

# 9 PM Current Affairs Weekly Compilation

For UPSC CSE mains examination



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Features :

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

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## Centre's Higher Education Commission of India Bill 2025

**UPSC Syllabus Topic: GS Paper 2** -Issues relating to development and management of Social Sector/Services relating to Education.

### Introduction

Five years after **NEP 2020** proposed a single higher education regulator, the Union government plans to introduce the **Higher Education Commission of India (HECI) Bill 2025** in the winter session, aiming to replace multiple regulatory bodies and reorganise regulation and accreditation in higher education.

### Historical Context of HECI Bill 2025

- Attempts to create a unified regulator began with the **2018 HECI draft Bill**, which aimed to repeal the UGC Act but did **not subsume AICTE and NCTE**.
- It faced criticism over centralisation and reduced university autonomy, leading to its withdrawal.
- Renewal efforts started under **Education Minister Dharmendra Pradhan in 2021**, aligning the proposal with **NEP 2020**, which called for structural reform and clearer separation of regulatory functions.

### Centre's Higher Education Commission of India (HECI) Bill 2025

#### NEP 2020 vision and current structure

- NEP 2020 highlights the current regulatory system as **heavy-handed**, with concentrated powers, conflicts of interest and weak accountability. It proposes an **overarching HECI** to replace the **UGC, AICTE and NCTE** to minimise red tape.
- The **HECI Bill 2025 is likely to follow NEP 2020's recommendations** on a single overarching regulator and separation of core functions.
- **Currently, UGC** regulates non-technical education, **AICTE** manages technical institutions, and **NCTE** oversees teacher education.
- The Bill aims to create a **commission enabling higher education institutions to function as independent self-governing bodies**, promoting excellence through **transparent accreditation and autonomy frameworks**.

#### Commission Structure

- The earlier 2018 draft proposed a **chairperson, vice-chairperson and 12 members appointed by the Centre**, including AICTE and NCTE heads.
- The updated proposal is likely to follow NEP 2020, where **HECI will be a small expert-led body**, supervising four verticals.

- Each vertical will have **independent experts with integrity and proven public service background**, ensuring specialised oversight. Although the NEP proposes a funding vertical, **funding powers are expected to remain with the government**, not with HECI.

### Key Provisions of the Bill

1. **Unified Regulation** – HECI will function as a **single authority** for technical and non-technical higher education institutions, simplifying processes.

2. **Repeal and Replacement** – The Bill seeks to **repeal the UGC Act (1956)** and merge the UGC, AICTE and NCTE into HECI.

### 3. HECI's Four Verticals under NEP 2020

- **The National Higher Education Regulatory Council** to regulate all fields except medical and legal education;
  - **The National Accreditation Council** as an accrediting body;
  - **The General Education Council** to frame learning outcomes; and
  - **The Higher Education Grants Council** for funding.
4. **Independent Expert Bodies** – Each vertical functions independently, overseen by HECI experts to ensure integrity and effectiveness.
5. **Exclusion of Specific Sectors** – **Medical and law colleges** remain outside HECI's jurisdiction.
6. **Institutional Autonomy Promotion** – HECI will encourage institutions to strengthen autonomy without compromising academic quality.

### Potential Impact on Higher Education

1. **Simplified Governance:** Institutions may experience faster approvals and reduced bureaucratic hurdles
2. **Enhanced Quality and Credibility:** Uniform standards and professional benchmarks could strengthen the global recognition of Indian degrees.
3. **Academic Autonomy:** Clear separation of regulation and funding may allow universities to pursue research, collaborations, and innovation more freely.
4. **Policy Clarity:** A single regulator could provide coherent guidelines, reducing conflicts between overlapping authorities.

### Potential Concerns Regarding HECI Bill 2025

1. **Centralisation and Autonomy Concerns:** A commission dominated by central authority, coupled with funding control retained by the ministry, may lead to **excessive centralisation and weakened institutional autonomy**.

**2. Representation Gaps:** Critics observed that earlier structures lacked inclusion of **women, Dalits, Adivasis, minorities, backward castes and persons with disabilities**, while **industry stakeholders were explicitly accommodated**, raising concerns over equitable participation.

**3. Centre-State Funding Imbalance:** Some states fear a shift from **full central support to a 60:40 cost-sharing model**, which could affect fair fund allocation and burden-sharing.

**4. Ambiguity in State Role:** A parliamentary committee warned that **insufficient state representation** could cause universities to face conflicting central and state regulatory requirements, creating compliance challenges.

### Conclusion

The **HECI Bill 2025** seeks to replace fragmented regulatory systems with a unified framework aligned with **NEP 2020**, focusing on regulation, accreditation and academic standards while leaving funding decisions with the ministry. Its success will depend on **preventing centralisation, ensuring fair representation—including states and disadvantaged groups—and protecting institutional autonomy alongside stable funding mechanisms**. The effectiveness of reform will rely on how well these concerns are addressed during implementation.

### Question for practice

Discuss the key provisions, potential impact and major concerns associated with the Centre's Higher Education Commission of India (HECI) Bill 2025.

Source: [Indian Express](#)

## Need for Safe Food Processing in India

### Introduction

India's food system faces a serious trust crisis. Street food, once a symbol of culture and livelihood, now raises safety doubts after raids exposed contaminated water and poor hygiene. At the same time, worries about pesticides, adulteration and sugar in processed foods are growing. These risks make safe, science-based food processing and stronger regulation central to protecting public health in both informal and packaged food sectors.

### Concern related to food safety in India

**1. Contamination:** Food is contaminated through various means, including the rampant use of pesticides, antibiotics, and fertilizers, which introduce heavy metals and other harmful chemicals into the food chain.

**2. Adulteration:** Food adulteration is a significant problem, with deceptive labels being used to mislead consumers. This can include adding substances like wood dust, chili heads, or substandard oils to products, leading to chronic diseases like cancer and liver/kidney ailments.

**3. Regulatory issues:** Enforcement of food safety laws is often weak and inconsistent, and regulatory bodies have been criticized for lax supervision. There are also challenges with the clarity and simplicity of food safety standards, especially for small and medium-sized businesses.

**4. Hygiene and sanitation:** Inadequate sanitation in food preparation and storage areas, such as dirty sinks and poor disinfection procedures, creates high-risk environments for contamination. Improper food handling

and storage practices, such as inadequate temperature control, are also common. For example, Raids on 58 pani puri stalls in Chennai using contaminated water and poor hygiene.

**5. Public health burden:** An **Observer Research Foundation (ORF)** estimates nearly 100 million food-borne illness cases and about 1,20,000 deaths annually, much of it linked to unsafe informal food sources.

**6. High sugar content:** Some reports highlight concerns about high sugar content in processed foods, such as baby food, which poses a risk to child health.

#### Initiative taken

**1. Consolidate various earlier laws: The Food Safety and Standards Act, 2006 (FSSA)** was enacted to **consolidate** various earlier laws dealing with food regulation, including the **Prevention of Food Adulteration Act, 1954 (PFA)**.

**2. Setting scientific limits for residues and additives:** The FSSAI has **notified Maximum Residue Limits (MRLs) for pesticides**, safe limits for **food additives and contaminants**, and **standards for veterinary drug residues**, bringing Indian norms close to those of advanced economies by around 2020.

**3. Adoption of a risk-based, Codex-aligned approach:** FSSAI has moved to a **risk-based regulation**, drawing on international best practices, especially the **Codex Alimentarius Commission**, rather than treating all contaminants in a simple “adulterated / not adulterated” way.

**Note:** The **Codex Alimentarius Commission or CAC** is the body responsible for all matters regarding the implementation of the Joint FAO/WHO Food Standards Programme.

**4. Organised regulation of packaged foods:** The packaged food industry works under an FSSAI framework that covers sourcing, processing and packaging. These rules guide companies and help authorities monitor safety.

**5. Safe processing methods:** Techniques such as pasteurisation, vacuum sealing and aseptic packaging are used to control microbes and maintain quality. They support safe storage and wider distribution in different weather and cities.

**6. Labels and health-based products:** Ingredient lists, allergen warnings and manufacturing and expiry dates on packs give consumers information. Companies are also adding fortified options to address micronutrient gaps and respond to health concerns.

**7. Food safety training for street vendors:** FSSAI, with Brihanmumbai Municipal Corporation, runs training on hygiene, safe handling, storage and waste disposal to bring street vendors into the safety net.

#### Way forward

**1. Regulatory compliance:** Adherence to regulations set by bodies like the Food Safety and Standards Authority of India (FSSAI) is mandatory to ensure products meet safety standards.

**2. Hygienic practices:** Businesses must implement strict hygiene protocols, including staff training on personal hygiene, safe handling, storage, and proper cleaning and sanitization.



3. **Infrastructure and design:** The physical environment of food processing plants must be designed for safety, with durable, easy-to-clean materials, proper pest control, and a layout that prevents contamination.

4. **Quality control systems:** Tools such as Hazard Analysis and Critical Control Point help identify hazards at each step, fix control points and maintain records that track performance over time.

5. **Supply chain management:** Safety must continue beyond factories. Correct storage, temperature control and careful transport protect texture, flavour and microbiological quality till food reaches shops or homes.

6. **Safer street food ecosystem:** Campaigns like Eat Right India and Clean Street Food Hubs can expand training, licensing and stall grading so that vendors improve hygiene and customers judge options.

7. **Shared responsibility:** Regulators, companies, vendors and consumers each have a role: set rules, follow them, demand clean practices and choose safer options to support a healthier food system.

### Conclusion

India's food future cannot rest on taste and tradition alone. Contamination, adulteration, unsafe street food and risky processing demand firm laws, better hygiene and strong oversight. Science-based standards, safer packaged foods, trained vendors and national campaigns must work together so every plate, from roadside stall to factory-made snack, reflects a clear, shared commitment to safety.

### Question for practice

Examine how unsafe practices in both street food and packaged food, along with regulatory and hygiene gaps, have created a food safety challenge in India.

Source: [The Hindu](#)

### How can State PSCs be reformed

Source: The post "How can State PSCs be reformed" has been created, based on "How can State PSCs be reformed" published in "Indian Express" on 24th November 2025.

UPSC Syllabus: GS Paper 2- Polity

**Context:** State Public Service Commissions (PSCs) are responsible for recruitment to various government posts at the state level. Every year, examinations conducted by State PSCs face controversies, forcing aspirants to approach courts, which delays the recruitment process and erodes public trust. These problems are primarily due to structural and procedural lapses prevalent in most State PSCs.

### History of PSCs

1. **Origin:** PSCs in India have their roots in the country's struggle for independence, where merit-based entry into civil services was a key demand.
2. **Montagu-Chelmsford Report:** The report of 1919 recommended the establishment of a permanent, politically neutral authority to regulate civil service matters.
3. **Formation of PSCs:** The first Union Public Service Commission (UPSC) was formed in 1926, and the Government of India Act, 1935, provided for PSCs in each province

4. **Constitutional Provision:** The Constitution retained these provisions, resulting in the UPSC at the national level and PSCs in each state.

### Structure of PSCs

1. **UPSC Structure:** The UPSC functions in a relatively apolitical environment, with members appointed based on merit and experience, including representation from all zones of the country.
2. **Experience Requirement:** Most UPSC members are above 55 years and possess extensive experience in public affairs.
3. **State PSC Structure:** State PSCs operate in politically influenced environments, and the appointment process often lacks transparency, minimum qualification requirements, or age criteria.
4. **Resource Constraints:** Many states do not have a dedicated Ministry of Personnel, and financial constraints often delay recruitment, leading to irregular notifications of vacancies.

### Working of PSCs

1. **UPSC Practices:** The UPSC regularly revises its syllabus, forms expert committees including academicians and civil servants, and follows inter-se moderation of scores to minimize subjectivity.
2. **State PSC Practices:** State PSCs rarely revise syllabi, have limited access to academic expertise, and face challenges in implementing complex vertical, horizontal, and zonal reservations, leading to frequent litigation.
3. **Impact on Credibility:** These systemic issues contribute to delays, complaints, and declining credibility of State PSCs.

### Challenges Faced by State PSCs

1. **Lack of Regular Syllabus Revision:** Committees for syllabus updates are rarely appointed, leading to outdated examinations.
2. **Limited Academic Resources:** PSCs are often constrained to faculty within the state, reducing question quality and evaluation fairness.
3. **Evaluation Issues:** Difficulty in implementing inter-se moderation of marks increases subjectivity in results.
4. **Reservation Complexity:** Vertical, horizontal, and zonal reservations add procedural challenges and create frequent litigation.
5. **Inconsistent Examination Schedule:** Irregular notifications and postponed recruitment due to manpower and financial constraints erode trust.
6. **Regional Knowledge Gap:** Testing state-specific areas like history, economy, and geography is challenging due to limited faculty expertise.
7. **Translation Issues:** Translation of question papers can lead to errors affecting candidate performance.
8. **Inadequate Supervision:** Secretaries often lack prior experience in education administration, reducing the effectiveness of the examination branch.

### Suggested Reforms

1. **Manpower Planning:** State governments should create a dedicated Ministry of Personnel to enable systematic manpower planning and prepare a five-year roadmap for recruitment.
2. **Age Criteria:** The minimum age for appointment as a PSC member should be 55 years and the maximum age 65 years.



3. **Qualification Requirement:** Official members should be retired senior civil servants of at least Secretary rank, and non-official members should have at least ten years of experience in recognized professions such as law, medicine, or engineering.
4. **Consultation in Appointment:** Pre-consultation with the Leader of Opposition should be mandatory for non-official appointments, and a state-wide panel of eminent persons should be periodically updated.
5. **Syllabus Revision:** Syllabi should be revised periodically following UPSC standards, with public consultation. Regional knowledge should be tested in objective format while main examinations can mix objective and subjective papers.
6. **Question Paper Translation:** Translation of question papers should use technology and human oversight to ensure accuracy. Question patterns should be regularly changed to reduce misuse of AI tools.
7. **Secretary Appointment:** The Secretary of the State PSC should be a senior officer with prior experience in education administration to ensure effective supervision of the examination process.
8. **Transparency and Confidentiality:** Transparency and confidentiality in the examination process should be balanced, following the UPSC model.

**Conclusion:** Implementing these reforms will enhance the efficiency and credibility of State PSCs. With proper structural, procedural, and administrative changes, State PSCs can function on par with the UPSC, ensuring merit-based recruitment and reducing litigation.

**Question:** State Public Service Commissions play a vital role in recruitment at the state level. Discuss the structural and procedural challenges faced by State PSCs in India and suggest reforms to enhance their efficiency and credibility.

## Constitution (131st Amendment) Bill 2025 and Status of Chandigarh

**UPSC Syllabus Topic: GS Paper 2 - Issues and challenges pertaining to the federal structure**

### Introduction

The debate around the Constitution (131st Amendment) Bill 2025 is about bringing Chandigarh under Article 240, changing how the Union Territory and joint capital is governed. Today, Chandigarh is a UT and shared capital of Punjab and Haryana, administered by the Punjab Governor. Punjab's political parties fear this will weaken their claim over Chandigarh as capital, while the Centre has now said it has **no intention of introducing the Bill in the coming Winter Session**.

### Background

**1. Search for a new capital after Partition:** After Partition, Lahore went to Pakistan and Shimla became Punjab's temporary capital. Jawaharlal Nehru supported creating a new planned capital for Punjab, leading to the selection of a site near the foothills of the Himalayas in March 1948.

**2. Planning and construction of Chandigarh:** Land, including **22 villages in Kharar**, was acquired and **Le Corbusier** prepared the master plan. Chandigarh became Punjab's capital in 1953 and was formally inaugurated later that year. It stood for a modern, post-Partition capital built on land taken from Punjab's villages, shaping Punjab's emotional and political link with the city.

**3. Reorganisation and UT joint capital status:** The **Punjab Reorganisation Act, 1966** divided Punjab and created Haryana. Chandigarh, on the border of the two states, became a **Union Territory and joint capital**, with properties divided 60:40 between Punjab and Haryana and the city brought under Central control.

**4. 1970 assurance and continuing dispute:** In 1970, the Centre announced that the capital project area of Chandigarh should go to Punjab, while giving Haryana temporary office use in Chandigarh and financial help to build a new capital. Yet, Chandigarh still functions as joint capital. Punjab continues to see its claim over the city as “**undisputed**”, arguing that a city built by uprooting Punjab’s villages should belong to Punjab.

#### **5. Repeated assertion of Punjab’s claim**

- In **August 2016**, when the Centre tried to appoint former IAS officer K J Alphons as an independent Administrator, the Akali-led Punjab government, Congress and AAP opposed it.
- More recently, at the **Northern Zonal Council meeting in Faridabad**, Chief Minister Bhagwant Mann again asserted that Chandigarh should be immediately transferred to Punjab.

#### **Constitution (131st Amendment) Bill 2025**

**1. Core proposal under Article 240:** Parliament bulletins mentioned a proposal to introduce the Constitution (131st Amendment) Bill 2025 to include **Chandigarh under Article 240** of the Constitution.

**2. Power of the President under Article 240:** Article 240 allows the President to make regulations “for the peace, progress and good government” of certain Union Territories such as Andaman and Nicobar Islands, Lakshadweep and other listed territories, including Puducherry in specific situations.

**3. Regulations as law for Chandigarh:** These regulations can repeal or amend Acts of Parliament or other laws and have the same force as an Act of Parliament. Including Chandigarh would place it with Union Territories without legislatures and allow the President to issue direct regulations instead of Parliament passing separate laws.

**4. Present administrative model of Chandigarh:** Chandigarh is a Union Territory and shared capital of Punjab and Haryana. The **Governor of Punjab** currently functions as the **Administrator of Chandigarh**, reflecting its role as a common capital under the Punjab Reorganisation framework.

**5. Possible shift to an independent Administrator:** Placing Chandigarh under Article 240 is widely seen as paving the way for an **independent Administrator or Lieutenant Governor**, like in other Union Territories.

#### **Impacts of Constitution (131st Amendment) Bill 2025**

**1. Impact on Punjab’s claim:** Punjab leaders say an independent Administrator or L-G will weaken Punjab’s historical, emotional and political claim over Chandigarh, which they see as built on Punjab’s land and promised as its exclusive capital.

**2. Impact on governance of Chandigarh:** Including Chandigarh under Article 240 would place it with UTs without legislatures and allow the President to issue direct regulations instead of Parliament making separate laws. It is also seen as ending the current model where the **Punjab Governor** acts as Chandigarh’s Administrator.

3. **Impact on federal balance:** Political parties term the move anti-federal, argue it breaks past assurances on Chandigarh, and warn it could damage trust between Punjab and the Union government.

4. **Political backlash:** The proposal led to sharp protests from AAP, Congress and SAD, who called it a conspiracy to “take away” Punjab’s capital and demanded that the Centre withdraw the move.

### Conclusion

The controversy over the Constitution (131st Amendment) Bill 2025 shows how sensitive Chandigarh’s status remains. Punjab sees an Article 240-based independent Administrator as diluting its claim and federal spirit. The Home Ministry says the proposal only aimed to simplify law-making, and its decision to pause and consult means any change must rest on broad agreement.

### Question for practice:

Examine how the proposed Constitution (131st Amendment) Bill 2025 could impact Chandigarh’s governance structure and Punjab’s claim over the city.

Source: [The Indian Express](#)

## From Gene Modification to Genome Editing – India’s Journey

UPSC Syllabus Topic: GS Paper 3 -science and technology.

### Introduction

India’s biotechnology journey has moved from first-generation gene modification (GM) towards more precise genome editing using tools like CRISPR. While GM crops largely stalled after Bt cotton, genome-edited (GE) crops and therapies now enjoy stronger policy support, indigenous R&D and growing applications in both agriculture and health.

### Gene Modification (GM) vs Genome Editing (GE)

#### Technique

**Gene modification** creates genetically modified (GM) crops by inserting one or more genes from another organism, often an unrelated species. A key Indian example is Bt cotton, where a gene from the soil bacterium *Bacillus thuringiensis* was inserted into cotton to give insect resistance.

**Genome editing** creates genome-edited (GE) crops by using tools such as CRISPR-associated proteins (like Cas9 or Cas12a) to cut and modify genes that are already present in the plant. The edit is guided by a short RNA sequence, so a specific native gene is altered rather than a foreign gene being added.

### Regulation in India

1. GM crops that contain foreign DNA have to follow the full biosafety pathway under the **Environment (Protection) Act Rules, 1989**, and **need clearance from the Genetic Engineering Appraisal Committee (GEAC)** for environmental release, including field trials.

2. In March 2022, the Environment Ministry issued an Office Memorandum stating that certain genome-edited plants which are free from exogenous (introduced) DNA—specifically SDN-1 and SDN-2 categories—are exempted from the more stringent provisions of these Rules.

3. For such SDN-1 and SDN-2 genome-edited plants, the biosafety review under the 1989 Rules ends at the Institutional Biosafety Committee (IBSC), once it confirms that the final plant is free from foreign DNA.

### Phase I – Introduction of Gene Modification (GM) in India

1. India's modern biotechnology journey began with gene modification, where foreign genes were inserted into crops to provide specific traits.
2. The most important milestone was the **introduction of Bt cotton**, which carries a gene from the bacterium *Bacillus thuringiensis* to resist bollworms.
3. This marked **India's entry into the era of genetically modified (GM) crops** and showed that biotechnology could directly improve farm-level productivity and pest resistance.

### Phase II – Stagnation and Controversies Around GM Crops

1. After the initial success of Bt cotton, **India's GM story entered a phase of stagnation. No new GM crop technology was approved for commercial cultivation for many years.**
2. Attempts to **introduce GM food crops such as Bt brinjal and GM mustard** faced strong opposition from civil society groups, farmers' organisations and some state governments.
3. **Concerns were raised over biosafety**, long-term health effects, environmental risks and corporate control over seeds.
4. Court cases and regulatory caution further slowed the process. As a result, **India remained effectively limited to Bt cotton**, and the country was seen as having underused the full potential of GM technology.

### Phase III – Policy and Regulatory Shift Towards Genome Editing

1. A clear shift began when India **moved from classical GM to genome editing.**
2. Building on the **2022 decision that exempted SDN-1 and SDN-2 genome-edited plants** without foreign DNA from the stringent 1989 Rules, many genome-edited crops would no longer require clearance from the Genetic Engineering Appraisal Committee (GEAC) for environmental release.
3. The **Department of Biotechnology then released detailed guidelines and SOPs** for safety assessment of genome-edited plants.
4. The **Union Budget 2023–24 earmarked a dedicated allocation of ₹500 crore** for genome editing, with ₹310 crore for field crops, ₹120 crore for horticulture and the rest for animal science, fisheries and microorganisms.
5. **ICAR has identified 178 genes in 24 field crops and 43 genes in 16 horticultural crops for editing.**
6. Together, these steps **signalled a policy decision to actively promote genome editing** as a preferred route for crop improvement.

### Phase IV – Field Applications of Genome Editing in Crops

#### Genome-edited rice and mustard

1. In 2025, two GE rice lines derived from **Samba Mahsuri and MTU-1010** completed multi-location trials (2023 and 2024 kharif). They show around 19% higher yield and better tolerance to saline and alkaline soils.
2. Parallel reporting notes **India's first genome-edited rice varieties – DRR Dhan 100 (Kamala) and Pusa DST Rice 1** – designed to use less water while maintaining or increasing yields, signalling a potential water-saving “game changer”.
3. A **GE mustard line with low pungency and resistance to major fungal pathogens and pests** is under second-year trials and may be ready for release around 2026.

### **Building Indigenous Tools and Capacity**

#### **How CRISPR is used**

- India's GE crops **use CRISPR-Cas9 and Cas12a to “edit” native genes** controlling traits like drought and salt tolerance (in MTU-1010) and yield-linked genes like *Gn1a* in Samba Mahsuri.
- The **Cas proteins** appear only in the first generation; later selected plants are transgene-free, differentiating them from GM crops that permanently carry foreign genes.

### **Indigenous tools and capacity building**

- ICAR and IARI have sent Indian scientists for advanced genome-editing training to the US, Europe, Australia and CIMMYT.
- Experts from **Jennifer Doudna's Innovative Genomics Institute trained faculty at IARI in 2025** and shared next-generation tools like GeoCas9 and CasLambda.
- A team led by Kutubuddin Ali Molla has patented an **indigenous “miniature” genome-editing tool based on TnpB proteins**, claimed to be cheaper and potentially more efficient than Cas9 and Cas12a because of smaller protein size and local IP control.

### **Beyond Crops: Gene and Cell Therapies in Health**

Parallel to developments in agriculture, India's genome-editing journey now extends into human health.

1. **NexCAR19, an indigenous CAR-T cell therapy for blood cancers, received CDSCO approval in 2023** and is being deployed at a fraction of typical global CAR-T costs, positioning India on the global map of cell and gene therapy.
2. India is pursuing **gene-editing solutions for sickle cell disease** under a mission to eradicate the disease by 2047, with CRISPR therapies highlighted as potential one-time cures.
3. In November 2025, the **government launched BIRSA-101, India's first indigenous CRISPR-based gene therapy for sickle cell disease**, specifically targeting tribal populations.
4. These examples show that **India's shift to genome editing is not just about crops but part of a broader bio-innovation ecosystem.**

### **Way forward**

1. **Strengthen biosafety and transparency:** Keep lighter rules for SDN-1 and SDN-2, but ensure robust risk assessment, labelling norms where needed, and transparent public communication to avoid a repeat of GM-era mistrust.



**2. Focus on climate resilience and nutrition:** Prioritise edits that improve drought, flood and salinity tolerance, disease resistance, micronutrient content and reduce input use, aligning with food and nutritional security goals.

**3. Democratise access to gene and cell therapies:** Extend public funding, innovative pricing and manufacturing models so treatments like NexCAR19 and BIRSA-101 are not confined to a few elite hospitals.

**4. Invest in indigenous platforms and skills:** Support Indian toolkits (like TnpB-based editors), shared biomanufacturing facilities and training programs so researchers across states can use advanced genome-editing without prohibitive IP or equipment costs.

**5. Build ethical and legal frameworks:** Update bioethics guidelines, consent frameworks and data-sharing rules to keep pace with human gene editing and ensure equity, safety and respect for rights.

## Conclusion

India's journey from gene modification to genome editing reflects a shift from controversial, slow-moving GM crops to policy-backed, largely indigenous genome-editing programmes in agriculture and health. GM cotton remains the lone commercial success, but genome-edited rice, mustard and other crops, along with CAR-T and CRISPR-based therapies, show that India is now shaping, not just importing, frontier biotechnologies. If regulatory vigilance, public trust and equitable access are sustained, genome editing can become a powerful, home-grown tool for India's food security and public health in the coming decades.

## Question for practice:

Discuss how India's regulatory and technological shift from gene modification to genome editing is shaping its agricultural and healthcare innovation landscape.

Source: [Indian Express](#)

## Indian Aviation Can Soar to Greater Heights

### Introduction

India is poised to become the world's third-largest aviation market, marking a transformative phase in its civil aviation sector. This growth is not merely in numbers but is underpinned by strategic reforms, infrastructure expansion, and a vision to integrate over a billion people with global connectivity. Aviation acts as a key driver of economic and social development, fostering job creation, enhancing business links, and positioning India as a global connectivity hub.

### Current Status

- India's fleet is rapidly expanding with **around 1,300 new commercial aircraft ordered** in the last two years, indicating robust industry confidence.
- The number of **operational airports has more than doubled**, growing from **74 in 2014 to 159 presently**, with ambitious plans to increase this to **over 220 by 2025**.

- **Domestic passenger traffic showed steady growth**, albeit modest (4-6% in 2025-26), while international passenger traffic for Indian carriers is projected to rise 13–15%.
- The government's **modified UDAN scheme** aims to enhance regional connectivity, adding 120 new destinations and carrying over 40 million passengers in the coming decade.
- Despite challenges such as fuel costs and regulatory hurdles, India's **per capita air travel remains low at 0.14 trips annually**, highlighting **vast growth potential**.
- Indian carriers currently operate **under 90 wide-body long-haul aircraft compared to 450+ in the Gulf**, emphasizing room for expansion in global long-haul connectivity.
- **Delhi** is strategically positioned to **become a true global hub**, incentivized by infrastructure enhancement, regulatory reforms, and improved multimodal connectivity.

### Challenges in aviation sector

- **High aviation turbine fuel (ATF)** costs, especially with VAT rates as high as 25% in Delhi, hamper competitiveness compared to neighboring hubs with much lower fuel taxes.
- **Maintenance, Repair, and Overhaul (MRO) facilities** remain underdeveloped domestically, leading to significant foreign exchange outflows and longer turnaround times.
- **Dependence on Original Equipment Manufacturers (OEMs)** for design data limits India's ability to develop a comprehensive domestic MRO ecosystem.
- **Skilling shortages and limited advanced R&D facilities** impede the evolution of a high-quality aerospace manufacturing and services industry.
- **Infrastructure bottlenecks** such as land acquisition delays, regulatory complexities around tariff and land-use, and multimodal connectivity gaps restrict seamless aviation sector growth.

### Way Forward

- **Rationalize ATF taxation** by reducing VAT to 4-5% and integrating ATF under GST to enhance cost predictability and sector competitiveness.
- **Promote the development of indigenous MRO capabilities** leveraging public-private partnerships and policy reforms such as the 'Right to Repair' legislation.
- **Provide targeted fiscal incentives**—reduced GST, customs duty exemptions, tax credits, and subsidies—for aerospace R&D and component manufacturing.
- **Enhance skilling** through modular aerospace skill centers and strengthen collaborations between flight test engineers, pilots, and industry stakeholders.
- **Expedite airport infrastructure projects** and enable **new greenfield airports** while streamlining regulations to unlock their full economic potential.

- Strengthen India's position as an **international transit hub** by expanding wide-body aircraft fleets and improving airport multimodal connectivity.
- **Digitize cargo operations**, develop **free trade zones**, improve **cold chain logistics**, and **first-mile infrastructure** to boost cargo handling efficiency.

## Conclusion

India's journey to becoming a global aviation powerhouse is both aspirational and achievable through coherent policy action, infrastructure upgrades, and innovation. Building a seamless ecosystem encompassing airports, airline fleets, MRO, and skilled manpower will unlock high economic multipliers, enhance global connectivity, and secure India's strategic position in the international aviation arena by 2030 and beyond. The sector's continued growth promises to be transformative, not only linking people and businesses but also significantly contributing to India's economic development and global outreach.

Source - [BusinessLine](#)

## A Bank for G20

UPSC Syllabus Topic: GS Paper 3 -Economy

### Introduction

South Africa's G20 presidency comes at a time of **conflicts, climate stress, and a wider development crisis**. The pandemic has reversed earlier gains against poverty and hunger and pushed **93 million more people into poverty**. With earlier presidencies of Brazil and India refocusing the G20 on SDGs, finance, food security, digital public infrastructure and climate action, the central question now is how to plug the **huge SDG financing gap**.

### Need for a Bank for G20

- 1. Massive SDG financing gap:** UN estimates show that developing countries face a **\$4 trillion gap** in financing the SDGs. This gap makes it very hard to carry out the scale of change required across countries and sectors.
- 2. Debt distress and pressure on basic services:** Much of the developing world is **reeling under debt distress**. Many countries are not able to sustain essential social services because a large part of their resources goes towards managing debt.
- 3. Decline in development aid and bilateral flows:** Development aid has **suffered a severe setback** as many big donors, especially the **United States**, have withdrawn from the international development scene. Net bilateral flows to low-income countries have **fallen steadily** after the initial rise during the pandemic.
- 4. Very low private investment in SDGs:** Private sector support for SDGs is very weak. Only **4 per cent of the \$410 trillion in global private assets** invested in developing countries is directed towards SDG-related sectors. This level of investment is too low for stable, long-term SDG and climate financing.
- 5. Rigid and slow multilateral financial institutions:** Existing multilateral financial institutions are seen as **structurally rigid** and **slow to respond** during crises. Their functioning has not matched the urgent financing needs of developing countries for SDGs.

**6. Imbalance between Global North and Global South:** These institutions are dominated by the **Global North**, while the **Global South is underrepresented** in decision-making. This imbalance weakens trust and limits the ability of developing countries to shape financing rules and priorities.

**7. Country-focused model not suited to SDGs:** The **World Bank and IMF** follow a country-focused operating model. SDG financing, however, needs a **broader focus across countries and sectors**, which this model does not provide.

**8. Narrow growth-based lending approach:** Multilateral development banks have **prioritised economic rate of return** and often ignored environmental and social concerns. Their record in climate finance is poor, and they have mainly pushed a **growth-based approach to poverty reduction**, which does not align well with the SDG and Paris Agreement agenda.

### Initiatives taken for the development of a Bank for G20

**1. Think-tank proposals under G20 presidencies:** A Think-20 policy brief under India's G20 Presidency proposes creating a **Development Financial Institution under the G20** to bridge the SDG financing gap and support the Global South during crises.

**2. Idea of a Global Public Goods Bank:** A written submission by the G20 Expert Group (IEG) for a **new Global Public Goods Bank within the World Bank**, with its own balance sheet and governance, sitting alongside IBRD and IDA.

**3. United nation technical note:** A UN Technical Note on refugee hosting as a global public good calls for reform of MDBs toward GPGs and explicitly mentions creating a dedicated Global Public Goods (GPG) Bank with its own balance sheet and governance. . These ideas strengthen the intellectual case for a G20-led bank.

**4. Norad 2025 report:** It calls for **new "tiers" and additional funding streams for global public goods and planetary challenges**, arguing that traditional ODA must be complemented by new international public finance mechanisms—this supports the case for GPG-type institutions.

**5. UN "Our Common Agenda" Policy:** Calls for **new mechanisms and reformed institutions** to mobilise large-scale finance for SDGs and global public goods and for changing MDB business models; expert proposals like a **GPG Bank / G20 Bank** are emerging within this reform track and feeding into G20 MDB discussions

### Challenges to a Bank for G20

**1. Complex governance and power balance:** G20 members have different interests and priorities. Designing a governance structure that is fair to both Global North and Global South will be politically difficult.

**2. Overlap with existing institutions:** A new G20 bank may duplicate the roles of the World Bank, regional development banks, and funds already working on SDGs and climate, leading to more fragmentation.

**3. Uncertain and uneven capital contributions:** The bank will need large and predictable capital and guarantees. Securing strong commitments from all G20 members, especially at a time of strained budgets, is a major challenge.

4. **Risk of reinforcing old conditionalities:** If the new bank copies the lending practices and conditionalities of existing institutions, it may fail to correct current problems of slow disbursement, rigid conditions, and limited country ownership.

5. **Exclusion of non-G20 countries in decision-making:** Although the bank would serve the wider developing world, its core decision-making may remain with G20 states, raising questions about representation and voice for non-G20 borrowers.

6. **Time lag between idea and implementation:** Negotiating the mandate, structure, capital, and governance of such a bank can take years, while the SDG and climate crises require urgent action.

## Conclusion

A G20 Development Bank is shown as essential to bridge the SDG financing gap, ease debt distress and overcome failures of the current financial order. With long-term, stable finance for development, climate action and other global public goods, and with greater voice for the Global South, it could decide whether the SDGs succeed and reshape global finance.

## Question for practice:

Examine why there is a growing demand for a dedicated G20 Development Bank to finance the Sustainable Development Goals (SDGs)

Source: [Businessline](#)

## USA-Saudi Arabia Relations and Impacts on India

UPSC Syllabus Topic: GS Paper 2 -International Relations

### Introduction

USA–Saudi Arabia ties rest on an 80-year-old, **transactional “oil-for-security” alliance** that now extends into defence, energy management and technology. The recent Summit, driven by the personal bond between U.S. President Donald Trump and Crown Prince **Mohammed bin Salman (MbS)**, is reshaping this partnership, altering the regional balance in West Asia and creating important security, energy and economic implications for **India**.

### Historical Evolution of the USA-Saudi Arabia Alliance

#### Origins and durability of the bargain

- The relationship began in February 1945 as a secret “oil-for-security” deal between Franklin D. Roosevelt and King Abdul Aziz on the USS Quincy in the Suez Canal.
- It exchanged assured oil supplies for American protection and **predated** institutions such as the UN, NATO and the Bretton Woods system.
- Originally meant to last 60 years, it was **renewed in 2005**, making it one of the **oldest strategic transactional deals** still in force.



## Energy transformation, trade shifts and early strains

- Shale technology turned the U.S. into the world's largest crude producer and a major exporter.
- This reduced the direct commercial weight of Saudi oil and pushed the **bilateral trade balance in America's favour**, even as U.S. exports remained steady.
- As a trading partner, the U.S. now ranks **below China and India** for Saudi Arabia.
- Relations also faced shocks from Saudi participation in the 1973 Arab oil embargo and its mid-1980s purchase of Chinese intermediate-range ballistic missiles from a country it did not even recognise.

## Increased Mistrust

- **During the Yemen war**, U.S. decisions to **staunch arms supplies** weakened Saudi capabilities against the Houthis and increased mistrust.
- The **assassination of Jamal Khashoggi** in the Saudi consulate in Istanbul in October 2018 further jolted ties.

## Tilt Towards China and Russia

- The Biden presidency initially kept MbS at arm's length, prompting **diversification towards China and Russia**.
- In December 2022, Xi Jinping's visit to Riyadh, three separate summits with Saudi, Arab and Muslim leaders, and China's role in restoring Saudi-Iran diplomatic relations strengthened this new outreach.

## Gaza conflict and unresolved Israel-Palestine issue

- Since late 2023, strong **U.S. support for Israel's brutal campaign in Gaza** has made it harder for Riyadh to reset ties with Washington.
- Saudi Arabia has resisted U.S. pressure to **formally recognise Israel**, insisting on a credible pathway to Palestinian statehood, which Israel has ruled out. This unresolved question remains a **core political constraint** on full strategic convergence.

## Shifts Under Trump 2nd Presidency

### 1. Defence deals and big investments

In Trump's second term, relations moved up sharply. His first foreign trip in May 2025 was to Saudi Arabia, where both sides agreed on **\$142 billion** in U.S. military equipment. There, **\$270 billion** worth of agreements were signed, showing stronger political trust and deeper economic engagement.

### 2. Strategic defence status and Saudi money in the U.S.

- MbS promised to increase planned Saudi investments in the U.S. from **\$600 billion to \$1 trillion**. This amount is almost equal to Saudi Arabia's GDP and the size of its Public Investment Fund, which already has about **40%** of its foreign investments in the U.S.

- A **Strategic Defence Agreement** gave Saudi Arabia “major non-NATO ally” status and bound Washington to help if the Kingdom is attacked.

### 3. Technology cooperation and unresolved gaps

- Both sides advanced cooperation in **civil nuclear energy** and the supply of state-of-the-art **AI chips**.
- However, observers doubt that all promises will be realised, given Trump’s “truthful hyperbole” and Saudi economic stringency.
- Key differences on the global oil surplus, ties with Israel, Iran, and Saudi ambitions for strategic autonomy were not resolved, only set aside.

### Geopolitical & Regional Impact

1. **Saudi Arabia’s more assertive role:** Revived U.S.–Saudi ties under Trump 2.0 are shifting the regional balance. Under MbS, Saudi Arabia has dropped its low-key style and is pursuing its interests after the Israeli campaign that has weakened Iran, its rival. White House backing makes MbS a long-term U.S. partner in West Asia.
2. **Regional crisis brokerage:** MbS has got Trump to lift sanctions on Syria’s new regime and has pressed for stronger U.S. action to end the Sudanese civil war. The Iranian President has sought his help to restart nuclear talks with Washington, turning Saudi Arabia into a regional go-between.
3. **Oil, sanctions and big-power rivalry:** Saudi Arabia relies on oil income. Coordinated U.S. sanctions on Iran, Venezuela and Russian oil majors curb oversupply, keep prices moderate and create space for higher Saudi and U.S. exports, while limiting Chinese and Russian influence.

### Implications for India

1. **Security implications via Pakistan:** Closer U.S.–Saudi defence ties may indirectly benefit Pakistan. Riyadh’s defence pact with Pakistan, backed by Washington, can ease Pakistani access to U.S. military equipment.
2. **Oil prices and energy stability:** India prefers low oil prices but needs stability. Moderate prices can help while it finds alternatives to Russian supplies.
3. **Openings in Saudi Vision 2030:** Saudi Arabia’s Vision 2030, including AI data centres, can create investment and technology opportunities for India.
4. **Space from limiting China:** If U.S.–Saudi ties help **curb China’s entry** into Saudi markets, the space for India widens. This makes it important for India to **prioritise a Comprehensive Economic Partnership Agreement (CEPA)** with Saudi Arabia to lock in long-term trade and investment gains..
5. **IMEEC and regional connectivity:** An emerging **modus vivendi between Saudi Arabia and Israel** can ease work on the **India–Middle East–Europe Economic Corridor**, which passes through Saudi territory. Better relations in the region support India’s connectivity and trade plans.

**6. U.S. transactional approach and India:** The U.S. now prioritises strategic economic gains over earlier concerns like human rights or proliferation while engaging with MbS. This signals that **pragmatic, economy-focused cooperation may help India strengthen ties with Washington**, despite value differences.

### Conclusion

The renewed but reconfigured U.S.–Saudi alliance helps Washington **reclaim primacy in Riyadh** while giving MbS greater autonomy and regional leverage. As the partnership moves beyond a simple oil-for-security bargain into an uncertain, interest-driven framework, India must closely track security linkages with Pakistan, leverage emerging energy and connectivity openings, and actively position itself inside evolving Gulf economic and technological networks.

### Question for practice

Discuss how the renewed U.S.–Saudi Arabia partnership under Trump 2.0 shapes regional geopolitics and what implications it holds for India.

Source: [The Hindu](#)

### How Hayli Gubbi Volcanic Eruption in Ethiopia is Disrupting the Air Routes

Source: The post “**How Hayli Gubbi Volcanic Eruption in Ethiopia is Disrupting the Air Routes**” has been created, based on “**How Hayli Gubbi Volcanic Eruption in Ethiopia is Disrupting the Air Routes**” published in “Indian Express” on 26th November 2025.

**UPSC Syllabus:** GS Paper 2 -Governance

**Context:** The recent eruption of the **Hayli Gubbi volcano** in Ethiopia caused widespread disruptions in air traffic, including flights to India. Volcanic ash from the eruption can have severe impacts on aviation safety. **Volcanic ash** consists of fine particles that pose a significant threat to aircraft engines, visibility, and flight systems. Given its abrasive nature and the potential for widespread ash clouds, managing the risks associated with volcanic eruptions is a major concern for the aviation industry.

### Impact of Volcanic Ash on Aircraft

1. **Engine Damage:**
  - a. Volcanic ash is made up of fine, abrasive particles that can clog and damage aircraft engines.
  - b. The particles can melt at high altitudes and form glass-like deposits inside the engine, causing severe damage, including engine failure.
  - c. In some cases, as ash particles build up, they can completely stall the engine, leading to potentially catastrophic situations.
2. **Visibility Issues:**
  - a. Ash clouds severely reduce visibility, making it difficult for pilots to see clearly. The loss of visibility can lead to navigation errors, especially when the ash is thick and widespread.
  - b. Pilots rely on radar and other instrumentation to navigate safely, but ash clouds can interfere with these systems, making it more challenging to avoid dangerous areas.
3. **System Failures:**

- a. Volcanic ash can interfere with various aircraft systems. For example, it can clog **aircraft sensors, temperature gauges, and exhaust systems**, all of which are crucial for safe operation.
  - b. The ash particles can also disrupt critical **flight instruments and navigation systems**, making it harder for pilots to maintain control of the aircraft.
4. **Health Risks:**
- a. Long-term exposure to volcanic ash can be harmful to passengers and crew inside the cabin, especially in cases where the aircraft flies through dense ash clouds. Respiratory issues, irritation of eyes and throat, and other health complications may arise due to the fine particles in the ash.
  - b. In addition, volcanic ash can compromise the **air quality** inside the aircraft, which may lead to discomfort and health hazards for passengers and crew.

#### Past Incidents:

1. **1982 British Airways Boeing 747 Incident:** A British Airways 747 encountered volcanic ash over Indonesia, causing all four engines to fail. The plane glided for several minutes before the pilots restarted the engines and made an emergency landing, raising awareness about the dangers of volcanic ash to aircraft engines.
2. **1989 KLM Boeing 747 Incident:** A KLM 747 flying from Amsterdam to Tokyo flew through ash from Alaska's Redoubt volcano, damaging its engines. The aircraft had to make an emergency landing, with over \$80 million in damages, highlighting the need for improved ash detection and avoidance systems.

#### Regulatory Measures and Advisory Systems

1. **DGCA and Global Advisory Systems:**
  - a. The **Directorate General of Civil Aviation (DGCA)** in India, as well as aviation authorities worldwide, issue **urgent operational advisories** when volcanic eruptions occur. These advisories warn airlines and pilots about the presence of volcanic ash and advise them to avoid flying through affected areas.
  - b. The **DGCA's advisory** regarding the **Hayli Gubbi eruption** warned pilots to **immediately report any suspected ash encounters**, including engine anomalies or issues like **cabin smoke**.
  - c. International bodies, such as the **International Civil Aviation Organization (ICAO)** and **Meteorological Agencies**, provide continuous updates and monitoring of volcanic activity, issuing alerts and flight restrictions as needed.
2. **Satellite and Radar Monitoring:**
  - a. **Volcanic ash** is tracked by modern satellite systems and radar technologies. These systems help in the real-time monitoring of ash clouds, providing flight authorities and pilots with the necessary data to navigate safely.
  - b. **Volcanic ash clouds** can travel vast distances, and advanced prediction models help in forecasting their movement, which allows for timely flight rerouting and cancellations.

#### Preventive Measures and Technologies

1. **Engine Design Improvements:**

- a. Over the years, aircraft engines have been designed to be more resilient to the effects of volcanic ash. Modern engines are equipped with features that reduce the risk of failure due to ash encounters.
- b. Aircraft manufacturers continually improve engine materials to make them more resistant to high-temperature environments, thus reducing the likelihood of engine damage in ash-prone regions.

2. **Volcanic Ash Detection Systems:**

- a. New technologies have been developed to better detect volcanic ash clouds. **Volcanic Ash Detection Systems** (VADS) use satellite imagery, infrared sensors, and other tools to monitor and track ash clouds, providing real-time data to aviation authorities.
- b. These systems help pilots avoid ash clouds by providing warnings in advance, giving them the opportunity to adjust flight paths and altitude.

3. **Pilot Training and Safety Protocols:**

- a. Pilots undergo specialised training to handle volcanic ash encounters. Training focuses on how to identify ash clouds, how to respond to engine malfunctions caused by ash, and how to safely navigate away from hazardous zones.
- b. In case of an ash encounter, pilots are trained to follow strict protocols to ensure the safety of passengers and the aircraft.

**Conclusion:** Volcanic ash is a serious hazard to aviation safety, with the potential to damage engines, impair visibility, and disrupt flight systems. However, through advancements in technology, improved monitoring systems, and better regulatory measures, the risks associated with volcanic ash can be managed effectively. International cooperation and ongoing research into volcanic ash detection systems are essential to ensuring the safety of global air travel, particularly in regions prone to volcanic activity. With continued technological advancements and comprehensive safety protocols, the aviation industry can better mitigate the risks posed by volcanic ash, ensuring safe and efficient air travel during such natural events.

**Question:** Discuss the impact of volcanic ash on aviation safety and the measures to mitigate its risks.

**POSH Act Needs a Spine Today**

**Source:** The post “**POSH Act Needs a Spine Today**” has been created, based on “**A landmark law in 2013, it needs a spine in 2025**” published in “The Hindu” on 26th November 2025.

**UPSC Syllabus:** GS Paper 2 -Governance

**Context:** A recent case in Chandigarh saw a professor dismissed after a sexual harassment complaint was proven under the POSH Act, 2013. While hailed as "justice served," it highlights the low conviction rate and systemic gaps in the law, especially in educational institutions where power imbalances hinder justice. Despite the Act's intent, many women face challenges like institutional resistance, showing the need for reforms to ensure consistent and empathetic outcomes.

**Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act, 2013** (POSH Act)



1. The **Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act, 2013** (POSH Act) was enacted to protect women from sexual harassment in the workplace and provide a legal framework for redressal.
2. The Act **defines sexual harassment, mandates the establishment of Internal Complaints Committees (ICC), and ensures the creation of a safe working environment for women.**
3. It aims **to safeguard women's dignity and offer a structured mechanism** for reporting and addressing grievances.

#### Flaws in the POSH Act:

1. **Inadequate Definition of Consent:** The POSH Act draws a **distinction between "consent" and "informed consent,"** but this crucial distinction is not well-addressed in practice.
2. The Act **fails to recognize how emotional manipulation or power imbalance distorts consent,** especially in workplace relationships. This leaves a significant gap in protecting women who may feel coerced into consenting due to fear or professional vulnerability.
3. **Ambiguity in Terminology:** The POSH Act refers to the **accused as the "respondent," rather than the "accused,"** diluting the gravity of the offence. This language issue weakens the seriousness of the charge and may impact the perception of sexual harassment as a crime.
4. **Burden of Proof on Victim:** The Act places **the burden of proof on the victim,** often forcing them to prove harassment within an institutional setting that is not always supportive. **This is problematic as women may face difficulties in gathering evidence and reporting harassment,** especially when institutional structures are ill-equipped to handle such complaints.
5. **Limitations in Investigative Framework:** While the POSH Act requires the formation of ICCs, these committees often **lack adequate training in handling sensitive issues like emotional and digital harassment.** They are not equipped to handle the complexities of modern-day harassment, especially with the rise of digital harassment.
6. **Lack of Provisions for Inter-Institutional Complaints:** The POSH Act is **silent on handling complaints that span multiple institutions.** For example, when a perpetrator moves from one institution to another, there is **no mechanism to track or address these complaints, leading to accountability gaps.**
7. **Digital Harassment and Technological Challenges:** With the advent of digital communication, **harassment has taken new forms, such as cyberbullying, online stalking, and inappropriate digital content.** The law, however, **does not address these new forms of harassment effectively.** The digital age requires updated protocols and evidence-gathering mechanisms to deal with online harassment.

#### Challenges in Implementation:

1. **Institutional Resistance:** Many educational institutions and workplaces still show reluctance in implementing the POSH Act. **Institutional biases, fear of reputational damage, and lack of training often lead to a failure in addressing complaints effectively.**
2. **Delayed and Inadequate Redressal:** The Act **stipulates that complaints must be filed within three months of the incident.** This time limit can be too restrictive, especially for victims who might face psychological trauma or fear retaliation, delaying their ability to report the incident.
3. **Inconsistent Application Across Institutions:** The **application of the law varies widely across different institutions.** Many educational and corporate institutions **do not have the necessary infrastructure or awareness to properly implement the provisions of the Act.** This leads to

inconsistencies in the redressal process and leaves women vulnerable to exploitation.

### Way Forward:

1. **Clearer Definitions and Extended Timelines:** The POSH Act needs clearer definitions, particularly concerning "informed consent" and "emotional harassment." It is essential to expand the timelines for filing complaints, especially considering the trauma victims may experience, which often delays their ability to report incidents. A more flexible and victim-centric approach would ensure greater accessibility to justice.
2. **Recognition of Emotional and Digital Harassment:** The Act must recognize and include emotional abuse, digital harassment, and online stalking as valid forms of harassment. This would ensure that the law remains relevant in a rapidly changing digital landscape. Additionally, better training for ICC members on handling digital evidence and emotional abuse is essential.
3. **Improved Investigation Mechanisms:** ICCs should be provided with comprehensive training to handle complaints effectively and impartially. They should be equipped with the tools to investigate cases of harassment, including the ability to recognize informal behaviors and non-verbal cues that indicate harassment. Additionally, multi-disciplinary committees, including legal experts, psychological counselors, and human resource personnel, should be formed to ensure impartiality and competence in handling cases.
4. **Addressing Inter-Institutional Complaints:** A framework for handling complaints that span across institutions, especially in cases where the perpetrator moves between different workplaces or campuses, must be established. This can include collaboration between different institutions to ensure that the perpetrator is held accountable, no matter where the harassment occurs.
5. **Leveraging Technology:** The law must evolve to incorporate technology. This includes creating secure digital platforms for filing complaints and gathering evidence, such as screenshots or recorded conversations. Digital literacy for ICC members should be mandatory to handle such evidence effectively.
6. **Institutional Accountability and Cultural Change:** Workplaces and educational institutions must create a more supportive environment for women to report harassment without fear of retaliation. This involves changing institutional culture and ensuring that there are strong policies in place to protect complainants from further harm or victimization.

**Conclusion:** While the POSH Act, 2013 has been a significant step forward in addressing sexual harassment in workplaces, it remains incomplete in its scope and implementation. To achieve its goal of providing a safe and supportive environment for women, the Act must evolve with the times. This includes clearer definitions, recognition of emotional and digital abuse, more robust investigative frameworks, and better institutional mechanisms to ensure justice is both accessible and effective. With these reforms, the POSH Act can become a more powerful tool in the fight against workplace harassment in India.

**Question:** Discuss the Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act, 2013 (POSH Act) in the context of its flaws, challenges, and suggest the way forward.

## Custodial Deaths in India

### Introduction

Custodial deaths in India expose a serious failure of policing, accountability and respect for basic human rights. Despite clear constitutional protections and Supreme Court guidelines, torture and high-handed methods remain common in police custody.

Data from official reports shows that investigations, convictions and relief to victims are rare, so this pattern of custodial torture and death continues to remain unchecked.

#### **Data and facts related to Custodial Deaths in India**

According to **Status of Policing in India Report (SPIR) 2025 – Torture and Police High-handedness**, police apathy and high handedness remains a major factor behind custodial deaths in India. Some of the data and facts related to Custodial deaths are given below:

**1. Low conviction rate of guilty police officers** - Not a single police officer has been convicted for 1,107 deaths in police custody between 2011 and 2022, according to NCRB data.

**2. NHRC disposal pattern**- In 2023, the NHRC disposed of 281 **cases of deaths in police custody**. However, relief from custodial torture was granted in only 1 case out of 281 cases.

**3. Low coverage of Judicial and magisterial inquiries**- For 394 custodial deaths reported between 2018–22, **judicial inquiries** were ordered in **41%** of cases and **magisterial inquiries** in **34%**.

- Some smaller states reported **no inquiry of any kind** in any custodial death during this period.

#### **Reason for Custodial Deaths in India**

**1. Torture as routine method:** Torture and “third-degree” are widely used as standard tools to extract information and confessions, causing severe internal injuries and death.

- **For ex-** National Campaign Against Torture (NCAT) found that out of 1,731 custodial deaths in 2019, about 74% of police-custody deaths were linked to alleged torture or foul play. This shows that torture is not exceptional but systemic.

**2. Militant policing mindset:** A section of police justifies violence for “effective crime control” and believes fear of the police is necessary, normalising excess force.

- **For ex-** Over 55% of police personnel say it is important to use “tough methods to create fear among the public

**3. Violation of safeguards of detention-** **Status of Policing in India Report (SPIR’s)** analysis of NCRB data shows that **around 60% of deaths in police custody between 2018–22 occurred within 24 hours of arrest**, *before* the person effectively reaches magistrate / lawyer protection. This indicates failure of arrest and production safeguards.

**4. Delayed and compromised medical care-** Injuries from custodial beatings are under-recorded. The medical treatment is often delayed or is superficial. This often turns **preventable harm** into **fatality**.

**5. Targeting of the marginalised-** Victims are often poor, Dalits, Adivasis, minorities or migrants, with weak legal and social protection, making them easy targets of custodial violence.

**6. Impunity and weak accountability-** FIRs, fair inquiries, sanction for prosecution and convictions against erring officers are rare. These encourage repeated custodial abuse.

**7. Manipulated records and post-mortems-** Arrest times, cause of death and injury details are fudged, hiding true causes and shielding perpetrators.

**8. Social acceptance and legal gaps-** India has **not ratified the UN Convention Against Torture**, and lacks a specific anti-torture law.

### **Initiatives Taken to Overcome the Issue of Custodial Deaths in India** **Constitutional Provisions:**

- 1. Article 21:** Constitution guarantees the right to life and personal liberty, which includes protection from torture and inhuman treatment.
- 2. Article 20(3):** Protects individuals from being compelled to be witnesses against themselves, safeguarding them from coercive interrogation.
- 3. Article 39A:** Ensures free legal aid to ensure that no citizen is denied justice due to economic or other disabilities.
- 4. Article 22:** Provides safeguards against arbitrary arrest and detention, including the right to be informed of the grounds of arrest and the right to consult a lawyer.

### **Legal Provisions**

- 1. IPC-** Sections 330 (voluntarily causing hurt to extort confession) and 348 (wrongful confinement to extort confession).
- 2. CrPC-** Section 176 mandates a judicial inquiry into custodial deaths.
- 3. Protection of Human Rights Act, 1993-** The Act established the NHRC and SHRCs to investigate custodial violence and recommend action.
- 4. BNS Provisions-** The BNS maintains provisions related to wrongful restraint and illegal detention, which are often precursors to custodial abuse. E.g. Section 176 (causing hurt by public servant), Section 177 (causing grievous hurt by public servant), Section 178 (wrongful confinement by public servant).

### **Way forward**

- 1. Enact anti-torture law and ratify UNCAT-** Law Commission's 273rd Report (2017) urged a specific anti-torture law and ratification of the UN Convention Against Torture. India must do so at the earliest.
- 2. Independent investigation & Police Complaints Authorities-** Supreme Court's direction in the *Prakash Singh* (2006) case for independent Police Complaints Authorities to probe custodial deaths, must be followed.
- 3. Strict enforcement of arrest safeguards & CCTV-** SC guidelines for custodial torture must be followed in letter and spirit.
  - SC guidelines in the *D.K. Basu* case provides for arrest memos, 24-hour production and medical checks.
  - In *Paramvir Singh Saini* (2020) case, the SC has mandated CCTV in all police stations to deter torture.
- 4. Early legal aid and magistrate vigilance-** SPIR shows most deaths occur within 24 hours of arrest. This calls for compulsory steps for private meetings with legal-aid lawyers and proactive questioning by magistrates.
- 5. Independent, rights-based medical examination-** Adopting **Istanbul Protocol standards** for documenting torture, with independent forensic doctors and video-recorded examinations, would reduce false "natural death" certificates.
- 6. Automatic judicial inquiry in every custodial death-** NHRC already insists on intimation within 24 hours. Making time-bound judicial inquiry and public reporting mandatory can close the current inquiry gaps.

### **Conclusion**



Custodial deaths are not isolated incidents but the result of routine torture, weak safeguards and deep impunity within the system. Data from NCRB, SPIR and NHRC shows almost no convictions and little relief for victims. Only firm legal reforms, independent oversight and early safeguards can make custody truly safe and lawful for every person, in every lockup.

For detailed information on **Custodial Violence in India** [read this article here](#)

### Question for practice:

Examine the key reasons behind custodial deaths in India and suggest measures to address systemic failures in police accountability.

Source: The Hindu

## Presidential opinion versus the federal structure

**UPSC Syllabus Topic: GS Paper 2-**issues and challenges pertaining to the federal structure.

### Introduction

Recent developments, particularly the Supreme Court's response to the **16th Presidential Reference**, are seen as eroding *federalism*, a basic feature of the Constitution. The concern is that unelected constitutional authorities may override elected State governments, threatening democratic balance.

### About 16th Presidential Reference

#### Trigger point

- On **May 13, 2025**, President Droupadi Murmu referred **14 constitutional questions** to the Supreme Court under **Article 143**.
- The reference followed the Supreme Court's ruling in **State of Tamil Nadu v. Governor of Tamil Nadu (2025)**, where a two-judge Bench suggested **finite timelines for Governors to act on Bills**.

#### Core of the reference

Questions relate to **Articles 200 and 201**, concerning Governor and President's powers over State legislation.

#### Issues raised include:

- Whether Governors must follow *aid and advice* of the State Cabinet.
- Whether **timelines** can be imposed for assent.
- Whether decisions are subject to *judicial review*.
- Can courts intervene even before a Bill becomes law?
- Can Article 142 substitute Governor/President actions?
- Does Article 361 provide absolute immunity?

### The Supreme Court's Opinion on the 16th Presidential Reference

#### 1. No time limit can be judicially imposed

- The Constitution Bench stated that **courts cannot prescribe timelines** for assent under Articles 200 and 201.
- It held that **absence of a constitutional time limit indicates deliberate intent**.



## 2. Limited judicial intervention

- The Bench ruled that **courts cannot intervene before a Bill becomes law**, rejecting pre-enactment scrutiny.
- **Article 142 cannot override constitutional options** available to the Governor or President.

## 3. Discretion of Governor and President upheld

- The Court noted that these powers remain **unwritten and discretionary**, although subject to constitutional norms.
- It did not clearly state that Governors must strictly follow advice of State governments.

## Concerns Related to the Supreme Court's Opinion

**1. Risk to federalism :** The Constitution treats the Union and the States as equal partners, with the Centre only as “first among equals”. The concern is that, if this understanding is weakened, States may slowly turn into “shadow Union Territories”. In such a situation, they will have elected legislatures in name, but very little real autonomy in practice.

**2. Unelected authorities overriding democratic mandate:** When Governors can delay, return or reserve Bills without any clear timelines, elected State Assemblies become effectively powerless. This arrangement allows unelected appointees to overrule or frustrate the will of the people expressed through their representatives. The piece therefore calls this situation the anti-thesis of democracy.

**3. Arbitrary use of power without timelines:** The absence of deadlines under Article 200 allows Governors to withhold Bills indefinitely, which is similar to exercising a pocket veto. Such open-ended power goes against the principles of reasonableness, fairness and non-arbitrariness that are central to constitutional governance.

**4. Threat to judicial review:** Judicial review is recognised as part of the basic structure of the Constitution. If actions of the Governor or President under Articles 200 and 201 are allowed to escape scrutiny, constitutional accountability is seriously weakened. The protection under Article 361 cannot be interpreted to override or dilute judicial review.

## 5. Evidence of increasing centralisation

- There is a wider pattern of centralisation that adds to these fears. Producing States have been denied full Goods and Services Tax compensation, and cess revenues collected by the Centre are not shared with States.
- Finance Commission devolution is not fully implemented, and central schemes often force States to share up to 50% of the cost despite their limited finances.
- There are also targeted financial transfers close to elections, such as the transfer of ₹10,000 to 1.21 crore women in Bihar, and a growing use of central agencies like the Enforcement Directorate, Central Bureau of Investigation and Income-Tax Department to pressure State leaders.
- In this background, the Governor's actions become the final tool to weaken the powers and autonomy of State governments.

## Way Forward

### 1. Reaffirm timelines to prevent misuse

- A reasonable time limit should be read into Article 200 to avoid indefinite delays.
- Earlier stance of two-judge Bench must be reconsidered to protect legislative autonomy.

### 2. Strengthen judicial oversight

- Governor and President must not escape scrutiny; their actions should remain **justiciable**.
- Judiciary must uphold *constitutional safeguards over procedural immunity*.

### 3. Reinforce democratic accountability

- Governor must act on **aid and advice of State Cabinet**, respecting the people's mandate.
- Avoid turning constitutional offices into political instruments.

### 4. Restore fiscal federalism

- Ensure **compensation mechanisms**, transparency in cess usage, and compliance with Finance Commission recommendations.
- Avoid conditional schemes that undermine State flexibility.

### 5. Prevent concentration of power

- Limit excessive reliance on central investigative agencies against elected State governments.
- Avoid politically motivated financial transfers that distort governance.

### Conclusion

Federalism, democracy and judicial review form the *core of India's constitutional identity*. By allowing Governors and the President wide discretion without timelines or effective checks, the Supreme Court's opinion risks undermining this foundation.

The result may be an imbalance where States become dependent administrative units dominated by the Union. It is essential that institutions re-evaluate this trajectory. Protecting federalism is not merely preserving constitutional design—it is protecting India's democracy itself.

### Question for practice:

Discuss how the Supreme Court's opinion on the 16th Presidential Reference affects India's federal structure and the balance of power between elected State governments and unelected constitutional authorities.

**Source:** The Hindu

## Reversing Brain Drain through Institutional Reform

**Source:** The post “Reversing Brain Drain through Institutional Reform” has been created, based on “Reversing Brain Drain through Institutional Reform” published in “Indian Express” on 26th November 2025.

**UPSC Syllabus:** GS Paper- 2- Governance

**Context:** India’s plan to repatriate star Indian-origin faculty comes at a time when global academic environments, particularly in the US, are facing challenges to autonomy and stability. This initiative reflects India’s urgency to strengthen its research ecosystem and reverse the persistent brain drain, especially in STEM fields.

### Rationale Behind the Initiative

1. Global political intervention in universities, especially in the US, has made many Indian-origin academics explore more stable research environments.
2. India needs to enhance its research capacity as it positions itself as a global knowledge economy.
3. The government’s focus on priority STEM areas shows a strategic approach to national capacity building.

### Key Challenges in Attracting Overseas Faculty

1. **Financial Constraints:** Indian salaries for full professors are substantially lower than those in the US and China, creating a large financial gap.
  - a. Due to this gap, the value of returning must come from intellectual opportunities and institutional support rather than monetary incentives alone.
2. **Administrative and Structural Issues:** Returning academics often face bureaucratic delays in procurement, logistics, and laboratory setup.
  - a. Fragmented fellowship-based schemes do not provide clear tenure or long-term career pathways.
  - b. Many institutions lack well-defined intellectual property frameworks, which creates uncertainty for scientific research. Senior academics returning with families face difficulties concerning housing, schooling, and spousal employment.
3. **Cultural and Institutional Limitations:** Many Indian institutions still function within rigid and hierarchical structures that limit creativity and collaboration.
  - a. Public institutions have limited experience in hosting international faculty, which leads to integration challenges for returnees.
  - b. The VAJRA programme showed limited success due to procedural delays, funding uncertainties, and inadequate institutional backing.

### Required Policy Reforms

1. **Administrative Insulation:** Institutions must create a “red carpet mandate” that ensures smooth and efficient handling of procurement, HR processes, and research setup. Expanded autonomy in non-government procurement should be used to support returning researchers.

2. **Clear and Secure Career Pathways:** Institutions must adopt transparent tenure-track systems that provide long-term career stability. This would shift the model away from short-term fellowships toward permanent academic positions.
3. **Explicit Research and IP Policies:** Host institutions must clearly articulate intellectual property ownership and commercialization rules. Transparent policies will help build trust for returning scientists.
4. **Support for Family Relocation:** Institutions must provide proper housing facilities for returnees. Institutions must also facilitate schooling options for children and employment opportunities for spouses.

### Required Cultural and Institutional Reforms

1. **Strengthening Academic Freedom:** The government must publicly assure academic freedom and protect faculty from excessive monitoring or political interference. Such autonomy will help India compete with countries that are enhancing academic freedom to attract researchers.
2. **Promoting Collaborative and Merit-Based Cultures:** Institutions must shift from rigid hierarchies and promote interdisciplinary collaboration. Merit-based evaluation systems should replace seniority-based decision-making.
3. **Improving Internationalisation:** Orientation programmes must be complemented with deeper training within institutions to integrate global faculty effectively. Institutions must adopt flexible governance structures that reflect international standards.

### Broadening Institutional Scope

1. The scheme should not be limited to a handful of elite public research institutes.
2. Many high-performing research institutions today include central universities, state universities, and private universities.
3. Placement of returning academics should reflect this wider and rapidly evolving research landscape.

### Potential Benefits

1. Returning faculty will not only bring high-quality research expertise but also global best practices in governance, pedagogy, and institutional management.
2. Their presence can catalyse improvements in the overall academic culture of Indian institutions.
3. The emotional motivation to return home can be leveraged, but it must be supported by strong structural reforms.

**Conclusion:** The government's repatriation initiative is a timely and promising opportunity for Indian higher education. Its success will depend on India's ability to undertake deep institutional reforms, protect academic freedom, simplify administrative processes, and create secure and rewarding academic careers. If these changes are implemented, India can convert the current brain drain into brain circulation and establish itself as a major global research hub.

**Question:** Examine the challenges India faces in attracting Indian-origin faculty from abroad and suggest the policy and institutional reforms required to make Indian universities globally competitive.

## Rise of Sovereign AI

**Source:** The post “Rise of Sovereign AI” has been created, based on “Rise of Sovereign AI” published in “Live Mint” on 27th November 2025.

**UPSC Syllabus:** GS Paper

**Context:** As the U.S. and China dominate global advances in artificial intelligence, many countries fear excessive dependence on these superpowers for a technology crucial to economic competitiveness and national security. South Korea has emerged as one of the few nations capable of building “sovereign AI” to protect its technological autonomy through large-scale investments, semiconductor expertise, and strong political commitment.

### Meaning and Significance of Sovereign AI

1. Sovereign AI refers to a self-reliant national ecosystem that includes domestic capabilities in large language models, chipmaking, cloud storage, computing infrastructure, and data governance.
2. It seeks to ensure national control over sensitive data, reduce external vulnerabilities, and build resilience against disruptions in global technology supply chains.

### Rationale Behind South Korea's Sovereign AI Push

1. South Korea believes that even smaller nations can achieve AI autonomy due to its advanced tech base, strong industrial capacity, and semiconductor leadership through firms like Samsung and SK Hynix.
2. President Lee Jae Myung has warned that falling behind in AI even by a single day could mean lagging behind for an entire technological generation.
3. Countries worldwide are increasingly hesitant to rely on U.S. tech giants, which governments find difficult to regulate effectively.
4. Sovereign AI also provides resilience against geopolitical disruptions and promotes national security by reducing reliance on foreign cloud and AI providers.

### South Korea's Institutional and Financial Commitments

1. The government plans to triple its AI development budget to roughly **\$6.8 billion** next year.
2. It has established a **\$102 billion National Growth Fund** to invest in strategic high-tech sectors, including AI.
3. A new presidential secretary for AI and future planning has been appointed to direct public-private collaboration.
4. South Korea recently signed a deal to acquire **260,000 Nvidia GPUs**, which will form the backbone of national AI computing infrastructure.
5. These chips will support government-led data centers, private cloud facilities, and the development of national large language models.

### Role of National Conglomerates and Startups

1. Major Korean conglomerates—Samsung, SK, Hyundai, and LG—have pledged about **\$540 billion** in domestic investments in AI data centers, chipmaking, and AI-driven manufacturing.



2. Korean chip startups like **Rebellions** and **FuriosaAI**, which recently rejected a Meta acquisition offer, are developing indigenous neural-processing units that could reduce long-term dependence on Nvidia.
3. Software giants Naver and Kakao have already released Korean large language models to strengthen the country's AI software ecosystem.

### Global Context and Comparisons

1. Other nations such as France, Germany, the U.K., India, Saudi Arabia, and the UAE are also building sovereign AI capabilities.
2. The U.S. is promoting the export of a “full-stack” American AI package, while China continues to pursue technological self-reliance.
3. According to Gartner, global AI spending—including services, software, and infrastructure—is expected to reach **\$1.5 trillion** this year and exceed **\$2 trillion** next year, reflecting intense global competition.

### Key Challenges in Building Sovereign AI

1. Sovereign AI requires enormous power capacity for high-density data centers, creating infrastructural challenges.
2. South Korea remains dependent on U.S. export approvals for access to key technologies such as advanced Nvidia chips.
3. Over-reliance on Nvidia GPUs exposes Korea to supply-chain vulnerabilities.
4. A shortage of highly skilled AI engineers limits the pace of domestic innovation.

### Way Forward

1. **Accelerate Domestic Chip Innovation:** Korea must strengthen indigenous chipmakers like Rebellions and FuriosaAI to reduce dependence on Nvidia and U.S. export-controlled technologies.
2. **Expand Power and Data-Center Infrastructure:** Large-scale investments in power generation, grid upgrades, and cooling systems are essential to support the huge computational needs highlighted in the article.
3. **Leverage Massive Conglomerate Investments:** The \$540 billion pledged by Korean conglomerates should be coordinated through national platforms like the presidential AI office and the National Growth Fund to maximize impact.
4. **Build Korean-Language and Culture-Aligned AI Models:** Korea should scale Naver's and Kakao's LLMs to embed domestic culture, common sense, and history—reflecting Jensen Huang's call to “own your data” and your cultural intelligence.
5. **Balance U.S. Dependence with Autonomy Building:** Korea must negotiate stable long-term access to U.S. technologies while simultaneously expanding its indigenous alternatives to avoid strategic vulnerabilities.
6. **Strengthen National Talent Pipelines:** The country needs expanded AI talent programs, stronger university-industry collaboration, and global researcher recruitment to support sovereign AI growth.

**Conclusion:** South Korea's sovereign AI strategy represents one of the most ambitious efforts outside the U.S. and China to build a complete indigenous AI ecosystem. Its progress will serve as a benchmark for other nations seeking technological sovereignty in an era of intense geopolitical competition. With sustained investment,

coordinated reforms, and a strong partnership between the government and industry, South Korea can become a global model for building a secure, resilient, and competitive sovereign AI ecosystem.

**Question:** With massive investments in chips, data centers, and AI models, South Korea is emerging as a test case for building a sovereign AI ecosystem. Discuss the significance of sovereign AI and evaluate Korea's approach based on recent developments

### Without Great Powers on Board G-20 is adrift

**Source:** The post "Without Great Powers on Board G-20 is adrift" has been created, based on "Sanjaya Baru writes: Without great powers on board, G20 is adrift" published in "Indian Express" on 28th November 2025.

**UPSC Syllabus:** GS Paper-2- International Relations

**Context:** The G20 was established during the 2008 global financial crisis as the premier platform for global economic coordination among major developed and emerging economies. Despite its significant early success, the grouping has increasingly struggled to remain effective due to geopolitical tensions, unilateralism, and institutional stagnation, leading to a decline in its relevance.

### Origins and Early Strength of the G20

1. **Crisis-Driven Formation:** The G20 emerged in 2008 in response to the global financial crisis, with leaders from major economies meeting in Washington to devise a coordinated response.
2. **Initial Effectiveness:** Early summits such as London (2009) and Pittsburgh (2009) delivered strong outcomes, including global financial reforms and institutional strengthening.
3. **Demonstrated Potential:** The group showed the ability to act collectively during global economic instability.

### Transition into a Low-Impact Platform

1. **Reduced Deliverables:** Over time, the G20 shifted from crisis management to broad thematic dialogue, often failing to produce binding or actionable commitments.
2. **Symbolism Over Substance:** Summit declarations increasingly became aspirational documents without strong follow-up mechanisms.
3. **Inability to Address Core Issues:** The G20 struggled to provide solutions for issues such as climate change, global debt, food security, and sustainable development.

### Geopolitical Rivalries Undermining G20 Cohesion

1. **Intensifying US-China Rivalry**
  - a. **Unilateralism by the U.S.A.:** Trade wars and tariffs under the Trump administration weakened trust and disrupted cooperative spirit within the G20
  - b. **G2 Concept Limiting Multilateralism:** Discussions around a possible "G2" arrangement between the U.S.A. and China implied a preference for bilateral power management rather than multilateral institutions.
  - c. **Institutional Stagnation:** U.S.A.'s hesitation to accommodate China's rising power blocked reforms such as expanding the G8.
2. **Deepening Russia-West Tensions**

- a. **Post-Crimea Polarisation:** Russia's annexation of Crimea in 2014 created significant divides within the G20 framework.
  - b. **Ukraine Conflict Impact:** The Russian invasion of Ukraine further disrupted consensus-building, weakening G20 statements and outcomes
  - c. **Leader-Level Absences:** Putin's absence from recent summits highlighted Russia's growing isolation within the multilateral system.
3. **Absence of Key Leaders Reducing Influence**
  - a. **Major Power Disengagement:** The absence of Xi Jinping and Vladimir Putin from major recent summits indicated reduced prioritisation of the G20 by key actors.
  - b. **Shift Toward Middle Power Dominance:** Their absence shifted the balance of participation toward middle powers rather than major global players.
4. **Increasing Dominance of Middle Powers and Global South**
  - a. **Rise of Emerging Leaders:** Countries like India, Brazil, Indonesia, Saudi Arabia, and South Africa have increasingly shaped the G20 agenda due to great-power disengagement.
  - b. **Emphasis on Global South Issues:** The 2023 Delhi summit foregrounded development, climate finance, food security, and digital public infrastructure.
  - c. **Expanded Representation:** The inclusion of the African Union as a permanent member highlighted the shift toward inclusivity but also the retreat of major powers.
5. **Alternative Groupings Eroding G20 Centrality**
  - a. **Strategic Platforms Taking Precedence:** The QUAD has emerged as a key forum for security and strategic issues in the Indo-Pacific, reducing reliance on the G20.
  - b. **Regional Forums Gaining Importance:** The East Asia Summit has become a crucial venue for Asia-Pacific geopolitics, sometimes overshadowing the G20.
  - c. **Fragmentation of Global Governance:** The rising number of minilateral and regional coalitions reflects disillusionment with large multilateral forums like the G20.

### India's Strategic Approach Amid G20's Decline

1. **Balanced Utilisation of the G20:** India has used its presidency to highlight issues like climate action, digital transformation, and Global South priorities.
2. **Diversified Engagement Strategy:** India increasingly depends on platforms such as QUAD, Indo-Pacific strategies, and ASEAN partnerships for security and geopolitical coordination.
3. **Recognition of Limitations:** This shift indicates that even proactive emerging powers perceive the G20 as insufficient for addressing hard strategic issues.

### Consequences of the Declining Relevance of the G20

1. **Weakening of Global Crisis-Management Capacity:** The decline in G20 cohesion has reduced its ability to provide coordinated responses to emerging economic and geopolitical crises.
2. **Reduced Legitimacy and Credibility:** The inability to produce strong communiqués, especially on the Ukraine crisis, has damaged the G20's credibility as a global rule-making body.
3. **Rise of Uncoordinated Plurilateralism:** The proliferation of regional and issue-specific groupings has resulted in fragmented global governance structures, lacking consistent policy alignment.
4. **Marginalisation of Developing Countries' Interests:** As major powers prioritise rivalry over cooperation, developing economies struggle to secure global solutions for debt relief, climate finance, and developmental needs.

5. **Limited Progress on Global Public Goods:** Issues such as climate action, supply-chain resilience, and global health governance stagnate due to the G20's weakened collective decision-making capacity.

### Way Forward for Revitalising the G20

1. **Reaffirming Multilateral Commitment:** Member states must reduce unilateral measures and recommit to constructive multilateral dialogue to rebuild trust.
2. **Institutional Reforms for Stronger Outcomes:** The G20 should introduce structured decision-making mechanisms and empower working groups with result-oriented mandates.
3. **Enhancing Global South Integration:** Greater participation of developing nations in agenda-setting and decision-making can strengthen the forum's inclusiveness and legitimacy.
4. **Prioritising High-Consensus Issues:** The G20 should focus on areas where cooperation is feasible, such as climate finance, technology sharing, disaster resilience, and pandemic preparedness.
5. **Establishing Channels to Manage Geopolitical Tensions:** Dedicated diplomatic mechanisms within the G20 could help defuse geopolitical conflicts and ensure smoother negotiations.
6. **Strengthening Coordination with Other Global Institutions:** Closer collaboration with the UN, IMF, World Bank, WTO, and regional bodies can help bridge global governance gaps.

**Conclusion:** The G20's declining relevance is rooted in geopolitical rivalries, unilateral actions, leader-level disengagement, and its inability to produce impactful outcomes. However, as the only forum that includes all major economies, the G20 retains immense potential to steer global governance. A renewed commitment to multilateralism, inclusive reform, and pragmatic cooperation is essential for restoring the G20's central role in addressing 21st-century global challenges.

**Question:** The relevance of the G20 has been declining in recent years. Discuss.

### Rollback of Quality Control Orders

**Source:** The post "Rollback of Quality Control Orders" has been created, based on "Rollback of quality control orders is good, but don't make haste" published in "Indian Express" on 28th November 2025.

**UPSC Syllabus:** GS Paper- 3- Economy

**Context:** Quality Control Orders (QCOs) are mandatory product standards imposed under the Bureau of Indian Standards (BIS) Act to regulate imports and ensure quality. Over the last eight years, India shifted aggressively toward mandatory standards, covering more than 1,300 goods. Recently, the government suddenly withdrew over 20 QCOs, signalling a correction but also revealing systemic issues in the implementation of industrial regulation.

### Evolution and Expansion of QCOs in India

1. **Limited Use Before 2014:** QCOs were marginal in India's import system, and control over imports was exercised mainly through tariffs, anti-dumping duties, and safeguard duties.
2. **Post-2017 Expansion:** The 2017 BIS Act gave ministries broad authority to impose mandatory standards. This led to a proliferation of QCOs across consumer goods, capital equipment, industrial inputs, textiles, plastics, and chemical intermediates.
3. Nearly 25% of QCOs covered **raw materials and upstream inputs**, not just final goods.



### Problems Arising from Aggressive and Hasty QCO Implementation

1. **Upstream Certification Bottlenecks:** Many QCOs required factory-level certification of every foreign supplier, creating double-certification traps. MSMEs suffered because they needed BIS approval for both imported inputs and finished goods.
2. **Severe Supply Chain Disruptions:** In plastics, India imports many specialised polymers; foreign suppliers often choose not to comply because **India is a small market**. Import refusals pushed up global prices and created shortages for MSMEs in packaging, electronics, and medical devices.
3. **Impact on Textiles:** QCOs on inputs such as yarn and fibre, introduced in 2023, raised domestic fibre prices above world levels. Since synthetics account for 70% of global fibre consumption, Indian exporters became uncompetitive due to the unavailable certified inputs.
4. **NOC-Dependent Steel Trade:** The steel ministry required nearly all steel imports to obtain a No Objection Certificate (NOC) even if they were not covered by QCOs. This created long delays at ports such as Nhava Sheva and Mundra, with containers stuck for weeks.
5. **BIS Inefficiency:** BIS's foreign factory audit system became notorious for inconsistency and delays. Some applications were cleared quickly, while others languished for months, enabling de facto monopolies for the few suppliers who secured early certifications.

### Reasons Behind the Government's Recent Rollback of QCOs

1. **High Compliance Costs and Industry Pushback:** MSMEs faced **unpredictable sourcing, inflated prices, and supply shortages**, prompting widespread criticism.
2. **International Pressure:** Trading partners criticised India for **non-transparent regulatory barriers**, complicating India's global trade relations.
3. **Gava Committee Review:** A committee chaired by former Cabinet Secretary Rajiv Gauba reportedly recommended action on 208 QCOs. **The committee suggested: Revoking 27 QCOs, Suspending 112, Deferring 69 and Scrapping the NOC regime.**
4. Although the report is not public, **the rollback indicates that many QCOs were not industry-tested or transition-friendly.**

### New Emerging Risk

1. **Opposite Problem After Rollback:** With QCO barriers **removed abruptly, downstream industries fear a surge of cheap imports**, especially from China.
2. **Vulnerability of Capital-Intensive Sectors:** **Industrial raw materials are capital-intensive, and sudden exposure risks supply shocks** and unfair price competition. Producers who invested based on earlier restrictions may now face losses.

### Consequences of Hasty QCO Expansion and Abrupt Rollback

1. **Industrial Uncertainty:** Constant changes in standards have created a climate of unpredictability, discouraging long-term industry planning.
2. **Weakening of Domestic Competitiveness:** Poorly designed QCOs increased input costs, affecting export competitiveness and reducing India's participation in global value chains.
3. **Loss of Credibility:** Frequent policy reversals weaken India's reputation as a predictable investment destination.
4. **Burden on MSMEs:** MSMEs bore the brunt of certification delays, higher costs, and disrupted supply chains.
5. **Potential Surge in Low-Quality Imports:** Abrupt removal of QCOs without alternative checks opens the possibility of dumping of low-quality or underpriced goods.

### Way Forward for Rational and Effective Use of QCOs



1. **Gradual and Predictable Implementation:** Mandatory standards should be introduced with sufficient transition time, especially for upstream raw materials.
2. **Strengthening BIS Capacity:** BIS must expand its testing facilities, digital processes, and audit infrastructure to ensure timely, consistent approvals.
3. **Consultation with Industry:** Stakeholder consultations should be mandatory before imposing or removing a QCO, particularly in critical value chains.
4. **Risk-Based Regulation:** Instead of blanket QCOs, India should prioritise safety-critical and strategically sensitive sectors.
5. **Aligning Standards With Global Norms:** Adopting internationally harmonised standards will reduce compliance burdens and increase export competitiveness.
6. **Alternative Tools to Prevent Dumping:** Anti-dumping duties, safeguard duties, and tariff calibration can be used to protect domestic industry without relying on mandatory certification.

**Conclusion:** The rollback of QCOs was necessary because their rapid expansion created severe supply chain disruptions, compliance burdens, and trade friction. However, the hasty removal of QCOs without adequate safeguards risks reversing earlier gains and exposing domestic industries to cheap imports. A balanced industrial policy requires **predictable regulation, strong institutional capacity, and a phased approach**, ensuring that India's quality ecosystem evolves without harming competitiveness or supply chains.

**Question:** What do the recent rollbacks of Quality Control Orders (QCOs) reveal about India's regulatory and industrial policy challenges? Discuss.

### Enabling a Modern and Future-Ready Labour Ecosystem

**UPSC Syllabus Topic:** GS Paper 2 and paper 3 -Social Sector Initiatives & Labour Reforms.

#### Introduction

India has entered a new phase of labour governance with the enforcement of four modernised Labour Codes on November 21, 2025. These reforms come at a crucial time when India, with one of the world's largest and youngest workforces, is moving towards Viksit Bharat and Aatmanirbhar Bharat. The new labour framework aims to provide universal protection, improve working conditions, enhance enterprise competitiveness, and align labour laws with current and emerging economic realities.

#### Current status of India's labour force

- India has over **643 million workers**, expected to contribute **two-thirds of new global workforce entrants** in the coming years.
- Between **2017-18 and 2023-24, 16.83 crore jobs were added**, and **unemployment declined from 6% to 3.2%**. This reflects strong employment growth and improving market dynamics.
- **1.56 crore women entered the formal workforce** during this period, indicating a gradual shift towards inclusion and structured employment.
- As per **PLFS 2022-23**, about **57.3% workers are self-employed**, **20.9% are regular wage/salaried**, and **21.8% are casual labourers**.

- In 2022, youth formed 82.9% of total unemployed persons (India Employment Report 2024)
- 7.7 million gig and platform workers in 2020–21, projected to reach 23.5 million by 2029–30.
- India's social protection coverage has doubled from 24.4% in 2021 to 48.8% in 2024 (ILO World Social Protection Report (WSPR) 2024-26)

### Background of India's comprehensive Labour Codes

1. **Evolution of fragmented laws:** Over several decades, numerous labour legislations evolved independently. Many were from **pre- and early post-Independence periods (1930s–1950s)**, operating across different contexts and often creating overlap and confusion.

2. **Recommendation for consolidation:** The **Second National Commission on Labour** suggested grouping existing laws into functional codes. Between **2015 and 2019**, extensive consultations were held with industry, employers, trade unions, and State governments.

### 3. Timeline of enactment

- **Code on Wages (2019)** notified on **August 8, 2019**.
- **Industrial Relations Code, Social Security Code, and the Occupational Safety, Health and Working Conditions (OSHC) Code** notified on **September 29, 2020**. These represent one of the most comprehensive labour reforms since Independence.

### Need for unified Labour Codes

1. **Multiplicity of laws and compliance burden:** There was a need to reduce the confusion created by **29 labour laws in practice**. Multiple registrations, licences and returns made compliance difficult for MSMEs.
2. **Fragmented enforcement system:** Different laws meant different authorities and procedures. This led to uneven enforcement and gaps in implementation. A unified code structure was needed for simpler, coordinated monitoring and enforcement.
3. **Outdated laws and changing work patterns:** Many labour laws were written in the 1930s–1950s. They did not match today's economy, where gig workers, platform workers and digital jobs are rising. The Codes bring the law in line with current realities.

### Benefits of comprehensive Labour Codes

1. **Universal wage protection:** Workers are safeguarded through a universal minimum wage and a national floor wage. This prevents exploitation and ensures all workers receive fair compensation across States.
2. **Employment transparency:** Mandatory appointment letters create clarity in employment terms. It builds trust between employers and workers and helps prevent disputes over job roles or entitlements.
3. **Timely and predictable income:** The Codes mandate timely wage payment. This improves financial stability for employees and reduces stress, particularly among vulnerable worker groups.

**4. Regulated working hours and better health safety:** The fixed 48-hour work week and free preventive health check-ups improve work-life balance and protect long-term worker health.

**5. Stronger workplace safety standards:** Improved safety rules and the creation of safety committees reduce workplace risks and accidents, making working conditions more secure.

**6. Universal social security access:**

- Employees' State Insurance Corporation (ESIC) coverage is now available pan-India without location restrictions.
- Employees' Provident Fund (EPF) procedures are simplified, and the National Social Security Fund extends protection to construction and informal workers.

**7. Inclusion of gig and platform workers:** Recognition of gig and platform workers ensures they receive social security benefits. This is crucial as their numbers are projected to grow from **1 crore in 2024-25 to 2.35 crore by 2029-30**.

**8. Gender equity and fair treatment of contractual workers:** Gender-neutral policies, pay parity, and safe night-shift work for women promote equality. Fixed-term employees now receive benefits similar to permanent staff.

**9. Advancing formalisation and digital compliance:** Digital compliance, including **Aadhaar-linked Universal Account Number**, facilitates portability of benefits across States. Inspector-cum-facilitator model encourages supportive compliance rather than fear-based inspections.

**10. Support for enterprise growth and global alignment:** Decriminalisation of minor offences and streamlined procedures support enterprise competitiveness. These reforms promote **Ease of Doing Business**, aligning India with global labour standards.

## Conclusion

The enforcement of four comprehensive Labour Codes marks a transformative shift towards a fair, simplified, and future-ready labour ecosystem. By strengthening worker protections, expanding social security, and reducing compliance burdens, the reforms support both employment generation and enterprise resilience. With sustained consultations and careful implementation, these reforms can ensure inclusive growth and help power India's journey towards Viksit Bharat.

For detailed information on **New Labour Codes** [read this article here](#)

## Question for practice:

**Discuss** how the Four Labour Codes help modernise India's labour ecosystem.

Source: [The Hindu](#)

## Why India Struggles to Clear Its Air

**UPSC Syllabus Topic:** GS Paper 3-environment-pollution

## Introduction

Air pollution in India is a chronic public health and development crisis, not just a winter problem in Delhi. Harmful levels of pollutants such as PM<sub>2.5</sub>, PM<sub>10</sub> and toxic gases damage human health, reduce productivity and impose large economic losses. Despite advances in monitoring, clean-energy transitions and multiple government initiatives, persistent exposure and recurring smog episodes reveal deep gaps in governance, implementation and long-term planning.

## What is Air Pollution and How is it Measured in India?

**Air Pollution:** Air pollution is the introduction of chemicals, particulates or biological materials into the atmosphere that cause discomfort, disease, or death to humans.

## Measurement of Air Pollution In India:

In India, air pollution is measured according to the National Air Quality Index developed by the Central Pollution Control Board (CPCB) in 2014.

The measurement of air quality in the NAQI framework is based on eight pollutants, namely- **Particulate Matter (PM10), Particulate Matter (PM2.5), Nitrogen Dioxide (NO2), Sulphur Dioxide (SO2), Carbon Monoxide (CO), Ozone (O3), Ammonia (NH3) and Lead (Pb).**

## Facts Related to India's Air Pollution

- In **2023**, air pollution was linked to **more than 2 million deaths in India**, with about **89% of these deaths caused by fine particulate matter (PM2.5).**
- Lost output from **premature deaths and morbidity** attributable to air pollution accounted for **economic losses of US\$28.8 billion and \$8 billion** respectively, in India in 2019. This **total loss of \$36.8 billion** was **1.36% of India's gross domestic product (GDP).**
- The Confederation of Indian Industry estimates that air pollution costs **Indian businesses \$95 billion, or 3 per cent of India's GDP every year**
- Poor air amounts to about **Rs 7 lakh crore of annual economic loss**, which is more than a third of our annual GST collection

## India's Initiatives to Tackle Air Pollution

**1. National Clean Air Programme (NCAP):** The Government of India has launched the National Clean Air Programme (NCAP) as a five-year, mid-term national action plan (starting 2019) that targets to systematically improve air quality through city-level action plans and multi-sector coordination.

**2. PRANA portal for NCAP monitoring:** To monitor implementation, the government has created the PRANA portal, which tracks both physical and financial progress of city air-action plans and disseminates information on air quality management measures under NCAP.

**3. Swachh Vayu Sarvekshan (city ranking under NCAP):** Under NCAP, the Ministry of Environment, Forest and Climate Change launched Swachh Vayu Sarvekshan to rank cities based on their clean air efforts and outcomes, thereby encouraging competition and better implementation.

**4. SAFAR :** The Ministry of Earth Sciences runs SAFAR (System of Air Quality and Weather Forecasting and Research) to provide location-specific, near real-time air quality data and short-term forecasts for major metropolitan cities, covering pollutants such as PM<sub>2.5</sub>, PM<sub>10</sub>, O<sub>3</sub>, CO, NO<sub>x</sub>, SO<sub>2</sub> and volatile organics.

**5. Commission for Air Quality Management (CAQM):** Through the Commission for Air Quality Management in NCR and Adjoining Areas Act, 2021, the government created a statutory commission with powers to plan, coordinate, research and enforce measures on air quality across Delhi-NCR and neighbouring states.

**6. Graded Response Action Plan (GRAP) for Delhi-NCR:** The Commission implements the Graded Response Action Plan (GRAP), which is a set of staged emergency measures (Stage I-IV) that restrict activities like construction, DG-set use, and certain vehicles whenever AQI crosses specific thresholds to prevent further deterioration.

**7. Bharat Stage (BS) VI emission norms:** The Government of India notified migration to Bharat Stage VI emission norms from 1 April 2020 for 2-, 3- and 4-wheeled vehicles, significantly tightening limits on pollutants and requiring advanced emission-control technologies.

**8. FAME India Scheme – Phase II (electric mobility):** To reduce vehicular emissions, the government is implementing FAME India Phase II with an outlay of ₹10,000 crore, focusing on electrification of public and shared transport by supporting e-buses, e-3 wheelers, e-4 wheeler passenger cars and e-2 wheelers, along with charging infrastructure.

**9. Pradhan Mantri Ujjwala Yojana (PMUY):** The central government launched Pradhan Mantri Ujjwala Yojana in 2016 to provide deposit-free LPG connections to women in poor households, with the explicit objective of shifting families away from biomass fuels and thereby reducing indoor household air pollution and related health hazards.

**10. Stricter standards for thermal power plants:** Central Pollution Control Board (CPCB) and the environment ministry have notified stricter emission norms for thermal power plants, including tighter limits for particulate matter, sulphur dioxide and NO<sub>x</sub>, and mandated technologies such as flue-gas desulphurisation (FGD) for many coal-based plants (though implementation and later relaxations remain contested).

**11. Pusa Decomposer and bio-decomposer programme:** To tackle crop-residue burning, the government has promoted the Pusa Decomposer, a bio-decomposer developed by ICAR that has been used in Punjab, Haryana, Uttar Pradesh and Delhi on over 3.9 lakh hectares to manage about 2.4 million tonnes of straw by converting it into manure instead of burning it.

**12. Clean air awareness and “Green Good Deeds”:** The MoEFCC also promotes public awareness activities and “Green Good Deeds” campaigns (such as promoting cleaner fuels, reduced open burning, and better waste management) as part of its broader Clean Air initiatives.

**13. Adoption of WLTP:** India plans to shift to the World Light Duty Vehicle Testing Procedure (WLTP) by 2027, which provides a more accurate measure of fuel consumption and emissions.

### Limitations to India's Pollution Response



1. **Fragmented air governance:** India's air-quality system is split across many ministries, boards, commissions, and municipal bodies. Each controls only a slice, so no one can drive an integrated clean-air agenda.
2. **Diffused accountability:** Because responsibility is scattered, no single institution is answerable for air-quality outcomes. This weakens enforcement, encourages blame-shifting, and makes coordination in regions like the NCR very difficult.
3. **Capacity and resource gaps:** Budgets, staff strength, and technical skills vary widely across States and cities. Shared constitutional powers and constant judicial pressure push officials towards quick action instead of steady, long-term planning.
4. **Seasonal and crisis mindset:** Pollution is treated as a winter emergency, not a year-round health threat. This leads to reactive behaviour and delay in structural reforms on fuel, transport, waste, and industry.
5. **Bias for visible quick fixes:** Governments favour measures such as smog towers, water sprinkling, odd-even rules, and festival bans. These create media visibility but have limited, short-lived impact on public exposure.
6. **Politics over science:** Short-term interventions suit political incentives more than scientific evidence. They avoid confronting powerful lobbies in construction, transport, and agriculture, while claiming that "something is being done".
7. **Intellectual trap:** Elite experts design technically sound policies that ignore municipal realities, informal economies, and weak records. Many strategies remain pilot projects or fail when scaled.
8. **Western trap:** Imported "best practices" assume strong enforcement, high trust, and low informality. In India's dense, negotiated urban spaces, such models often cannot work without serious adaptation.
9. **Ambition-capacity mismatch:** Policies assume higher staffing, coordination, and compliance than actually exists. Scientific tools and models stay disconnected from day-to-day administration, so implementation remains patchy and inconsistent. This keeps air quality gains small and fragile.

## Way Forward

1. **Integrated, ongoing management:** Air quality must be managed continuously and built into routine governance, not treated as a winter crisis.
2. **Airshed-based coordination:** States and cities in the same airshed must plan together; much PM<sub>2.5</sub> comes from outside city limits, so only joint action works.
3. **Stronger institutions and clear roles:** India needs clear leadership, mandates at Union-State-city levels, and agencies that can plan beyond election cycles.
4. **Adequate finance and capacity building:** Stable multi-year funding and capacity building are needed to hire staff, run monitoring networks, and enforce rules.
5. **Align clean air and climate action:** Clean-air pathways should build on energy transitions such as solar expansion, cutting both air pollutants and CO<sub>2</sub>.

6. **Science, data, and transparency:** Decisions must rely on science, open data, and visible enforcement so citizens and courts can demand compliance.

7. **Behavioural change and stakeholder engagement:** Businesses and citizens should shift to cleaner practices; policy must support this through incentives, regulation, and awareness.

8. **Leverage partnerships and expertise:** India should actively collaborate with domestic and global institutions (such as development banks, research bodies and technical agencies) to design airshed plans, access specialised expertise, pilot innovative approaches and then scale successful clean-air strategies across regions.

### Conclusion

Air pollution in India is not a seasonal inconvenience but a permanent public health and development crisis. India has strong laws, programmes, and emerging clean-energy transitions, yet fragmented governance and quick fixes limit impact. Only sustained, well-funded, airshed-based, and India-specific implementation, supported by science and public participation, can make Indian air genuinely breathable.

### Question for practice:

Examine how structural governance challenges and reliance on short-term interventions hinder India's ability to effectively tackle air pollution.

Source: [The Hindu](#)

## Data Deficiencies: On India and IMF's Low Grading

UPSC Syllabus Topic: GS Paper 3 -Economy.

### Introduction

India's national accounts have again received a '**C**' grade in the IMF's 2025 review, even as recent GDP growth numbers are strong. This low grade means that key data used to track the economy have shortcomings that hamper proper surveillance. The IMF links these gaps to outdated base years, methodological weaknesses and limited coverage, at a time when India is preparing a broad overhaul of its statistical system.

### IMF's assessment of India's national accounts

#### Data adequacy assessment process and evolution

- The IMF's assessment is part of its **Article IV consultations**, in which IMF staff visit India, examine the data, and discuss economic developments and policies with officials.
- Till 2016, India's data were described as "**adequate for surveillance**", and from **2017 to 2023** they were termed "**broadly adequate**".
- From **2024**, the IMF started using an explicit **A-D grading system**. In that year, India received an **overall 'B' grade** for its data and a lower '**C**' grade for national accounts. The **same grading** has been **repeated in the 2025 review**.

### Major findings

1. **Overall grade and implication:** India's **overall data** received a '**B**' grade, but its **national accounts** were given a lower '**C**' grade. A '**C**' grade means the data have shortcomings that **somewhat hamper surveillance** of the economy.
2. **Base year problem:** India's GDP series still uses the **2011-12 base year**, which the IMF considers **outdated** and in need of rebasing.
3. **Use of WPI instead of PPI:** India continues to use the **Wholesale Price Index (WPI)** as a deflator in many sectors because **Producer Price Indices (PPI)** are not available.
4. **GDP measurement discrepancies:** There are **sizeable discrepancies** between the **production** and **expenditure** approaches to GDP. This points to gaps in coverage and methods.
5. **CPI grade and impact:** The **Consumer Price Index** receives a '**B**' grade because its base year, basket and weights are outdated. The heavy weight of food and the old base year make it harder to capture current price movements, which can impair **monetary policy decisions by the RBI**.
6. **Other data categories graded 'B':** Government finance statistics, external sector statistics, monetary and financial statistics, and inter-sectoral consistency are all graded '**B**'.
7. **Informal sector coverage:** The IMF flags **inadequate coverage of the informal sector**, which weakens the reliability of overall growth estimates.
8. **Lack of seasonal adjustment:** Quarterly national accounts **are not seasonally adjusted**, and other statistical techniques also need improvement.
9. **Limited data granularity:** There is **limited granular detail**, especially in **investment data** and **quarterly breakdowns**, which restricts deeper analysis of trends.

### Major Recommendations

1. **Improve data quality and timeliness:** The IMF recommends improving the **quality, availability, and timeliness** of macroeconomic and financial statistics to support better policy decisions.
2. **Regular revision of key statistics:** It suggests **regular revisions** of national accounts, prices, and other key statistics, in line with **international best practices**.
3. **Priority to population census:** The IMF advises conducting the **population census on a priority basis** to update core demographic and economic benchmarks.
4. **Timely consolidated fiscal accounts:** It calls for **timely provision of consolidated general government (Centre plus States) fiscal accounts** to strengthen overall macro-fiscal surveillance.

### India initiative on its national accounts

#### 1. Updating GDP series

- India is preparing a **new GDP series with 2022-23 as the base year**.

- The first quarterly estimate under this series, for **October–December 2025**, along with the **second advance estimate for 2025-26**, will be released on **February 27, 2026**.
- The series will involve **changes in methodology** and **new data sources**.

## 2. New CPI and IIP series

- A revised CPI series, based on the **2023-24 Household Consumption Expenditure Survey with 2024 as the base year**, will be released on **February 12, 2026**.
- A revised Index of Industrial Production is also planned, using **2022-23 as the base year**.

3. **Improved methods:** The **2011-12 GDP series** had already improved estimation by using **MCA-21 corporate data** instead of the Annual Survey of Industries. The next round plans to **include GST data in GDP estimation**, enhancing coverage of the organised sector.

4. **More frequent external sector data:** The **Reserve Bank of India** intends to **publish Balance of Payments data monthly** in addition to quarterly releases, increasing frequency and timeliness.

## Conclusion

India's '**C**' grade for national accounts is a clear warning that data gaps and delays are constraining economic surveillance and policy design. At the same time, the planned overhaul of GDP, CPI, IIP and Balance of Payments statistics shows that corrective steps are underway. Bridging these gaps quickly is essential for credible, inclusive and well-informed economic governance.

## Question for practice:

Examine the IMF's major findings and recommendations on India's national accounts and their impact on economic policymaking.

Source: [The Hindu, Indian Express](#)

## India's disaster response, a slippery slope for federalism

Source: The post "**India's disaster response, a slippery slope for federalism**" has been created, based on "**India's disaster response, a slippery slope for federalism**" published in "**The Hindu**" on 29th November 2025.

UPSC Syllabus: GS Paper-3- Disaster and Disaster Management

**Context:** India's disaster-response financing system, created **under the Disaster Management Act, 2005**, was intended to strengthen cooperative federalism, but recent trends indicate a shift toward a more centralised and conditional model. The widening gap between States' assessed needs and the Union's actual disbursements, as seen during the 2024 Wayanad landslides, highlights the growing strain on fiscal federalism.

## Key Issues in India's Disaster Financing Framework

1. India operates a **two-tier disaster financing mechanism** consisting of the **State Disaster Response Fund (SDRF)** and the **National Disaster Response Fund (NDRF)**, but the system has increasingly drifted toward central control.
2. **For example:** The Union government approved only ₹260 crore for Kerala against its estimated loss of ₹2,200 crore during the Wayanad tragedy, reflecting a deepening imbalance between requirements and allocations.
3. The structural design appears balanced, but in practice, the funding process is dominated by Union discretion and lengthy approval stages.

### Major Challenges in Disaster Response and Federalism

**1. Outdated and Rigid Relief Norms:** Relief norms have not kept pace with inflation or reconstruction needs, as compensation ceilings such as ₹4 lakh for each life lost and ₹1.2 lakh for a fully damaged home have barely changed in a decade.

**2. Ambiguity in Classification of Severe Disasters:** The Disaster Management Act does not clearly define what constitutes a “severe” disaster, giving the Union wide latitude in deciding which events qualify for NDRF assistance.

**3. Procedural Delays in Fund Release:** Disaster assistance is not automatically triggered and depends on several steps including State memoranda, central assessment, and high-level approvals, causing delays when immediate support is most critical.

**4. Weaknesses in Allocation Criteria:** The Finance Commission uses population and geographical area to determine allocations, which ignores real hazard patterns and actual vulnerability. Disaster vulnerability is measured using proxy indicators rather than a robust hazard-risk index, leading to misaligned funding and underestimation of local risk profiles.

**5. Increasing Fiscal Stress on States:** Climate shocks and frequent disasters impose significant fiscal pressure on States, and the insufficient central support undermines their ability to recover and rebuild effectively.

### Way Forward

**1. Update Relief and Compensation Norms:** The Union should revise compensation amounts to reflect current costs and reconstruction needs so that States can provide meaningful relief to affected families.

**2. Establish Clear and Objective Disaster Classification Criteria:** Clear definitions of “severe disaster” and automatic triggers for NDRF eligibility are necessary to reduce discretion and ensure fairness in fund allocation.

**3. Adopt a Hazard-Risk Based Allocation Formula:** The Finance Commission should incorporate scientific parameters such as hazard frequency, climate vulnerability, and exposure risk rather than relying solely on population and area.

**4. Ensure Timely and Predictable Fund Releases:** Disaster-response funds should follow automatic, rule-based transfers to States, allowing faster mobilization of resources during emergencies.



**5. Strengthen Cooperative Federalism Mechanisms:** Greater consultation between the Union and States, transparent formula-based disbursement, and joint preparedness planning can reinforce trust and collaboration.

**6. Build State Capacities for Resilient Recovery:** Investments in early warning systems, local infrastructure resilience, and capacity-building programs can reduce long-term dependence on central assistance.

**Conclusion:** India's disaster-response financing system, though well-intentioned, has gradually moved toward a centralised model that risks weakening cooperative federalism. Strengthening objectivity, transparency, and scientific basis in fund allocation along with upgrading relief norms and enabling timely support can restore balance and enhance India's ability to respond effectively to growing climate and disaster risks.

**Question:** India's disaster-response financing system increasingly reflects centralisation and conditionality, posing challenges to cooperative federalism. Discuss. Also suggest measures to strengthen federal balance in disaster management.

### Draft Seeds Bill

**Source:** The post "Draft Seeds Bill" has been created, based on "What does the draft Seeds Bill entail?" published in "The Hindu" on 29th November 2025.

**UPSC Syllabus:** GS Paper-3- Indian Economy

**Context:** The draft Seeds Bill, released by the Union Agriculture Ministry on November 12, aims to modernise India's seed regulatory framework by ensuring quality seeds, promoting ease of doing business, and strengthening penalties for violations.

### History and Background

1. **Need for Reform:** The seed industry has long argued that the Seeds Act of 1966 does not reflect technological and scientific advancements in seed development or changes in global trade patterns.
2. **Seed Availability Context:** In 2023–24, India required 462.31 lakh quintals of seeds and had an availability of 508.60 lakh quintals, resulting in a surplus of 46.29 lakh quintals.
3. **Stakeholder Positions:** While industry bodies welcome the draft as a modernisation step, farmer groups such as the Samyukt Kisan Morcha **oppose it, calling certain provisions "anti-farmer."**

### Key Provisions of the Draft Seeds Bill

1. The Bill establishes a comprehensive regulatory mechanism to oversee the import, production and supply of quality seeds in the country.
2. The Bill does not restrict farmers from sowing, re-sowing, exchanging or selling their own seeds, unless the seeds are sold under a brand name.
3. The Bill clearly defines farmers, dealers, distributors and producers as separate regulated entities, each with specific roles and responsibilities.
4. **Institutional Structure:** The Bill proposes the creation of a 27-member Central Seed Committee and a 15-member State Seed Committee to guide seed regulation.
  - a. The Central Seed Committee can recommend minimum standards for germination, purity, traits, seed health and genetic purity for seeds sold in the market.

- b. The State Seed Committees may advise their respective governments on the registration of seed producers, seed dealers, processing units and nurseries.
5. **Registration Requirements:** The Bill makes it mandatory for all seed processing units to register with the State government under the proposed legislation. The Union government is empowered to establish a central accreditation system for seed companies that operate across multiple States.
6. **Seed Testing and Regulation:** The Bill mandates the establishment of Central and State seed testing laboratories for analysing the quality and characteristics of seeds.
  - a. The Bill proposes that a Registrar be appointed to maintain a National Register of all seed varieties available in the country.
  - b. The Bill makes field trials mandatory to evaluate the Value for Cultivation and Use (VCU) of any seed variety before approval.
7. **Penalties and Enforcement:** The Bill stipulates that violations can attract monetary penalties ranging from ₹50,000 to ₹30 lakh and can also lead to imprisonment for up to three years.
  - a. The roles of enforcement agencies, including those under the Bharatiya Nagarik Suraksha Sanhita, are clearly defined for inspecting seed premises and seizing spurious seeds.

#### Changes from the 2019 Draft

1. **Enhanced Penalties:** The previous penalty range of ₹25,000–₹5 lakh has been significantly increased in the new draft.
2. **Farmers' Rights Alignment:** The draft now explicitly links farmers' rights with the Protection of Plant Varieties and Farmers' Rights Act (PPVFR Act), 2001.
3. **Quality Standards:** The Bill tightens seed quality norms and liberalises the import of seeds compared to the earlier version.

#### Concerns of Farmers

1. **Fear of Corporate Dominance:** Farmers believe the Bill may enable multinational and domestic corporations to control seed markets, threatening seed sovereignty.
2. **Risk to Legal Safeguards:** Farmers worry that the Bill may dilute protections under the PPVFR Act, Convention on Biological Diversity and other international commitments.
3. **Centralisation Issues:** Farmers argue that the proposed regulatory system is excessively centralised, reducing State and farmer participation.
4. **Threat to Biodiversity:** There are concerns that the Bill may undermine India's biodiversity conservation framework and weaken farmer-centric production systems.

#### Implementation Challenges

1. **Balancing Interests:** It is difficult to balance ease of doing business with the need to protect small farmers' rights and access to seed varieties.
2. **Institutional Capacity:** Many States may lack adequate infrastructure and trained personnel to run seed testing laboratories and seed committees effectively.
3. **Regulatory Trust Deficit:** There is a persistent trust deficit between farmers and seed companies, which complicates implementation.
4. **Uniform Enforcement:** Ensuring uniform standards across different States poses significant administrative challenges.

#### Way Forward

1. **Strengthen Farmer Protections:** The Bill must align fully with the PPVFR Act to protect farmers' right to save, exchange and reuse seeds.
2. **Risk-Based Allocation:** A risk-based, decentralised regulatory system should be adopted to account for diverse agro-climatic realities.
3. **Balance Penalties:** Penalties should target fraudulent corporations while ensuring that small farmers are not criminalised for minor violations.
4. **Inclusive Consultation:** Wider consultations with farmer organisations, scientists and State governments are needed before finalising the Bill.
5. **Capacity Building:** States should receive financial and technical support to enhance seed testing, certification and regulatory enforcement.

**Conclusion:** The draft Seeds Bill is a timely attempt to modernise India's seed sector, strengthen quality assurance and regulate trade, but it must address farmers' concerns regarding centralisation and corporate dominance. A balanced, transparent and farmer-centric regulatory framework is essential for ensuring seed security, biodiversity protection and sustainable agricultural growth.

**Question:** The Draft Seeds Bill, 2025 aims to modernise India's seed regulatory framework but raises significant concerns about farmer rights, centralisation and seed sovereignty. Discuss the key provisions, concerns and the way forward.