6. **Supply Chain Vulnerabilities:** Heavy reliance on Chinese inputs in critical sectors exposes India to supply disruptions and economic pressure. Diversifying supply chains is difficult due to cost considerations, alternative supplier limitations and deep economic interdependence.

Understanding China's Intentions and Military Capabilities

1. **Avoiding Exaggeration:** Sound policy requires neither underestimating China nor treating conflict as inevitable. India needs a realistic assessment of Beijing's interests, capabilities and constraints.
2. **Military Modernisation:** China's **People's Liberation Army (PLA)** and **People's Liberation Army Navy (PLAN)** have expanded their capabilities. This modernisation affects the military balance and demands sustained Indian preparedness.
3. **Limits of Power:** China's military strength should not be treated as unlimited. Geography, logistics and the costs of prolonged conflict can constrain the conversion of capabilities into decisive outcomes.
4. **Himalayan Conditions:** A numerical or technological advantage does not automatically guarantee success in the Himalayas. Terrain, altitude, supply lines and operational readiness shape the practical balance along the frontier.
5. **Long-Term Ambitions:** Conflict with India could impose economic and diplomatic costs on China and distract from its long-term development ambitions, including its **2049** national goal. Such costs create incentives for managing rivalry, though they cannot ensure restraint.
6. **Historical Complexity:** China's historical experience, including the legacy of the **Qing Dynasty**, influences its outlook on sovereignty and territorial questions. Understanding this context can inform diplomacy without endorsing contested claims.

Scope for Peaceful Coexistence and Constructive Engagement

1. **Conflict Is Not Inevitable:** Strategic competition does not make war unavoidable. Both countries have strong reasons to prevent escalation, protect development priorities and maintain regional stability.
2. **Diplomatic Precedent:** The **1988 Rajiv Gandhi visit** showed that political dialogue can create room for cooperation even when border disagreements persist. Its lesson is to sustain communication without assuming disputes have disappeared.
3. **Constructive Partnership:** The **2005 agreement** articulated a framework for developing constructive and cooperative relations. It also recognised the importance of safeguarding the interests of people living in settled border areas.

4. **Protection of Border Residents: Article VII of the 2005 agreement** provides that the two sides shall safeguard the interests of their **settled populations in border areas**. This human dimension should remain part of any boundary settlement.
5. **Continuing Dialogue:** In **July 2026**, External Affairs Minister S. Jaishankar met Chinese Foreign Minister Wang Yi in Manila. The meeting highlighted ongoing diplomacy, while India stressed that **border peace** remains essential to normal ties.

Way Forward

1. **Preventing Escalation:** Both sides should maintain agreed border protocols, avoid unilateral actions that heighten tensions and address local incidents quickly. **Preventing confrontation** is the first condition for stable relations.
2. **Military Communication:** Regular commander-level contacts, reliable hotlines and timely information-sharing can reduce miscalculation. These mechanisms should complement, not substitute for, political agreements and restraint.
3. **Sustained Diplomacy:** Dialogue should continue through leadership meetings, diplomatic channels and established border mechanisms. Consistent engagement can address disagreements before they develop into wider crises.
4. **Realistic Strategic Assessment:** India should combine credible defence preparedness with a clear-eyed understanding of China's capabilities and limitations. Policy must be guided by evidence rather than either alarmism or misplaced optimism.
5. **Selective Cooperation:** Where interests converge, both countries can pursue practical cooperation in trade, climate issues, multilateral forums and people-to-people exchanges. Such engagement should advance alongside, not instead of, border stability.
6. **Mutual Respect:** Durable coexistence requires **mutual respect, sensitivity and reciprocity**, including attention to concerns of border communities. Progress depends on translating diplomatic commitments into predictable conduct.

Conclusion

India and China can coexist peacefully, but normal relations cannot rest on dialogue or economic ties alone. Lasting progress requires **border peace, military restraint, realistic understanding of each other's intentions and mutual respect**. Rebuilding **strategic trust** can create space for wider cooperation and contribute to stability across the Indo-Pacific.

Question for practice:

Discuss the challenges and prospects of peaceful coexistence between India and China.

Source: The Hindu