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# GENERAL STUDIES 2

## 1.1. POLITY & GOVERNANCE

### 1.1.1. KERALA'S DEVELOPMENT DECADE: A MODEL FOR INDIA'S INCLUSIVE GROWTH

#### Context:

- Over the past ten years (2016–2026), **Kerala** has been transformed into one of India's most dynamic and inclusive states. Remarkable progress has been made in **human development, economic growth, and social justice** all achieved despite serious financial restrictions imposed by the Union Government.
- Kerala's journey is now being studied as a **blueprint for sustainable and people-centred development** across India.



#### Economic Growth: Planning and Financial Innovation

Unlike many other Indian states where formal planning declined after the dissolution of the Planning Commission, Kerala's **planning process** was sustained and strengthened.

- Increased Capital Expenditure:** A significant rise in spending on long-term assets was observed starting from 2017, reversing the national trend of declining capital outlays.
- The KIIFB Model:** Over 1,200 infrastructure projects were granted **administrative approval** through the **Kerala Infrastructure Investment Fund Board (KIIFB)**. This innovative financial vehicle allowed the state to bypass traditional budgetary constraints to fund large-scale projects.
- Empowered Local Governments:** Local bodies were transformed into **catalysts for income growth**, moving beyond mere administrative units to become hubs of grassroots economic development.
- Kerala Bank:** Financial stability and rural credit were bolstered by the creation of **Kerala Bank**, formed through the consolidation of district cooperative banks.

#### Education: Universal, Digital, and Inclusive

Major investments have been made in school and higher education:

##### A. School Education

- Universal, free elementary education** has been achieved with a **zero per cent dropout rate** at the preparatory and middle-school level
- Dropout rates among **SC/ST students** are among the lowest in India
- Kerala has become **India's first fully digital state** in school education
- Investments in **school infrastructure, teacher development, curriculum renewal** and **IT-enabled learning** have been prioritised

##### B. Higher and Technical Education

- Reforms in **governance, curriculum and institutional structures** have been introduced

- Strong **public investment** has supported improved national rankings for schools, universities, and colleges

### Health: A Global Benchmark Is Established

Kerala's **public health system** has been internationally recognised for its performance:

- An **infant mortality rate of just 5 per 1,000 live births** has been recorded — better than the United States
- **Cashless health coverage of up to ₹5 lakh** has been extended to over **42 lakh families** through the **Karunya Arogya Suraksha Padhathi**
- The **Aardram Mission** has improved health infrastructure across the state
- Services have been expanded to include **mental health, non-communicable diseases, and e-health**
- Kerala's effective handling of **Nipah outbreaks** and the **COVID-19 pandemic** has demonstrated the resilience of its public health model

### Social Justice and the Eradication of Poverty

The state's commitment to "leaving no one behind" was manifested through targeted missions and budgetary allocations.

- **Elimination of Extreme Poverty:** A historic milestone was reached in November 2025 when **extreme poverty** was officially declared to have ended in Kerala.
- **The LIFE Mission:** Over five lakh modern and safe houses were constructed for the landless and homeless by February 2026.
- **Gender Budgeting:** Women's empowerment was prioritized, with the **Gender Budget** exceeding one-fifth of the total Annual Plan outlay.
- **Elderly and Disability Care:** In the 2026-27 budget, 19% of funds were designated as an **Elderly Budget**, and allocations for **persons with disabilities** were more than doubled over the decade.
- **Universal Safety Net:** The **Public Distribution System (PDS)** was expanded to cover nearly **95 lakh households**, ensuring food security and keeping **food-price inflation** significantly below the national average.

### Industry and Innovation: Old Perceptions Are Overturned

The long-held belief that Kerala was unfriendly to industrial growth has been decisively overturned:

- Growth of **MSMEs and modern industries** has been accelerated
- **Traditional sectors** have been modernised
- In 2025, the **Global Startup Ecosystem Report** recorded a **147% increase** in Kerala's ecosystem value
- **Internet access** has been recognised as a **basic right**, and **K-FON** (Kerala Fibre Optical Network) has been established to make this a reality

## Infrastructure: Connectivity and Clean Energy

### A. Transport and Connectivity

- Major corridor projects like the **Hill Highway** and rapid **four-laning of National Highways** have significantly reduced travel time
- The **Kochi Water Metro** — India's first — has demonstrated the viability of clean inland water transport
- The **Vizhinjam International Deep-Water Seaport** was commissioned in **2024**, marking a historic national milestone

### B. Power and Energy

- **Full electrification** was achieved in 2017. Total installed capacity has expanded by **50%**, with **solar power** and **technical and commercial losses** in the power sector have been reduced.

### Labour Rights, Culture, and Sports

- **Labour laws** have been continuously strengthened in favour of workers, including **migrant worker**.
- Flagship events such as the **International Film Festival of Kerala, Kochi-Muziris Biennale**, and **International Theatre Festival** have expanded in global reach
- Plan outlays for **sports** have risen by nearly **160%** between 2016-17 and 2026-27
- Over **₹3,500 crore** has been invested in sports infrastructure, including **India's first stadium for persons with disabilities**

### Key Challenges in Kerala's Development Model

1. **Fiscal Stress and Welfare Sustainability:** High reliance on borrowings and extensive welfare spending raises concerns about long-term fiscal sustainability and limits future capital investment.
2. **Structural Economic Constraints:** Dependence on remittances and a relatively weak industrial base make the economy vulnerable to external shocks and limit diversified growth.
3. **Employment and Labour Market Issues:** High educated unemployment, skill mismatch, and outmigration of youth create challenges for inclusive and sustainable job creation.
4. **Demographic and Social Pressures:** An ageing population increases the burden on healthcare, pensions, and social security systems, straining public finances.
5. **Environmental, Urban, and Governance Challenges:** Climate vulnerability, rapid urbanisation, and centre-state fiscal tensions together pose risks to infrastructure, planning, and policy autonomy.

### Way Forward: Kerala as a Model for India's Inclusive Development

Kerala's decade of development offers a **powerful and replicable framework** for the rest of India. The following lessons can be drawn for national application:

- **Human development must precede and accompany economic growth** — Kerala's experience shows that investments in health, education, and social security create the foundation for a productive economy

- **Decentralised governance works** empowering local bodies as engines of income growth and planning must be scaled across Indian states
- **Cooperative institutions** can drive industrial and financial inclusion at the grassroots level
- **Gender budgeting and women's empowerment programmes** like Kudumbashree must be adopted as standard planning tools
- **Digital infrastructure** — from school education to internet access as a right — must be treated as a public good, not a private commodity
- **Federal fiscal reforms** are urgently needed: states must be given greater **untied fiscal transfers**, freedom from restrictive borrowing caps, and relief from the erosion of their tax share through central cesses
- **Disaster management frameworks** modelled on Kerala's decentralised and effective response systems must be institutionalised nationally

### Conclusion

Over the past decade, Kerala has shown that inclusive growth with strong health, education, and social justice is achievable. Its model combines economic progress with participatory governance and human development and it's experience should serve as a benchmark for democratic, inclusive, and sustainable development in India.

*Q. Examine the challenges posed by India's fiscal federal structure in enabling states to pursue independent development strategies. Illustrate your answer with suitable examples. 15 Marks*

### 1.1.2. INDIA'S HIGHER EDUCATION

#### Context:

- India's **higher education sector** has witnessed an **unprecedented expansion** over the past seven decades — from a modest network of 1,600 institutions in 1950 to over **69,000 colleges and universities** by 2022.
- However, the **State of Working India 2026 Report** reveals a critical paradox: while **institutional growth** has been impressive, it has **not been matched** by adequate **teaching capacity, equitable access, or quality of education**.
- The focus must now urgently shift from **mere expansion to ensuring equity and quality** in higher education delivery.



#### Key Trends Highlighted in State of Working India 2026 Report

##### A. Institutional Expansion: A Quantitative Leap

###### 1. Growth in Colleges and Universities

- **1950:** India had approximately **1,600 colleges and universities**, most being publicly funded.

- **2022:** The number surged to over **69,000 institutions** — a **43-fold increase** in seven decades.
- Most of the **recent expansion** has been **driven by private providers**, shifting the character of higher education from public to commercial.

## 2. College Density Across India

- **College density** rose from **29 colleges per lakh youth in 2010** to **45 colleges per lakh youth in 2021**.

## B. Trends in Enrollment and Social Equity

### 1. Gross Enrolment Ratio (GER)

- India's **Gross Enrolment Ratio (GER)** — the share of the 18–23 age group enrolled in higher education — increased from **16% in 2011** to **28% in 2022**.
- India's GER is now **broadly aligned with countries at similar income levels**, reflecting notable progress.
- Enrolment rates for **men and women have nearly converged**, signalling improvement in **gender parity**.

### 2. Participation of Disadvantaged Groups

- **Scheduled Castes (SC):** Enrolment rates increased from **11% in 2011** to **26% in 2022**.
- **Scheduled Tribes (ST):** Enrolment rates rose from **8% in 2011** to **21% in 2022**.

## C. Student-Teacher Ratio

- **Regulatory norms** recommend a **student-teacher ratio** of 15–25:1 in colleges.
- **2010:** The average ratio was **24 students per teacher** — just within the acceptable range.
- **2021:** The ratio remained alarmingly high at **32 students per teacher**.
- Faculty numbers have not kept pace with either the growth in institutions or the rise in student enrolment.

## Key Challenges in India's Higher Education Sector

The following systemic hurdles are currently being faced by the higher education system, preventing it from achieving **true equity** and **quality standards**:

- **Regional Inequity in College Distribution:** While the national **college density** rose to **45 per lakh youth** in 2021, districts in **Northern and Eastern India** record fewer than **18**. This uneven geographic spread compels millions to either **migrate** or **drop out**, deepening **socioeconomic inequality**.
- **Acute Shortage of Qualified Faculty:** A severe **faculty shortage** is observed, with the **student-teacher ratio** worsening to **32:1** in 2021—far exceeding the **UGC-recommended norm** of **15–25:1**. The reliance on **contractual and ad-hoc faculty** further undermines **academic accountability** and teaching continuity.
- **Financial Exclusion from Professional Education:** High costs act as a silent barrier; **medicine (₹97,400)** and **engineering (₹72,600)** annual fees often exceed the **total annual per capita expenditure** of poor households. Consequently, **professional education** remains a preserve of the wealthy, perpetuating **intergenerational poverty**.

- **Unregulated Privatisation and Commercialisation:** Much of the recent expansion has been **privately driven**, often without adequate **quality assurance** or **fee transparency**. A dominant **profit motive** frequently leads to under-investment in **laboratories, libraries, and faculty development**, leaving students with a **quality deficit**.
- **Income-Determined Stream Selection:** A student's choice of study is increasingly dictated by **household income** rather than **aptitude**. Wealthier students pursue **high-return professional degrees**, while poorer students are defaulted into **lower-cost humanities**, leading to a significant **misallocation of human talent**.
- **Expansion Without Quality Benchmarks:** Speed has been prioritized over **rigour**, leaving a significant portion of institutions **unaccredited by NAAC**. Without **mandatory accreditation**, there is no mechanism to verify **infrastructure adequacy** or **curricula updates**, eroding public trust in **educational credentials**.
- **Credential Inflation and the Employability Gap:** Rising **enrollment numbers** do not reflect **actual learning**. A large proportion of graduates lack the **technical skills** and **critical thinking** demanded by the market, resulting in **credential inflation** where degrees are awarded without corresponding **professional competence**.

#### Government Initiatives to Overcome Current Hurdles

- **National Education Policy (NEP) 2020:** Envisions **GER of 50% by 2035** through **multidisciplinary education, Academic Bank of Credits (ABC)**, and flexible degree structures.
  - **Emphasises teacher training** and quality improvement through the **National Professional Standards for Teachers (NPST)**.
- **PM USHA (Pradhan Mantri Uchchatar Shiksha Abhiyan):** **Launched** to transform higher educational institutions through **grants, infrastructure support**, and quality-focused reforms.
- **Scholarship and Financial Inclusion Schemes:** **Central Sector Scholarship Scheme:** Supports **meritorious students** from low-income families pursuing higher education.
  - **National Means-cum-Merit Scholarship:** Targets **economically weaker students** at the school-to-college transition stage.
  - **Dr. Ambedkar Post-Matric Scholarships:** Benefits **SC and ST students** for higher education costs.
- **SWAYAM and Digital Education:** The **SWAYAM platform** offers **free online courses** from top institutions, democratising access to quality content.
  - The **DIKSHA and NDEAR frameworks** aim to bridge the **digital divide** in higher education access.
- **HEFA (Higher Education Financing Agency):** **Facilitates low-cost loans** to universities for **infrastructure improvement**, supporting quality alongside expansion.

#### Global Best Practices: Lessons for India

- **Finland — Quality Over Quantity:** Finland maintains a **strict teacher-to-student ratio** with highly qualified, **postgraduate-trained faculty** in all institutions.

- **South Korea — Targeted Financial Support:** South Korea's **income-contingent loan system** ensures that repayment is tied to **graduate income**, reducing the financial burden on students from poor households. **Strong government control** over **tuition fee caps** in private institutions is maintained.
- **Germany — Tuition-Free Higher Education:** Germany offers **tuition-free public university education**, making access to quality higher education a **universal right** rather than a privilege. This model can be partially adapted for India through **publicly-funded expansion** of premier institutions.
- **Brazil — FIES and ProUni Schemes:** Brazil's **ProUni programme** provides full and partial **scholarships** to low-income students in private universities, ensuring **equity in access** to professional courses.
- **OECD Countries — Faculty Development Frameworks:** OECD nations maintain dedicated **faculty development centres** with mandatory **continuous professional development** programmes. India can adopt **mandatory retraining** and upskilling policies for existing college faculty as recommended in **NEP 2020**.

### **Strategic Way Forward: Transitioning from Expansion to Equity**

The following measures are proposed to ensure that the growth of the higher education sector translates into **inclusive** and **high-quality** outcomes for all students:

#### **1. Bridging Regional Disparities and Geographic Gaps**

- **Targeted public investment** is needed in underserved districts of **Northern and Eastern India** to establish new institutions or strengthen existing ones.
- **District-level mapping** of educational infrastructure gaps must be conducted and published annually to ensure **data-driven policy** interventions.

#### **2. Revitalizing Faculty Capacity and Teaching Standards**

- **Fast-track recruitment drives** for **permanent faculty positions** across public universities must be undertaken to address the acute shortage.
- A **National Faculty Development Mission** should be established to train, certify, and **incentivise** teaching professionals.
- **Contractual and ad-hoc faculty dependency** must be systematically reduced through **regularisation policies** to ensure academic continuity.

#### **3. Dismantling Financial and Cost Barriers**

- **Expansion of scholarship coverage** for **SC, ST, OBC, and EWS students** in professional and technical courses is critical for social mobility.
- **Income-contingent loan systems**, as adopted in **South Korea**, can be piloted in India to reduce the **upfront financial burden** on families.
- **Regulation of private institution fee structures** must be strictly enforced to ensure **affordability** and prevent commercialisation.

#### **4. Strengthening Regulatory and Accreditation Frameworks**

- The **Higher Education Commission of India (HECI)** framework should be operationalised to monitor **quality standards** and **student-teacher ratios** effectively.
  - **Mandatory accreditation** for all colleges—including **private institutions**—must be enforced within a **time-bound framework** to ensure basic infrastructure and learning outcomes.
5. **Leveraging Digital Technology for Equitable Access**
- Platforms such as **SWAYAM, NPTEL, and e-PG Pathshala** must be actively integrated into **formal degree programmes** to supplement and enrich classroom learning.
  - **Public digital infrastructure** must be expanded in **rural and semi-urban areas** to reduce the **digital divide** and democratise access to higher education content.

### Conclusion

India’s **higher education system** has expanded significantly, but **gaps in quality, equity, and teaching capacity** remain major concerns, as highlighted by the **State of Working India 2026 report**. To achieve its vision of becoming **Vikshit Bharat by 2047**, India must prioritise **faculty strength, affordability, and regional equity** to ensure inclusive and meaningful educational outcomes.

*Q. India’s higher education sector has expanded rapidly, but quality and equity have not kept pace. Critically examine in the light of recent trends. 15 Marks*

### 1.1.3. CONSTITUTIONAL SAFEGUARDS AND EMERGING CONCERN

#### Context:

The recent move by opposition parties to begin impeachment proceedings against the **Chief Election Commissioner** marks an important moment in India’s democratic journey. It highlights growing doubts about the **independence** of the Election Commission of India and the **fairness of electoral processes**, even though the motion is unlikely to succeed in Parliament.



#### Chief Election Commissioner — Constitutional Foundation and Powers

##### A. Constitutional Status and Mandate

The office of the Chief Election Commissioner is established under **Article 324 of the Constitution of India**. The **Election Commission of India (ECI)** is an independent constitutional authority designed to ensure **free and fair elections**.

- Conducts elections to **Parliament, State Legislatures, the Office of the President and the Vice-President**
- Functions as the **sole guardian of democratic processes** — free from executive interference
- As of 2024, the ECI oversees an electorate of approximately **96.8 crore (968 million) registered voters** — the largest democratic electorate in the world.

## B. Composition of the Election Commission

- The ECI consists of the **Chief Election Commissioner (CEC)** and one or more **Election Commissioners (ECs)** — all with equal powers, with the CEC acting as Chairperson.
- Appointed by the **President of India** on the **advice of a selection committee** comprising the **Prime Minister**, the **Leader of the Opposition**, and the **Chief Justice of India** (as per the **CEC and Other ECs (Appointment, Conditions of Service and Term of Office) Act, 2023**).

## C. Tenure, Security, and Removal Protections

The CEC holds a tenure of **6 years or until the age of 65 years**, whichever is earlier. These protections ensure complete independence from executive pressure:

- The CEC can **only be removed** in a manner **identical to that of a Supreme Court judge** — requiring proof of misbehaviour or incapacity.
- Other Election Commissioners can be removed **only on the recommendation of the CEC** — providing an additional layer of structural independence.
- The salary and service conditions of the CEC are charged to the **Consolidated Fund of India** — not subject to parliamentary voting — to safeguard financial independence.

## Removal of the CEC — Constitutional Process

Though commonly referred to as '**impeachment**,' the Constitution uses the precise term "**removal**." The process is governed by provisions analogous to those applicable to Supreme Court judges under **Article 124(4)**.

STEP	DETAILS
<b>1. Notice of Motion</b>	A formal motion must be signed by at least <b>100 members</b> of the <b>Lok Sabha</b> OR at <b>least 50 members</b> of the <b>Rajya Sabha</b> — preventing frivolous or politically motivated actions.
<b>2. Admission</b>	The <b>Speaker (Lok Sabha)</b> or <b>Chairman (Rajya Sabha)</b> reviews the motion and may admit or reject it based on merit and procedural compliance.
<b>3. Investigation Committee</b>	If admitted, a <b>three-member committee</b> is constituted — comprising a <b>Supreme Court judge</b> , a <b>High Court Chief Justice</b> , and a distinguished jurist — to independently examine the charges.
<b>4. Voting in Each House</b>	If the committee finds merit, each House separately votes. Removal requires a <b>Special Majority</b> : (a) Majority of total membership of the House, AND (b) At least two-thirds (2/3rd) of members present and voting.
<b>5. Presidential Order</b>	If the motion passes in both Houses, the <b>President of India</b> issues the formal order of removal. The process cannot be short-circuited at any stage.

## Context of the Current Impeachment Motion

### A. Key Allegations Raised by the Opposition

- **Partisan and discriminatory conduct** in the conduct of electoral processes — allegations of favouring one political party over others.
- **Failure to act on complaints** related to electoral fraud and irregularities, thereby compromising the neutrality of the Commission.
- **Large-scale disenfranchisement** of eligible voters through the Special Intensive Revision (SIR) process — particularly in states like West Bengal, Bihar, and Jharkhand.

### B. Why This Moment Is Historically Significant

- This is the **first-ever attempt to impeach a CEC** in India's **75-year democratic history** — a threshold that reflects an extraordinary breakdown of institutional confidence.
- **It signals a deep structural mistrust** between the **leading Opposition parties** and the **Election Commission** — with serious implications for democratic governance.
- As a **symbolic act of protest**, the **motion** places the **issue of electoral accountability into national public discourse**, even if it lacks the numbers to succeed in Parliament.

### C. Political Reality — Why the Motion is Unlikely to Succeed

- **The ruling alliance holds a comfortable numerical majority** in both Houses of Parliament — making passage of the required special majority virtually impossible.
- The motion, therefore, serves primarily as a **political statement and a tool of public accountability pressure** — rather than a realistic mechanism for removal.

## Special Intensive Revision (SIR) of Electoral Rolls and its Concerns

### A. About SIR

The SIR is a process conducted by the ECI to clean and update electoral rolls — aimed at removing **duplicate entries, deceased voters, and ineligible individuals** to ensure that electoral rolls are accurate and up-to-date.

- The ECI has the **legal mandate** to revise and maintain electoral rolls under the Representation of the People Act, 1950.
- The SIR involves the use of **AI-based logical discrepancy detection tools**, micro-observers, and in some cases, judicial officers to adjudicate voter eligibility.

### B. Concerns Raised — Scale and Severity of Deletions

- **Massive deletion of voters:** Reports indicated that hundreds of thousands (lakhs) of valid voter names were removed from rolls in multiple states, including West Bengal, Bihar, and Uttar Pradesh.
- **"Under adjudication" voters:** A significant number of voter applications and appeals were left unresolved even close to election dates — leaving citizens in a state of **democratic limbo** where they could neither vote nor receive a clear decision.
- **Disproportionate impact on marginalised communities:** Research and ground reports indicate that exclusions disproportionately affected **Scheduled Castes, Scheduled Tribes, migrant workers, and minorities** — groups that already face barriers to voter registration.

- **Lack of transparency:** No clear public disclosure of the methodology, criteria, or audit reports governing the deletion process.
- **Inadequate grievance redressal:** Citizens who found their names missing had limited and cumbersome avenues for timely correction before elections.

## Implications for Indian Democracy

### A. Arguments IN FAVOUR

- **Ensures accountability of constitutional authorities** – The motion reinforces the principle that even powerful independent bodies like the ECI can be held accountable when their conduct is questioned.
- **Sends a strong democratic message** – It signals that alleged **misconduct, bias, or misuse of power** cannot go unchallenged, even if the office is constitutionally protected.
- **Keeps democratic checks alive** – The impeachment process draws **public and parliamentary attention** to institutional failures, prompting debate, scrutiny, and possible reforms.
- **Forces the ECI to defend its decisions** – The need to respond to the motion can lead to **greater transparency, clarification, and improved accountability** in the functioning of the Commission.

### B. Arguments AGAINST

- **Lacks numerical feasibility** – Without the required **special majority**, the motion is unlikely to pass and may be seen as a **symbolic or hollow gesture** rather than a genuine constitutional remedy.
- **Risks normalising impeachment as a political weapon** – If such moves are used frequently, they may become a **routine political tool**, not just against the CEC, but also against other independent bodies, **weakening their independence**.
- **May politicise constitutional institutions** – Treating the **CEC as a political opponent** transforms the ECI into a **site of partisan conflict** rather than a **neutral guardian** of elections.
- **Threatens constitutional stability** – Recurrent or weaponised impeachment attempts can create a **precedent of removal-by-pressure**, undermining the **stability and trust** in several constitutional posts.

## Way Forward: Restoring Trust and Fortifying Institutions

### A. Transparent Electoral Roll Management

- **Publish clear, simple, and detailed guidelines** for all revisions of electoral rolls, including the criteria used by AI tools.
- Use **technology only with strong human oversight** and **public audit mechanisms** to prevent arbitrary decisions.

### B. Strengthening Accountability Mechanisms

- Conduct **periodic, structured parliamentary reviews** of ECI functioning, not just during crises.
- Arrange **independent audits** of major electoral drives (like SIR) by panels of **legal experts, statisticians, and civil society members**.

### C. Reforming the Appointment Process

- Broaden the **selection committee** for the CEC and ECs to include:
  - A **judicial member**.
  - **Representatives of opposition parties**.
  - **Non-governmental experts** in governance and elections.
- Make **nomination criteria and shortlists transparent** to reduce suspicion of partisanship.

### D. Improving Communication and Stakeholder Engagement

- Hold **regular consultations** with: Political parties, civil society organisations, academics and media.
- Ensure **timely, public clarification** of major ECI decisions, especially those affecting voter rolls.

### E. Protecting Voter Rights and Ensuring Inclusion

- Ensure that **no genuine voter is wrongly excluded** by:
  - Providing **multiple, easy, and time-bound grievance redressal** channels.
  - Extending **deadlines for corrections** before finalising rolls for elections.
- Launch **targeted voter awareness campaigns** for **marginalised groups** to help them understand the revision process and rights.

### F. Limiting the Politicisation of the ECI

- Political parties must:
  - **Respect the ECI's constitutional autonomy** and avoid treating the CEC as a political opponent.
  - Focus **criticism on specific decisions**, not on the **entire institution**, to preserve public trust.

### G. Defining the Role of the Judiciary

- Courts should generally **keep away from routine electoral administration work**, such as **voter roll verification in bulk**.
- Judicial intervention should be **limited to cases of serious violation**, with **clear, time-bound mandates**, preserving the **normal separation of powers**.

### Conclusion

The attempted impeachment of the **Chief Election Commissioner** is not just a political show, but a **deep symptom of institutional stress** in India's electoral system. To protect democracy, the focus must shift from **confrontation to constitutional reform**, ensuring that **every voter's right to vote is respected and protected**.

*Q. The attempt to impeach the Chief Election Commissioner reflects deeper concerns about institutional trust rather than merely a political confrontation. Discuss in the context of recent developments. 15 Marks*

### 1.1.4. BALANCING ELECTORAL INTEGRITY AND FEDERAL PRINCIPLES

#### Context:

The ECI's recent transfer of top officials in election-bound States, especially in West Bengal without State consultation, has sparked a constitutional debate. It raises key questions about the scope of Article 324 vis-à-vis statutory service laws. The issue highlights the tension between ensuring free and fair elections and maintaining federal balance.



#### Legal and Constitutional Framework

##### 1. Article 324: Scope and Nature of Powers

- Article 324 vests the ECI with the **superintendence, direction, and control of elections**, making it the central authority responsible for ensuring electoral integrity.
- The provision is deliberately broad, enabling the ECI to act in situations where laws may be silent or inadequate.
- This flexibility ensures that elections are conducted efficiently even in unforeseen circumstances.

##### 2. Judicial Interpretation of Article 324

The Supreme Court in *Mohinder Singh Gill vs Chief Election Commissioner* laid down the contours of these powers:

- Article 324 is a **“reservoir of powers”**, allowing the ECI to act in the absence of specific legislation.
- However, these powers are **not absolute** and must supplement not supplant existing laws.
- The Court emphasized that all actions must aim at ensuring **free and fair elections**.

##### 3. Legal Framework Governing Civil Services

- Officers like IAS and IPS are governed by the **All India Services Act, 1951** and related rules.
- The **State government exercises administrative control**, including transfer and posting of officers serving within the State.
- Under the **Seventh Schedule**, “State Public Services” fall under the State List, reinforcing State authority.

##### 4. Election Laws

- The Representation of the People Acts, 1950 and 1951:
  - Provide a detailed framework for election conduct
  - Define powers and responsibilities of the ECI
- However, these laws **do not explicitly authorize the ECI to transfer senior State officials**, especially without consultation.

## Significance of the Transfer Powers

### 1. Ensuring Free and Fair Elections

- The ECI's transfers aim to ensure electoral neutrality and integrity by preventing any misuse of administrative machinery or undue political influence during elections.

### 2. Assertion of Institutional Authority

- The move reflects the ECI's proactive assertion of its constitutional authority, reinforcing its image as an independent and decisive election watchdog.

### 3. Impact on Electoral Governance

- It brings into focus the extent of ECI's intervention in State administration, highlighting the need to clearly demarcate limits between governance and electoral supervision.

### 4. Federal Balance

- The issue tests the strength of cooperative federalism by raising concerns over potential encroachment on State autonomy in administrative matters.

## Challenges and Concerns of Transfer Powers

### 1. Lack of Statutory Backing

- There is no explicit legal provision empowering the ECI to transfer top officials like the Chief Secretary or DGP, making such actions constitutionally questionable.
- Reliance solely on Article 324 creates legal ambiguity and opens the door for potential constitutional conflicts between institutions.

### 2. Federalism Concerns

- Unilateral decisions by the ECI undermine the authority of State governments and disturb the balance of powers in a federal structure.
- Lack of prior consultation weakens cooperative federalism and erodes trust between constitutional and State institutions.

### 3. Administrative Disruption

- Sudden removal of top officials disrupts governance continuity and creates uncertainty within the administrative hierarchy.
- Effective election management requires a stable and coordinated administrative setup, which such actions may weaken.

### 4. Presumption of Bias

- Transfers create an implicit assumption that officers are biased or incapable of maintaining neutrality during elections.
- However, the absence of transparent criteria or inquiry raises concerns about arbitrariness and lack of objectivity in decision-making.

## 5. Violation of Natural Justice

- Affected officers are often not given an opportunity to present their case or respond to allegations before transfer.
- This absence of due process violates principles of natural justice and undermines the fairness of administrative actions.

## 6. Impact on Civil Services Morale

- Arbitrary or sudden transfers create insecurity among civil servants and discourage independent, professional decision-making.
- Over time, this may reduce administrative efficiency and weaken the neutrality of the bureaucracy.

## 7. Risk of Institutional Overreach

- A broad interpretation of Article 324 may lead to excessive concentration of power in the hands of the ECI.
- As cautioned by the Supreme Court, unchecked power is inconsistent with constitutional governance and may undermine institutional balance.

## International Perspective: Powers of Election Management Bodies (EMBs)

### 1. Electoral Commission (UK)

- The UK Electoral Commission primarily performs **regulatory and advisory functions**, ensuring transparency in campaign finance and electoral conduct.
- It **does not possess powers to transfer administrative officials**, as election management is largely decentralized and handled by local authorities.

### 2. Federal Election Commission (USA)

- The FEC focuses on **campaign finance regulation**, while election administration is conducted by individual States.
- There is **no centralized authority to control or transfer State officials**, reflecting strong federal autonomy.

### 3. Elections Canada and Australian Electoral Commission

- Both Elections Canada and the Australian Electoral Commission function with dedicated professional election machinery, reducing reliance on State/provincial officials.
- This institutional independence minimizes the need for dependence in local administration, thereby avoiding federal conflicts and ensuring smooth electoral governance.

## Way Forward

### 1. Legislative Clarification

- Parliament should clearly define the extent of the ECI's powers regarding transfer and control over officials during elections to remove ambiguity.
- This will prevent overlaps with existing service laws and reduce institutional conflicts between the ECI and State governments.

## 2. Establishment of Clear Guidelines

- The ECI should formulate a transparent Standard Operating Procedure (SOP) outlining objective criteria and justification for transfers.
- Such guidelines will ensure consistency, accountability, and reduce perceptions of arbitrariness in decision-making.

## 3. Institutional Consultation

- A mechanism for mandatory consultation with State governments before major administrative decisions should be institutionalized.
- This will strengthen cooperative federalism and ensure smoother coordination during election management.

## 4. Judicial Intervention

- The Supreme Court can clarify the precise limits of Article 324 in relation to service laws and administrative control.
- This would provide authoritative interpretation, ensuring a balance between electoral autonomy and constitutional boundaries.

## 5. Safeguards for Civil Servants

- Proper due process, including prior notice and an opportunity to respond, should be ensured before transferring officials.
- This will protect the morale, dignity and independence of civil servants, promoting a fair administrative environment.

## 6. Strengthening Administrative Neutrality

- Long-term reforms should focus on building a politically neutral and professionally independent civil service system.
- This would reduce the need for frequent or preventive transfers by ensuring inherent administrative impartiality.

## Conclusion

The Election Commission of India remains central to safeguarding India's democratic legitimacy, but its powers must evolve within constitutional limits and federal harmony. Going forward, a balanced framework rooted in legal clarity, transparency, and cooperative federalism is essential to prevent institutional friction. Strengthening both electoral integrity and administrative trust will be key to sustaining a resilient and mature democracy.

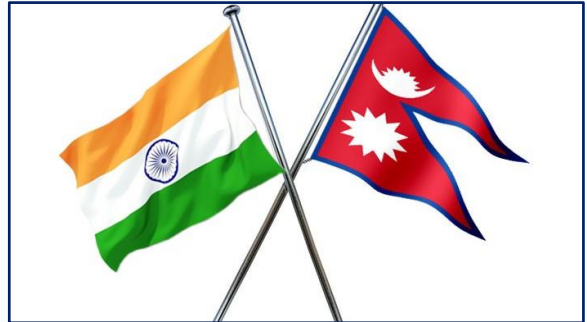
**Q.** *The Election Commission of India's powers under Article 324 are wide but not unfettered. Examine in the context of recent controversies over transfer of senior State officials. 15 Marks*

## 1.2. INTERNATIONAL RELATIONS

### 1.2.1. NEIGHBOURS FIRST: STRENGTHENING THE INDIA-NEPAL RELATIONSHIP

#### Context:

- The recent change in Nepal's leadership presents a fresh opportunity for India to **revive bilateral ties** through proactive diplomatic engagement. It is essential that the "**Neighbourhood First**" policy is prioritized to ensure regional stability and shared economic growth between the two nations.



#### EVOLUTION OF INDIA-NEPAL RELATIONS

The relationship between India and Nepal has been shaped by centuries of shared history, geography, and cultural overlap.

- **Historical Foundations**
  - Ancient **civilizational links** through shared **Hindu-Buddhist heritage**, pilgrimage sites (Lumbini, Pashupatinath), and cultural exchanges.
  - **Treaty of Sugauli (1815-16)** defined much of the modern **1,751 km open border** with British India.
- **Post-Independence Era (1947–1990)**
  - Diplomatic relations established: **17 June 1947**.
  - Cornerstone: **1950 Treaty of Peace and Friendship** — open borders, free movement of people and goods, reciprocal rights, and security cooperation.
  - Key water resource agreements: **Kosi (1954)** and **Gandak (1959)**.
  - **Special relationship** marked by economic assistance and people-to-people ties (including Gorkha recruitment in Indian Army).
- **Democratic Transition and Economic Deepening (1990–2014)**
  - Support for Nepal's **multiparty democracy** (1990) and **Comprehensive Peace Agreement (2006)**.
  - **Mahakali Treaty (1996)** for integrated river development.
  - Renewal of **Trade and Transit treaties**; focus on **hydropower cooperation** and addressing trade imbalances.
- **21st Century: Connectivity and Functional Cooperation (2015–Present)**
  - India's **Neighbourhood First** policy intensified high-level engagements (over 17 Head of Government/State visits since 2014).
  - **Major Infrastructure: Motihari-Amlekhgunj petroleum pipeline**, cross-border railways (**Jayanagar-Kurtha, Raxaul-Kathmandu progress**), Integrated Check Posts, and freight services.

- **Energy Sector Breakthrough:** Long-term **Power Trade Agreement**; commitment for India to import **10,000 MW** of electricity from Nepal over the next decade; new hydropower projects (**Arun-III, Lower Arun, Phukot Karnali**) and cross-border transmission lines.
- **Digital Integration:** **UPI interoperability** and enhanced people-to-people linkages.
- **Education & Culture:** Thousands of scholarships are provided annually by India, and the **Pashupatinath-Kashi** religious circuit continues to draw millions of pilgrims.
- **Contemporary Trends (2025–2026)**
  - Emphasis on **pragmatic economic interdependence** in **energy, connectivity, and green power trade**.
  - Progress in trilateral arrangements (e.g., with Bangladesh) and updates to transit protocols.
  - Resilience rooted in deep **cultural affinity**, open border, and mutual interest in regional stability and development.

## CHALLENGES IN THE INDIA-NEPAL RELATIONSHIP

- **Territorial and Border Disputes:** Differing interpretations of the **Treaty of Sugauli (1815–1816)** remain a core issue. Contested areas include **Kalapani, Lipulekh, and Limpiyadhura**.
  - Nepal incorporated these territories in its **2020 constitutional map amendment** and featured them on new **Rs 100 currency notes in 2025**.
  - India maintains administrative control and rejects Nepal's claims. Plans to resume **India-China border trade via Lipulekh Pass in June 2026** have further reignited Nepali concerns over sovereignty.
- **Perceptions of Asymmetry and the 1950 Treaty:**
  - Structural asymmetry in size and influence fosters Nepali perceptions of an Indian **"big brother" attitude**.
  - The **1950 Treaty of Peace and Friendship** is increasingly viewed by Nepal's younger generation as an **unequal colonial relic**.
  - The **Eminent Persons Group (EPG) report** recommending revisions has not been formally accepted by India, deepening the trust deficit.
- **Economic Imbalances and Trade Deficit:**
  - A staggering **trade deficit** is faced by Nepal, as it relies on India for nearly 70% of its imports. Issues such as **non-tariff barriers** on Nepali agricultural products (like ginger and tea) and delays in the GST refund process for Nepali traders frequently cause economic tension.
- **Security Issues from the Open Border:**
  - The **1,751 km open and porous border** enables strong people-to-people ties but facilitates challenges such as **smuggling**, human trafficking, counterfeit currency circulation, and transnational crime. Effective border management requires continuous bilateral coordination.
- **Water Resources and Hydropower Implementation:**
  - Shared rivers offer significant potential for energy and irrigation, yet disputes persist over **benefit-sharing**, project delays, and downstream impacts.

- Slow progress on initiatives like the **Pancheshwar Multipurpose Project** highlights differing priorities and implementation hurdles.
- **Geopolitical Diversification and the China Factor:**
  - Nepal's expanding partnerships with China, including participation in the **Belt and Road Initiative (BRI)**, introduce triangular dynamics. India monitors enhanced Chinese infrastructure and connectivity projects in Nepal with strategic concern.
- **Domestic Political Instability in Nepal:**
  - Frequent government changes, coalition politics and events such as the **2025 Gen-Z protests** and **2026 parliamentary elections** affect policy continuity. Rising **nationalism** and youth-driven demands occasionally amplify anti-India sentiments in domestic discourse.

## WAY FORWARD: STRATEGIC ROADMAP FOR INDIA-NEPAL RELATIONS

- **Resolve Territorial and Border Issues through Dialogue:**
  - Shift **Kalapani, Lipulekh and Limpiyadhura** disputes from public rhetoric to quiet, sustained diplomatic channels.
  - Empower the **Joint Boundary Working Group** and technical experts to find mutually acceptable solutions based on historical evidence and mutual consent, while avoiding unilateral actions.
- **Modernise the 1950 Treaty Framework:**
  - Formally acknowledge and initiate phased deliberations on the **Eminent Persons Group (EPG) report**.
  - Update the **1950 Treaty of Peace and Friendship** to reflect contemporary realities of **sovereign equality**, while preserving the unique **open border** and people-to-people linkages.
- **Accelerate Hydropower and Energy Cooperation:**
  - Fast-track implementation of key projects including **Arun-III, Pancheshwar Multipurpose Project** and cross-border transmission lines.
  - Fully operationalise the long-term **Power Trade Agreement** to enable Nepal's **10,000 MW electricity exports** to India, creating win-win economic gains and green energy integration.
- **Enhance Connectivity and Infrastructure Delivery:**
  - Ensure timely completion of **cross-border railways** (e.g., Raxaul-Kathmandu), petroleum pipeline extensions, **Integrated Check Posts** and inland waterways. Focus on efficient project execution to build trust and deliver visible development benefits.
- **Address Economic Imbalances and Promote Trade:**
  - Diversify trade through a possible **Bilateral Economic Partnership Agreement**, improve border infrastructure and support Nepal's export competitiveness. Reduce the persistent **trade deficit** via greater Indian investment in agriculture, tourism, and manufacturing.
- **Strengthen Border Management and Security Cooperation:**
  - Maintain the **open border** for humanitarian and economic benefits while introducing enhanced joint mechanisms for surveillance, data exchange (pre-arrival export information), and combating **smuggling**, trafficking and transnational crime.

- **Deepen Digital and Technological Partnership:**

- Advance **UPI interoperability**, cross-border digital payments, fintech, AI, and cybersecurity cooperation. Leverage forums like the **Nepal-India Tech Forum 2026** to support Nepal's digital public infrastructure and skill development.

## CONCLUSION

The unique bond between these India and Nepal can be strengthened by focusing on **economic cooperation** and mutual respect. A stable and prosperous future will be achieved if both sides prioritize **modern connectivity** over old disagreements. By working together as equal partners, a stronger and more integrated **South Asia** can finally be built.

*Q. India–Nepal relations, despite deep historical and cultural ties, face recurring geopolitical and economic challenges. Examine these challenges and suggest measures to strengthen bilateral ties under India's 'Neighbourhood First' policy. 15 Marks*

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## 2.1. ECONOMY

### 2.1.1. INDIA'S LPG CRISIS: A WELFARE SYSTEM WITHOUT SUPPLY SECURITY

#### Context:

- India has expanded **clean cooking access** to about **33 crore households**, mainly through **LPG**, but a recent crisis caused by the **West Asia conflict** and disruption in the **Strait of Hormuz** has exposed **high import dependence and weak storage capacity**.
- It is now being revealed that the transition, meant for **women empowerment and welfare**, is built on **fragile global markets instead of secure, state-managed supply systems**.



#### Background: From Kerosene to LPG

##### 1. Kerosene Era – State-Controlled Welfare

- For decades, **kerosene** was the main cooking fuel for millions, supplied through the **Public Distribution System (PDS)** using **ration cards**.
- The state maintained **physical stocks** in **local depots**, managed the **entire supply chain**, and insulated households from **international price shocks**.
- However, burning kerosene and biomass caused severe **indoor air pollution**, contributing to **respiratory diseases** and **premature deaths**, especially among women and children.

##### 2. Shift to LPG – Modern Energy Upgrade

- Since **2016**, the government launched a major push to replace kerosene with **LPG**, especially under **Pradhan Mantri Ujjwala Yojana (PMUY)**.
- By **2024**, **13 States and Union Territories** were declared “**kerosene-free**”, marking a major shift in energy policy.
- LPG offers much **higher calorific value** than kerosene, leading to **faster, cleaner, and more efficient cooking** and **reduced time burden** on women.

##### 3. Changing Role of the State

- Earlier, the **state directly controlled the fuel** (kerosene).
- Now, with LPG, the **state's role has shifted** from **direct control of stocks** to **subsidy management and market regulation**.
- This has **withdrawn the state's physical responsibility** for maintaining large reserves, leaving households **exposed to global price and supply shocks**.

#### Current LPG Crisis in India: Rising Imports, Supply Disruptions, and Storage Shortfalls

##### 1. Rising Import Dependence

- **India's LPG consumption** has surged to about **31–33 million tonnes per year** (FY-25 and FY-26 projections).
  - **Imports now meet about 60–65% of domestic demand** (up from **47% in 2015**), meaning **more than half of India's LPG is imported**.
  - In **2024–25 alone**, imports reached roughly **20 million tonnes**, a **threefold increase** over the last decade.
- ## 2. Reliance on West Asia and Hormuz
- About **90% of India's LPG imports come from West Asia**, mainly from the **UAE, Qatar, Saudi Arabia, and Kuwait**.
  - **Over 85–90% of these imports pass through the Strait of Hormuz**, a narrow, conflict-prone waterway.
  - When **war and blockades in West Asia** disrupt shipping, **nearly half of India's LPG supply chain is directly affected**.
- ## 3. Storage Gap and Strategic Imbalance
- **Monthly LPG consumption** in India is about **3 million tonnes** (roughly **80,000 tonnes per day**).
  - **Total existing underground storage capacity** (Mangaluru + Visakhapatnam) is only about **1.4 lakh tonnes**, which is **less than two days of national consumption**.
  - In contrast, India's **strategic crude oil reserves** cover about **60 days of consumption**, highlighting a **strategic imbalance** in energy security planning.
- ## 4. Short-Term Impact of the Crisis
- Preliminary data for **March 2026** shows **LPG consumption fell by around 17–18%** in the first half of the month due to **supply disruptions**.
  - The government has been forced to **prioritize household supplies** and **cut allocations to commercial and industrial users** (hotels, restaurants, industries) to protect **PMUY households**.

## Understanding LPG, LNG, and PNG

### 1. Liquefied Petroleum Gas (LPG) – Cooking Gas for Households

- **Chemical composition:** A mixture of **propane and butane**.
- **State and storage:** Liquefied under **moderate pressure at ambient temperature**, stored in **steel cylinders**; easy to transport and ideal for **rural and remote areas**.
- **Source:** By-product of **natural gas processing** and **oil refining**.
- **Logistics in India:** **60–65% imported** via **sea tankers**, then moved by **rail and road** to dealers.
- **Key use:** Main fuel for **household cooking** under **PMUY**.

### 2. Liquefied Natural Gas (LNG) – Bulk Transport for Power and Industry

- **Chemical composition:** Mostly **methane (CH<sub>4</sub>)** with small amounts of **ethane, propane, and butane**.
- **State and storage:** Natural gas **cooled to –162°C (cryogenic state)**, shrinking its volume by about **600 times**, enabling **long-distance sea transport**.

- **Logistics:** Requires **specialized cryogenic tankers** and **regasification terminals** (e.g., **Dahej, Kochi, Mundra**) to convert LNG back to gas for pipelines.
  - **Key use:**
  - Feedstock for **fertilizer plants**.
  - **Power generation** and **heavy-duty transport (ships, trucks)** as a “**bridge fuel**” toward cleaner energy.
- ### 3. Piped Natural Gas (PNG) – Piped Gas for Cities
- **Chemical composition:** Like LNG, mainly **methane (CH<sub>4</sub>)**.
  - **State and distribution:** Delivered in **gaseous form** through **City Gas Distribution (CGD) pipelines** at **low pressure (<1 bar)** for safety.
  - **Logistics:** Needs **dense pipeline network**, so it is mainly **urban and peri-urban**.
  - **Key use:** **Uninterrupted household cooking** and **Small-scale industrial heating**.

## Significance of Clean Cooking Welfare

### 1. Scale and Reach

- **Total domestic LPG connections** have risen to **around 33 crore**, more than **doubling coverage in a decade**.
- **PMUY alone has provided over 10.33 crore connections** to women from **Below Poverty Line (BPL)** and **economically weaker sections**.
- This has made **India the second-largest LPG consumer globally**, after the USA.

### 2. Health and Time-Saving Benefits

- Studies (e.g., by the **International Institute for Sustainable Development – IISD**) show that households switching from biomass (wood, dung) to LPG **save about 1 hour per day in fuel-collection and cooking time**.
- LPG use reduces exposure to **indoor air pollution**, which is linked to **respiratory diseases, eye problems, and low-birth-weight babies**.
- Evidence from **panel-data studies** suggests **significant health improvements for women**, who spend more time indoors.

### 3. Social and Governance Significance

- The scheme is branded as a **visible state welfare programme**: cylinders carry **government logos**, and **subsidies are paid as Direct Benefit Transfer (DBT)** to bank accounts.
- This has **increased women’s agency** in household energy decisions and **reduced dependence on polluting fuels**.

## Government Schemes for Clean Cooking and Gas-Based Energy

### 1. Pradhan Mantri Ujjwala Yojana (PMUY)

- Launched in **2016** to provide **free LPG connections** to BPL women.
- **Milestones:**

- Over **10 crore connections** by 2022.
- **Total PMUY connections** now exceed **10.33 crore** under **PMUY 1.0, 2.0, and 3.0**.
- **Support:** Cash assistance for **cylinder, regulator, and safety equipment**; subsidies for **refills** (around **₹300 per refill** under certain schemes).

## 2. GOBARdhan Scheme

- **Full name:** **Galvanising Organic Bio-Agro Resources Dhan**.
- **Objective:** Convert **cattle dung and organic waste** into **biogas and compost**, reducing dependence on LPG and improving rural sanitation.
- **Broad idea:** Each **biogas plant** can serve **5–10 households**, especially in **village clusters**.
- However, many earlier biogas plants remain **dormant due to poor maintenance and lack of technical support**.

## 3. Strategic Petroleum Reserves (SPR)

- India has **strategic storage for crude oil** (about **60 days of consumption**) to act as a **buffer against global oil shocks**.
- There is **no equivalent large-scale strategic LPG reserve**, although **underground caverns at Mangaluru and Visakhapatnam** hold only **1.4 lakh tonnes – less than two days of supply**.

## Key Challenges and Structural Gaps in India's LPG-Based Welfare System

### 1. Economic Barriers to Refills

- Although **initial connections are free or highly subsidized**, **refill prices** often exceed **₹800–₹1,000** in many markets.
- **One in four PMUY beneficiaries** reportedly **cannot afford even a single refill** during normal times, leading to **"connection without usage"**.
- Refill **subsidies are inadequate for many poor households**, especially in **rural and remote areas**.

### 2. Logistical and Supply-Chain Gaps

- **Rural areas** often face **mandatory booking gaps of 45 days or more**, even before the crisis.
- With **supply tightening**, **waiting time increases** and **cylinders may be diverted away from poorer areas**.
- The **lack of pipeline infrastructure (PNG)** in villages means **cylinders are the only option**, which depend on **road and rail logistics**.

### 3. Social Inequities and Access Issues

- Studies and field reports indicate that **caste and social hierarchies** influence **gas-distribution networks** at the village level.
- **Scheduled Caste and Tribal households** often report **lower priority in cylinder allocation** and **difficulty in booking refills**.
- Women, though **nominal beneficiaries**, have **little control over pricing, booking, and delivery**, which remain in the hands of **dealers and intermediaries**.

#### 4. Gendered Burden Returns in Crisis

- When **LPG becomes scarce or unaffordable**, women are forced back to biomass (firewood, dung cakes).
- This increases **time burden, health risks, and physical strain**, reversing gains made through PMUY.
- The **energy-transition remains incomplete** for many households, especially in **drought-prone and remote forested regions**.

#### 5. Misalignment Between Policy Goals and Infrastructure

- The **policy goal** is **universal clean cooking access**, but **physical infrastructure** (storage, pipelines, alternative fuels) has **not kept pace** with the expansion of connections.
- The state has treated LPG mainly as a “**connection-centric subsidy programme**” rather than a **comprehensive energy-security system**, so **strategic storage, diversified routes, and local alternatives** were not prioritized.
- This mismatch creates a “**welfare-without-security**” trap: the state can **distribute cylinder connections widely**, but cannot **guarantee a continuous, affordable physical supply** during global crises, leaving the most vulnerable back to the smoke of biomass stoves.

### Way Forward: Building Redundancy and Resilience

#### 1. Expand Strategic Storage for LPG

- India needs a **minimum strategic LPG buffer** covering **45–60 days of consumption**, similar to **crude oil reserves**.
- **Underground storage options** include:
  - **Salt caverns** in **Rajasthan (Bikaner-Barmer region)** – naturally impermeable, low cost, and suitable for rapid withdrawal.
  - **Rock-cavern projects** in **stable granite/gneiss formations** of the **Peninsular Shield**.
  - **Depleted gas fields** in the **KG Basin and Cambay** could be repurposed for **large-scale gas storage**.

#### 2. Diversify Supply Sources and Routes

- Current dependence on **West Asia** is risky. New and expanded **long-term contracts with the USA, Australia, and Africa (e.g., Angola)** can **reduce over-concentration**.
- A **statutory minimum** of LPG imports should be **routed through alternative sea lanes and non-Hormuz paths** (e.g., via the **western coast of India** and longer routes).
- **Transit-time buffer**: Supplies from the **USA take about 45 days**, compared to **shorter routes from the Gulf**, so **strong storage buffers** are essential.

#### 3. Adopt Global Best Practices

- The **European Union** requires **member countries to maintain at least 90% filling of gas storage** before **winter and high-demand seasons**.

- India can adopt a similar rule for **LPG storage** before **winter and festival seasons** (Diwali, weddings, etc.), when **demand spikes**.
- **Transparent norms** for **prioritizing households, hospitals, and essential services** during crises should be **publicly notified**.

#### 4. Revive and Scale Alternative Fuels

- **Biogas through GOBARdhan** should be **revived and expanded**:
- Proposals suggest a **₹10,000 revival subsidy per unit** to **repair and reactivate around 50 lakh dormant biogas plants**.
- This can provide **local, decentralized cooking fuel** and **reduce pressure on LPG cylinders**.
- **Promote improved biomass stoves** (smokeless or low-emission) in **areas where LPG is not yet reliable**, to **minimize health damage**.

#### 5. Accelerate PNG and City-Gas Infrastructure

- **Piped Natural Gas (PNG)** in **urban and semi-urban areas** can **steady supply** and **eliminate cylinder-delivery problems**.
- The **Petroleum and Natural Gas Regulatory Board (PNGRB)** can **fast-track new CGD networks** and **expand coverage to 100+ cities by 2027**.
- **Closed-loop digital systems** can track **refill demand** and **route PNG to high-density areas**, reducing dependence on LPG cylinders.

#### 6. Strengthen Crisis Protocols and Governance

- The government must publish **clear triage rules** for **fuel allocation during emergencies**:
- **Priority**: Households, especially women-headed, SC/ST, and rural homes.
- **Second priority**: Hospitals, schools, and essential services.
- **Lower priority**: Large commercial users and export-oriented industries.
- A **real-time monitoring system** (dashboard at state and district level) can track **connections, refills, and gaps** to prevent misuse and ensure **equitable distribution**.

### Conclusion

India's **LPG-driven clean-cooking welfare** has expanded access to millions but remains **vulnerable** due to **heavy dependence on global markets, weak strategic storage, and gaps in last-mile delivery and affordability**. To make this **welfare durable**, the state must build **supply security**—through **diversified imports, large-scale storage, stronger PNG networks, and revived local alternatives**—so that global crises do not push the poorest back to the smoke of biomass stoves.

*Q. Critically examine how India's clean cooking push under PMUY has exposed vulnerabilities in energy supply chains amid global disruptions. Suggest a resilient way forward. 15 Marks*

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