ujiyari

UPSC & STATE PCS CURRENT AFFAIRS · UJIYARI.COM

MONTHLY MAINS QUESTIONS

January 2026 — Mains Practice Repository

31 January 2026

CURATED & WRITTEN BY

Bharat Choudhary

UPSC Educator & Content Creator •
linkedin.com/in/epicbharat

ujiyari

January 2026 — Mains Practice Repository

January 2026 | 28 Questions | Model Answers Included

GS PAPER 1 — HISTORY, GEOGRAPHY & SOCIETY

Q1. The 77th Republic Day's theme — "150 Years of Vande Mataram" — invokes a song that has been both a unifying national symbol and a source of communal controversy. Examine the historical evolution of Vande Mataram as a political symbol and analyse the sociological dimensions of the debate over its status relative to the National Anthem.

[GS-1 | 15 Marks | 250 Words]

Introduction: The 77th Republic Day (January 26, 2026) adopted "150 Years of Vande Mataram" as its theme, marking the sesquicentenary of Bankim Chandra Chatterjee's 1876 composition. The song — first published in the novel *Anandmath* (1882) and first publicly sung by Rabindranath Tagore at the 1896 INC session — has functioned simultaneously as a rallying cry against colonialism, a spiritual hymn invoking the motherland as Durga, and a contested political symbol.

Historical Evolution: During the Swadeshi Movement (1905–1908), Vande Mataram became the anthem of Bengal's anti-partition agitation. The INC adopted it as a national symbol, but by the 1930s, Muslim leaders including Muhammad Ali Jinnah objected to its later stanzas' invocation of Hindu deities (Durga, Lakshmi). A 1937 INC committee (Nehru, Tagore, Subhas Bose) recommended using only the first two stanzas — a compromise that persists in the song's official usage. On January 24, 1950, the Constituent Assembly designated "Jana Gana Mana" as the National Anthem and "Vande Mataram" as the National Song — a dual status reflecting an unresolved tension between secular nationalism and cultural nationalism.

Sociological Dimensions: The debate over mandating its singing in schools and public institutions reflects deeper identity fault lines. Proponents argue it is a pre-religious cultural assertion of patriotism rooted in the freedom struggle. Opponents contend that mandating a song with explicitly Hindu devotional imagery in a constitutionally secular republic violates Article 25 (freedom of

conscience) and imposes a majoritarian cultural norm. The Supreme Court in *Bijoe Emmanuel v. State of Kerala* (1986) held that compelling participation in the National Anthem violates Article 19(1)(a) — a fortiori, compelling the National Song raises identical constitutional concerns.

Critical Analysis: The Republic Day theme represents strategic cultural signalling — deploying historical memory for contemporary political purposes. The choice of EU leaders as chief guests alongside a culturally charged theme illustrates India's dual projection: modern strategic partner externally, civilisational state internally.

Way Forward:

Maintain the Constituent Assembly's dual-status framework — National Anthem for formal state functions, National Song for cultural occasions — without legislative compulsion

NCERT should include the full historical context of both symbols, including the 1937 committee's deliberations, in the revised NEP 2020 curriculum

Parliament should codify the National Song's status through a resolution affirming its voluntary character, resolving ambiguity without imposing uniformity

Q2. India's north-south demographic divide — with southern states ageing rapidly while northern states remain in the fertility transition — has profound implications for political representation, fiscal federalism, and internal migration. Examine the structural dimensions of this divide and evaluate the policy challenges it creates for post-delimitation India.

[GS-1 | 20 Marks | 350 Words]

Introduction: India's projected population of 1.59 billion by 2051 conceals a profound demographic asymmetry. Southern states — Kerala (TFR ~1.8), Tamil Nadu (~1.7), Karnataka (~1.7) — are experiencing population ageing comparable to European nations, with Kerala's 60+ cohort projected to reach 23–25% by 2036. Northern states — Bihar (TFR ~3.0), Uttar Pradesh (~2.7), Rajasthan (~2.5) — remain in the high-fertility phase. By 2051, northern states' share of India's working-age population will rise to approximately 52.7%.

Political Representation: The delimitation freeze (Article 82, 84th Amendment, 2001) capped Lok Sabha seat allocation at 1971 census populations until 2026. Post-delimitation — likely after 2031 Census — population-based reallocation would significantly increase northern states' seats (UP could gain 30–40 seats) while reducing southern representation proportionately. States that successfully implemented family planning face political marginalisation — a perverse incentive structure. The 15th

Finance Commission's use of 2011 Census data (instead of 1971) for devolution already triggered southern protests, with Tamil Nadu and Kerala arguing they were being penalised for demographic discipline.

Fiscal Federalism: Southern states contribute disproportionately to central tax revenue (Karnataka alone contributes ~8% of GST) but receive declining shares under the horizontal devolution formula. With ageing populations requiring higher healthcare and pension expenditure, southern states face a "double squeeze" — rising dependency ratios and declining central transfers. Northern states, with younger populations, require massive education and employment generation investments that current fiscal capacity cannot meet.

Internal Migration: The working-age surplus in the north drives large-scale migration to southern and western industrial centres — Tamil Nadu, Karnataka, Kerala, Maharashtra, Gujarat. This creates social friction, linguistic tensions, and political backlash (anti-migrant sentiment in Karnataka and Kerala). The Interstate Migrant Workmen Act, 1979, and its successor provisions in the OSH Code 2020 remain inadequately enforced.

Critical Analysis: The delimitation question is fundamentally a governance design problem: should democratic representation reflect population (majoritarian principle) or performance (rewarding good governance)? Neither extreme is constitutionally sustainable — pure population-based allocation penalises demographic discipline; freezing allocation indefinitely violates the principle of equal representation.

Way Forward:

- Adopt a "weighted representation" model for delimitation — allocating 50% of seats by population and 50% by a composite index (HDI, female literacy, fiscal contribution) — requiring a constitutional amendment but preserving both democratic and federal principles
- Establish a National Population Stabilisation Fund with transfers from high-fertility states' future central grants, creating fiscal incentives for demographic convergence
- Implement portable social security (ESIC, EPFO, PDS) through Aadhaar-linked inter-state transferability to protect migrant workers' entitlements
- Design a National Internal Migration Policy addressing housing, language access, and anti-discrimination protections in destination states

Q3. The Sangai deer population at Keibul Lamjao National Park has declined to 64 individuals, with an effective breeding population of approximately 7.5. Examine the geographical and ecological factors driving this collapse and

analyse the sociological dimensions of conservation-displacement conflicts in Manipur's Loktak Lake ecosystem.

[GS-1 | 15 Marks | 250 Words]

Introduction: The Sangai (*Rucervus eldii eldii*), Manipur's state animal and one of the world's rarest deer, had a census-counted population of just 64 individuals in 2023 — down from 90 in 2006. Its only wild habitat is Keibul Lamjao National Park (~40 sq km), which floats on the phumdis — unique heterogeneous masses of decomposing vegetation — of Loktak Lake (~287 sq km), the largest freshwater lake in Northeast India and a Ramsar Wetland (designated 1990).

Geographical and Ecological Drivers: The 1983 construction of the Ithai Barrage (105 MW, Loktak Multipurpose Project) raised lake water levels by approximately 1 metre, permanently submerging peripheral phumdis and compressing the Sangai's available habitat. The barrage disrupted the lake's natural water-level cycle, which had allowed seasonal regeneration of phumdi vegetation. Additionally, invasive species, pollution from agricultural runoff, and phumdi thinning (from reduced organic matter accumulation) have degraded habitat quality. With an effective breeding population estimated at ~7.5 individuals, the Sangai faces extreme inbreeding depression — any population below 50 breeding individuals is classified by the IUCN as critically vulnerable to genetic collapse (the "50/500 rule" in conservation genetics).

Sociological Dimensions: Loktak Lake sustains approximately 100,000 people through freshwater fisheries and agriculture. Communities living on artificially constructed phumdis (phumdi-dwellers) were forcibly evicted in 2011 under conservation laws — creating resentment against the national park. The Loktak Development Authority's regulation of fishing and farming practices has been resisted as an imposition on indigenous Meitei livelihoods, transforming conservation into a social justice issue.

Way Forward:

Conduct an emergency ex-situ breeding programme in collaboration with the Central Zoo Authority, establishing a satellite population at a second site (Manipur Zoological Garden has captive Sangai)

Review the Ithai Barrage's operational protocol to restore seasonal water-level fluctuation essential for phumdi regeneration

Establish a community-based conservation model that integrates phumdi-dwelling communities as co-managers of the Loktak ecosystem, linking conservation outcomes to livelihood support under the Forest Rights Act 2006

Q4. The Medaram Jatara — Asia's largest tribal festival — exemplifies a form of religious practice that operates entirely outside Brahminical structures. Examine the historical and sociological significance of tribal religious traditions in India and analyse the tensions between their preservation and the forces of mainstream assimilation.

[GS-1 | 15 Marks | 250 Words]

Introduction: The Sammakka-Saralamma Jatara (Medaram Jatara), held biennially by the Koya Adivasi tribe in Telangana's Eturnagaram Wildlife Sanctuary, drew over 1 crore devotثمن in January 2026. The festival is distinguished by the complete absence of Brahminical elements — no permanent stone idols, tribal priests (not Brahmin), bamboo totems, and offerings of jaggery (Bangaram). It is conducted under the Forest Rights Act 2006, which grants the Koyas community forest rights including the right to hold the Jatara in the forest.

Sociological Significance: Tribal religious traditions represent India's oldest surviving spiritual frameworks — predating the Vedic tradition. They are characterised by animism, nature worship, ancestor veneration, and community governance of ritual practice. The Sarna religion of Jharkhand's tribal communities, the Donyi-Polo tradition of Arunachal's Tani peoples, and the Koya worship at Medaram share common features: ecological rootedness, egalitarian participation, oral transmission, and absence of hierarchical priestly intermediation.

Assimilation Pressures: Census classification forces tribal religious practitioners into the "Hindu/Other" category — the 2011 Census had no separate code for tribal religions despite decades of demand. Christian missionary activity and Hindutva's "Ghar Wapsi" campaigns both target tribal communities, framing indigenous traditions as either "primitive" or "originally Hindu." The absence of scriptural texts makes tribal traditions particularly vulnerable to co-option by literate religious traditions. Jharkhand and Odisha have passed Freedom of Religion Acts partially to address conversion pressures, but these laws have been criticised for restricting voluntary religious choice.

Critical Analysis: The Medaram Jatara's scale demonstrates that tribal traditions are not marginal survivals but vibrant, mass-participation living cultures. The Forest Rights Act 2006 provides a legal framework that implicitly protects the territorial and cultural dimensions of tribal practice — but explicit recognition of tribal religions in the Census and constitutional framework remains absent.

Way Forward:

Introduce a separate Census code for tribal religions in Census 2031, enabling accurate demographic data and policy targeting

The National Commission for Scheduled Tribes should publish an annual report on the status of tribal cultural heritage, including religious traditions

UNESCO Intangible Cultural Heritage nomination for the Medaram Jatara would provide international recognition and protection

GS PAPER 2 — POLITY, GOVERNANCE & INTERNATIONAL RELATIONS

Q5. The Supreme Court's January 2026 ruling declaring menstrual health a fundamental right under Article 21 reflects a pattern of judicial expansion of socioeconomic rights. Critically examine whether the judiciary is the appropriate institution for such expansions, and evaluate the implications for legislative and executive accountability.

[GS-2 | 15 Marks | 250 Words]

Introduction: In *Dr. Jaya Thakur v. Government of India* (January 31, 2026), the Supreme Court declared menstrual health an integral component of the right to dignity under Article 21, directing the Government to ensure free sanitary pads in government schools and gender-segregated toilets in all educational institutions. This continues a five-decade pattern of Article 21 expansion — from the right to livelihood (*Olga Tellis*, 1985), clean environment (*MC Mehta*, 1986), privacy (*Puttaswamy*, 2017), to menstrual health in 2026.

The Case for Judicial Expansion: Directive Principles (Part IV) are non-justiciable by constitutional design. When the legislature fails to act on socioeconomic entitlements — India has no national menstrual health law despite 355 million menstruating women — the judiciary's intervention fills a governance vacuum. Article 21's textual openness ("No person shall be deprived of his life or personal liberty except according to procedure established by law") invites interpretive expansion. The Maneka Gandhi doctrine (1978) established that Article 21 protections are substantive, not merely procedural.

The Case Against: Socioeconomic rights entail fiscal commitments — free sanitary pads and infrastructure across all government schools require budgetary allocation that only the legislature can authorise. Judicial directives that mandate expenditure without identifying revenue sources violate the separation of powers. The MGNREGA directive experience shows that court-mandated programmes without executive ownership suffer implementation deficits. Over-reliance on judicial expansion also reduces parliamentary accountability — legislators face no electoral consequence for inaction when the Court acts as a surrogate legislature.

Critical Analysis: The tension is structural: India's Constitution creates aspirational socioeconomic commitments (Directive Principles) but provides no enforcement mechanism beyond political pressure. The judiciary fills the institutional gap, but at the cost of democratic legitimacy and fiscal responsibility.

Way Forward:

- Parliament should enact a National Menstrual Health Act codifying the Court's ruling, with dedicated budgetary allocation under the National Health Mission
- Establish a Social Rights Implementation Commission (statutory body) to monitor compliance with court-mandated socioeconomic directives, reducing the burden on the judiciary
- Amend the Rules of Business to require the Government to table a compliance report in Parliament within 6 months of any Supreme Court directive involving fiscal expenditure

Q6. Telangana's abolition of the two-child norm for Panchayati Raj elections in January 2026 represents a shift in India's demographic policy paradigm. Examine the constitutional basis of two-child norms, the Supreme Court's position in *Javed v. State of Haryana* (2003), and the policy implications of abolition in the context of India's declining fertility rates.

[GS-2 | 15 Marks | 250 Words]

Introduction: The Telangana Legislative Assembly unanimously passed the Panchayat Raj (Amendment) Bill 2026 abolishing the two-child norm for local body elections — a provision that had barred individuals with more than two children from contesting since 1994. Telangana's rural TFR stands at 1.7, well below the replacement level of 2.1. Rajasthan and Andhra Pradesh had already moved in this direction.

Constitutional Basis: The Supreme Court in *Javed v. State of Haryana* (2003), a 3-judge bench, upheld the two-child norm as a reasonable restriction under Article 14, holding that the classification (persons with more than two children) has a rational nexus to the state's legitimate objective of population control. The Court reasoned that disqualification is not punitive but incentivising. However, the judgment predated India's demographic transition — TFR has fallen from 3.4 (2000) to 2.0 (NFHS-5, 2021).

Policy Implications of Abolition: First, the norm disproportionately excludes marginalised communities — Scheduled Tribes and Scheduled Castes have higher TFRs due to structural socioeconomic disadvantage (lower female literacy, limited healthcare access), meaning the disqualification effectively functions as an additional barrier to political participation for already

underrepresented communities. Second, evidence from states that enforced the norm shows sex-selective practices — families abandoned or gave up girl children to remain within the two-child limit, worsening the Sex Ratio at Birth. Third, with TFR below replacement in 24 of 36 states/UTs, population stabilisation has been achieved through development (female education, contraceptive access), not coercion.

Critical Analysis: The *Javed* judgment's reasoning has been rendered empirically obsolete. The demographic challenge has shifted from controlling population growth to managing ageing, workforce transitions, and dependency ratios.

Way Forward:

States still enforcing the two-child norm (Assam, Gujarat, Maharashtra for some categories) should review and abolish these provisions in light of current TFR data

Parliament should consider a constitutional amendment explicitly prohibiting procreation-based disqualification from public office, grounding it in Article 21's right to reproductive autonomy

India's population policy should transition from fertility reduction to "demographic quality" — investing in nutrition (POSHAN 2.0), education (NEP 2020), and healthcare to maximise the dividend from the existing demographic transition

Q7. The India-EU Free Trade Agreement signed in January 2026 — nearly 19 years after negotiations began — is being described as India's most consequential trade deal. Critically evaluate the strategic and economic implications of the agreement, including its impact on India's manufacturing competitiveness, agricultural sector, and geopolitical positioning.

[GS-2 | 20 Marks | 350 Words]

Introduction: India and the EU signed a landmark Free Trade Agreement in January 2026, concluding negotiations that began in June 2007 — the longest gestation of any major bilateral trade deal in modern history. The deal opens 97% of EU tariff lines (covering 99.5% of India's export value) and 92.1% of Indian tariff lines. Simultaneously, the EU-India Security and Defence Partnership was announced — the EU's third such pact in Asia after Japan and South Korea.

Economic Implications: The EU is India's largest trading bloc partner (~$120 billion bilateral trade). For Indian exporters, the agreement eliminates or phases down tariffs on textiles, leather goods, processed foods, and generic pharmaceuticals — sectors where India has comparative advantage. EU tariff elimination on Indian IT and business services reduces regulatory barriers for

India's $250 billion+ IT services sector. India's concessions on EU automobiles, dairy products, wines, and machinery are calibrated with phase-in periods of 7–10 years, allowing domestic industry adjustment.

Manufacturing Competitiveness: The FTA creates both opportunity and risk. Indian MSMEs — contributing 45% of exports and 27–30% of GDP — face competitive pressure from EU manufactured goods with higher quality standards and established brands. The EU's Carbon Border Adjustment Mechanism (CBAM), operational from October 2023, imposes carbon-linked tariffs on imports — Indian steel, aluminium, and cement exporters face additional costs unless India accelerates domestic carbon pricing. However, the FTA's rules-of-origin provisions can incentivise manufacturing investment in India by EU firms seeking to access the Indian market at reduced tariffs.

Agricultural Sector: India's defensive negotiations protected core sensitivities — no tariff reduction on raw milk, live cattle, or paddy rice. However, EU dairy products (cheese, butter, processed milk), wines, and spirits receive phased tariff reductions. Indian dairy cooperatives (Amul, with ~36 million milk producers) face long-term competitive pressure from subsidised EU dairy. The EU's Common Agricultural Policy (CAP) subsidies — approximately €55 billion annually — create an uneven playing field that Indian farmers cannot match.

Geopolitical Positioning: The FTA deepens India's strategic diversification away from excessive dependence on any single partner. The accompanying Security and Defence Partnership — covering maritime security, defence co-production, cyber, space, and counter-terrorism — positions India as a strategic counterweight in the EU's Indo-Pacific strategy. For India, EU defence technology access (France's Rafale, Germany's submarine technology, EU space cooperation) provides an alternative to Russian equipment (~50% of India's defence inventory) at a time when Russia's production capacity is consumed by the Ukraine conflict.

Critical Analysis: The 19-year negotiation timeline itself reflects India's structural trade policy challenge — defensive protectionism in agriculture and services liberalisation demands created persistent deadlocks. The agreement's success will depend on implementation infrastructure: trade facilitation at ports, MSME adjustment assistance, and dispute resolution mechanisms.

Way Forward:

- Establish a dedicated India-EU FTA Implementation Cell under the Commerce Ministry with MSME adjustment support including a Rs 5,000 crore transition fund for affected sectors
- Negotiate a CBAM exemption or credit mechanism recognising India's NDC commitments (45% emissions intensity reduction by 2030) and PAT scheme achievements
- Accelerate India's domestic carbon market (Carbon Credit Trading Scheme, 2023) to generate carbon credits that offset CBAM liabilities

Use the FTA as a template for accelerating pending India-UK and India-Australia FTA negotiations

Q8. India's assumption of the BRICS Chairmanship in 2026 comes at a time when the expanded BRICS+ faces internal contradictions — India-China border tensions, Iran-Saudi rivalry, and divergent views on de-dollarisation. Evaluate India's strategic objectives for its BRICS Chairmanship and examine whether the grouping can function as a coherent multilateral platform.

[GS-2 | 15 Marks | 250 Words]

Introduction: India assumed the BRICS Chairmanship on January 1, 2026, with the theme "Fostering Resilience and Innovation for Sustainable Development." The expanded BRICS+ now comprises 10 members — the original five (Brazil, Russia, India, China, South Africa) plus Egypt, Ethiopia, Iran, Saudi Arabia, and UAE (joined January 2024) — representing ~45% of global population and ~35% of GDP (PPP). The 18th BRICS Summit will be hosted by India in 2026.

India's Strategic Objectives: India's priorities include: (1) New Development Bank (NDB, Shanghai) reform — expanding project lending beyond Chinese-aligned infrastructure to Indian priorities (renewable energy, digital public infrastructure); (2) exploring BRICS Pay as a limited settlement mechanism for bilateral trade — India supports alternatives to SWIFT dominance but opposes wholesale de-dollarisation that could destabilise India's forex reserves ($686.2 billion); (3) South-South technology cooperation; (4) multilateral development bank reform at the World Bank and IMF.

Internal Contradictions: India-China relations remain adversarial despite the Galwan disengagement (2020, 20 Indian soldiers killed); their simultaneous BRICS membership requires compartmentalisation. Iran-Saudi Arabia rivalry — despite the 2023 Beijing-brokered normalisation — introduces West Asian instability into BRICS deliberations. Russia's international isolation post-Ukraine limits BRICS' ability to function as a credible G20 alternative. China's use of BRICS as a vehicle for its own geopolitical agenda (de-dollarisation, BRI promotion) conflicts with India's sovereignty-first approach.

Critical Analysis: BRICS is most useful to India as a platform for selective multilateral coordination — not as an alliance. India's strategic autonomy doctrine requires preventing any single member (China, Russia) from setting the grouping's agenda while extracting maximum institutional benefits (NDB lending, trade facilitation).

Way Forward:

Use the Chairmanship to push NDB governance reform — increase India's voting share and lending portfolio for digital infrastructure and clean energy

Propose a BRICS+ Digital Public Infrastructure initiative exporting India's UPI-Aadhaar-DigiLocker stack as a development model

Resist any joint BRICS statement on de-dollarisation; instead promote local currency bilateral settlement as a pragmatic, non-ideological alternative

Host a BRICS+ Foreign Ministers' retreat specifically on multilateral reform (UN Security Council, IMF quota revision) where India-China interests partially converge

Q9. India-Bangladesh relations entered a complex transition after the installation of Muhammad Yunus as Chief Adviser of an interim government in August 2024. Examine the structural factors shaping the bilateral relationship and evaluate India's diplomatic options in managing the transition without alienating Bangladesh or undermining its own interests.

[GS-2 | 15 Marks | 250 Words]

Introduction: The resignation of Bangladesh PM Sheikh Hasina on August 5, 2024, and the installation of Nobel laureate Muhammad Yunus (Nobel 2006, Grameen Bank) as Chief Adviser created India's most significant neighbourhood diplomacy challenge. Key flashpoints include: attacks on Hindu temples and minorities post-transition, Bangladesh's request for Hasina's extradition (she remains in India), China's rapid diplomatic engagement with the Yunus government, and the unresolved Teesta water-sharing treaty (blocked since 2011 by West Bengal's opposition).

Structural Factors: Bangladesh is India's largest trading partner in South Asia (~$14 billion bilateral trade). Connectivity milestones — the Agartala-Akhaura rail link (October 2023), India-Bangladesh Friendship Pipeline (first cross-border petroleum pipeline in South Asia), and Padma Bridge — represent decades of infrastructure investment. India's northeast states depend on Bangladesh for transit access (the "Chicken's Neck" at Siliguri is India's only land corridor). Approximately 55 million Bangladeshi workers contribute to remittances that stabilise Bangladesh's economy; any instability threatens migration pressures on India's eastern border.

China's Strategic Entry: China's engagement with the Yunus government — including accelerated BRI discussions and defence cooperation offers — challenges India's traditional primacy in Dhaka. The Teesta dispute's non-resolution created an opening that China exploited with its 2023 offer to fund Teesta river management independently — a proposal India blocked under the Hasina government but which may resurface.

Way Forward:

Delink the Hasina extradition issue from broader bilateral engagement — treat it as a legal matter while pursuing diplomatic normalisation through the Foreign Secretary channel

Urgently resolve the Teesta water-sharing agreement through a Centre-state mechanism involving West Bengal, removing China's leverage point

Maintain development assistance and connectivity projects as visible demonstrations of India's neighbourhood commitment regardless of political transitions

Engage the Yunus government on shared interests — climate adaptation (both are among the world's most climate-vulnerable nations), Rohingya repatriation, and counter-terrorism

Q10. The UGC (Promotion of Equity in Higher Educational Institutions) Regulations 2026 were notified and then stayed by the Supreme Court within 16 days. Examine the constitutional and governance dimensions of regulating caste-based discrimination in universities and evaluate the adequacy of existing institutional mechanisms.

[GS-2 | 10 Marks | 150 Words]

Introduction: The UGC notified the Equity Regulations on January 13, 2026, mandating Equal Opportunity Centres, anti-discrimination officers, and structured redressal mechanisms in all higher education institutions — widely seen as a response to the Rohith Vemula case (2016) and subsequent reports of caste-based discrimination in central universities. The Supreme Court stayed the regulations on January 29, noting vagueness on key definitions.

Constitutional Dimensions: Article 15(1) prohibits discrimination on grounds of caste; Article 15(4) permits special provisions for socially backward classes; Article 46 (DPSP) directs the state to promote educational interests of weaker sections. The UGC's authority derives from the UGC Act 1956 (Section 26), which permits regulations for maintenance of standards. However, the Court's stay suggests the regulations exceeded this mandate by venturing into substantive anti-discrimination law — a legislative domain requiring parliamentary action, not subordinate legislation.

Institutional Gaps: The National Commission for Scheduled Castes (Article 338) and the Equal Opportunity Cells mandated by the UGC since 2012 have been largely ineffective — lacking investigation powers, penalty authority, and dedicated budgets. University-level anti-discrimination committees are advisory, not adjudicatory.

Way Forward:

Parliament should enact a comprehensive Higher Education Anti-Discrimination Act with clear definitions, investigation powers, and penalty provisions — replacing piecemeal UGC regulations

Establish independent Anti-Discrimination Tribunals for universities with binding adjudicatory powers, modelled on the UK's Equality and Human Rights Commission

GS PAPER 3 — ECONOMY, ENVIRONMENT, SCIENCE & TECHNOLOGY, DEFENCE

Q11. India officially became the world's fourth-largest economy in 2025, yet its per capita GDP remains in the lower-middle-income bracket (~$2,900). Examine the structural factors that explain this paradox and evaluate the policy reforms needed to translate aggregate economic size into broad-based prosperity.

[GS-3 | 20 Marks | 350 Words]

Introduction: India surpassed Japan in 2025 with a nominal GDP of $4.18 trillion, becoming the world's fourth-largest economy. Real GDP growth of 8.2% in Q2 FY2025–26 was the highest among major economies. The Economic Survey 2025–26 (CEA V. Anantha Nageswaran, tabled January 30) projected 7.4% growth for FY26. Yet India's per capita GDP at ~$2,900 places it in the World Bank's lower-middle-income bracket ($1,136–$4,465) — approximately one-fourteenth of the US level and one-third of China's.

Structural Factors Behind the Paradox:

Population denominator: India's 1.44 billion population means that even $4.18 trillion GDP translates to modest per capita figures. China achieved $3 trillion GDP with 1.28 billion people in 2006 — per capita $2,340 — but its subsequent growth to $18 trillion with population stabilisation at 1.41 billion pushed per capita to ~$12,700.

Labour productivity gap: India's output per worker remains low. Agriculture employs ~42% of the workforce but contributes only ~15% of GVA — a structural misallocation. The manufacturing sector's contribution to GDP has stagnated at ~17% for two decades, compared to China's peak of ~32% and Vietnam's ~25%. The PLI scheme (14 sectors, ~₹2 lakh crore) aims to boost manufacturing, but results remain concentrated in electronics and pharmaceuticals.

Informal economy drag: Approximately 90% of India's ~550 million workforce operates in the informal sector with low productivity, no social protection, and limited capital investment. Only 13% of MSMEs — contributing 27–30% of GDP — have access to formal credit (credit gap: Rs 30–40 lakh crore).

Human capital deficit: NFHS-5 data reveals 57% of children under 5 are anaemic; India's Human Development Index rank (132nd, 2023) lags behind its GDP rank. Female labour force participation at ~37% — approximately half of comparable economies — represents a massive exclusion from productive activity.

Regional inequality: India's top 5 states by per capita GSDP (Goa, Sikkim, Delhi, Karnataka, Telangana) produce 3–4 times the per capita output of the bottom 5 (Bihar, UP, Jharkhand, Madhya Pradesh, Chhattisgarh). This spatial inequality is among the highest in any large economy.

Critical Analysis: The aggregate GDP milestone matters for geopolitical weight — India's G20 presidency, BRICS chairmanship, UNSC permanent seat bid, and trade negotiating leverage all benefit from economic size. But domestic governance legitimacy depends on per capita improvements — health, education, employment quality, and income distribution. China's trajectory shows that sustained 7%+ growth can close the per capita gap over two decades, but only with manufacturing-led employment generation and massive human capital investment.

Way Forward:

- Accelerate the manufacturing share of GDP to 25% by 2030 through PLI expansion, labour law simplification (operationalise all four Labour Codes), and dedicated industrial township development
- Target female LFPR increase to 50% by 2030 through universal childcare infrastructure, flexible work regulation, and MUDRA loan expansion targeted at women entrepreneurs
- Close the MSME credit gap through a dedicated MSME Development Bank (capitalisation: Rs 50,000 crore) providing collateral-free working capital at MCLR-linked rates
- Implement a National Nutrition Mission 2.0 targeting elimination of child anaemia by 2035, treating it as a human capital investment rather than a welfare programme
- Pursue "productive urbanisation" — India's urban share will rise from 35% to 50% by 2050; Smart Cities Mission 2.0 should prioritise employment clusters, affordable housing, and public transport over showcase infrastructure

Q12. The Economic Survey 2025–26 highlighted that horticulture production (362.08 MT) surpassed foodgrain output (357.73 LMT) for the first time in Indian agricultural history. Examine the structural significance of this shift

and evaluate the policy reforms needed to align India's agricultural support systems with the new production reality.

[GS-3 | 15 Marks | 250 Words]

Introduction: The Economic Survey 2025–26 (tabled January 30, CEA V. Anantha Nageswaran) flagged a structural milestone: horticulture production at 362.08 MT exceeded foodgrain output at 357.73 LMT — the first such crossover in Indian agricultural history. This reflects a dietary transition (rising protein and fruit/vegetable consumption with urbanisation and income growth) and a farming transition (horticulture's higher returns per hectare incentivising crop diversification).

Structural Significance: India's agricultural policy architecture — Minimum Support Price (MSP) for 23 crops, procurement by FCI, Public Distribution System (PDS) — is designed around foodgrains, primarily rice and wheat. The MSP-procurement system covers less than 6% of farmers but absorbs ~Rs 2 lakh crore annually. Horticulture — fruits, vegetables, spices, flowers — receives no equivalent price support despite now constituting the larger production volume. This creates a structural mismatch: the policy framework serves the smaller output while the larger output operates in volatile, unregulated markets.

Supply Chain Gaps: India loses an estimated 15–20% of horticultural produce to post-harvest losses due to inadequate cold chain infrastructure. The country has approximately 7,800 cold storage facilities with ~39 million MT capacity — mostly for potatoes (75% of cold storage). Fruits, vegetables, and flowers lack dedicated cold chain coverage. The PM Kisan Sampada Yojana (Rs 6,000 crore) and Agri-Infrastructure Fund (Rs 1 lakh crore) target this gap but progress remains slow.

Policy Misalignment: MSP politics keeps rice-wheat cultivation artificially profitable in Punjab and Haryana — states that are already water-stressed (Central Ground Water Board identifies both as over-exploited). Shifting these states toward horticulture would simultaneously improve farmer income, reduce water stress, and align production with consumption patterns.

Way Forward:

Establish a National Horticulture Price Stabilisation Fund (on the PM-AASHA model) that intervenes in markets when prices fall below production cost, reducing farmer distress without permanent procurement

Mandate cold chain infrastructure in all Krishi Mandi (APMC market) upgrades, with 50% central subsidy under PM Kisan Sampada Yojana

Introduce crop diversification incentives — direct benefit transfers of Rs 7,000/hectare/year to farmers shifting from rice/wheat to horticulture in over-exploited groundwater districts

Q13. ISRO's SpaDeX mission made India the fourth nation to achieve autonomous space docking in January 2026. Simultaneously, the PSLV-C62 failure — the second consecutive PSLV anomaly — raised quality control concerns. Examine the strategic significance of space docking technology for India's space programme and critically evaluate ISRO's institutional capacity to manage increasing mission complexity.

[GS-3 | 15 Marks | 250 Words]

Introduction: ISRO's Space Docking Experiment (SpaDeX) successfully achieved India's first autonomous space docking on January 16, 2026, when SDX01 "Chaser" and SDX02 "Target" docked at ~470 km orbit. India became the fourth nation to master this technology — after the USA, Russia, and China. However, the PSLV-C62 mission (January 12, 2026) failed due to a Stage 3 roll-rate disturbance — the second consecutive PSLV failure, breaking a record of 58 consecutive successes.

Strategic Significance of Space Docking: Autonomous docking is foundational for: (1) Chandrayaan-4 — India's planned lunar sample return mission, requiring in-orbit rendezvous and docking between orbiter and ascent modules; (2) Bharatiya Antariksh Station (BAS, targeted 2035) — modular assembly of a space station requires repeated docking operations; (3) in-space refuelling — extending satellite operational lifetimes and enabling deep-space crewed missions; (4) Gaganyaan evolution — crew transfer between modules in future configurations. The technology also enables satellite servicing — a growing commercial market.

PSLV Quality Concerns: The PSLV is India's workhorse launch vehicle with 58 consecutive successes before the anomaly. Two consecutive failures suggest systemic issues — possibly in the supply chain for Stage 3 solid propellant or integration quality control. With critical missions dependent on PSLV and LVM3 — NISAR (ISRO-NASA), Shukrayaan-1 (Venus orbiter), Gaganyaan — restored reliability is essential. ISRO's budget (~Rs 13,000 crore) is approximately 1/15th of NASA's, requiring efficient resource allocation.

Way Forward:

- Conduct an independent failure review (analogous to NASA's Mishap Investigation Board) with external experts to identify the Stage 3 roll-rate root cause
- Establish a dedicated PSLV quality assurance cell with component-level traceability for every stage assembly
- Accelerate the SSLV (Small Satellite Launch Vehicle) for smaller payloads, reducing mission load on PSLV

Fast-track private launch vehicle development (Skyroot's Vikram, AgniKul's Agnibaan) through IN-SPACe to provide launch redundancy

Q14. India's National Critical Mineral Mission (Rs 34,300 crore, 2025–2031) aims to address the country's 100% import dependence on lithium, cobalt, and nickel. Examine the geopolitical dimensions of critical mineral supply chains and evaluate India's strategy for securing these resources.

[GS-3 | 15 Marks | 250 Words]

Introduction: The National Critical Mineral Mission (NCMM), announced in 2025 with a Rs 34,300 crore corpus, targets 368 domestic exploration projects by GSI alongside overseas acquisitions through KABIL (Khanij Bidesh India Ltd). India is 100% import-dependent for lithium, cobalt, and nickel — the three minerals most critical for EV batteries, clean energy storage, and defence electronics. China dominates global processing: 60–80% of refining capacity for cobalt, lithium, and rare earths.

Geopolitical Dimensions: Critical minerals are the "new oil" — control over their supply chains determines who captures value in the clean energy transition. China's dominance extends from mining (DRC cobalt through Chinese-owned mines) to processing (Jiangxi province controls ~60% of global rare earth separation) to manufacturing (CATL and BYD dominate global battery production). The US Inflation Reduction Act (2022) explicitly links EV subsidies to supply chain diversification away from China. The EU Critical Raw Materials Act (2023) targets 10% domestic extraction and 40% domestic processing by 2030.

India's Strategy — Progress and Gaps: KABIL secured a lithium brine deal in Argentina (~Rs 200 crore). The Mines (Amendment) Act 2025 centralised control over 24 strategic minerals with the Central Government. India joined the Mineral Security Partnership (14 nations) and QUAD's Critical Minerals Working Group. The GSI identified lithium reserves at Salal-Haimana, Reasi district (J&K) — India's first confirmed domestic lithium deposit — estimated at 5.9 million tonnes. However, extraction technology for hard-rock lithium is capital-intensive and India lacks processing infrastructure.

Critical Analysis: India's strategy replicates the exploration-acquisition model but lacks the midstream processing capability that China built over two decades. Acquiring raw ore without domestic refining capacity creates a new dependency — on processing nations rather than mining nations.

Way Forward:

Establish a National Critical Mineral Processing Hub (modelled on China's Jiangxi cluster) in a resource-proximate location, with a Rs 10,000 crore investment in refining infrastructure for lithium, cobalt, and rare earths

Fast-track the Salal-Haimana lithium extraction through a joint venture between GSI and a private mining partner, targeting pilot production by 2028

Negotiate bilateral mineral security agreements with Australia (lithium, rare earths), Chile (copper, lithium), and DRC (cobalt), with offtake guarantees linked to Indian infrastructure investment

Invest in battery recycling infrastructure — India's growing EV fleet will generate significant end-of-life batteries by 2030, creating a domestic secondary supply

Q15. The White-bellied Heron (fewer than 60 individuals globally) faces habitat destruction from the proposed 1,200 MW Kalai-II Hydropower Project in Arunachal Pradesh. Examine the recurring conflict between hydropower development and biodiversity conservation in Northeast India and evaluate whether India's environmental governance framework adequately balances these competing objectives.

[GS-3 | 15 Marks | 250 Words]

Introduction: The proposed Kalai-II Hydropower Project on the Lohit River in Anjaw district, Arunachal Pradesh, would submerge critical nesting and foraging habitat of the White-bellied Heron (*Ardea insignis*) — a Critically Endangered species with fewer than 60 individuals globally, of which India holds approximately 10–15, primarily in Namdapha Tiger Reserve and Kamlang Wildlife Sanctuary. The species requires clear, braided rivers with exposed sandbars and tall riparian forest — precisely the habitat that reservoir impoundments destroy.

The Structural Conflict: Arunachal Pradesh holds ~34,000 MW of hydropower potential — the highest of any Indian state — and the Central Electricity Authority has identified over 160 potential dam sites. Northeast India's Indo-Burma biodiversity hotspot status (one of 36 global hotspots) creates an inherent tension between energy development and conservation. The Brahmaputra basin supports megafauna corridors, endemic species, and tribal communities whose livelihoods depend on intact river ecosystems.

Environmental Governance Gaps: The Environmental Impact Assessment (EIA) Notification 2006 requires project-level EIA but not cumulative impact assessment across a river basin. Multiple dams on the same river system (Siang, Lohit, Subansiri) have additive impacts on flow regimes,

sediment transport, and downstream fisheries that individual EIAs fail to capture. The National Board for Wildlife (NBWL) clearance process under the Wildlife Protection Act 1972 has been criticised for functioning as a "rubber stamp" — approving over 90% of projects referred to it.

Critical Analysis: India's environmental governance treats each project as isolated, while ecological systems are interconnected. The White-bellied Heron's fate depends not on one dam but on the cumulative impact of dozens of projects across the Brahmaputra basin.

Way Forward:

- Mandate Strategic Environmental Assessments (SEAs) at the river basin level before approving individual hydropower projects — covering cumulative impacts on flow, sediment, biodiversity corridors, and downstream communities
- Designate the Lohit River corridor (from Kibithoo to Brahmaputra confluence) as an Ecologically Sensitive Zone under the Environment Protection Act 1986, providing permanent protection for the White-bellied Heron's habitat
- Explore alternative energy for Arunachal Pradesh — solar (estimated potential: 8,000+ MW), small hydro (<25 MW, run-of-river), and pumped storage — reducing dependence on large dam construction

Q16. India's Kavach Automatic Train Protection system has been deployed on approximately 1,300 route kilometres out of a 68,000 km network. Examine the technological architecture of Kavach, the factors limiting its deployment pace, and evaluate whether India's railway safety framework is adequate for a network carrying 23+ million passengers daily.

[GS-3 | 15 Marks | 250 Words]

Introduction: Indian Railways commissioned a record 472.3 route kilometres of Kavach 4.0 on January 30, 2026, bringing cumulative deployment to over 1,300 km. The system was accelerated after the June 2, 2023, Balasore train tragedy (292 deaths, signalling failure). Kavach uses RFID-based balises, UHF radio, and onboard logic units to prevent Signal Passed At Danger (SPAD), over-speeding, and rear-end collisions, certified to SIL-4 (failure probability $<10^{-8}$ per hour).

Technological Architecture: Kavach operates through three integrated elements: (1) trackside balises (RFID transponders embedded between rails) transmitting speed and signal data; (2) onboard equipment (processing unit, display, GPS/NavIC receiver) computing safe braking curves and triggering automatic braking when a violation is detected; (3) UHF radio communication between

trains and stations for real-time position sharing. Unlike the European ETCS (which uses GSM-R radio), Kavach uses UHF — a design choice enabling lower infrastructure cost but limiting data bandwidth.

Deployment Constraints: At 1,300 km out of 68,000 km, coverage is under 2%. Scaling challenges include: (1) capital cost — estimated at Rs 40–50 lakh per route km, requiring Rs 27,000–34,000 crore for full network coverage; (2) single vendor dependency — initially only one vendor consortium (MedhaServo-HBL), though RDSO has now approved additional vendors; (3) locomotive retrofitting — India's diverse locomotive fleet (electric and diesel, multiple generations) requires customised onboard unit integration; (4) inter-operability — Kavach must interface with existing signalling systems during the transition period.

Way Forward:

Set a mandatory deployment target of 5,000 route km per year — completing critical routes (Golden Quadrilateral, dedicated freight corridors, major trunk routes) by 2030

Open Kavach manufacturing to multiple vendors through technology transfer, reducing cost through competition

Prioritise deployment on India's 10 deadliest routes (identified by the Kakodkar Committee on Railway Safety) rather than pursuing uniform national coverage

Establish an independent Railway Safety Authority (separate from Indian Railways) with statutory powers — currently, the Commissioner of Railway Safety reports to the Ministry of Civil Aviation, creating an institutional anomaly

Q17. The Pralay quasi-ballistic missile's salvo launch and the Long Range Anti-Ship Hypersonic Missile (LR-AShM) debut at Republic Day 2026 represent a qualitative shift in India's conventional deterrence posture. Examine the strategic implications of these capabilities and evaluate India's defence indigenisation trajectory.

[GS-3 | 15 Marks | 250 Words]

Introduction: DRDO conducted a salvo launch of the Pralay quasi-ballistic missile (range 150–500 km, CEP <10 metres, solid-fuel, canister-based) at Chandipur ITR in January 2026. The LR-AShM — a 2-stage solid-fuel missile with Mach 5+ speed (peak Mach 10) and approximately 1,500 km range — was publicly displayed for the first time at Republic Day 2026. These systems build on DRDO's HSTDV, which achieved India's first hypersonic flight (Mach 6+) in September 2020.

Strategic Implications: The Pralay's salvo capability — two missiles fired simultaneously — demonstrates the ability to overwhelm adversary Anti-Ballistic Missile (ABM) defences, critical for targeting hardened military installations on both the western (Pakistan) and northern (China) borders. The LR-AShM's 1,500 km range with hypersonic terminal speed significantly expands India's maritime denial capability — covering the entire Arabian Sea, Bay of Bengal, and extending to the Malacca Strait approaches. Hypersonic missiles are nearly impossible to intercept with current generation missile defence systems (Patriot, S-400) because their speed and manoeuvrability compress the interception window to seconds.

Defence Indigenisation: Both systems are indigenous DRDO products using the NavIC/IRNSS navigation constellation (7 satellites, 1,500 km coverage), reducing dependence on GPS. India's defence indigenisation has advanced significantly — BrahMos (India-Russia JV), Tejas LCA (HAL), INS Vikrant (indigenous aircraft carrier), Arjun MBT, and now Pralay/LR-AShM represent a maturing defence-industrial base. However, India remains the world's largest arms importer — critical dependencies persist in aircraft engines, submarine propulsion, and advanced EW systems.

Way Forward:

Accelerate serial production of Pralay and LR-AShM with dedicated production lines at BDL (Bharat Dynamics Limited), targeting regiment-level induction by 2028

Invest in indigenous hypersonic scramjet engine development for air-breathing variants, reducing dependence on solid-fuel-only designs

Develop integrated C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance) architecture linking satellite surveillance, maritime domain awareness, and missile launch platforms for real-time targeting

Q18. Operation Megaburu in Saranda forest — one of the highest single-encounter casualty counts in Jharkhand's anti-Naxal history — comes as the Government set a March 2026 deadline to eliminate Left-Wing Extremism from core areas. Examine the multidimensional strategy for addressing LWE and critically evaluate whether a primarily security-centric approach can achieve lasting peace.

[GS-3 | 15 Marks | 250 Words]

Introduction: Security forces launched Operation Megaburu in Saranda forest (Asia's largest sal forest), West Singhbhum, Jharkhand, neutralising 16–17 CPI(Maoist) cadres including top commander Patiram Manjhi (bounty: Rs 2.35 crore). CPI(Maoist), formed in 2004 through a merger of CPI-ML

People's War and MCCI, has seen its area of influence shrink from 106 districts across 10 states (peak ~2010) to approximately 38 districts. The Government had set a March 2026 deadline for eliminating LWE from core areas.

The Security Approach — Progress: CoBRA (Commando Battalion for Resolute Action), CRPF's specialised jungle warfare unit, along with state police forces and Greyhounds (AP/Telangana), have degraded Maoist military capacity through sustained area domination, surrender incentives, and intelligence penetration. The security approach has undeniably reduced violence — LWE-related deaths fell from 1,005 (2010) to approximately 120 (2025).

Limitations of Security-Centric Strategy: Saranda forest sits in India's "mineral belt" — rich in iron ore, bauxite, and manganese. Tribal communities (Ho, Munda, Santhal) have legitimate grievances: displacement by mining companies without adequate rehabilitation, PESA (Panchayats Extension to Scheduled Areas) Act 1996 non-implementation, Forest Rights Act 2006 claims pending for years, and exploitation by forest contractors. Maoism draws cadre from these grievances — killing cadres without addressing root causes creates a recruitment pipeline for the next generation.

Critical Analysis: The Andhra Pradesh model — which effectively eliminated LWE through a combination of security operations (Greyhounds), surrender/rehabilitation packages, and aggressive development (road connectivity, schools, healthcare) — demonstrates that security alone is necessary but not sufficient.

Way Forward:

- Implement PESA in letter and spirit — ensure Gram Sabhas in Fifth Schedule areas have effective veto power over mining and displacement decisions
- Fast-track Forest Rights Act individual and community forest rights claims in the 38 remaining LWE-affected districts, with a 12-month completion target
- Establish a Saranda Development Authority with Rs 5,000 crore dedicated budget for road connectivity, healthcare, education, and livelihood diversification in the core conflict zone
- Design a "last-mile governance" initiative deploying district-level officers with decision-making authority (not just postings) in remote tribal areas

GS PAPER 4 — ETHICS, INTEGRITY & APTITUDE

Q19. The Supreme Court's revisiting of the passive euthanasia framework (January 2026, *Harish Rana* petition) raises fundamental ethical questions about the boundary between the state's duty to protect life and the

individual's right to determine the manner of death. Examine the ethical dimensions of simplifying advance directive procedures in India.

[GS-4 | 15 Marks | 250 Words]

Introduction: The Supreme Court's 2018 judgment in *Common Cause v. Union of India* (5-judge bench, CJ Dipak Misra) legalised passive euthanasia and advance directives under Article 21's right to die with dignity. The *Harish Rana* petition (January 2026) seeks simplification — removing the requirement for High Court approval and streamlining medical certification — because the 2018 procedural complexity rendered the right practically unexercisable.

Ethical Framework Analysis:

Autonomy vs. Paternalism: The core ethical tension is between individual autonomy (the right to make end-of-life decisions based on one's own values and beliefs) and state paternalism (the duty to prevent irreversible harm, especially when decision-making capacity may be compromised). Kant's principle of autonomy supports the individual's right to self-determination; Bentham's utilitarian calculus asks whether the suffering prevented by death outweighs the value of continued life — a calculation only the individual can make.

The "Slippery Slope" Concern: Critics argue that simplifying procedures risks normalising euthanasia, moving from voluntary passive euthanasia to involuntary decisions by family members or institutions — particularly for elderly, disabled, or economically marginalised persons who may feel pressured to "choose" death to reduce family burden. This concern is heightened in India where elder care infrastructure is minimal and family dynamics involve significant power asymmetries.

Virtue Ethics (Aristotelian): A compassionate society enables dignified death without either prolonging suffering through bureaucratic obstruction or facilitating premature death through inadequate safeguards. The 2018 framework errs toward the former; complete deregulation risks the latter.

The Indian Context: India has no comprehensive palliative care legislation. Only Kerala has a state-level palliative care policy. Opioid availability (morphine for pain management) is severely restricted by the NDPS Act — India consumes less than 1% of the world's medical morphine despite having ~1 million terminal cancer patients annually.

Way Forward:

Simplify the advance directive process by replacing High Court approval with a District Magistrate certification, reducing procedural burden while maintaining state oversight

Enact a National Palliative Care Act ensuring access to pain management, hospice care, and psychological support as a prerequisite to any euthanasia framework

Amend the NDPS Act to liberalise medical morphine access for terminal patients — ensuring that passive euthanasia remains a genuine last resort, not a consequence of inadequate pain management

Q20. India's gig economy has grown to 12 million workers (FY25) who remain almost entirely outside formal social protection. As a policymaker tasked with designing a social security framework for gig workers, examine the ethical obligations of the state, platforms, and consumers, and recommend a framework that balances worker protection with economic flexibility.

[GS-4 | 15 Marks | 250 Words]

Introduction: India's gig workforce — projected to reach 23.5 million by 2030 — operates without access to ESIC health insurance, EPFO pension, paid leave, or job security. The Code on Social Security 2020 brings gig workers within the ambit of social security for the first time, but implementing rules have not been notified. The ESIC-EPFO SPREE campaign enrolled 1.03 crore workers by January 2026, but almost entirely from the formal sector.

Ethical Obligations:

State obligation (Justice as fairness — Rawls): The state has a duty to ensure that economic structures do not create a permanently precarious class. Rawls' "veil of ignorance" test: no rational person would design an economy where 12 million workers have zero safety net if they did not know whether they would be a platform owner or a delivery rider. The state must regulate to prevent structural exploitation.

Platform obligation (Corporate social responsibility — stakeholder theory): Platforms (Zomato, Swiggy, Ola, Urban Company) classify workers as "partners" rather than employees to avoid statutory obligations. This classification arbitrage generates shareholder value by externalising worker welfare costs to individuals and the state. The ethical obligation is to internalise these costs — platforms benefit directly from worker labour and should contribute to their protection.

Consumer obligation: Consumers who demand instant, low-cost delivery are indirect beneficiaries of the precarity model. Ethical consumption requires willingness to pay a margin that funds worker protection — analogous to fair trade certification.

Critical Analysis: The Rajasthan Platform Workers Act 2023 — India's first state-level legislation covering gig workers — mandates a welfare fund funded by platform fees (1–2% of transaction value). This model balances flexibility (no employer-employee classification required) with protection (funded through platform revenue).

Way Forward:

Notify the Code on Social Security 2020 implementing rules immediately, establishing a Social Security Fund for gig workers funded by platform contributions (1–2% of transaction value)

Mandate minimum accident and health insurance coverage for all platform-registered workers, with platforms as co-payers alongside the Social Security Fund

Establish a Gig Workers' Welfare Board (on the Building and Construction Workers' model) with tripartite representation — government, platforms, and elected worker representatives

Q21. Group Captain Shubhanshu Shukla's selection for the Axiom Mission 4 — making him India's first astronaut to the International Space Station — raises questions about the ethical responsibilities of spacefaring nations. Examine the ethical dimensions of human spaceflight programmes in developing countries where basic healthcare and education remain inadequately funded.

[GS-4 | 10 Marks | 150 Words]

Introduction: India's Gaganyaan programme (estimated Rs 10,000 crore) and Group Captain Shubhanshu Shukla's ISS mission (Axiom-4, 2025–26) position India as a spacefaring nation. Simultaneously, India's public health expenditure is ~2.1% of GDP (National Health Policy target: 2.5% by 2025), and NIMHANS estimates 10% of Indians needing mental healthcare access only 1%.

The Ethical Tension: The utilitarian objection is straightforward: the same Rs 10,000 crore invested in primary healthcare or rural education would produce greater aggregate welfare than a human spaceflight programme. However, this calculation ignores: (1) the technology spillover from space programmes (weather forecasting, disaster management, communication satellites) that directly benefits the poor; (2) the strategic deterrence value of demonstrated technological capability; (3) ISRO's cost-efficiency — Chandrayaan-1 cost $79 million versus NASA's LADEE at $280 million — demonstrating that India's space programme is not a luxury programme.

The Capability Approach (Sen): The ethical question is not either/or but about proportionality. A society that expands human capability frontiers (space) while neglecting basic capabilities (nutrition, healthcare) has disordered priorities. India's space budget (~Rs 13,000 crore) is 0.04% of GDP — modest by any standard. The ethical imperative is to ensure that the base (health, education) grows proportionately faster than the frontier (space).

Q22. You are the District Magistrate of a district where a community radio station (like Radio Sangam at the LoC in Rajouri) has begun broadcasting content that local political leaders allege is "anti-national" because it discusses land acquisition grievances of border communities. The Army supports the station; local politicians demand its closure. Identify the ethical dilemma, the stakeholders involved, and the course of action you would take.

[GS-4 | 20 Marks | 350 Words]

Introduction: This case study involves the intersection of national security, freedom of expression (Article 19(1)(a)), community empowerment in a sensitive border area, and political pressure on an administrative official. Radio Sangam (88.8 FM, Rajouri) was launched by the Indian Army to bridge the information gap between security forces and border communities — a counter-radicalisation and development communication initiative.

Identifying the Ethical Dilemma: The dilemma has three poles: (1) Shut down the station — satisfying local politicians, potentially silencing legitimate community voices, undermining Army-community trust, and violating freedom of expression principles; (2) Allow unrestricted broadcasting — risking genuinely sensitive security content in a LoC area with active cross-border terrorism threats; (3) Regulate content proportionately — maintaining the station's community function while ensuring legitimate security concerns are addressed.

Stakeholder Analysis:

Border communities: Their land acquisition grievances are constitutionally protected expression. Suppressing discussion of development-related displacement in a conflict zone increases alienation — precisely the outcome that both the Army and civil administration seek to prevent. The Right to Fair Compensation and Transparency in Land Acquisition Act, 2013, guarantees consultation rights that radio discussion supports.

Indian Army: The Army launched and supports the station as a hearts-and-minds initiative. Shutting it down at politicians' behest would undermine civil-military cooperation and signal that political pressure overrides operational judgment.

Local political leaders: Their objection may be genuine (security concern) or instrumental (suppressing dissent that embarrasses their governance record). The District Magistrate must evaluate the motive without assuming bad faith.

Community Radio regulatory framework: Under the Community Radio Policy 2006, stations operate at 50–100W with MIB licensing. News broadcasting is prohibited, but discussion of community issues (including land and development) is permitted. The content described — land acquisition grievances — falls within the policy's permissible scope.

Proposed Course of Action:

Step 1 — Review content independently: Obtain recordings of the broadcasts in question. Evaluate whether any content violates the Community Radio Policy's prohibitions (news broadcasting, incitement, national security information) or is constitutionally protected discussion of community grievances.

Step 2 — Convene a stakeholder meeting: Bring together the Army station commander, community representatives, and local political leaders. Transparent dialogue reduces adversarial escalation.

Step 3 — Apply the proportionality principle: If the content is within policy guidelines, refuse the closure demand on legal and ethical grounds — document the refusal in writing with reasons. If specific segments raise genuine security concerns (disclosure of troop positions, border infrastructure details), work with the Army and station to establish content review guidelines — not prior censorship, but a voluntary protocol.

Step 4 — Report upward: Inform the Divisional Commissioner and the Home Secretary of the situation, ensuring institutional backing for the decision.

Ethical Principle: The District Magistrate's oath requires fidelity to the Constitution, not to political convenience. Article 19(1)(a) protects community expression; reasonable restrictions (Article 19(2)) must be proportionate and narrowly tailored. Shutting down a community radio station because it discusses land grievances fails both the proportionality test and the constitutional duty of care. The ethical administrator protects the weakest voice — the border community — against the strongest pressure — political authority.

Q23. The 35-year unbroken India-Pakistan exchange of nuclear installation lists — maintained through Kargil, Parliament attack, Mumbai attacks, and Pulwama-Balakot — demonstrates that even adversaries can sustain cooperation on existential risks. Examine the ethical foundations of nuclear confidence-building measures between hostile states and analyse whether India's No First Use doctrine is ethically superior to Pakistan's first-use posture.

[GS-4 | 15 Marks | 250 Words]

Introduction: India and Pakistan completed their 35th consecutive exchange of nuclear installation lists on January 1, 2026, under the 1988 Agreement on Prohibition of Attack against Nuclear Installations (signed December 31, 1988; effective January 27, 1991). This is the longest continuously

observed bilateral agreement between the two countries, maintained through every major crisis — Kargil (1999), Parliament attack (2001), Mumbai attacks (2008), Pulwama-Balakot (2019).

Ethical Foundations of Nuclear CBMs:

Consequentialist reasoning: Nuclear war between India and Pakistan would kill an estimated 100–150 million people within weeks (ICAN/IPPNW study, 2019) and trigger a nuclear winter affecting global agriculture. Any measure that marginally reduces the probability of nuclear conflict — even a symbolic list exchange — has infinite expected utility because the harm prevented is existential.

Kantian duty-based ethics: States have a moral duty to prevent catastrophic harm to civilian populations. Nuclear weapons — by their nature — cannot distinguish between combatants and civilians, making their use inherently violative of the Kantian prohibition on using persons as means to an end. CBMs that reduce the risk of accidental or miscalculated nuclear use fulfil this duty.

NFU vs. First Use — Ethical Comparison: India's No First Use (NFU) doctrine (announced January 2003) commits to never initiating nuclear conflict — nuclear weapons serve only as a retaliatory deterrent. Pakistan explicitly maintains a first-use option, including tactical nuclear weapons (Nasr/Hatf-IX, 60 km range) designed for battlefield use against Indian conventional superiority.

Ethically, NFU is superior on three grounds: (1) it minimises the probability of nuclear initiation; (2) it preserves the decision space for diplomacy and de-escalation during a conventional conflict; (3) it treats nuclear weapons as last-resort instruments of state survival, not tactical battlefield tools. Pakistan's tactical nuclear posture lowers the nuclear threshold, increasing the probability of escalation from a conventional clash to nuclear exchange.

Way Forward:

- India should advocate for bilateral adoption of NFU through a formal bilateral treaty, proposing it during the next diplomatic engagement
- Both countries should expand CBMs beyond installation lists to include advance notification of missile tests and real-time communication hotlines between Nuclear Command Authorities
- India should propose a South Asian Nuclear Risk Reduction Centre (on the US-Russia model) with permanent bilateral staffing

GS ESSAY PRACTICE

Q24. "A nation that rewards demographic irresponsibility in political representation and punishes demographic discipline in fiscal transfers has

designed a system that devours its own success." Critically examine with reference to India's delimitation and fiscal federalism challenges.

[Essay | 1000–1200 Words]

Essay Outline and Key Arguments:

Introduction — The Delimitation Paradox: India's Constitution mandates periodic delimitation (Article 82) — the reallocation of Lok Sabha seats based on population. The 84th Amendment (2001) froze seat allocation at 1971 Census levels until "after the first Census after 2026." When delimitation proceeds — likely after Census 2031 — states that achieved demographic stabilisation (Kerala, Tamil Nadu, Karnataka, Andhra Pradesh) will lose relative representation, while states with continued high fertility (Bihar, UP, Rajasthan, MP) will gain seats. The system structurally rewards demographic irresponsibility.

The Fiscal Dimension: The 15th Finance Commission (chaired by NK Singh) shifted from the 1971 Census to the 2011 Census for determining tax devolution weights — a decision that triggered fierce protests from southern Chief Ministers. Tamil Nadu, Karnataka, and Kerala contribute disproportionately to central tax revenue but receive declining devolution shares as their population growth slows relative to northern states. The "double punishment" thesis: southern states invested in female education, healthcare, and family planning — achieving below-replacement TFR — only to face both reduced parliamentary representation and reduced fiscal transfers. The system creates a perverse incentive: states that "did the right thing" are systematically disadvantaged.

The Social Contract Problem: Democratic theory assumes that political representation reflects the consent of the governed. But when the representative structure is redrawn to benefit states that failed to invest in development indicators, the social contract between southern citizens and the Indian Union is strained. Karnataka's taxpayers funding Bihar's development is fiscally defensible (equity-based redistribution); Karnataka losing parliamentary seats because Bihar has more children is democratically problematic.

The Development Argument: Population growth in northern states is not a policy choice but a consequence of structural underdevelopment — lower female literacy (Bihar: 53% vs. Kerala: 97%), inadequate healthcare access, weaker family planning infrastructure. Punishing these states by freezing their representation indefinitely would violate the democratic principle of "one person, one vote." The northern states' case is equally compelling: their citizens deserve proportional representation regardless of historical development failures.

International Comparisons: The EU's European Parliament uses "degressive proportionality" — smaller states receive more seats per capita than larger states, ensuring that no member state is marginalised. Germany's Bundesrat gives each Land a minimum of 3 votes regardless of population,

with the largest states capped at 6. The US Senate gives equal representation to Wyoming (580,000) and California (39 million). India lacks any such structural safeguard for demographic achievers.

The Fiscal Federalism Fix: If political representation must follow population (as democracy demands), then fiscal transfers should compensate for the resulting inequity. A "demographic dividend transfer" — a dedicated fund rewarding states that achieved below-replacement TFR with enhanced central grants for infrastructure, healthcare, and education — would create a dual incentive: northern states are incentivised to reduce fertility (to earn the transfer), while southern states are compensated for their relative representation loss.

The Deeper Question: India's federal structure assumes that the Union serves all citizens equally. But when the rules of representation and redistribution systematically favour one set of states over another based on outcomes that reflect governance quality, the Union's legitimacy depends on perceived fairness. Southern India's secessionist movements are dormant — but the delimitation question, combined with fiscal penalisation, could reactivate identity-based federalism demands that India's polity has successfully managed for decades.

Conclusion: The essay prompt is provocative but structurally accurate. India must design a system that neither freezes democratic representation indefinitely (violating majoritarian democracy) nor punishes demographic discipline (violating meritocratic federalism). The solution lies in a weighted representation model — population-based seats combined with governance-weighted seats — alongside fiscal compensation mechanisms that make demographic achievement economically rewarding, not politically costly.

Key concepts to develop: Article 82, 84th Amendment, 15th Finance Commission controversy, "cooperative federalism" vs. "competitive federalism," degressive proportionality (EU model), fiscal devolution criteria, inter-state migration and demographic convergence timelines.

Q25. "Technology does not merely augment state capacity — it fundamentally alters the relationship between citizen and state." Examine with reference to India's Digital Public Infrastructure — Aadhaar, UPI, DigiLocker — and the emerging AI governance challenge.

[Essay | 1000–1200 Words]

Essay Outline and Key Arguments:

Introduction — The DPI Revolution: India's Digital Public Infrastructure (DPI) stack — Aadhaar (1.4 billion enrolments), UPI (15+ billion monthly transactions), DigiLocker, ONDC, and the Account Aggregator framework — is the most ambitious state-led digital transformation in the developing world. The IndiaAI Mission (Rs 10,372 crore) and IAIRO (India's first state-level AI research institution, launched at GIFT City, January 2026) signal the next phase: AI-augmented governance. But the essay prompt's thesis goes beyond augmentation — technology does not just make the state more efficient; it restructures the citizen-state power relationship.

The Augmentation Thesis — What DPI Has Achieved: JAM Trinity (Jan Dhan-Aadhaar-Mobile) enabled direct benefit transfers worth ~Rs 28 lakh crore since 2014, eliminating approximately 10 crore ghost beneficiaries and reducing leakage. UPI democratised digital payments — a street vendor in Varanasi processes QR payments at zero transaction cost. PM SVANidhi provided micro-credit to 78 lakh street vendors through Aadhaar-linked disbursement. DigiLocker reduced the paper-document burden on citizens interacting with government agencies. These are genuine augmentations of state capacity that improved service delivery.

The Transformation Thesis — How the Relationship Changes: But DPI also fundamentally alters the power dynamic. Aadhaar creates a universal biometric identity that the state can use to condition access to services — a citizen who cannot authenticate (biometric failure, network outage, incorrect seeding) is effectively rendered invisible to the welfare system. The *Puttaswamy* judgment (2017) affirmed privacy as a fundamental right under Article 21 and upheld Aadhaar with conditions — but the Digital Personal Data Protection Act 2023 (DPDP Act) exempts the state from most data processing restrictions, creating an asymmetry where citizens' data is maximally visible to the state while state actions remain opaque.

The Surveillance Dimension: CCTNS (Crime and Criminal Tracking Network and Systems), FRT (Facial Recognition Technology) deployed by state police forces, and DigiYatra (airport biometric processing) create surveillance infrastructure that, once built, is available for purposes beyond its original mandate. The transition from "state serves citizen" to "state surveils citizen" is not automatic — but the technological infrastructure makes it frictionless. India has no comprehensive data protection authority (the DPDP Act's Data Protection Board is not yet functional); no FRT regulation; no CCTV deployment standards.

AI and the Next Frontier: The IndiaAI Mission's 10,000+ GPU compute cloud and National AI Datasets Platform will enable AI-driven governance — automated welfare targeting, predictive policing, algorithmic credit scoring for MUDRA loans. Each application has efficiency benefits and fairness risks. AI-driven welfare targeting can improve inclusion (identifying uncovered beneficiaries through data analysis) or deepen exclusion (algorithmic errors that remove genuine beneficiaries). Predictive policing can prevent crime or institutionalise caste/community profiling.

The Democratic Safeguard Problem: India's democratic institutions — Parliament, courts, CAG, CIC — were designed for an analogue governance architecture. Parliamentary committees lack technical capacity to scrutinise algorithmic decision-making. RTI applications cannot expose

algorithmic logic. The CAG can audit financial transactions but not data processing. The constitutional framework assumes human decision-makers who can be held accountable — AI governance introduces non-human decision systems that are opaque even to their operators.

International Comparison: The EU's AI Act (2024) categorises AI systems by risk level and bans unacceptable uses (social scoring, real-time biometric surveillance in public spaces). India has no equivalent framework. China's approach — maximum state AI deployment with minimal citizen rights — represents the authoritarian pole. India's democratic identity requires a middle path: AI-augmented governance with democratic oversight, algorithmic transparency, and enforceable citizen rights.

Conclusion: Technology is never neutral — it embeds the values of its designers and deployers. India's DPI has been designed with inclusion as a stated objective — and has delivered genuine gains. But the same infrastructure enables surveillance, exclusion, and algorithmic injustice if democratic safeguards do not evolve as fast as technological capability. The citizen-state relationship is being restructured in real time; the question is whether India's democratic institutions will restructure themselves to govern this new reality, or whether technology will outpace accountability.

Key concepts: Aadhaar-Puttaswamy nexus; DPI as public good vs. surveillance tool; DPDP Act state exemption; AI Act (EU) as comparative model; algorithmic accountability; the "right to explanation" for AI-driven decisions; CAG's digital audit capacity; NCPCR's role in children's digital safety.

Q26. India signed its first-ever Security and Defence Partnership with the European Union in January 2026. As a member of India's National Security Advisory Board, draft a policy note examining the strategic opportunities and risks of this partnership, and recommend guardrails to ensure it does not compromise India's strategic autonomy.

[Essay / Case Study | 20 Marks | 350 Words]

Policy Note: India-EU Security and Defence Partnership — Strategic Assessment

Background: India and the EU signed a Security and Defence Partnership on January 27, 2026 — the EU's third such bilateral pact in Asia (after Japan and South Korea). The five pillars cover: maritime security (Indian Ocean coordination), defence industry cooperation (joint R&D and co-production), cyber security, space situational awareness, and counter-terrorism. This marks a qualitative shift from the India-EU Strategic Partnership (2004) toward concrete defence-industrial linkages.

Strategic Opportunities:

Defence supply diversification: India currently depends on Russia for ~50% of military equipment. Russia's production capacity is consumed by the Ukraine conflict (2022–present), with spare parts delays affecting Indian Su-30MKI, T-90 tanks, and S-400 systems. EU partners — France (Rafale, Scorpene submarines), Germany (submarine technology, logistics vehicles), Sweden (artillery, Gripen potential), Italy (naval guns, helicopters) — provide alternative suppliers.

Technology access: The partnership opens pathways for: co-development of sixth-generation combat aircraft technology (France's SCAF programme), submarine propulsion (France/Germany), space situational awareness (EU Space Surveillance and Tracking), and cyber defence frameworks. The EU's technology export controls are more permissive than the US ITAR regime for several categories.

Maritime security convergence: The EU's Coordinated Maritime Presences (CMP) initiative in the northwest Indian Ocean aligns with India's SAGAR doctrine and IPOI framework. Information-sharing protocols between the Indian Navy's Information Fusion Centre (IFC-IOR, Gurugram) and EU naval operations enhance maritime domain awareness.

Strategic Risks:

Conditional engagement: EU partnerships frequently embed conditionalities — human rights reporting, climate commitments, trade concessions — that can constrain India's policy flexibility. The EU's CBAM (Carbon Border Adjustment Mechanism) already imposes trade costs on Indian exporters.

Russia sensitivity: Deepening EU defence ties may complicate India-Russia relations at a time when Russia remains India's primary defence supplier and a critical partner in UNSC diplomacy and energy security.

Institutional complexity: The EU's 27-member decision-making structure creates implementation delays and policy inconsistencies — bilateral deals with individual EU members (France, Germany) may be more operationally efficient than bloc-level agreements.

Recommended Guardrails:

> Maintain Russia as a concurrent defence partner — do not present the EU partnership as a replacement. India's strategic autonomy requires multiple supply lines, not substitution.
>
> Reject any conditionality linkage between defence cooperation and trade concessions (CBAM, agricultural market access, data localisation). Defence and trade are separate policy domains.
>
> Prioritise technology transfer and co-production over off-the-shelf procurement — the partnership's value is in building India's defence-industrial base, not creating a new import dependency.
>
> Establish a dedicated India-EU Defence Technology Council (at Secretary-level) to fast-track joint R&D projects, with annual deliverables and parliamentary reporting.

Use the partnership to strengthen India's position in multilateral defence technology forums — the Wassenaar Arrangement, MTCR, and Australia Group — where EU support can advance India's full membership.

Conclusion: The India-EU Security and Defence Partnership is strategically valuable as a diversification instrument — not as an alignment signal. India's National Security Advisory Board should recommend that the partnership be operationalised through concrete project timelines, technology transfer commitments, and co-production agreements, while maintaining India's multi-vector defence partnerships with Russia, Israel, France (bilaterally), and the US. Strategic autonomy is preserved not by avoiding partnerships but by ensuring no single partner holds a veto over India's security needs.

Q27. "The value of a nuclear confidence-building measure is not that it prevents war — but that it preserves the habit of communication when everything else has broken down." Elaborate with reference to the India-Pakistan nuclear CBM regime.

[Essay | 1000–1200 Words]

Essay Outline and Key Arguments:

Introduction — The Paradox of Nuclear Communication: On January 1, 2026, India and Pakistan completed their 35th consecutive exchange of nuclear installation lists — a ritual performed annually since 1991 under the 1988 Agreement on Prohibition of Attack against Nuclear Installations. This exchange has survived every bilateral crisis: Kargil (1999), the Parliament attack (2001), the Mumbai attacks (2008), and Pulwama-Balakot (2019). The essay prompt captures the essential insight: the value of CBMs is not strategic deterrence (which rests on weapons capability) but institutional preservation — maintaining a communication channel when all other channels have been severed.

What Nuclear CBMs Actually Do: The India-Pakistan nuclear CBM regime comprises three elements: (1) the 1988 nuclear installation agreement (annual list exchange); (2) the 2005 Agreement on Pre-Notification of Ballistic Missile Tests (8 days advance notice); (3) the Director General Military Operations (DGMO) hotline. None of these prevents nuclear war — they do not limit arsenals, restrict deployment, or constrain doctrine. SIPRI 2025 estimates both countries at ~160–170 warheads each, with arsenals growing.

What they do is different: they maintain institutional contact between adversaries. During Pulwama-Balakot (February 2019), when India conducted airstrikes inside Pakistan for the first time since 1971 and Pakistan retaliated over the LoC, the DGMO hotline was the only operational communication channel. Diplomatic relations were effectively frozen; high commissions were recalled to capitals; trade was suspended. But the hotline — maintained by military protocol, not political goodwill — allowed de-escalation communication.

The Communication Theory of Peace: International relations theory distinguishes between "structural peace" (deterrence through capability) and "communicative peace" (reducing the probability of miscalculation through maintained dialogue). The Cuban Missile Crisis (1962) demonstrated that nuclear war between the US and USSR was nearly triggered not by aggressive intent but by miscalculation and communication failure — leading directly to the Moscow-Washington hotline (1963). The India-Pakistan context is analogous: two nuclear-armed states sharing a disputed border, with multiple crisis triggers (Kashmir, terrorism, water disputes), where the risk of accidental escalation exceeds the risk of deliberate first strike.

Why the 35-Year Streak Matters: The unbroken annual exchange creates institutional memory and procedural routine. Military officers on both sides who have processed the exchange for decades carry personal relationships and operational familiarity that no political directive can substitute. This "habituation of communication" — the essay prompt's core insight — is a form of social capital between adversaries. Its value is revealed precisely when it is most needed: during a crisis, the existence of any routine communication channel reduces the probability of catastrophic miscalculation.

The Limitations: CBMs are necessary but not sufficient. India-Pakistan nuclear CBMs have not prevented: the Kargil War (1999, fought under nuclear overhang), multiple terror attacks originating from Pakistani soil, the development of Pakistan's tactical nuclear weapons (Nasr/Hatf-IX, lowering the nuclear threshold), or the continued growth of both arsenals. The CBM regime is a floor, not a ceiling — it prevents the worst outcome (nuclear exchange through miscommunication) but does not produce positive peace.

India's Ethical Responsibility: India's No First Use (NFU) doctrine and its commitment to CBMs reflect an ethical position: that nuclear weapons exist solely as instruments of existential deterrence, that their use must be a last resort, and that communication with adversaries is a moral obligation, not a diplomatic concession. This is ethically superior to Pakistan's first-use posture — which treats nuclear weapons as battlefield instruments and raises the escalation risk that CBMs are designed to manage.

Conclusion: The India-Pakistan nuclear CBM regime is one of international relations' quiet successes — unremarkable in peacetime, invaluable in crisis. The essay prompt's insight applies universally: the purpose of communication between adversaries is not agreement — it is the preservation of the capacity to disagree without annihilation. India's 35-year commitment to this regime, maintained through extraordinary provocations, reflects both strategic wisdom and ethical maturity.

Key concepts: Crisis stability theory; hotline diplomacy; institutional memory in adversarial relationships; deterrence vs. reassurance; the "stability-instability paradox" (nuclear stability enabling conventional instability); Schelling's "focal points" for adversary coordination; India's NFU as ethical doctrine.

Q28. India's renewable energy capacity crossed 210 GW in January 2026, with a target of 500 GW by 2030. Yet India recorded its first coal generation decline in 50 years. As an energy policy analyst, examine whether India can achieve a just energy transition that balances climate commitments, energy security, employment in coal-dependent regions, and affordable electricity for 1.4 billion people.

[Essay / Case Study | 20 Marks | 350 Words]

Introduction: India's installed renewable energy capacity crossed 210 GW in January 2026 — Solar ~100 GW, Wind ~48 GW, Large Hydro ~47 GW — placing India fourth globally. The power sector recorded its first coal generation decline in 50 years (–3%) while renewable generation grew 22%. Distribution companies (DISCOMs) posted their first-ever collective profit (Rs 2,701 crore). The National Green Hydrogen Mission (January 2023, Rs 19,744 crore) targets 5 MMTPA green hydrogen by 2030 with 125 GW dedicated renewable capacity.

The Energy Transition Challenge:

Scale: India must add approximately 290 GW of renewable capacity in 4 years to meet the 500 GW 2030 NDC commitment — requiring annual additions of ~72 GW, against the current annual pace of ~25–30 GW. Solar auction prices (~Rs 2.5/kWh) are lower than new coal (~Rs 5–6/kWh), making renewables economically competitive. But grid integration of variable renewable energy requires battery storage infrastructure (India's current utility-scale battery storage: <1 GW; required by 2030: ~40 GW at current projections).

Energy security: India's power demand is growing at 6–7% annually. Coal (thermal) still provides ~70% of actual electricity generation (despite ~55% of installed capacity being non-coal) due to higher capacity factors. Premature coal retirement without adequate storage and firm baseload replacement risks blackouts — politically and socially catastrophic for a country where ~5% of households still lack reliable electricity access.

Employment: India's coal sector directly employs ~500,000 workers (Coal India: ~230,000) and indirectly supports approximately 4 million livelihoods in mining districts — primarily in Jharkhand, Chhattisgarh, Odisha, and West Bengal. These are mono-industry regions where alternative

employment is scarce. A “just transition” requires pre-planned economic diversification before mine closures, not after.

Critical Analysis: India’s just transition challenge is structurally different from Europe’s or America’s: (1) India is still energy-deficit — transition cannot mean reduction in total supply; (2) India’s coal workforce is concentrated in economically underdeveloped tribal districts; (3) India’s per capita emissions (~2.5 tonnes CO_2) are one-seventh of the US (~15 tonnes) — the equity argument for continued coal use is legitimate internationally even as domestic transition accelerates.

Policy Recommendations:

Establish a National Just Transition Commission (statutory) to plan economic diversification for coal-dependent districts — beginning with Jharkhand’s Dhanbad-Bokaro-Ramgarh cluster and Chhattisgarh’s Korba — before any mine closure announcements.

Target 40 GW utility-scale battery storage by 2030 through a dedicated Battery Storage PLI (current PLI for Advanced Chemistry Cells: Rs 18,100 crore) — storage is the binding constraint on renewable integration.

Repurpose existing coal plant sites for battery storage and green hydrogen production — leveraging existing grid connectivity, land, and skilled workforce, converting fossil infrastructure to clean energy infrastructure.

Accelerate rooftop solar through the PM Surya Ghar Muft Bijli Yojana (1 crore homes target) — distributed generation reduces grid stress and provides energy security at the household level.

Negotiate at COP31 for a “just transition finance facility” that channels developed-country climate finance specifically to coal-dependent communities in developing nations — India’s coal workforce should not bear the cost of a climate crisis they did not create.

CURATED & WRITTEN BY

Bharat Choudhary

UPSC Educator & Content Creator

linkedin.com/in/epicbharat

📖

https://ujiyari.com/monthly/2026/january/mains/