ForumIAS

F

Mains Marathon

November, 2025

HISTORY
ECONOMICS
POLITY
SCIENCE AND TECHNOLOGY
GEOGRAPHY AND ENVIRONMENT

INDEX

Created with love ❤ by ForumIAS- the knowledge network for civil services.

Visit academy.forumias.com for our mentor based courses.

ForumIAS

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

ForumIAS

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

Examine the principle that consent is fundamental in addressing sexual violence. Justify the necessity of complete intolerance of such crimes and holistic support for survivors.

Introduction

According **to WHO, 1 in 3 women worldwide experience sexual violence**, yet conviction rates remain low **(India's NCRB: 27–28%).** Centring **consent** in law and society is essential to ensure sexual autonomy and justice.

Consent as the Cornerstone in Addressing Sexual Violence

1. **Consent affirms bodily autonomy and agency**: Sexual violence is fundamentally a violation of autonomy, not sexuality. France's new law (2025) defines rape as **any sexual act without consent**, shifting focus from "force used" to **absence of voluntary agreement**.
2. **Moving beyond patriarchal conditioning**: Historically, laws conflated rape with **"modesty loss"** rather than **violation of dignity**. The **Criminal Law (Amendment) Act, 2013** in India introduced the **definition of consent (Sec. 375 IPC)** as **"unequivocal and voluntary agreement."**
3. **International normative framework:** UN Women promotes "**Consent-based legal standards**," aligned with **CEDAW**, ensuring that the survivor's testimony is central to prosecution. In Sweden, after consent-based legislation in 2018, convictions for rape increased by **75% (Swedish National Council for Crime Prevention).**

Why Complete Intolerance of Sexual Violence Is Necessary

1. **Low conviction discourages reporting**: As per **NCRB (2022),** conviction rate for rape remains just **28%**, despite legal reform. Social stigma, victim blaming, and hostile police procedures deter survivors.
2. **Sexual violence is a barrier to gender equality**: According to **Economic Survey (2023),** women's workforce participation rises where safety levels are high. Intolerance of sexual crime is thus vital for **SDG 5 – Gender Equality**.
3. **Deterrence requires societal zero tolerance**: Studies in criminology show deterrence works more by **certainty of punishment** than severity. Community awareness and swift response systems build deterrence.

Need for Holistic Survivor Support

1. Medical–Legal Support: Mandatory **One Stop Centres (OSC)** under MoWCD provide medical, legal and psychological care. Yet, only **733 OSCs functional** against much higher national requirement.

2. Psychological Rehabilitation: WHO notes **70% of survivors experience PTSD**, necessitating trauma-informed counselling. **France's case of Gisèle Pelicot** shows **legal support + counselling** strengthened survivor resolve.

3. Police and Judicial Sensitization: Police often treat survivors with suspicion. **Example: Delhi High Court directed** mandatory **gender-sensitisation training** for police (2021).

4. Early Awareness and Community Education: School-based consent education (UNICEF model) reduces acceptance of rape myths by **30–40%** in adolescents.

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

Way Forward

Reform	Expected Impact
Consent-based legal reform and fast-track courts	Improve conviction rates and reduce pendency.
Mandatory counselling and rehabilitation funds	Prevent secondary victimisation.
Gender sensitisation at schools	Break patriarchal conditioning.
Police accountability mechanism	Ensures empathy during FIR and investigation.

Conclusion

As **Justice Verma Committee** noted, **"Consent is the foundation of sexual autonomy."** A society that tolerates **sexual violence undermines its democracy**—full justice demands zero tolerance and unwavering support for survivors.

Critically analyze the proposition that the UN has failed in its primary goal of peace and security. Justify the necessity of reforming multilateralism to address contemporary global challenges.

Introduction

Despite being created in 1945 to **"save succeeding generations from the scourge of war"**, the UN struggles to prevent conflicts — evident from failures in Rwanda, Iraq (2003), and Gaza, demanding urgent reform of multilateralism.

Has the UN failed in its primary goal of peace and security? — A Critical Analysis

The United Nations was envisioned to maintain **international peace and security** (Article 1, UN Charter). Yet, its seven-decade record shows a widening gap between mandate and outcomes.

Successes — but limited

1. **Peacekeeping Operations**: UN peacekeepers helped stabilise Cambodia (1993), led elections in Namibia (1989), and intervened in Kosovo (1999), demonstrating capacity in post-conflict reconstruction.
2. **Norm-building**: Adoption of **Universal Declaration of Human Rights (1948)** and establishment of **International Criminal Tribunal for Yugoslavia (ICTY)** show UN's role as a moral force. However, isolated successes cannot overshadow structural paralysis.

Major failures in preventing conflicts

1. **Genocide in Rwanda (1994):** Over 8 lakh people killed; UN peacekeepers withdrew rather than intervening.
2. **Srebrenica Massacre (1995):** 8,000 Bosnian Muslims killed under UN protection.
3. **Iraq invasion (2003):** UNSC could not prevent unilateral US invasion, undermining collective security.
4. **Ongoing crises in Gaza and Ukraine (2022-24):** Veto-wielding P5 countries block action based on geopolitical interests.

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

As António Guterres warned, "It's reform or rupture." The UN's inability to stop these conflicts highlights **systemic dysfunction**.

Structural Flaws Hindering Effectiveness

1. **Veto Power in Security Council:** P5 used veto 295+ times (Russia 161, US 95). Veto paralyzes action even in humanitarian crises.
2. **Democratic Deficit:** 193 nations have "one nation–one vote", but real power rests with five.
3. **Representation Gap:** UNSC excludes emerging powers — India, Japan, Germany — despite representing major global population and economic share. The UN's functioning reflects post-1945 power structures, not 21st-century multipolar reality.

Why Multilateralism Needs Reform — The Case for New Global Governance

1. **Rise of new power centres**: India, China, EU, African Union reflect multipolarity.
2. **New global threats**:
   ○ **Climate change** — 2023 was the hottest year on record (WMO data).
   ○ **Cybersecurity and AI governance** — unaddressed domains.
   ○ **Pandemics** — COVID-19 exposed WHO and UN coordination limitations.
3. **Global South marginalization**: Africa has **54 countries but no permanent seat** on UNSC. India contributes **largest number of peacekeepers** but lacks permanent membership.

Reforms needed

Domain	Required Reform
UNSC reform	Expansion of permanent membership; restraining veto in mass atrocities **(R2P – Responsibility to Protect framework).**
Democratization	Greater role for Global South; G20 model of inclusive multilateralism.
Issue-based coalitions	Flexible, domain-specific coalitions **(Climate alliances, Quad, IPEF)** instead of rigid institutions.

India advocates **reformed multilateralism**, visible in its G20 presidency theme**: "One Earth, One Family, One Future."**

Conclusion

Institutions must adapt to power shifts. Reformed multilateralism — democratic, inclusive, responsive — is essential for lasting peace, ensuring the UN becomes effective rather than ceremonial.

Evaluate the potential of Model Youth Gram Sabhas in nurturing local leadership and civic pride. Justify their role in strengthening grassroots democracy and participative governance.

Introduction
India has **over 2.5 lakh Panchayats,** and **yet youth participation in Gram Sabhas** remains below **10%**

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

(MoPR, 2023). Strengthening civic engagement through Model Youth Gram Sabhas can transform grassroots democracy.

Model Youth Gram Sabhas: Seeding Leadership & Civic Pride

1.   The **73rd Constitutional Amendment (1992)** legitimised the Gram Sabha as the foundation of the Panchayati Raj system, ensuring **direct democracy, decentralization, and participative governance**.

2.   Yet, low awareness and limited youth engagement dilute its transformative potential. Against this backdrop, **Model Youth Gram Sabhas (MYGS)** serve as a simulation-based civic platform that empowers students to learn governance by practising it.

Nurturing Local Leadership

1. **Experiential Governance Learning**: MYGS enables students to assume real governance roles—Sarpanch, ward member, health worker—discussing budgets, social audits, and development plans. Transforms textbook civics into lived experience, echoing **John Dewey's experiential learning theory**, "learning by doing."
2. **Leadership Pipeline for Rural Governance**: India has **46% youth population** (UNFPA, 2023). MYGS instills leadership attributes—deliberation, negotiation, consensus building—preparing future administrators and elected representatives.
3. **Role Modelling & Aspirational Governance**: Similar to **Model United Nations (MUNs)** fostering global citizenship, MYGS nurtures **local citizenship,** pride in community service, and aspiration towards public leadership.

Fostering Civic Pride and Active Citizenship

1. The programme promotes a shift from politics as power to politics as participation.
2. Students experience how **village-level decisions impact public goods**—roads, drinking water, health centres, anganwadis.
3. **Social accountability tools**—social audits, participatory planning, community scorecards—become familiar instruments. When participation becomes aspirational, accountability becomes cultural.

Strengthening Grassroots Democracy & Participative Governance

Strengthening Pillar	Contribution of Model Youth Gram Sabha
Decentralization (Article 40)	Encourages bottom–up planning and decision-making.
Inclusive Governance	Increases participation of women, tribal youth, first-generation learners.
Transparency & Accountability	Simulates budget discussion, improving understanding of resource allocation.
Behavioral change	Breaks hierarchical and patriarchal decision-making patterns.

Examples for Precedent

1.   **Pilot Projects:** In Jawahar Navodaya Vidyalaya Baghpat (UP) and EMRS Alwar (Rajasthan) saw **300+ students** conducting model Gram Sabha proceedings—building participation culture early.

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

2.   **National rollout (Phase 1, 2025): 1,000+ schools across 28 States & 8 UTs**, including JNVs, EMRS schools, and Zilla Parishad schools. **1,238 teachers trained**; a network of 126 master trainers.

3.   **Global parallel: Brazil's participatory budgeting** increased transparency and reduced corruption—proving that youth-led deliberation can deepen accountability.

Way Forward

1. Integrate MYGS into **NEP 2020 experiential learning reforms**.
2. Include panchayat functioning in curriculum and NSS/NCC activities.
3. Community mentorship by Sarpanch, district officers, and civil society.

Conclusion

As **Gandhi wrote, "India lives in its villages."** Model Youth Gram Sabhas transform democratic awareness into democratic practice, creating citizens who participate, lead, and strengthen grassroots democracy every day.

Critically analyze the pitfalls of climate alarmism and its eventual retraction. Evaluate the balance required between high-level advocacy and pragmatic climate policy implementation.

Introduction

IPCC warns that crossing **1.5°C global warming** could trigger irreversible tipping points, yet exaggerated climate alarmism and later moderation—seen in recent elite climate discourse—risks public distrust and weak policy momentum.

Pitfalls of Climate Alarmism

Climate alarmism refers to presenting climate change as **an unavoidable apocalypse** rather than a **serious but solvable challenge**. Bill Gates' shift—from **alarmist urgency (2019–21)** to a **moderated stance in 2024**—illustrates the risks.

1. **Creates panic, not policy**: Alarmist messaging amplifies fear but does not support structured interventions. The **UNDP "Peoples' Climate Vote 2021"** showed youth experiencing **eco-anxiety**, perceiving climate action as futile.
2. **Undermines scientific credibility**: Overstating "inevitable catastrophe" neglects nuance such as adaptation, resilience, and differentiated vulnerability. When predictions do not unfold immediately, sceptics exploit the gap, feeding denial narratives.
3. **Leads to emotional fatigue**: Continuous doomsday claims cause public disengagement, as communities feel powerless.
4. **Empowers climate denialists** Gates' recalibration—"climate change will not threaten humanity's survival"—was misused by political actors. **Example:** U.S. President **Donald Trump** declared "victory against climate hoax" after Gates' moderation.

Risks of Sudden Retraction / Moderation

A shift from high alarm to moderation can appear like a **policy U-turn**.

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

- **Mixed messaging fractures trust:** When leaders first push extreme urgency and later dilute their messaging, audiences question scientific consistency.
- **Provides ammunition to vested interests:** Fossil fuel lobbies use moderate statements to delay decarbonisation.
- **Technocratic bias crowds out democratic voices;** Gates' philanthropy directs technological solutions—**energy innovation, carbon capture**—often bypassing community-led adaptation, local governance, or indigenous knowledge.
- **Misplaced substitution logic**: Prioritising poverty/health improvement over emission cuts risks a narrative of **"burn now, fix later",** contrary to **IPCC's simultaneous mitigation–adaptation** framework.

Need for Balance:

Advocacy + Pragmatic Policy

Effective climate communication must avoid both **alarmist fatalism** and **optimistic complacency**. What is required is **"credible urgency".**

1. **Evidence-based communication**: Use precise probability statements, not hyperbole. **Example: Global Carbon Project** confirms emissions are still rising and reached **record highs in 2022–24**, though growth rate slowed.
2. **Policy anchored in equity and justice**: Aligns with India's **LiFE (Lifestyle for Environment)** mission and **Paris Agreement's Common but Differentiated Responsibilities (CBDR)**.
3. **Technology + structural reform**: Innovation (green hydrogen, carbon capture) must complement—not substitute—emissions reduction and behavioural change.
4. **Inclusive, democratic climate action**: Avoid elite philanthropic dominance. Climate policy must include **local governance**, women, indigenous communities.
5. **Focus on adaptation for vulnerable nations**: ISA (International Solar Alliance) and CDRI (Coalition for Disaster Resilient Infrastructure) reflect India's approach of resilient, cost-effective transformation.

Conclusion

Energy transitions are slow and reality-bound. Sustainable climate action requires balanced messaging—urgency with credibility, ambition with pragmatism—to avoid **fear-driven paralysis and denial.**

Examine the challenges driving the evolution of India's IT sector. Critically analyze how this painful transition can be leveraged to ensure purposeful and sustainable growth.

Introduction

India's IT sector contributes ~7.5% to GDP and employs over **5 million professionals (NASSCOM, 2024)**, yet faces a painful transition driven by automation, AI disruption, and shifting global digital demand.

Evolution of India's IT Sector: Drivers and Challenges

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

India's IT revolution—born in the 1990s offshoring wave and Y2K—positioned it as a global "back-office of the world". Today, structural shifts are forcing a transition from **IT services outsourcing → digital innovation and product-led models**.

Technological Disruption: AI, Automation and Cloud

1. 30–40% of low-end code and testing work is now automated using **Gen-AI & no-code platforms (McKinsey, 2024)**.
2. Large IT firms report a drop in traditional outsourcing demand and higher expectations for **platform engineering, cybersecurity, digital transformation**.
3. Talent transitioning from "developer to prompt-engineer" reveals skill redundancy.
4. Gates' climate messaging shows extremes (alarmism vs. denial) can mislead. Similarly, India's IT transformation requires balanced communication: neither fear-based declarations of job loss nor blind techno-optimism.

Talent Mismatch and Skill Obsolescence

1. Only **46% of engineering graduates are employable in IT roles** (India Skills Report 2024).
2. Companies now spend billions on **reskilling in AI/ML, data science, cloud architecture**.
3. TCS hired only 10,000 freshers in 2024 vs. 40,000 in 2022 — proof of structured slowdown.

Geopolitics and Protectionism

1. H-1B restrictions in the U.S., data localization norms (EU's GDPR, India's Digital Personal Data Protection Act, 2023) increase cost and complexity.
2. Companies shift from **offshore to onshore "co-location" models** → reducing cost arbitrage.

ESG & Sustainability Pressures

1.   Following the way **Bill Gates shifted narratives impulsively**—first alarmist, then overly optimistic— IT companies too risk ESG greenwashing without accountability.

2. Global clients demand **carbon-neutral digital operations**.
3. Data centers consume huge energy; hyperscale facilities push companies towards **renewable-energy procurement**.

Leveraging the Painful Transition for Purposeful Growth

Challenge	Opportunity for sustainable growth
Automation replaces routine work	Move workforce into **AI governance, cybersecurity, digital consulting**
Declining cost arbitrage	Build **IP, SaaS products, India-based innovation hubs**
Global protectionism	Diversify markets — **Africa, Latin America, Indo-Pacific**
Talent redundancy	National reskilling mission powered by **Skill India + industry-academia labs**

Key Policy Actions for India

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

1. **National Digital Talent Grid**: Integrate curriculum with AI/Cloud certifications (AWS, Microsoft, Google).
2. **Incentivize Product-led Startups**: PLI-like scheme for **Deep Tech, semiconductor design, and SaaS exports**.
3. **Sustainable Digital Infrastructure**: Mandate green data centers; promote carbon reporting.
4. **Domestic Digital Demand**: Leverage **ONDC, UPI, India Stack** to create local unicorns.

Conclusion

As **Alvin Toffler wrote in Future Shock**, "the illiterate will be those who cannot learn, unlearn, relearn." India's IT transition is painful—but essential—to build sustainable, innovation-driven growth.

Examine the strategic implications of a possible US-China G2 for India's foreign policy. Critically analyze the necessity for India to 'manage America' and 'engage China' in a multi-aligned world.

Introduction

With the U.S. and China accounting for **~40% of global GDP** and nearly **50% of global carbon emissions (IMF, 2024)**, the revival of a potential **"G2" compact** redefines global geopolitics and challenges India's strategic autonomy.

US–China G2:

1.   A G2 implies a **concert of powers** where Washington and Beijing bilaterally manage global economic and geopolitical affairs—bypassing multilateral forums like the G20, Quad, ASEAN, SCO.

2.   Trump's public declaration of **"THE G2 WILL BE CONVENING SHORTLY"** signals a geopolitical power shift, where America acknowledges China as an indispensable co-manager of the world economy.

Strategic Implications for India

1. Erosion of multipolarity: India's foreign policy vision of **"Vishwa-Mitra Multipolarity"** (PM Modi, 2023) relies on diffusing concentrated power. A G2 reverses this trend by **recentralizing global governance into bipolarity**, reducing the role of middle powers.

2. Reduced Strategic Space in the Indo-Pacific: India leveraged U.S. support for counterbalancing China **(Quad, I2U2, Indo-Pacific Oceans Initiative).** A G2 may **downplay Indo-Pacific pressure on China**, weakening India's deterrence options, especially amidst **LAC standoff (Galwan, 2020)**.

3. Economic Vulnerabilities: 11% of India's imports come from China; critical dependencies exist in **API/pharmaceuticals (70%) and electronics (85%)**. A G2-led geo-economic order could **dictate global supply chain norms**, marginalizing India's industrial ambitions **(PLI schemes, Make in India).**

4. Diplomatic Marginalization: G2 signals a return to **concert diplomacy**, where great powers negotiate outcomes for third countries. This limits India's influence in global governance reforms **(UNSC, WTO agriculture, climate finance).**

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

Why India must 'Manage America'

Jaishankar's "multi-alignment" doctrine requires **strategic hedging**, not bandwagoning. Managing America means:

1. **Avoid overdependence on U.S. containment strategy against China**: Excessive alignment could trap India in **bloc politics**. Trump's unpredictability (2017–2020) shows alliances may shift.
2. **Maintain leverage and bargaining power**: Through **issue-based coalitions**: Technology partnerships (critical minerals MoU with Australia), G20 presidency outcomes (Global Biofuels Alliance).
3. **Prevent U.S.–China deal-making at India's expense**: Historically, great power détente (Nixon-Kissinger with China, 1972) hurt India's regional interests.

Why India must 'Engage China'

Engagement is not concession — it is **realist diplomacy**.

1. **Stabilize border tensions without sacrificing core interests**: Border disengagement → reopens economic & diplomatic bandwidth.
2. **Economic pragmaticism**: Decoupling is impossible; **de-risking + diversification** is rational. India uses **"competitive engagement + selective cooperation" (BRICS, SCO).**
3. **Shape Asian institutional architecture**: "**Asia for Asians**" narrative cannot be ceded to China. **India's Act East + Indo-Pacific + SAGAR Outlook** provide alternatives.

Path Forward: New India Way 2.0

Element	Strategy
Managing America	Issue-based partnerships; retain strategic autonomy in defence & technology.
Engaging China	Dialogue + deterrence; economic de-risking; maintain Quad without anti-China rhetoric.
Reassuring Russia	Balance in Eurasia; prevent Moscow–Beijing lock-in.
Leadership in Global South	G20 success & IMEC / ISA / CDRI initiatives reinforce India's global relevance.

Conclusion

As Jaishankar notes in **The India Way,** diplomacy is about **"maximising options".** In a possible G2 era, India's power lies not in choosing sides, but shaping outcomes.

Examine the three critical gaps community participation, ecological design, and financing—hindering India's afforestation story. Justify the necessity of overcoming these for the nation's future.

Introduction

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

India targets restoring **25 million hectares of degraded land by 2030** under the **Green India Mission (GIM), yet the 2025 IIT study** warns that afforestation quality—not just quantity—defines true ecological resilience.

India's Afforestation Story: Promise Amidst Persistent Gaps

1. India's forests are central to its **Nationally Determined Contributions (NDCs)**—a pledged **additional carbon sink of 2.5–3.0 billion tonnes CO_2 equivalent by 2030**.

2. However, three enduring gaps—**community participation, ecological design, and financing**—continue to hinder progress.

The Gap of Community Participation: Exclusion from Ownership

1. **Need:** Nearly **200 million Indians** depend on forests for subsistence. The **Forest Rights Act (2006)** legally empowers local communities to manage forest resources, yet top-down plantation models often bypass them.

2. **Challenge:** Many GIM and CAMPA projects ignore community consent, leading to conflicts, low survival rates, and "paper plantations."
3. **Example:** In Madhya Pradesh, community-led **Joint Forest Management Committees (JFMCs)** reported 70–80% survival of saplings—twice that of non-participatory sites.
4. **Success Models:**
   - **Social capital in afforestation,** community stewardship enhances forest resilience through participatory governance, aligning with **SDG 15 (Life on Land)**. **Odisha's JFM integration** of community revenue-sharing builds trust.
   - **Chhattisgarh's mahua-based restoration** links ecology with tribal livelihoods.

The Gap of Ecological Design: Beyond Monoculture to Biodiversity Restoration

1. **Need:** For decades, India's afforestation favoured **fast-growing monocultures (eucalyptus, acacia)** prioritizing timber yield over biodiversity. The **2025 IIT Kharagpur study** found a **12% decline in photosynthetic efficiency** in dense forests—signalling climate stress and poor species selection.

2. **Ecological Restoration Approach:** Focus on **native, site-specific species**, soil-water conservation, and mixed-structure plantations. **Example:**
   1. **Nature-based solutions (NbS)** as **Tamil Nadu's mangrove expansion** doubled cover in three years, improving both carbon sequestration and cyclone resilience.
   2. **Rajasthan's Aravalli restoration** uses native prosopis and dhok species to combat desertification.
3. **Need:** Forest training institutes in **Dehradun, Coimbatore, Byrnihat** must upgrade to build ecological literacy among forest officers.

The Gap of Financing: From Fund Accumulation to Fund Utilization

1. **Present Fiscal Situation:** India's **CAMPA fund** holds **₹95,000 crore**, yet utilisation remains patchy—Delhi used only 23% (2019–24). The issue is not scarcity, but **fragmented governance and lack of accountability**.

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

2. **Green Fiscal Federalism:** Aligning fiscal flows (CAMPA, GIM, MGNREGS) with environmental outcomes through performance-based grants.
3. **Innovations: Himachal Pradesh's biochar programme** links carbon credits with fire prevention. **Uttar Pradesh's village-level carbon markets** integrate local governance into climate financing.
4. **Need:** Public dashboards, real-time fund tracking, and adaptive financing that rewards survival and biodiversity—not just planting numbers.

Why Overcoming These Gaps is Crucial

1. **Climate Security:** Forests absorb ~15% of India's annual emissions; degraded systems compromise the nation's **net-zero pathway by 2070**.
2. **Economic Resilience:** Forest ecosystems contribute nearly **₹7 trillion annually (TERI, 2023)** through ecosystem services.
3. **Social Justice:** Participatory restoration strengthens livelihood security and democratic environmental governance.

Overcoming these gaps ensures that India's forests evolve from being "carbon sinks" to **"climate-resilient socio-ecological systems."**

Conclusion

Restoration begins with people. India's forests hold its future—if inclusion, ecology, and financing unite into true regenerative growth.

Examine the modus operandi of 'digital arrest' scams emanating from Southeast Asian scam factories. Critically analyze the need for a coordinated, multilateral response.

Introduction

According to **Interpol's 2024 assessment,** cyber-enabled fraud is the fastest-growing transnational crime, with "digital arrest" scams rising sharply—exploiting deepfake tech and law-enforcement impersonation to extort victims across borders.

Modus Operandi of 'Digital Arrest' Scams from Southeast Asian Scam Factories

1.   'Digital arrest' scams combine **social engineering + deepfake technology + cross-border criminal networks**.
2.   What distinguishes them is **industrialised cybercrime**, run from scam compounds across Myanmar, Cambodia, Laos, and parts of Thailand—often with militia or local regime complicity.

Victim Targeting and Psychological Manipulation

1.   Fraudsters scrape data from social media, courier logs, and digital loan apps.
2.   Victims receive calls claiming involvement in **illegal parcels, money laundering, or narcotics trafficking**.
3.   Impersonation of agencies such as NIA, CBI, police cyber cells, RBI, Interpol.
4.   Video calls show criminals in fake uniforms, fabricated FIRs, or deepfake "warrants."
5.   **Psychological coercion + fear appeal** combined give rise to fear triggers compliance in victim.

Virtual Confinement / "Digital Arrest"

1.   Victims are told **not to disconnect the video call**, amounting to a psychological arrest.
2.   They are isolated and instructed not to contact family or the police.

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

3. Criminals extract personal banking data and force money transfers. **Example:** In 2024, a Bengaluru tech employee transferred **₹1.2 crore** under "digital arrest."

Scam Factories: Trafficking and Forced Cybercrime

1. From India, Nepal, Bangladesh and Africa, young job seekers are enticed with lucrative employment ads.

2. Transit point: **Bangkok** (leveraging visa-free entry).

3. Final destination: Scam compounds in **Myanmar's Myawaddy / Shwe Kokko**, controlled by **Border Guard Forces.**

4. Inside these compounds: Phones and passports confiscated. Workers tortured, sexually abused, and forced to run scams **12–16 hours/day.**

5. **ILO calls this "forced criminal labour"—a new form of digital slavery.**

Laundering & Cryptocurrency Conversion

1. Fraud proceeds are routed through: money mules, shell companies, dubious payment apps (e.g., **Huione Pay in Cambodia**) and cryptocurrency exchanges.

2. **FATF (2023)** flagged **crypto opacity** as the biggest enabler of fraud-terror-finance convergence.

Why unilateral action fails

1. Scam operational chain spans **five or more jurisdictions**—victim country, transit country, scam compound, crypto conversion country, and data servers.

2. Hence, India's national actions—helpline 1930, I4C, RBI friction controls—are necessary but **insufficient**.

Need for a Coordinated Multilateral Response

1. Diplomatic & Regional Cooperation: Leverage **BIMSTEC, ASEAN**, India–Thailand–Myanmar trilateral mechanism. Joint rescue operations (as done recently in Laos and Cambodia). Precedent: Philippines shut 2,000 scam centres after **China–Philippines taskforce pressure**.

2. Financial Intelligence & Crypto Traceability: Implement **FATF's Travel Rule** for crypto transfers. Mandate KYC interoperability and real-time transaction freezing across UPI / banks.

3. Demand-side reduction and Public awareness: RBI + MHA joint campaigns must target: senior citizens, tech workers and loan-app users. Singapore's Anti-Scam Centre recovered **70% fraud funds within 72 hours** by proactive alert systems.

Conclusion

As per **The Art of Deception,** "People are the weakest link in security." Combating digital-arrest scams demands collective intelligence—nations, banks, tech platforms, and citizens together.

Critically analyze the proposition that Pakistan's geopolitical double game risks a diplomatic and economic disaster. Examine its implication for India.

Introduction

Pakistan's oscillation between China and the United States amid its economic crisis—external debt exceeding **$126 billion (IMF, 2024)**—reveals a perilous geopolitical "double game" threatening regional stability and Pakistan's credibility.

Pakistan's Geopolitical Tightrope: The "Double Game"

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

1.   Pakistan's foreign policy has long been shaped by **strategic rent-seeking** — leveraging its **geographical position** for external patronage.

2.   During the Cold War, it was a U.S. ally under SEATO and CENTO; post-9/11, a frontline state in the "War on Terror." Simultaneously, it cultivated an **"all-weather" alliance with China**, which deepened through the **China-Pakistan Economic Corridor (CPEC)**, the flagship of Beijing's **Belt and Road Initiative (BRI)** with over **$70 billion in investments**.

3.   Now, Islamabad seeks to play both sides — **aligning with the anti-U.S. Moscow Format** while offering **Pasni Port** to American investors, a move that undermines Chinese strategic interests and exposes Pakistan's **foreign policy incoherence**.

Economic Fragility Driving Diplomatic Opportunism

1. **Macroeconomic instability** is the core driver. Pakistan's **foreign exchange reserves** hover below $8 billion, its **current account deficit** is chronic, and over **40% of its budget** goes toward debt servicing (World Bank, 2024).
2. To stave off default, Islamabad alternates between courting **Chinese loans** and **IMF bailouts**—a strategy the Brookings Institution terms **"strategic oscillation economics."**
3. Offering Pasni Port to the U.S. aims to attract **foreign direct investment** and diversify funding beyond CPEC's debt-heavy model. However, this transactional diplomacy erodes **long-term strategic credibility**.

Strategic Risks of the Double Game

1. **Erosion of Trust with China**: China perceives Pasni as a **hedging manoeuvre** against over-dependence on CPEC. Possible Chinese responses include **slowing CPEC implementation**, tightening debt conditions, or **reducing military assistance**, including intelligence sharing and technology transfers.
2. **Unreliable U.S. Partnership**: Washington views Pakistan through a **transactional prism**—valuing loyalty and counterterrorism cooperation. Dual posturing (e.g., joining Moscow Format rejecting foreign bases) reinforces Pakistan's image as **duplicitous**, echoing its "double game" during the Afghan war.
3. **Internal Fallout**: Baloch insurgents see foreign projects as **Punjabi military exploitation**, intensifying unrest in **Balochistan**, where both **Gwadar (Chinese)** and **Pasni (U.S.)** ports lie close. This increases the risk of **proxy conflicts** between U.S.- and China-backed interests within Pakistan's volatile western province.

Implications for India

1. **Strategic Encirclement and Maritime Security**: The **Makran coast triangle**—Gwadar (China), Chabahar (India-Iran), and Pasni (potentially U.S.)—creates a new **maritime contestation zone**. India must recalibrate its **Indian Ocean strategy**, enhancing **cooperation with Iran** and leveraging **Chabahar** as a counterweight.
2. **Regional Instability and Spillover Risks**: Instability in Balochistan could spill over to **India's western borders**, with potential refugee influxes or cross-border militancy. The growing U.S.-China rivalry within Pakistan's territory may turn South Asia into a **geostrategic fault line** impacting India's **Act East** and **Neighbourhood First** policies.

Created with love ❤ by ForumIAS- the knowledge network for civil services.

Visit academy.forumias.com for our mentor based courses.

↗ Forum IAS

3. **Diplomatic Opportunity**: Pakistan's declining credibility opens space for **India's regional diplomacy**, especially with Gulf states, Central Asia, and ASEAN. India's balanced foreign policy— guided by **strategic autonomy**—offers a contrast to Pakistan's **transactional diplomacy**, strengthening New Delhi's global reputation.

Policy Suggestions for India

1. Deepen **Chabahar–INSTC connectivity** to bypass Pakistan.
2. Strengthen **coastal security** under SAGAR (Security and Growth for All in the Region) vision.
3. Continue **multilateral engagement** via QUAD and IORA to ensure maritime freedom and counter coercive influence in the Arabian Sea.

Conclusion

As **Henry Kissinger noted, "nations that overplay their hand lose their balance."** Pakistan's duplicity erodes its strategic autonomy, while India's calibrated realism reinforces its role as a stable regional anchor.

Critically analyze the proposition that the spirit of the Model Code of Conduct (MCC) is undermined by successive governments. Examine the necessary electoral reforms for effective enforcement.

Introduction

Despite India ranking among the world's **largest electoral democracies (over 96 crore voters in 2024)**, frequent violations of the **Model Code of Conduct** reveal declining political commitment to ethical electoral practices.

Why the Spirit of MCC Is Being Undermined

1.   The **Model Code of Conduct (MCC)** is a voluntary ethical framework evolved through consensus among political parties to ensure **level playing field**, prohibit misuse of state machinery, and uphold **free and fair elections**, a constitutional mandate **(Article 324).**

2.   However, successive governments — at the Centre and in States — regularly dilute the code **in spirit**, if not always in letter.

Political Executive Misusing State Power

1. MCC bars announcement of new schemes, grants, or foundation stones once election dates are announced.
2. Yet, ruling parties strategically announce welfare schemes just before elections, making them technically "ongoing" schemes once MCC kicks in. **Example,** Mukhyamantri Mahila Rojgar Yojana (Bihar, 2025) — cash transfers to 75 lakh women weeks before elections, then continued in instalments **during MCC period**.

3.   This exploits a loophole: ongoing schemes are exempt from prohibition.
 Result: **state resources become political capital**. Other recent examples: **Delhi (2020) and Punjab**

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

(2022); distribution of financial benefits before polls. **Centre, 2019 Lok Sabha;** announcement of PM-KISAN rollout before MCC invoked.

4.   Politicians treat MCC as an obstacle to bypass, not a principle to uphold.

MCC Is Not Legally Binding

1. MCC is not statutory; violations invite moral censure, not punishment.
2. Some violations can only be addressed through IPC, CrPC, or **Representation of the People Act (RPA), 1951**, which are slow and reactive.

3.   **Standing Committee (2013) recommended:** Making MCC **legally enforceable**, but Election Commission (ECI) opposed citing delayed judicial timelines during 45-day poll period.

4.   **Result:** MCC becomes "**toothless ethics,**" not enforceable law.

Administrative Weakness & Politicisation

1. Transfers of officials during MCC often become **political tools**.
2. ECI's institutional autonomy is questioned, weakening public trust.
3. **ADR (Association for Democratic Reforms)** report: Over 40% MPs elected in 2024 have pending criminal cases, increasing incentives to exploit electoral loopholes.

Needed Electoral Reforms

Reform	Rationale
1. Make Key MCC Provisions Statutory	Convert provisions regarding misuse of office/announcements into enforceable law under RPA.
2. Cap Government Cash Transfers within 6 months of polls	Used in Brazil and Mexico to prevent welfare populism.
3. Real-time digital monitoring dashboard	Publish fund utilisation, welfare disbursement, and scheme announcements to enable citizen oversight.
4. Empower ECI with suo motu authority	On lines of Article 324 interpretation by Supreme Court in Mohinder Singh Gill vs. CEC (1978).
5. Fast-track MCC courts during elections	Quick adjudication discourages violations.
6. Simultaneous elections debate	While controversial, it reduces repeated MCC imposition and policy paralysis.

Conclusion

As **Dr B.R Ambedkar** stressed, **"constitutional morality must grow."** Without statutory backing and ethical politics, MCC remains symbolic. Electoral integrity demands reforms ensuring MCC becomes enforceable, not merely aspirational.

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

Critically analyze the proposition to place Universal Basic Income (UBI) at the centre of India's welfare architecture. Justify its necessity in addressing a crisis-ridden world.

Introduction

Rising inequality, job-displacing automation, and climate-linked distress threaten economic security. With **India's top 1% owning 40% of wealth (WID, 2023),** placing Universal Basic Income at the welfare centre demands urgent evaluation.

UBI at the Centre of Welfare Architecture: A Critical Analysis

1.   India's welfare architecture is extensive—over **1,000 centrally sponsored schemes**—yet plagued by **leakages, duplication, and exclusion errors**.

2.   As per an IMF study (2019), almost **40% of benefits in targeted schemes fail to reach beneficiaries**.

3.   In such a fragmented ecosystem, **UBI offers a simple, rules-based, unconditional cash transfer** to every citizen, replacing paternalism with autonomy.

Why UBI? The context of a crisis-ridden world

1. **Wealth and income inequality**: World Inequality Database (2023): Wealth Gini at **75**, highest since Independence. Top 10% hold **77% of national wealth**. GDP growth **(8.4% in 2023–24)** has not led to **shared prosperity**. Nobel laureate Joseph Stiglitz argues GDP does not measure **equity or well-being**. India's rank **126/137** in the *World Happiness Report (2023)* reveals precarity beneath high growth.
2. **Automation and job loss**: McKinsey Global Institute warns **800 million jobs globally may be displaced by 2030**. India's workforce—80% informal—is especially vulnerable.

   | **UBI = Security during AI driven economic restructuring** |
3. **Gig economy precarity:** NITI Aayog (2022): Gig workers to reach **2.35 crore by 2030**. No job security, no insurance, no benefits. A periodic cash transfer stabilizes household consumption and preserves dignity.
4. **Climate-driven volatility**: IPCC: India loses **1% of GDP annually** to climate-linked shocks. UBI can act as **"shock-responsive social protection."**

Economic Rationale: Not charity, but investment

Pilot experiments prove UBI improves human capital.

Study/Location	Result
SEWA UBI trial, Madhya Pradesh (2011–13)	Better nutrition, higher school attendance, increased earning capacity
Finland UBI trial (2017–18)	Better mental health, greater job search activity
Kenya GiveDirectly	Growth in micro-enterprise and consumption

UBI **does not reduce willingness to work** — a key misconception disproved globally.

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

How UBI strengthens India's welfare state

1. **Universality avoids exclusion error**: Targeting creates errors; universality prevents "wrongful exclusions." Aadhaar–DBT–Jan Dhan trinity makes **real-time transfers feasible**.
2. **Restores dignity and autonomy**: Shifts welfare from **conditional patronage** to **rights-based entitlement**.
3. **Corrects gendered invisibility of labour**: A UBI acknowledges unpaid domestic work, performed largely by women. Tamil Nadu's **₹1,000/month entitlement for women** is a step toward gendered UBI.
4. **Reduces political populism**: UBI can curb competitive "freebie politics," shifting governance from **clientelism to citizenship accountability**.

Concerns and Caution

1. **Fiscal space**: A UBI matching the poverty line (~₹7,620/year/person) costs **5% of GDP**. Funding options: Rationalise non-merit subsidies (Economic Survey 2016–17), Wealth tax on top 1% and Carbon tax framework.
2. **Universality vs. targeting:** A phased approach: begin with **women, elderly, disabled, and gig workers**. UBI must **complement**, not replace essential public services like MGNREGA, PDS.

Conclusion

As **Amartya Sen asserts, development expands freedoms**. UBI offers economic security amid automation and inequality—building a resilient, citizen-centric welfare state capable of protecting dignity in uncertain futures.

Examine the concept of 'justice in food systems' as proposed by the EAT-Lancet Commission. Justify the necessity of a global transition to healthy, affordable diets.

Introduction

The **2024 EAT-Lancet Commission warns** that global food systems **drive 30% of greenhouse emissions and breach five planetary boundaries**, making "justice in food systems" central to ensuring sustainability, equity, and nutrition security.

Justice in Food Systems: Meaning and Dimensions

1.　　The **EAT-Lancet Commission on healthy, sustainable, and just food systems (2024)** defines *justice in food systems* as ensuring that production, distribution, and consumption of food are **environmentally sustainable, nutritionally adequate, economically fair, and socially inclusive**.

2.　　Justice implies:

   - **Healthy diets for all** (nutritional justice)
   - **Fair prices and affordability** (economic justice)
   - **Sustainable agriculture that protects ecosystems** (environmental justice)
   - **Dignity and rights for farmers, workers, and consumers** (social justice)

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

3.   Currently, global food systems violate these principles.

Why Justice is Necessary: The Current Food System Crisis

1. **Environmental Unsustainability**: Food systems contribute **30% of global GHG emissions** (FAO, 2023). Agriculture breaches **five of six planetary boundaries** — climate, biodiversity loss, freshwater use, nitrogen and phosphorus cycles **(EAT-Lancet, 2024). Animal**-based foods dominate emissions, while cereal monocropping drives excessive groundwater extraction and nutrient imbalance. **Example:** Global agriculture produces **twice the safe nitrogen surplus**, contaminating soil and water.
2. **Nutritional Inequality and Diet-Related Diseases**: WHO reports **2.3 billion adults overweight or obese**, while **735 million people face hunger**. India faces a *triple burden*: undernutrition, micronutrient deficiency, rising obesity. NFHS-5 (2019-21): 35% children stunted and 57% women anaemic. This reflects **dietary injustice**, where calorific sufficiency hides nutritional deficiency.
3. **Affordability and price shocks**: The Commission notes that shifting to fruits, vegetables, legumes, and nuts—essential for healthy diets—may **increase consumer costs**, especially in import-dependent regions. RBI (2024) shows that **vegetable inflation** disproportionately affects poor households.
4. **Social and Structural Injustice**: Market concentration gives large corporations power over seeds, inputs, and pricing. Small farmers lack bargaining power and remain indebted. In India, **86% of farmers are small/marginal (Agriculture Census, 2015–16)**, yet they bear the highest climate risk. Hence, justice demands:
    - fair prices
    - worker protections
    - consumer participation in regulation

Pathways Toward Just and Sustainable Diets

Dimension	Required Actions
Environmental justice	Crop diversification, regulation of nitrogen/phosphorus fertilizers, water-efficient agriculture (e.g., millets).
Economic justice	Fiscal incentives to lower prices of healthy foods; rationalising subsidies that promote water-intensive crops.
Nutritional justice	Public procurement of diverse foods for ICDS and Mid-Day Meals, replacing cereal-heavy diets.
Social justice	Empowering farmer cooperatives; ensuring fair wages in food processing and cold chain infrastructure.

India's **2023 International Year of Millets**, PM-POSHAN's inclusion of millets, and FAO-backed **climate-resilient agriculture** are aligned interventions.

Why Global Transition to Healthy, Affordable Diets Is Urgent

1. Reduces **non-communicable diseases** (diabetes, cardiovascular diseases).
2. Cuts agricultural emissions and **restores planetary boundaries**.
3. Enhances **food sovereignty** and resilience against global shocks (climate events, pandemics, wars).

4.   A sustainable diet is not just *environmental necessity*, but a *moral imperative*.

Conclusion

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

Eating is a political act. Justice in food systems demands equitable access, sustainable production, and dignified livelihoods—ensuring health for people and the planet together.

Critically analyze the proposition that AI frenzy in markets masks underlying economic fissures. Examine the risk of rising uncertainty when asset prices are divorced from economic reality.

Introduction

Global investment in AI and data centres is projected to rise to **$3–4 trillion annually by 2030** (IMF), fuelling a stock market boom. Yet rising valuations risk obscuring widening macro-economic fissures.

AI Frenzy vs Economic Reality

1. The recent surge in asset prices—especially in tech and AI-related stocks—has created what many economists fear resembles a **"speculative asset bubble"**, where **market capitalization detaches from real economic fundamentals**.

   2. In the U.S., just **30 AI-linked firms account for 44% of S&P 500 market capitalization** (Richmond Fed, 2025).
   3. IMF and World Bank observations at their 2025 annual meetings underline growing uncertainty on recession risks, labour market stagnation, and fiscal instability.

4. Such concentration violates the principle of **market breadth**, making markets vulnerable to abrupt corrections.

5. The **Atlanta Fed Nowcast** suggests Q2 growth at 3.9%, yet removing AI-induced investments reduces GDP growth to **nearly 1%**—revealing structurally weak demand.

Underlying Economic Fissures Masked by AI Optimism

   1. **Labour Market Weakness Despite Growth**: The U.S. labour market is "stalling", a classical precursor to recession. Taiwan's example illustrates AI-induced **jobless growth**: GDP grew **7%**, but consumption growth stayed below **1%**, forcing fiscal stimulus—demonstrating **capital-intensive growth without employment spillovers**.
   2. **Fiscal Stress and Rising Public Debt**: G7 public debt is at **125% of GDP**, expected to touch **140% by 2030 (IMF Fiscal Monitor).** The U.S. runs a fiscal deficit of nearly **8% of GDP**, despite being above the pre-pandemic growth trajectory. This violates **counter-cyclical fiscal discipline**.
   3. **Deglobalisation and Tariff Uncertainty**: Trump-era tariffs push the U.S. tariff levels to the **highest since the 1930s**, triggering retaliatory trade measures—threatening global supply chains and increasing inflation.
   4. **The Fallacy of Composition (Keynes)**: Belief that individual firm productivity gains from AI translate into national economic gains may be flawed. If AI becomes **labour-substituting** instead of labour-augmenting, income distribution worsens and aggregate demand falls.
   5. **Asset–Price–Real Economy Divergence**: Market euphoria echoes the **Dot-com bubble (2000)** and **Tulip mania (1637)**. Nobel laureate **Robert Shiller's "Irrational Exuberance"** framework warns that narratives often overshadow financial prudence during technological hype cycles.

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

Systemic Risks from AI Asset Bubble

Risk	Impact
Overvaluation of AI firms	Sharp corrections → global market volatility
Leverage-driven investment	Debt accumulation → banking vulnerability
Income inequality due to labour displacement	Lower consumption → recessionary pressures
Reduced fiscal space	Governments unable to support workers in downturns

The **International Labour Organization (ILO)** warns that AI may displace jobs fastest in economies without robust social safety nets, deepening inequality and social unrest.

Conclusion

As **Robert Shiller cautions in Irrational Exuberance**, **markets often chase narratives, not fundamentals.** Sustainable growth demands linking asset prices to real productivity—not speculative optimism fueled by AI mania.

Examine the challenge of creating a roadmap to track global adaptation progress lacking a single metric. Justify why COP 30 must address social inequalities that amplify climate vulnerability.

Introduction

IPCC AR6 warns that climate impacts are intensifying faster than mitigation efforts. Unlike emissions reductions, **adaptation lacks a universal metric**, making global tracking difficult and deepening vulnerability—especially for the socially marginalized.

Tracking Adaptation Progress: Why It Lacks a Single Global Metric

Adaptation refers to **adjustments in natural or human systems that reduce climate-related harm**. However, unlike mitigation—where carbon dioxide equivalent (CO_2e) offers a single, quantifiable metric—adaptation is **context-specific, multidimensional, and unevenly measurable**.

1. No universal definition of success: For mitigation: success = emissions reduced. For adaptation: success varies—fewer flood deaths, higher crop yield, resilient infrastructure, or community relocation. **UNFCCC Adaptation Committee (2023)** notes that adaptation outcomes differ across social, ecological, and institutional systems; hence, progress cannot be captured by one number.

2. Heterogeneous risks and contexts: Climate impacts vary: **Small Island Developing States → sea-level rise, African Sahel → desertification** and **India → heatwaves** and **erratic monsoons.** A **one-size-fits-all metric ignores local vulnerability and adaptive capacity**, violating the principle of **Common But Differentiated Responsibilities (CBDR-RC).**

3. Data scarcity and reporting asymmetry: According to **UNEP Adaptation Gap Report 2025**, developing nations need **USD 310 billion annually till 2035**, which is 12 times current flows. But **70% of countries lack reliable vulnerability data**, making progress tracking difficult.

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

4. Adaptation is qualitative, not just quantitative: Metrics include:

- number of climate-resilient homes,
- inclusion of indigenous knowledge system,
- institutional capacity-building.

These involve **social outcomes**, not just physical outputs. Thus, COP 30's priority — developing a **roadmap for global adaptation metrics** — needs a hybrid approach: combining quantified indicators (finance, infrastructure) with qualitative evaluation (equity, participation).

Social Inequalities Amplify Climate Vulnerability

Climate impacts are not evenly distributed. Vulnerability is worsened by:

- poverty,
- gender inequality,
- caste/ethnicity,
- geography (coastlines, informal settlements).

1. Climate impacts follow social fault lines: WMO (2024): millions lack protection against extreme weather due to poverty-linked exposure. Cyclone Amphan (2020) hit **low-income housing clusters** hardest, despite early warning systems. In India, **Heatwaves kill disproportionately among outdoor workers, migrants, and street vendors**.

2. Locally unwanted land-use change: Large-scale adaptation projects (sea walls, dams) often displace communities—termed **maladaptation** (IPCC). Example: Post-tsunami coastal "buffer zone" in Sri Lanka displaced fishing communities without alternatives — increasing livelihood vulnerability.

3. Gendered climate vulnerability: UN Women: women constitute **80% of climate-displaced population** globally. In Rajasthan, girls drop out of school during drought due to increased domestic workload—**non-economic loss & damage**.

4. Inequitable access to climate finance: Only **10% of climate finance** reaches local communities (OECD, 2023). Funds are absorbed by consultants and administrative overheads — classic "**climate finance leakage**". Thus, adaptation must adopt **Justice-oriented, Locally-Led Adaptation (LLA)** frameworks, enabling:

- decentralised finance,
- community-owned planning,
- participation of women and indigenous groups.

Conclusion

As Amartya Sen argues in **Development as Freedom,** justice requires removing structural inequality. COP 30 must create equity-focused adaptation metrics ensuring finance reaches those most vulnerable—not just those most visible.

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

Examine the need for India's nutritional transformation leveraging smart proteins and functional foods. Critically analyze the policy and public perception challenges in expanding this ecosystem.

Introduction

According to NFHS-5, **35.5% of children are stunted** and **57% of women are anaemic**, signalling a shift from mere food security to nutritional security. Functional foods and smart proteins offer sustainable nutrition aligned with SDG-2.

Why does India need a nutritional transformation?

1.   The existing food system is cereal-centric due to MSP support for wheat and rice, leading to **hidden hunger**, low-quality diets, and high lifestyle disorders (obesity, diabetes).

2.   Thus, India needs a **nutritional paradigm shift**, not in calories, but in quality of diet.

3.   Despite being the world's largest producer of milk, pulses, and coarse grains, India is a **"protein-deficient"** and **micronutrient deficient nation**:

Indicator	Data
Child stunting (NFHS-5)	**35.5%**
Anaemia among women (NFHS-5)	**57%**
Average Indian protein intake (ICMR-NIN, 2020)	**<60% of recommended daily intake**

What are functional foods and smart proteins?

Category	Key features	Examples
Functional foods	Foods enriched with micronutrients to enhance health and reduce disease risk	Zinc-rich rice (IIRR), Iron-rich pearl millet (ICRISAT), Vitamin-fortified salt
Smart proteins	Protein alternatives produced via biotechnology, reducing reliance on livestock	Plant-based meat (GoodDot), Fermentation-based proteins, Cultivated chicken

1.   Functional foods use **biofortification, 3D printing, nutrigenomics**, and **bioprocessing**.

2.   Smart proteins are aligned with **climate-smart agriculture**, addressing UN-FAO estimates that livestock contributes **14.5% of global emissions**.

3.   **Singapore (2020)** was the **first country to approve commercial sale of cultivated chicken**.

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

India's ecosystem: Progress and opportunities

1. Functional foods and smart proteins are recognized under the **BioE3 (Biotechnology for Economy, Environment and Employment) policy**.
2. Government push through **DBT & BIRAC** funding.
3. In India (as of 2023): **377 alternative protein products** from **70 companies**, Startups: GoodDot, Blue Tribe Foods, Evo Foods, Zydus Lifesciences investing in precision fermentation and CCMB funded ₹ **4.5 crore** for cultivated meat R&D.

4. **Economic Opportunities** as global plant-based protein market value by 2030: **$85 billion — UBS** and **$240 billion — Credit Suisse.**

5. India can become a **global smart protein manufacturing hub**.

Policy and regulatory challenges (critical analysis)

Challenge	Consequence
No FSSAI regulatory clarity for cultivated meat / fermentation proteins	Delays innovation, lowers investor confidence
Lack of infrastructure for precision fermentation	Import dependency
Regulatory overlap: DBT–FSSAI–MoFPI	Slows approvals

Food systems scholars warn of a potential "**corporate capture of food biotechnology**", concentrating profits in few companies. To avoid this, policies must ensure:

1. Standards for **labelling, traceability, allergen risk**
2. Farmer inclusion in **value chains** (e.g., legumes supply for plant protein)

Approaches to address skepticism:

1. **Managing public perception challenges like** "Lab-grown" nature creates **consumer distrust**, cultural/religious hesitations. Low awareness about environmental footprint of conventional livestock.
2. **Transparent communication** like Singapore's Food Agency did.
3. **Public trials, school nutritional programmes** featuring fortified foods.
4. Clear **front-of-pack labelling.**
5. Behavioral science shows that **taste, price, and familiarity** drive adoption more than environmental concerns.

Conclusion

As **Amartya Sen emphasizes in "Development as Freedom,"** true development expands choices. Functional foods and smart proteins expand India's dietary freedom, ensuring nutrition, sustainability, and food justice.

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

Examine the institutional factors hindering India's scientific output of Nobel-calibre work. Critically analyze the necessity of systemic reforms in academic hiring and funding for genuine discovery.

Introduction

No Indian scientist working in India has won a science Nobel since **C.V. Raman in 1930**. India invests only **0.65% of GDP in R&D (UNESCO 2023)**, and systemic institutional flaws—not talent scarcity—limit breakthrough research.

Institutional barriers restricting breakthrough science

Barrier	Evidence / Impact
Opaque and patronage-based hiring	Faculty selection often prioritises connections, regional networks, conformity rather than merit. Young researchers struggle to secure positions despite strong global credentials.
Bureaucratic and hierarchical research culture	Scientists spend time on administrative permissions, procurement delays, and internal politics rather than ideation. ("temples of science turned into bureaucratic fortresses").
Output measured by quantity, not quality	Academia rewards number of papers → "publish or perish". Nobel laureates like **Peter Higgs** published few papers but challenged paradigms. Indian ecosystem punishes such risk-taking.
Lack of high-risk, long-term funding	Funding cycles are short-term and grant decisions depend on committees → discourages fundamental, curiosity-driven research. Nobel science often requires 15–30 years of uninterrupted pursuit.
Senior-dominated leadership structure	Director/Vice-Chancellor positions dominated by academic elites resistant to new ideas. No space for young visionary leadership.
Fragmented industry–academia collaboration	Countries like the U.S. and Israel have strong university-startup ecosystems (Stanford–Google; Technion–Intel), while India's linkage remains weak.

Result: **Incremental research, not disruptive discovery**.

Why money alone is not the solution?

1.	While increased funding is necessary, even a tenfold rise will fail unless **systems reward big ideas, not bureaucratic compliance**.

2.	Countries that produced recent Nobel laureates (Japan, South Korea, Israel) focused on:

   o	Meritocratic hiring
   o	Scientist-led institutions
   o	Competitive grants

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

        ○   Academic freedom

3.   India lacks in these all four metric.

Need for reforms in hiring and funding

1.   **Transparent, merit-based hiring**: Open, global recruitment like **Max Planck Institutes (Germany)** and **Howard Hughes Medical Institute (HHMI)**. Evaluation based on originality and research vision, not number of publications.

2.   **Shift from bureaucratic to scientist-led administration**: Devolving autonomy from ministries to institutions. Reduce administrative approvals via digital procurement systems.

3.   **Long-term, high-risk funding**: Set up a **"Nobel Challenge Grant"** or **Frontier Science Fund**, similar to the U.S. DARPA or EU's ERC grants. Encourage "blue-sky research".

4.   **Leadership rejuvenation — Let younger scientists lead**: Promote globally accomplished scientists aged 40–50 to Directorship (parallel to Sarabhai/Bhabha era). Term limits for leadership positions.

5.   **Performance linked to disruptive outcomes**: Incentivise patents, breakthrough impact, and global citations rather than award collection.

Case Studies

Country	Success Practice
Israel	17% R&D private participation; strong startup–university linkages.
China	Tenure-track reforms + global talent recruitment program ("Thousand Talents Program").
Japan (Nobel wave post-2000)	Long-term funding for basic research + academic freedom.

India can emulate these.

Conclusion

As Richard Feynman wrote, "**Science requires freedom to doubt."** Only transparent hiring, merit-based funding, and young visionary leadership can convert India from **potential to discovery**, from **talent-rich to Nobel-worthy**.

Examine the India-Bhutan relationship as a model for regional cooperation despite asymmetry. Justify how this partnership successfully avoids mistrust and antagonism in a challenging neighbourhood.

Introduction

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

Despite asymmetry—India's economy nearly **250 times larger than Bhutan's (World Bank 2023)**—their ties remain conflict-free. The **2007 Treaty revision** upheld sovereignty, showing how sensitivity, development partnership, and mutual trust shape durable regional diplomacy.

India-Bhutan: A Relationship Built on Trust, Not Dominance

Unlike India's relations with some neighbours (Nepal, Maldives, Sri Lanka) that often oscillate between engagement and suspicion, India-Bhutan ties exemplify **respectful asymmetry**.

Key pillars:

1. **Sovereign equality and non-interference**: 1949 Treaty clause requiring Bhutan to be **"guided by India"** was removed in 2007. The revised treaty affirms **"mutual respect for independence, sovereignty, and territorial integrity."**
2. **Security cooperation without coercion**: India assists Bhutan in defence training and border management. In **Doklam 2017**, India intervened to protect Bhutanese sovereignty and its own strategic interests **after Bhutan sought support**.
3. **Development partnership rooted in Bhutan's priorities**: India finances major **hydropower projects (Tala, Chukha, Punatsangchhu)**. Hydropower contributes **17% to Bhutan's GDP and 30% to government revenues (Royal Monetary Authority 2022)**. Power import from Bhutan helps India meet clean energy targets (SDG-7).
4. **Soft power and cultural connect**: Shared Buddhist heritage, scholars' exchanges, student scholarships. Exposition of Buddha relics from India in Bhutan (2024) reinforces civilizational diplomacy.

This aligns with India's neighbourhood policy pillars: **"Security and Growth for All in the Region (SAGAR)" and "Neighbourhood First."**

Why this partnership avoids mistrust? Lessons for South Asia

1. **Transparency and demand-driven development:** Projects are implemented based on Bhutan's priorities—not Indian conditionalities—reducing suspicion of exploitation.

2. **No interference in domestic politics:** Unlike in Nepal or Maldives, India refrains from overt involvement in Bhutanese internal decisions.

3. **Managing asymmetry with emotional intelligence:** India practices what scholars call "asymmetry with sensitivity"—avoiding the temptation of big-power assertiveness.

4. **Mutually beneficial interdependence:** Bhutan earns revenue through power exports. India receives clean renewable energy.

5. **Shared strategic perspective:** Both remain cautious of China's assertiveness in the Himalayas and prioritise territorial sovereignty.

Comparison with India's relations with other neighbours

Parameter	Bhutan (success case)	Nepal / Sri Lanka / Maldives (challenges)

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

Perception of India	Partner	Big brother
Development cooperation	Demand-driven	Viewed as politically motivated
Border disputes	Sensibly managed (Doklam)	Often politicised
Strategic trust	High	Volatile

Bhutan shows that **trust grows when power is exercised with restraint**.

Way Forward

1. Diversify connectivity: **rail links, digital payments integration, trade corridors**.
2. Expand cooperation on **climate and hydropower**, making Bhutan a green energy hub.
3. Encourage **people-centric diplomacy** through education and tourism.

Conclusion

As **Joseph Nye notes, "Power with others is better than power over others."** India-Bhutan ties illustrate respectful asymmetry, where trust, sovereignty, and shared values produce lasting regional harmony.

Critically analyze how Beijing's WAICO initiative could reshape the global AI order, particularly for the Global South. Examine the strategic need for India to engage without endorsing.

Introduction

The proposed **World Artificial Intelligence Cooperation Organization (WAICO)** by China signals a shift from Western-dominated tech governance to Beijing-led AI multilateralism, challenging existing frameworks like the **UN's Global AI Governance Track (2024)** and OECD AI principles.

WAICO: Beijing's Strategic Bid for Algorithmic Multilateralism

China's WAICO proposal, announced by **President Xi Jinping (2024 APEC Summit, Busan)**, aims to **institutionalise global AI norms under Chinese leadership** — the **"Bretton Woods of algorithms."**

Key features:

1. **Headquarters:** Shanghai — signalling geographic centralisation.
2. **Objectives:** Establish a **technology-sharing platform**, **AI governance standards**, and an **Algorithmic Compensation Fund** financed by AI revenues.
3. **Design:** Formally multilateral, but functionally China-centric — echoing earlier initiatives like the **Global Development Initiative (GDI)** and **Global Security Initiative (GSI)**.

4. **Strategic intent:** To move from being **a rule-taker to a rule-maker**, giving Beijing an edge in **data standards, surveillance norms, and AI trade regulation** — the soft power equivalent of setting global operating systems.

Implications for the Global South

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

For developing nations, **WAICO appears attractive**:

1. Promises **AI access, funding, and capacity-building**, bridging the digital divide.
2. Reflects frustration with **Western techno-nationalism** and export controls on semiconductors (e.g., U.S. CHIPS Act 2022).
3. Offers inclusion and voice where **OECD and EU AI Acts** remain restrictive.

However, **hidden asymmetries persist**:

1. Control over standards may reinforce **digital dependency** rather than autonomy.
2. "Algorithmic colonisation" could replace old economic hierarchies with new **data-driven hierarchies**.
3. Surveillance-based governance models could erode **privacy and democratic accountability**.

Thus, WAICO risks turning **AI multilateralism into a techno-political monopoly**, shaping norms on ethics, bias, and data localisation to align with Chinese interests.

India's Strategic Dilemma: Engage Without Endorsing

India sits at the intersection of **technological sovereignty** and **global cooperation**. As **Chair of the Global Partnership on AI (GPAI)** and leader in **Digital Public Infrastructure (DPI)**, its choices will shape Global South's stance.

Why India must engage:

1. **Access:** To influence governance and prevent exclusion from AI resource pools (chips, compute, cloud).
2. **Voice:** To represent **Global South perspectives** on ethical AI, fairness, and affordability.
3. **Leverage:** Participation provides visibility and early insight into **standard-setting mechanisms**.

Why India must not endorse blindly:

1. WAICO may compromise **data sovereignty** and **open-source ethics**.
2. Could undercut **UN-based AI frameworks** (UNGA 2024 resolution on Global AI Governance).
3. Centralisation in Shanghai risks a **China-centric digital order**, undermining pluralism.

India's prudent approach:

1. **Transparency over geography:** Advocate for open budgeting, rotating leadership, and third-party audits.
2. **Interoperability over ideology:** Promote **DPI model**—combining openness and sovereignty.
3. **Access over allegiance:** Demand **compute quotas** and equitable algorithmic access.
4. **Parallel coalitions:** Build **South-South AI hubs** (e.g., with Brazil, UAE, South Africa) for balanced innovation networks.

Broader Geopolitical Context

1. The **AI governance race** mirrors the 20th-century battles over trade and finance rules.
2. Just as the **IMF and World Bank** institutionalised Western dominance, **WAICO could become Beijing's "Digital Bretton Woods."**

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

3. Hence, India's strategy must blend **strategic autonomy** with **principled multilateralism**, ensuring no bloc monopolises AI ethics or infrastructure.

Conclusion

As **Yuval Noah Harari cautions in Homo Deus, "Those who own the data own the future."** India must shape AI's global grammar—engaging strategically, yet preserving ethical and sovereign autonomy.

Examine how the proposed Shram Shakti Niti 2025 exposes gaps in India's labour landscape. Critically analyze its failure to address the plight of exploited workers.

Introduction

India has **11 million people in modern slavery (Global Slavery Index 2023)** and nearly **90% workforce informal (ILO 2024)**. Amid rising exploitation, the proposed **Shram Shakti Niti 2025** promises reforms but reveals deep systemic gaps.

Labour Landscape: Informalization, Precarity, and Structural Exploitation

1. Field studies and media investigations show widespread **wage theft, absence of contracts, forced labour** and denial of **EPF/ESI** benefits. **Example:** Women in seafood export units were downgraded from registered workers to "daily wagers" to deny provident fund benefits.

2. Despite constitutional guarantees under **Articles 14, 21, 23 and 42**, India's labour market is characterised by:

Indicator	Status
Informal workforce	~90% (ILO, 2024)
Gig/platform workers	~12 million (NITI Aayog, 2022)
Forced labour victims	11 million (Global Slavery Index, 2023)
Female labour participation	33.7% (PLFS 2024)

Shram Shakti Niti 2025: What It Aims to Do

The draft policy claims to be **"rights-driven and future-ready"**. The policy invokes **Directive Principles: Art. 41 (right to work), Art. 42 (humane work conditions), Art. 43 (living wage)**.

Promised Measures:

1. **Universal Social Security Account** integrating EPFO, ESIC, PM-JAY, e-SHRAM.
2. Use of **AI-driven National Career Service (NCS)** for job matching.
3. Targets **35% female labour force participation by 2030**.
4. Enforces safety under **Occupational Safety, Health and Working Conditions Code, 2020**.

How the Policy Exposes Gaps and Contradictions

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

1.   **Social security without funding:** No mandate for employer contributions. Risk of becoming another e-SHRAM: registered **28 crore workers**, but benefit delivery remains negligible. Outcome will be **digital registration without material protection**.

2.   Digital optimism → digital exclusion: 38% households have **functional digital literacy (NFHS-5).** Women, older workers, and migrants are excluded. **Constitutional implication such as it v**iolates **Article 15: non-discrimination**.

3.   **Weak enforcement = empty promises:** Inspector vacancies and absence of penalties make the **"near-zero fatality by 2047"** target aspirational. **Example:** In construction and mining belts, workers die without compensation due to lack of monitoring under the **OSH Code, 2020**.

4.   **Gig and platform workers: flexibility masking exploitation:** No recognition of minimum wages under the **Code on Wages, 2019**. Platform companies **evade accountability—"algorithmic management"** replaces humane management. Case study: Rajasthan's Gig Workers Act (2023) provides **welfare fund**; Centre's policy lacks such provisions.

5.   **Workers Lose Dignity and Bargaining Power: Union weakening**, absence of collective bargaining → loss of voice. Moves MoLE towards being an "employment facilitator", not rights protector. ILO Convention 29 on forced labour remains breached.

Conclusion

As Amartya Sen notes **in Development as Freedom**, growth without dignity is injustice. Shram Shakti Niti's success depends not on digital dashboards but on **funding, enforcement and worker rights**.

Critically analyze the proposition that the Supreme Court's order on stray dogs is inhumane and anti-science. Examine its potential to exacerbate the human-animal conflict instead of resolving it.

Introduction

India records **~1.6 crore dog bites annually (MoHFW 2023)** and is home to the world's largest stray dog population. The Supreme Court's recent order on relocating stray dogs raises ethical, scientific, and legal concerns.

Supreme Court's Order and Its Rationale

The Supreme Court (2024–25) directed:

1. Removal of stray dogs from public spaces such as schools, hospitals, railway stations.
2. Housing them permanently in shelters.
3. Preventing their re-release.
4. Purpose was to reduce dog attacks and ensure public safety.

Why the Order is Considered Inhumane and Anti-Science

Dimension	Why the order is problematic

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

Scientific	Violates established scientific model of **CNVR (Catch-Neuter-Vaccinate-Release)** endorsed by **WHO, World Organisation for Animal Health (OIE)**, and **UN FAO**. Forced confinement **creates a vacuum effect—new unsterilised dogs** migrate into vacated territories.
Legal	Contradicts **Prevention of Cruelty to Animals Act, 1960**, and **Animal Birth Control Rules, 2023**, which **legally mandate sterilisation + release**, not confinement. "Removal without release" indirectly encourages killing, violating **Bharatiya Nyaya Sanhita's anti-cruelty provisions**.
Practicality	India has **780 districts** but less than **10% have functional ABC centres (MoHFW 2024)**. No capacity to house lakhs of stray dogs—no shelters, funds, or trained veterinary manpower.
Humaneness	**Permanent confinement = psychological trauma** for an animal evolved to live in territorial social groups. Equivalent to mass imprisonment of sentient beings.

Example: Bhutan adopted **nationwide CNVR (2009–2023)** and achieved near-total sterilisation, leading to sharp decline in dog bite and rabies cases.

3. How the Order Can Exacerbate Human–Animal Conflict

1. **Increase in new, unvaccinated dogs (Vacuum Effect)**: Removing territorial vaccinated **dogs → vacant niche → unvaccinated dogs move in → higher rabies risk.**
2. **Illegal and panic-driven killing or relocation**: Municipalities lacking shelters may resort to: poisoning, dumping dogs on highways and illegal relocations. Such practices worsen aggression and disperse rabies.
3. **Loss of community cooperation**: Community dog feeders assist in CNVR monitoring. Criminalising feeding breaks this cooperation, delaying sterilisation campaigns.
4. **Rabies management setback**: India already accounts for **36% of global rabies deaths (WHO, 2024)**. Removing vaccinated stray dogs will reverse progress toward **"Rabies Free India by 2030" (National Rabies Control Programme)**.

Constitutional Dimensions

1. **Article 21** protects the right to life—not just human, but interpreted by courts to extend to animal dignity (A. Nagaraja Judgment, 2014).
2. **Fundamental Duties (Art. 51A(g))** impose responsibility to show compassion to animals. Thus, the order conflicts with India's constitutional morality and animal welfare jurisprudence.

The Humane and Effective Path: CNVR + Public Health

1.   Global best practices show: CNVR + vaccination + community participation is the **only sustainable method**.

2. Need to invest in infrastructure: one **ABC centre per district**, trained vets, funding to urban local bodies.

Conclusion

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

As Justice H.R. Khanna noted, "**Compassion is a higher law.**" Effective policy must be **science-based and humane**—dogs need sterilisation, not confinement; conflict reduces only when dignity guides governance.

Examine the emergence of 'white-collar' terrorists as a new security red flag. Analyze the implications of middle-aged radicalization and the need to adapt India's counter-terrorism strategy.

Introduction

According to the **NCRB (2023)** and **UNODC reports**, terror recruitment patterns in India are shifting—from vulnerable unemployed youth to educated professionals, signalling a dangerous new phase of **"white-collar radicalization"** demanding strategic recalibration.

The Emerging Trend of White-Collar Terrorism

The **Delhi Red Fort blast (2025)** and the **Faridabad module case** revealed sleeper cells comprising **medical professionals and women doctors** linked to **Jaish-e-Mohammad (JeM)** — marking the rise of **"white-collar terrorists."**

Characteristics:

1. Educated, middle-class, professionally stable individuals (doctors, engineers, IT professionals).
2. Radicalized through ideological indoctrination, not economic desperation.
3. Operate inconspicuously — **"below the intelligence radar."**

Examples:

1. **2016 ISIS module (Hyderabad):** Software engineers radicalized online.
2. **Sri Lanka Easter bombings (2019):** Carried out by affluent businessmen and educated elites.
3. **UK physician Bilal Abdullah (2007 Glasgow attack)**: A doctor turned extremist. This pattern challenges traditional security assumptions that poverty breeds extremism.

Drivers of Middle-Aged and White-Collar Radicalization

Driver	Explanation
Ideological Alienation	Online extremist narratives exploit identity crises and perceived religious or political injustices.
Cognitive Radicalization	Professionals often encounter ideological material through encrypted apps and closed digital communities.
Emotional Triggers	Grievance-based propaganda (e.g., global conflicts like Gaza or Syria) taps into moral outrage.
Technological Access	Dark web forums, Telegram, and encrypted channels bypass traditional monitoring.

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

Social Insulation	Urban anonymity and lack of community engagement allow undetected radical drift.

Case Study: A 2022 NIA investigation revealed a Bengaluru-based tech engineer financing online jihadist propaganda under false digital identities.

Implications for India's Security Architecture

1. **Shift from Peripheral to Insider Threats**: Radicalization among educated professionals erodes institutional trust, especially when individuals are embedded within medical, academic, or IT ecosystems.
2. **Blurring of "Hard" and "Soft" Terror Spaces**: White-collar extremists often engage in **cyber-terrorism, financial transfers, or propaganda operations**, reducing visibility in **traditional kinetic warfare.**
3. **Psychological Complexity**: Radicalization becomes **ideational rather than material**, making de-radicalization harder since it is rooted in beliefs, not deprivation.
4. **Operational Adaptability of Terror Outfits**: Pakistan-based groups like **Lashkar-e-Taiba and JeM** increasingly exploit educated recruits for **cyber operations, logistics, and recruitment**, not merely field attacks.

Adapting India's Counter-Terrorism Strategy

1. **Intelligence Reorientation**: Develop **Behavioral Threat Analysis Units** integrating **psychological profiling and AI-based pattern mapping**. Expand **NIA–IB–NTRO** coordination through **real-time digital forensics**.

2. **Cyber and Cognitive Warfare Preparedness**: Strengthen **Cyber Crime Coordination Centre (I4C)** to monitor radicalization trends on encrypted platforms. Employ **AI-driven predictive policing** and **OSINT (Open Source Intelligence)**.

3. **Counter-Radicalization and Community Engagement**: Launch programmes akin to **UK's "Prevent Strategy"** and **Singapore's Religious Rehabilitation Group (RRG)**. Partner with universities, hospitals, and professional bodies to flag behavioural shifts.

4. **Legal and Institutional Reform**: Update **UAPA 2019** to include "digital radicalization" clauses. Invest in **rehabilitation and psychological counselling centres** under the Ministry of Home Affairs.

Conclusion

Extremism evolves with society. Combating white-collar radicalization demands not only stronger intelligence but also empathetic governance that safeguards minds before borders.

Examine the role of inter-State rivalry in accelerating India's growth. Critically analyze how State-led investor campaigns are altering the traditional dynamics of Centre-State relations.

Introduction

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

According to **NITI Aayog's India Competitiveness Report (2023)**, the rise of **competitive federalism**—where States rival each other to attract investment—has emerged as a key driver of India's post-liberalization economic dynamism and policy innovation.

From Centralised Planning to Competitive Federalism

1. Historically, India's growth trajectory was shaped by **cooperative federalism**—a Centre-led, plan-based system under the **Planning Commission**.

2. Post-1991 reforms dismantled the "license-permit raj," devolving economic decision-making and unleashing **market-based competition among States**.

    3. Pre-1991: States sought **Delhi's patronage** for industrial licenses.
    4. Post-1991: States began **competing for investors** through infrastructure, governance, and policy credibility. **Example:** The transition from centrally allocated steel plants to State-driven industrial corridors like **DMIC** and **Chennai–Bengaluru Industrial Corridor** reflects this transformation.

Inter-State Rivalry as a Growth Accelerator

1. **Investment and Industrialization**: **Andhra Pradesh–Tamil Nadu–Karnataka** competition over Google's AI Data Centre and Foxconn's facility demonstrates healthy industrial rivalry. **Gujarat's semiconductor win** over Maharashtra (Vedanta-Foxconn JV) showcases policy agility and investor confidence.

2. **Policy Innovation and Governance Reforms**: States emulate best practices—**Telangana's TS-iPASS**, **Tamil Nadu's EV policy**, and **Uttar Pradesh's Defence Corridor**—creating a virtuous cycle of reform diffusion.
This fosters **policy benchmarking** and **inter-State learning**, hallmarks of a dynamic federation.

3. **Regional Economic Convergence**: World Bank's **Ease of Doing Business (EoDB) rankings** and **Export Preparedness Index (2022)** have pushed lagging States (Odisha, Jharkhand) to adopt reforms, narrowing regional disparities.

4. **Global Integration**: With **China+1 diversification**, global firms now evaluate Indian States individually, "Invest in Bengaluru, not India in abstract." States thus act as **subnational diplomatic actors**, marketing themselves globally.

How State-led Investor Campaigns Are Redefining Centre-State Relations

Traditional Dynamic	Evolving Dynamic
Centre dispensed fiscal & industrial patronage	States autonomously compete for FDI & domestic capital
Policy uniformity across India	**Asymmetric federalism**—policy diversity reflecting local strengths
Cooperative federalism	**Competitive federalism** within a cooperative framework

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

Centralized funding via Planning Commission	Outcome-based grants via **NITI Aayog**, performance-linked incentives

Examples:

1. **Vibrant Gujarat**, **Magnetic Maharashtra**, **Happening Haryana**, **Global Investors Summit (UP)**— reflect the decentralization of investor diplomacy.
2. **Chief Ministers as "CEOs" of States** — e.g., **CM's of Tamil Nadu, Andhra Pradesh, Uttar Pradesh** leading international roadshows.

Critical Concerns and Cautions

1.   **Risk of "Race to the Bottom"**: Excessive tax breaks, land subsidies, or environmental leniency may hurt fiscal health and sustainability**. Example: Amazon HQ2 bidding war** in the US triggered debates on subsidy overreach.

2.   **Fiscal Federalism Strain**: States demanding greater fiscal autonomy under **GST compensation lapses** may cause vertical imbalances.

3.   **Inequality and Regional Disparity**: High-performing States attract more capital, while poorer States struggle despite reforms—risking **"club convergence."**

4.   **Need for Regulatory Coherence**: Investor competition must not lead to fragmented standards; **NITI Aayog**, **GST Council**, and **Inter-State Council** should harmonize policies.

Way Forward: Towards "Collaborative Competition"

1. **Balanced Federalism:** Combine **cooperative and competitive** fedralism principles — **"Team India" approach.**
2. **Institutional Reforms:** Strengthen **Finance Commission**, **NITI Aayog's ranking mechanisms**, and fiscal performance indicators.
3. **Knowledge Sharing Platforms:** Encourage cross-State learning through best-practice summits.
4. **Inclusive Growth Focus:** Promote capacity building for eastern and northeastern States.
5. **Green Competitiveness:** Align investment races with **SDG-linked development indicators**.

Conclusion

As **Raghuram Rajan's "Federalism and India's Growth"** argues, balanced competition among States catalyzes innovation. Inter-State rivalry, when guided by fairness and sustainability, transforms India's diversity into a collective economic strength.

Examine why Antimicrobial Resistance (AMR) is an escalating threat in India. Justify a comprehensive strategy encompassing GLASS surveillance, rational use, and public stewardship to tackle it.

Introduction

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

WHO's **GLASS 2025** reports that **one in three infections in India is antibiotic-resistant**, reflecting the world's highest AMR levels driven by antibiotic misuse, weak surveillance, environmental contamination, and limited antimicrobial stewardship across health, agriculture, and community settings.

Why AMR is an Escalating Threat in India

1.   **Extremely High Clinical Resistance Rates:** GLASS 2025 shows **E. coli, Klebsiella, Staphylococcus aureus** exhibit **carbapenem resistance exceeding global averages**. ICU settings show alarming MDR and XDR patterns, raising surgical and hospital mortality.

2.   **Overuse and Misuse of Antibiotics:** India is the **world's largest consumer of antibiotics** (Lancet, 2022). OTC access, self-medication, incomplete treatment courses fuel resistance. Veterinary overuse before the **2019 colistin ban** worsened resistance in zoonotic pathways.

3.   **Environmental Drivers: Pharmaceutical effluents**, hospital waste, and sewage containing antibiotic residues create hotspots of resistant bacteria—documented in **Hyderabad, Patancheru, and Delhi drains**.

4.   **Uneven Surveillance and Data Gaps:** Current systems—**ICMR's AMRSN, iAMRSS, NCDC's NARS-Net**—capture mostly **tertiary hospital data**, overestimating severity but missing **community resistance** patterns. Rural, primary, and secondary centres remain largely outside the network.

5.   **Weak Implementation of NAP-AMR (2017–2021):** Only **Kerala** has effectively operationalised a **State AMR plan**. Most States lack funding, coordination, intersectoral mechanisms, or enforcement capacity.

6.   **High Infectious Disease Burden:** India's dual burden of **TB, diarrhoeal diseases, respiratory infections** increases antibiotic consumption and accelerates resistance.

Justifying a Comprehensive Strategy

1.   **Strengthening GLASS-aligned Surveillance:** Why it is essential; **GLASS requires nationwide representative data,** not sentinel tertiary-hospital snapshots. Accurate resistance maps enable evidence-based antibiotic guidelines and procurement. Measures must be, expanding **500+ NABL-certified labs**, integrate private sector data. Build microbiology capacity in **district hospitals**, CHCs, PHCs. Real-time digital platforms like **i-AMRSS** must be universalised.

2.   **Rational Antibiotic Use and Stewardship: Clinical stewardship** like mandatory **hospital AMSPs**, **infection prevention and control (IPC)** standards. Restrict last-line antibiotics; strengthen prescription audits. Promote narrow-spectrum antibiotic usage guided by updated antibiograms. **Regulatory stewardship,** enforcing **Schedule H1**, end OTC sales—Kerala's **AMRITH** model shows measurable reduction in misuse. Regulate agricultural and aquaculture antibiotic use.

3.   **Community and Public Stewardship:** Its essential because AMR is invisible to the public; literacy levels remain very low. Experts stress the need **to "humanise AMR"** so people relate to it. The approach should be mass AMR literacy programmes **(Kerala targets "Antibiotic-Literate State by 2025").** School curricula integration, campaigns by ASHAs, NGOs, large non-profits. Behavioural nudges: Red-label antibiotics, mobile reminders for adherence.

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

4.   Promoting Innovation and Access to New Antibiotics: Support Indian R&D efforts like **Bugworks** developing novel broad-spectrum agents. Respond to WHO's warning that only **12 of 32 antibiotics** in pipeline meet innovation criteria. Incentivise industry via **push and pull funding mechanisms**, PPPs, and tax credits.

5.   One Health Approach: Integrate human, animal, and environmental sectors. Learn from **COVID-19's cross-sectoral collaboration** and apply to AMR preparedness.

Conclusion

As highlighted in the **Global Research on AMR (GRAM) Study**, unchecked resistance threatens decades of medical progress. India must institutionalise GLASS surveillance, stewardship, and multi-sectoral One Health action to avert a looming public-health catastrophe.

Critically examine the proposition that the actions of a US President could be the catalyst for the demise of the global nuclear order. Analyze its implications for multilateral security."

Introduction

Despite nuclear arsenals reducing from **65,000 in the 1970s to 12,500 today (SIPRI 2024)**, recent U.S. signals of resuming nuclear testing threaten to erode long-standing norms, rekindling uncertainties in global nuclear governance.

Why Presidential Decisions in the U.S. Matter for the Global Nuclear Order

1.   The U.S. as an Architect of the Nuclear Regime: The United States shaped the **NPT (1968)**, led the push for the **CTBT (1996)**, and negotiated major arms-control treaties such as **INF (1987)** and **New START (2010)**. Because the U.S. is a nuclear superpower and norm-setter, any deviation from restraint signals a systemic shift.

2.   Resumption of Nuclear Testing: A Normative Shock: Donald Trump's 2025 announcement to "start testing our nuclear weapons" risks: **Breaking the moratorium since 1992,** Undermining the global taboo on nuclear explosive tests **and** Encouraging Russia, China, India, Pakistan, and North Korea to follow suit. The **CTBT**, although not in force, functions as a de facto global norm. Its collapse would dismantle verification structures like the **International Monitoring System (IMS)**.

3.   Acceleration of a New Arms Race: Presidential encouragement of testing or arms development heightens instability by incentivising states to pursue new warhead designs, hypersonic glide vehicles, and MIRV capabilities. Even before Trump's announcement, an incipient arms race existed: **Russia** tested the nuclear-powered Burevestnik cruise missile and Poseidon underwater drone, **China** is rapidly expanding warheads (projected 1,000 by 2030) and **U.S.** began deploying low-yield warheads (W76-2) and new B61-13 bombs

·   **Collapse of Arms-Control Architecture:** Trump's stance threatens the last remaining pillar of U.S.–Russia nuclear stability. The absence of arms-control transparency increases risks of **miscalculation**, **first-strike anxieties**, and **accidental escalation.** U.S. actions since 2018 already weakened the system: Withdrawal from **INF Treaty,** Uncertainty over **Open Skies Treaty and** Minimal progress on **New START extension**, expiring February 2026

Implications for Multilateral Security

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

1. Erosion of Non-Proliferation Norms: A U.S. return to nuclear tests could trigger: Indian and Pakistani renewed testing (India has tested thermonuclear designs only once) Middle Eastern states revisiting latent nuclear programmes (Iran, Saudi Arabia). Growing disenchantment with NPT inequities, pushing states toward hedging.

2. Rise of Regional Nuclear Instabilities

- **East Asia:** Japan and South Korea may reconsider nuclear latency as China expands arsenal
- **West Asia:** An already fragile Iran nuclear situation may worsen
- **South Asia:** India-Pakistan deterrence stability becomes more volatile

3. Undermining UN-based Collective Security: The UN Secretary-General warns that nuclear risks are at "**alarmingly high levels**." If U.S. leadership recedes, multilateral forums like the **UNSC**, **IAEA**, and **NPT Review Conferences** lose coherence.

4. Weakening of the "Nuclear Taboo": Political signalling by a U.S. President that normalises nuclear usability (low-yield warheads, dual-use hypersonics) erodes the moral restraint described by scholars like **Nina Tannenwald**.

Conclusion

Nuclear stability hinges on credible restraint. U.S. destabilisation risks unraveling global norms, making multilateral security arrangements dangerously fragile amid emerging geopolitical fractures.

Examine the concept of 'deep-tech democracy' in India. Critically analyze how shared compute and open data can ensure inclusive Artificial Intelligence (AI) for all citizens.

Introduction

AI's **global concentration—where 90%** of advanced compute lies in a few nations **(OECD 2023)—**risks widening digital inequality. India's emerging "deep-tech democracy" seeks to democratise compute, data, and talent, enabling inclusive, citizen-centric AI.

Understanding 'Deep-Tech Democracy' in India

1. 'Deep-tech democracy' refers to India's model of **state-led, public-good-oriented technological development** that treats AI as a **shared societal resource rather than proprietary capital.**

2. Through the **IndiaAI Mission (2024)**, India aims to decentralise access to computation, datasets, and skilling so that innovation is not confined to elite institutions or global corporations.

3. It is anchored in the **Samaj–Sarkar–Bazaar framework,** integrating society, government, and markets to ensure **ethical, accountable, and inclusive technological progress.**

Role of Shared Compute in Democratizing AI

1. Reducing the Compute Divide: India's deployment of **38,000+ GPUs** under the national AI compute grid provides affordable high-performance compute to start-ups, students, and researchers. This contrasts sharply with global monopolies where a few firms—OpenAI, Google, Amazon—control frontier compute, restricting innovation in the Global South.

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

2. Enabling Grassroots Innovation: The compute grid allows: AI-based crop advisory models for small farmers. Local-language applications for governance and citizen services. Affordable R&D for deep-tech start-ups such as in healthcare diagnostics, climate modelling, and precision agriculture. This mirrors the success of DPI systems such as **UPI**, where **shared infrastructure led to innovation at scale.**

3. AI as a Public Utility: By socialising compute costs, India reduces entry barriers. Start-ups no longer require millions of dollars for GPU access, promoting **equitable participation** rather than algorithmic dependency on global tech giants.

Critical Perspective

While transformative, challenges remain:

1.   Public compute infrastructure must avoid bureaucratic bottlenecks

2.   Ensuring fair access across states and institutions is essential

3.   Power shortages and cloud dependence could create operational vulnerabilities

Open Data as the Second Pillar of Inclusion

1. AI Kosh and Local Contextual Datasets: Over **360 curated datasets** across agriculture, health, climate, and governance are being made available through AI Kosh. This tackles a major gap identified by **UNESCO's 2023 AI Readiness Report**—the Global South's dependence on Western datasets that fail to represent local realities.

2. Linguistic Inclusion through Bhashini: Digital India Bhashini, backed by **Project Vaani's 150,000 hours of speech data**, enables AI systems in 22 Indian languages—critical in a country where only **11%** are English proficient.

3. Governance Use Cases: Open datasets enable AI applications in: Precision agriculture (e.g., crop disease prediction), public health surveillance (e.g., TB and maternal health analytics), urban mobility and disaster forecasting. This strengthens **evidence-driven policymaking**, fulfilling **NITI Aayog's vision of "AI for All" (2018).**

Critical Concerns

1.   Ensuring **privacy-by-design** is essential to avoid data misuse

2.   Need strong data anonymisation standards under DPDP Act

3.   Avoiding dataset centralisation that could marginalise smaller states

Conclusion

As Amartya Sen argues in Development as Freedom, true progress expands people's capabilities. India's deep-tech democracy advances this ideal, ensuring AI becomes an empowering public good rather than an exclusionary privilege.

Created with love ❤ by ForumIAS- the knowledge network for civil services.

Visit academy.forumias.com for our mentor based courses.

ForumIAS

Evaluate Flexible Inflation Targeting (FIT) as a balanced monetary policy framework. Justify the necessity of deriving acceptable inflation rates consistent with India's growth prospects and macro conditions.

Introduction

India's 2016 adoption of Flexible Inflation Targeting (FIT) stabilised inflation despite global shocks, with CPI inflation averaging near 4.5%. As RBI reviews the framework for 2026, recalibrating acceptable inflation consistent with growth becomes crucial.

What is Flexible Inflation Targeting (FIT)?

1.   Flexible Inflation Targeting (FIT) represents a calibrated approach to price stability, giving the Reserve Bank of India autonomy to anchor inflation expectations while accommodating growth impulses.

2.   The current 4% ±2% target, introduced through the Monetary Policy Framework Agreement (2016), has helped India maintain macroeconomic stability even amid supply shocks, COVID-19 disruptions, and global geopolitical volatility.

FIT as a balanced monetary policy framework

1. **Anchoring inflation expectations:** Studies by the RBI and IMF show that post-2016, household inflation expectations became less volatile. A credible anchor reduces the "inflation tax" on the poor— aligning with the article's point that high inflation is regressive.
2. **Accommodating growth (flexibility component):** Unlike strict inflation targeting regimes (e.g., New Zealand in early 1990s), FIT allows Indian monetary policy to consider output gaps, supply shocks, and financial stability. The **MPC's accommodative stance** during 2020-22 prevented a deeper recession despite inflation temporarily breaching the 6% upper band.
3. **Institutional autonomy & policy discipline:** FIT complements FRBM legislation by preventing fiscal dominance. The end of automatic monetisation in 1994 and the FIT regime together reduce risks of "fiscal inflation" characteristic of the 1970s-80s.
4. **Clarity on headline vs core inflation:** As the article notes, targeting **headline inflation** is logical because food inflation often triggers second-round effects on wages and core CPI in India. Technical tools like **output gap analysis** and **Phillips Curve estimations** strengthen decision-making.
5. **Performance during shocks:** Despite global commodity shocks, India's inflation largely stayed within or near the band. World Bank's 2023 report recognised India as one of the few large economies avoiding double-digit inflation.

Why deriving acceptable inflation rates is essential now

1. **Threshold inflation for growth:** Empirical studies (RBI 2023, Sarel 1996) indicate that above **4–6%** inflation, growth begins to deteriorate. The article's analysis shows an inflection point at **3.98%**, making the current target economically justified.
2. **Forward-looking calibration (2026–2031):** Deriving an acceptable inflation rate must consider expected fiscal consolidation, global supply chain realignments, climate change-related food shocks, and energy transitions over the next decade.
3. **Macroeconomic compatibility:** Acceptable inflation must be consistent with:
   o **External stability:** To avoid currency depreciation and imported inflation.
   o **Financial stability:** Preventing excessive credit cycles.

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

- ○ **Investment climate:** Predictable prices encourage long-term capital formation.
4. **Avoiding target drift:** A higher target (e.g., 5–6%) may weaken RBI's credibility and allow prolonged inflation close to the upper band, risking stagflation. The article rightly notes that **staying near 6% undermines FIT's spirit**.
5. **Alignment with global best practices:** Most credible inflation-targeting economies (UK, Canada, Australia) maintain targets between **2–3%**. India, as a supply-shock-prone emerging economy, may justify a slightly higher threshold, but evidence still favours the 4% benchmark.

Needed refinements

1. Clear communication on tolerance duration near upper/lower bands.

2. Stronger monetary–fiscal coordination to avoid policy slippages.

3. Improved high-frequency inflation data, especially for rural markets.

4. Enhanced modelling for climate-sensitive food inflation.

Conclusion

Credible inflation targeting sustains growth. India must refine FIT by deriving realistic, evidence-backed targets aligned with future macroeconomic conditions.

Examine the reasons for India missing the 2025 TB elimination target despite high case diagnosis. Critically analyze the systemic gaps contributing to the global burden.

Introduction

Despite diagnosing over 26 lakh TB cases in 2024 and achieving 92% treatment coverage, India remains far from the 2025 elimination target, reflecting persistent structural, biomedical, and socio-economic barriers highlighted by the Global TB Report 2025.

TB Burden of India

1. India accounts for the **world's largest tuberculosis (TB) burden—27.1 lakh cases and over 3 lakh deaths in 2024.**

2. Despite progress in case detection and treatment coverage, the country has missed its ambitious goal of eliminating TB by 2025.

3. A combination of systemic weaknesses, social determinants, and programmatic disruptions continue to impede India's march toward "End TB".

Reasons For India Missing The 2025 Tb Elimination Target

High diagnosis but slow decline in incidence and mortality

1. The Global TB Report 2025 shows India achieved a **21% reduction in TB incidence** and **28% reduction in deaths** since 2015—far below the 2025 milestones of **50% incidence reduction** and **75% mortality reduction**.

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

2. Elimination, defined as <1 case per million, remains distant. Although India diagnosed more than **80% of estimated cases**, its large absolute burden means even small undiagnosed percentages translate into huge numbers—contributing **8.8% of the global gap** in undetected TB.

COVID-19 disruptions and programmatic diversion

1. The **COVID-19 pandemic severely disrupted TB services**, causing diagnostic delays, treatment interruptions, and resource diversion.

2. Studies by the Indian Council of Medical Research (ICMR) show that TB notifications fell by 25% during 2020, and the backlog took years to recover—resulting in increased community transmission and drug resistance.

Persistent drug-resistant TB burden

1. India accounts for **one-third of global drug-resistant TB (DR-TB)** cases. **3.64% of new cases** and **12.63% of previously treated cases** were drug-resistant in 2024.

2. Transmission of untreated DR-TB poses epidemiological challenges, raising treatment costs and prolonging infectiousness. Despite the rollout of **all-oral regimens (BPaL)**, access gaps remain, especially for children.

Gaps in treatment adherence and preventive therapy

1. Treatment completion remains a challenge due to socioeconomic vulnerabilities, migration, stigma, and long treatment courses.

2. Non-adherence increases relapse and DR-TB.

3. Preventive therapy for high-risk contacts—central to WHO's strategy—remains underutilized due to supply shortages of isoniazid and rifapentine, and weak follow-up mechanisms.

Social determinants: malnutrition, pollution, diabetes

TB is a **"disease of poverty."**

1. **Malnutrition accounts for 34–40%** of India's TB cases (Lancet Public Health, 2022).
2. **Air pollution**, especially in urban areas like Delhi, worsens TB outcomes.
3. **Diabetes contributes 3.2 lakh cases** in 2024, creating a syndemic relationship between chronic and infectious diseases.
   These structural determinants amplify transmission and reduce treatment success.

Uneven availability of diagnostics and drugs

1. Despite innovations like **AI-enabled handheld X-ray devices** and expanded GeneXpert coverage, gaps persist: intermittent shortages of first-line drugs (as reported in 2024), weak diagnostic access in tribal and remote regions, insufficient paediatric formulations.

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

2.   This limits the reach of the Ni-kshay ecosystem, though it remains a strong platform for digital treatment monitoring.

Private sector engagement and regulatory challenges

1.   Nearly **50% of TB patients** first seek care in the private sector, where notification, standardised treatment, and follow-up remain inconsistent.

2.   Although the Private Provider Interface Agency (PPIA) model in Mumbai and Patna showed success, national-scale integration remains incomplete.

Conclusion

Disease control fails without addressing structural inequities. India's TB elimination requires biomedical innovation combined with stronger health systems, social protection, and sustained multisectoral action.

Examine the potential of revised royalty rates to resolve India's critical mineral bottlenecks. Analyze the significance of this policy for graphite, caesium, rubidium, and zirconium in the current geopolitical backdrop.

Introduction

Amid surging **global demand for green-energy minerals**, India remains heavily import-dependent for key critical minerals. Revised **royalty rates for graphite, caesium, rubidium and zirconium** reflect a strategic push to strengthen domestic exploration, production, and supply-chain resilience.

What is the Recent Move?

1.   India's decision to **rationalise royalty rates for selected critical minerals** marks a major shift in aligning mineral policy with energy transition priorities and geopolitical realities.

2.   By **moving graphite to an ad valorem regime** and **lowering royalty rates for caesium, rubidium, and zirconium,** the government seeks to correct price distortions, attract private bidders, and **reduce India's strategic vulnerabilities** in critical mineral supply chains.

Potential of revised rates to address critical mineral bottlenecks

1. **Improving commercial viability through ad valorem pricing**: The shift from **per-tonne** to **ad valorem royalty** for graphite aligns royalties with market prices. Low-grade deposits earlier became unviable during price downturns, discouraging private mining. Now, royalties will rise and fall with **ASP (Average Sale Price),** giving miners predictable margins. This aligns with **global best practices in Australia and Canada**.
2. **Boosting auction participation**: Under the **MMDR Act**, minerals without defined royalty rates attract a **default 12% rate. Caesium, rubidium, and zirconium** earlier fell under this rule despite having no stable ASP or domestic production. A high, arbitrary royalty deterred bidders; hence only **34 out of 81 blocks** have found takers since 2023. Reduced **royalty rates (1–2%) lower entry barriers** and can stimulate exploration in deep-seated deposits.
3. **Encouraging domestic exploration and reducing import dependence**: India is **100% import-dependent** for several critical minerals essential for EVs, batteries, semiconductors, and clean-energy

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

technologies. Revised royalty rates support the **National Mineral Exploration Policy (NMEP)** and **Critical Minerals List (2023),** improving prospects for locating associated minerals such as lithium, niobium and REEs.

4. **Enhancing state revenues while promoting investment**: Ad valorem royalties ensure that states benefit during price booms **without penalising miners during downturns**. This creates a balanced fiscal-investment framework, similar to Chile's copper royalty regime.

Significance in the current geopolitical backdrop

1. **China's dominance and export restrictions**: China controls **90% of global critical mineral processing** and has imposed export curbs on several rare earths and strategic minerals. The desire to reduce strategic **dependence on China**—and the vulnerability exposed by its year-long restrictions—makes the royalty revision geopolitically significant.

2. **Strategic alignment with global mineral alliances**: India's move aligns with mechanisms like the **Minerals Security Partnership (MSP)** and Indo-Pacific supply-chain initiatives that promote diversified sourcing away from China. **Lower royalties make India an attractive site for global investment** and technology partnerships.

3. **Supporting India's green-economy objectives**: Demand for graphite is increasing due to battery manufacturing; zirconium is crucial for nuclear reactors and advanced optics; caesium and rubidium are critical for quantum technologies and atomic clocks. Rationalising royalties advances the goals of the National Electric Mobility Mission, National Green Hydrogen Mission, and semiconductor initiatives.

Remaining structural constraints

However, royalty reform alone cannot resolve bottlenecks.

1. **Processing ecosystem gaps**: India accounts for only **3% of global processed copper**, indicating limited refining capacity across minerals.

2. **Regulatory rigidity and lack of technical expertise**: CSEP's report highlights weak exploration incentives and underdeveloped deep-mining capabilities.

3. **Limited private participation in REE processing**: Historically restricted due to classification as atomic minerals.

Unless supported by processing infrastructure, technology partnerships, and skilled manpower, expanded mining may not translate into strategic self-reliance.

Conclusion

As highlighted in CSEP's analysis and echoed in Dani Rodrik's work on structural transformation, royalty reforms are necessary but insufficient; India must combine them with processing capacity, regulatory clarity, and global partnerships for true mineral security.

Critically analyze the global challenge of climate finance mobilization. Justify India's demand for developed nations to achieve the $1 trillion annual target and track it alongside mitigation efforts.

Introduction

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

Despite **the Paris Agreement's commitment to mobilise USD 100 billion annually**, **OECD data shows consistent under-delivery.** Climate needs now exceed **USD 7 trillion yearly**, exposing widening finance gaps, inequities, and accountability **failures jeopardising global mitigation**-adaptation goals.

The Global Climate Finance Challenge: Structural and Operational Deficits

1.   Chronic under-delivery and ambiguity: OECD (2023) reported only **USD 89.6 billion** delivered—far from the promised **USD 100 billion**, let alone the required trillions. Lack of clarity on **what qualifies as climate finance** (grant, concessional loan, or relabeled development aid) creates **inflated accounting** and erodes trust.

2.   Rising needs, stagnant flows: IPCC AR6 estimates **USD 3.5 trillion annually** is needed for global energy transition. UNEP's 2024 Adaptation Gap Report shows adaptation needs at **USD 215–387 billion/year**, but current flows are only **one-tenth** of this. Loss and Damage needs could exceed **USD 400 billion/year** by 2030.

3.   Skewed distribution and prohibitive access: 82% of tracked climate finance flows towards **mitigation**, leaving adaptation underfunded. Highly vulnerable LDCs and SIDS face:

1. **High borrowing costs**
2. **Complex Multilateral Development Bank (MDB) procedures**
3. **Long approval timelines** (average 18–24 months for GCF projects)

4.   Governance disparities: Bretton Woods institutions remain governed by developed countries. Developing nations face **limited voting power**, reinforcing a system that prioritizes creditors over climate justice.

Why India's Call for USD 1 Trillion and Tracking is Justified

1.   India's demand aligns with equity and Common But Differentiated Responsibilities (CBDR-RC): Developed nations have contributed **92% of historical emissions**. India, with **per capita emissions at 1.9 tCO$_2$**, argues that climate ambition requires proportionate financial responsibility from high emitters.
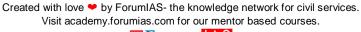
2.   Massive investment requirements justify higher targets: Global requirement: USD 7–9 trillion annually (IEA, IMF, IPCC). India alone requires **USD 467 billion** by 2030 for hard-to-abate sectors and **USD 10 trillion** to achieve net-zero by 2070. Thus USD 100 billion is "symbolic, inadequate, and outdated".

3.   **Tracking climate finance ensures transparency and prevents greenwashing:** PM's statement at COP26—**"as we track mitigation, we must also track climate finance"**—addresses: Opaque reporting**,** Double counting of loans**,** Misclassification of development aid as climate finance **and** Lack of verifiable, comparable metrics. A **global Climate Finance Registry** would enhance credibility, similar to the **Global Stocktake (GST)** for mitigation.

4.   India demonstrates domestic leadership, strengthening its global case: Two-thirds of India's climate finance is domestic. India's **Climate Finance Taxonomy** ensures scientific, standardised classification of green assets. **Sovereign Green Bonds**, the **National Green Hydrogen Mission**, and **massive renewable scale-up** show that India is not merely demanding but also delivering.

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

5.   India pushes for MDB reforms: India's G20 Presidency advocated: Using **blended finance** and **guarantees** to de-risk private capital**,** Democratizing MDB governance and prioritizing **adaptation**, **resilience**, and **Loss & Damage.** This aligns with the Bridgetown Initiative and UN Secretary-General's calls for systemic reform.

Conclusion

A sustainable climate regime requires transparent, adequate, and just finance frameworks. As Nobel laureate Joseph Stiglitz notes, reforming global financial architecture is essential for equitable climate action and credible multilateralism.

Evaluate the impact of the New Telecom Policy's revenue-sharing model on the sector's growth. Examine how the Supreme Court's ruling on dues has mitigated a crippling financial blow."

Introduction

India's telecom sector, serving **over 1.17 billion subscribers (TRAI, 2024),** expanded rapidly after the **1999 New Telecom Policy** introduced r**evenue-sharing, replacing fixed fees, catalysing competition, FDI inflows, and nationwide digital penetration**.

Impact of the New Telecom Policy (NTP-1999) Revenue-Sharing Model on Sectoral Growth

1.   Shift from fixed licensing to revenue-sharing boosted market entry: Before 1999, high fixed licence fees discouraged private players, resulting in poor teledensity (<3%). NTP-1999 introduced **Adjusted Gross Revenue (AGR)-based revenue sharing**, reducing upfront costs and making the sector commercially viable.

2.   Massive growth in teledensity and affordability: India's teledensity rose from **3% in 2000** to **over 93% by 2023** (TRAI). Tariffs became among the world's lowest, promoting **digital inclusion**. Prepaid innovation, discounts, and mass-market pricing expanded rural access.

3.   Explosion of investment and technology upgradation: FDI into telecom increased from **USD 60 million (1999)** to over **USD 39 billion by 2023** (DPIIT). Enabled **transition from 2G → 3G → 4G → 5G**. Spectrum auctions, tower-sharing, and infrastructure modernisation were supported by predictable licensing costs.

4.   Strengthening of competition and consumer welfare: Revenue-sharing encouraged multiple operators, lowering call/data prices. India became the highest mobile data-consuming nation (Ericsson Mobility Report 2023).

5.   But definition disputes over AGR created systemic uncertainty: AGR included **non-telecom revenues**, like **interest/dividends—expanding payable dues**. **Accounting standards (AS-9) define** revenue as actual inflows; operators claimed dues must apply only to realised revenue after discounts. The dispute became a structural fault line in policy–regulation coherence.

The 2019 Supreme Court Judgement: A Crippling Financial Blow

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

1.   **SC's broad interpretation of AGR expanded liabilities:** Court insisted companies pay licence fees on **published tariff (MRP)**, not discounted price actually earned. Example: Voucher MRP ₹100 discounted to ₹75 → dues calculated on ₹100. Violated principles of accrual accounting and AS-9 norms.

2.   **Catastrophic financial implications:** Total demand: **₹93,000 crore**, of which **₹70,000 crore (75%)** was **interest, penalties, and interest on penalty**. Principal dues: only **₹23,000 crore**. Monthly-compounding interest at **14%+**, plus penalty, created unsustainable financial distress.

3.   **Sectoral impact: consolidation, losses, and risk to competition:** Vodafone-Idea faced insolvency risk; market moved from **12 operators → 3 private players**. Diminished competition threatened consumer choice and tariff affordability. Counter to **National Digital Communications Policy (NDCP 2018) goals.**

How the Recent Supreme Court Relief Mitigates the Blow

1.   **Reconsideration of AGR and waiver of penal components:** SC's latest order permits: Re-calculation of dues**,** Possible waiver of **interest and penalties** and recognition that operators followed TDSAT rulings until 2019.

2.   **Restoring financial sustainability:** Reduces insolvency risk for Vodafone-Idea, enables operators to reinvest in 5G rollout and infra and encourages lender confidence, easing sectoral liquidity.

3.   **Aligns judicial reasoning with economic impact assessment:** SC has earlier stressed (2016) that courts must consider **economic consequences** of their orders. Reassessment aligns with global best practices where penalties require **"wilful default"** (per 1970 SC principle).

4.   **Supports long-term sectoral stability:** Relief helps preserve a **three-player market**, maintaining competition. Vital for Digital India, BharatNet, and 5G/6G ambitions.

Conclusion

As highlighted in **Raghuram Rajan's I Do What I Do**, regulatory clarity underpins economic stability. The SC's reconsideration restores balance, enabling India's telecom sector to pursue inclusive, competitive, digital growth.

Examine the causes and implications of the recent record goods trade deficit on India's external trade landscape. Justify the necessity of a structural shift in the trade portfolio.

Introduction

India's October goods trade deficit hit a historic **$41.68 billion**, driven by tariff shocks, bullion inflows, and weakened exports, reflecting vulnerabilities flagged by the **WTO Trade Outlook 2024** amid increasing global protectionism and supply-chain fragmentation.

Causes of the Record Goods Trade Deficit

1.   **External Tariff Shock from the U.S.:** The **50% U.S. tariff** imposed in August critically affected India's largest export market (nearly **18% of India's exports**). Labour-intensive sectors—textiles, apparels, engineering goods—saw declines of **12–17% YoY**, significantly reducing export earnings.

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

2.   Surge in Bullion Imports (Gold and Silver): Gold imports tripled ($4.92 billion last year) and **silver imports increased more than fivefold**. This reflects **safe-haven hedging** owing to: Rupee depreciation **(₹85.6 per dollar in April → ₹88.4 in October). Foreign portfolio outflows**, signalling investor uncertainty. Non-essential, high-value imports directly widen the merchandise deficit.

3.   Depreciating Rupee and Its Feedback Loop: A weaker rupee increases import costs; energy, electronics, and intermediate goods constitute **over 70% of India's essential imports**. Higher **import bills → higher trade deficit → further pressure on rupee**—a classic **current account vulnerability cycle**.

4.   Increase in Import of Cheaper Intermediate Goods: Engineering and electronics exporters substituted domestic inputs with **lower-priced imported intermediates** to stay competitive. Suggests **domestic supply-chain inefficiency** and cost disadvantages.

5.   Global Slowdown & Supply Chain Realignments: UNCTAD's Trade and Development Report notes **slowing global goods demand** and higher friction due to geopolitical tensions. Indian exports to **EU and UK** also stagnated due to recessionary trends.

Implications for India's External Trade Landscape

   1.   Rising Diplomatic Vulnerability: Excessive dependence on a single market—like the U.S.—creates **strategic leverage asymmetry**. The tariff episode exposed India's exposure to **external policy unpredictability**.

   2.   Stress on Current Account and Currency Stability: A prolonged high goods deficit can push the **Current Account Deficit (CAD)** beyond the comfort threshold of **2% of GDP**. This affects investor sentiment, external borrowing costs, and foreign exchange reserves.
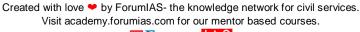
   3.   Impact on Labour-Intensive Exports: Textiles, apparel, engineering goods employ millions in **MSME clusters (Surat, Tiruppur, Ludhiana).** Export contraction risks **employment loss**, regional distress, and reduced competitiveness.

   4.   **Risk of Imported Inflation:** Higher import dependence in critical sectors (energy, electronics) magnifies India's exposure to **global commodity cycles**.

Why a Structural Shift in India's Trade Portfolio Is Necessary

   1.   Diversification of Export Markets: India must expand into **Latin America, Africa, ASEAN**, reducing concentration risk. **Example:** Vietnam's diversification strategy increased its resilience during U.S.–China trade tensions.

   2.   **Moving Up the Value Chain:** Export basket dominated by low-value products must shift towards: electronics value-addition, chemicals, green technologies, defense goods. Alignment with **Make in India 2.0**, PLI schemes, and GVC integration is essential.

   3.   **Reducing Bullion and Non-essential Imports:** Promote **gold monetisation**, domestic recycling, and jewellery hallmarking. Encourage local production of intermediates through cluster development and cost rationalisation.

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

4.   **Strengthening Domestic Supply Chains:** The **National Logistics Policy (2022)** and **PM Gati Shakti** can lower input costs and reduce dependence on foreign intermediaries.

5.   **Trade Agreements & Strategic Realignment:** Fast-tracking **FTA negotiations** (EU, UK), expanding **India-UAE CEPA gains**, and concluding the **India–U.S. Bilateral Trade Agreement** will stabilise external demand.

Conclusion

As highlighted in **Dani Rodrik's globalisation hypothesis**, resilient economies diversify risk. India's widening deficit underscores the need for structural trade reorientation to reduce vulnerability and enhance long-term strategic autonomy.

Examine the paradoxes in India's agricultural policy regarding cereal stocks versus pulse and oilseed imports. Critically analyze the necessity of reforming cropping patterns for food security.

Introduction

India simultaneously maintains **excess rice stocks (356 lakh tonnes vs 102 lakh tonne norm)** yet imports oilseeds and pulses worth **₹1.5 lakh crore**, reflecting structural distortions highlighted by **NITI Aayog (2023)** in cropping patterns and procurement policies.

The Paradoxes in India's Agricultural Policy

1.   **Cereal Surpluses vs Persistent Deficits in Pulses and Oilseeds:** Rice procurement in 2024–25 was **over 525–547 lakh tonnes annually**, while PDS offtake averaged only **392–427 lakh tonnes**. Despite this surplus, India imported:

2.   **Edible oils worth ₹1.2 lakh crore (2023–24)**, covering 55% of demand, **Pulses worth ₹30,000 crore**, even though India is the **world's largest pulse producer (252 lakh tonnes)**. This mismatch indicates a **policy-induced cereal-centric bias** driven by MSP, assured procurement, and PDS requirements.

3.   **Procurement-Driven Mono-Cropping of Paddy and Wheat:** States like **Tamil Nadu, Punjab, Haryana** show heavy paddy dependence due to MSP assurance. Kuruvai season in Tamil Nadu—characterised by a large procurement glut—reveals **incentive distortions and procurement leakages**.

4.   **Unsustainable Fiscal Burden:** Food subsidy exceeds **₹2 lakh crore annually**, majority spent on procuring and storing rice/wheat. Excess cereals in FCI godowns (2–3× buffer norms) create **financial, logistical, and environmental strain**.

5.   **Paradox of Import Dependence Despite Similar Land Use:** Oilseed area has stagnated at **~25 million hectares for two decades**. Production crossed **400 lakh tonnes only once since 2014**, reflecting chronic neglect despite rising consumption.

Causes Behind the Distorted Production Structure

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

1.	**MSP and Procurement Skewed in Favour of Rice and Wheat:** Over 70% of MSP procurement expenditure goes to paddy–wheat. Pulses and oilseeds, despite MSP, lack **assured procurement**, discouraging farmers.

2.	**Policy Legacy: Edible Oil Import Liberalisation (1990s):** Cheap palm oil imports suppressed domestic oilseed prices, creating a long-term decline in competitiveness. Even today, India imports **55% of edible oils**, making domestic oilseed farmers less profitable.

3.	**Poor Market Linkages and Value-Chain Integration:** Lack of Farmer Producer Organisations (FPOs), direct procurement, and agro-processing for pulses/oilseeds limits returns. Contrasts sharply with highly networked rice–wheat systems.

4.	**Environmental Externalities:** Paddy monoculture contributes to

    - groundwater depletion (**Punjab groundwater table falling 0.5 m/year**),
    - methane emissions,
    - declining soil health due to urea-intensive practices.

Why Cropping Pattern Reform is Necessary

1.	**For Long-Term Food and Nutritional Security:** Pulses and oilseeds are indispensable for protein and fat security in Indian diets. FAO warns that **overreliance on cereals weakens nutritional outcomes**.

2.	**To Correct Market and Policy Distortions:** Reforms needed like **Diversified MSP + assured procurement** for pulses and oilseeds (like Madhya Pradesh's Bhavantar Scheme). **Remunerative price support**, local processing clusters, and contract farming reforms.

3.	**Encouraging Crop Diversification and Climate-Resilient Farming:** Promote water-efficient crops such as millets, pulses, oilseeds under **PMFBY, PMKSY, and MSP reforms**. Introduce **region-specific diversification plans**, leveraging agro-climatic zones.

4.	**Strengthening FPOs and Supply Chains:** FPOs can organise direct procurement (e.g., blackgram supply for papad units), ensuring better price realisation. Tamil Nadu, West Bengal models of FPO-led procurement should be scaled up.

5.	**Linking Production to Global Markets:** Allow freer rice exports; avoid sudden export bans that destabilise farmer expectations.

Conclusion

As Amartya Sen emphasises in **Poverty and Famines,** food security is about access, not stocks. India must shift cropping patterns to rebalance nutrition, sustainability, and long-term economic resilience.

Examine the hidden cost of polluted groundwater on public health and agriculture in India. Justify the necessity of a nationwide, real-time monitoring system with open data access.

Introduction

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

With nearly **600 million Indians dependent on groundwater**, contamination across **440+ districts (CGWB 2024)**—from arsenic to fluoride—imposes severe health and economic losses, costing nearly **6% of GDP (World Bank)** annually.

Hidden Public Health Burden of Polluted Groundwater

Rising Toxicity and Human Capital Loss

1. The **Annual Groundwater Quality Report 2024** shows ~20% samples exceeding permissible contamination limits.
2. Punjab records uranium contamination in **one-third** samples; Mehsana (Gujarat) reports chronic fluorosis.
3. **Arsenic exposure** in the Ganga basin (West Bengal, Bihar, UP) affects ~50 million people **(WHO).**
4. Waterborne diseases cause **1.6 million deaths globally**, with India contributing significantly; diarrhoea alone kills **hundreds of thousands of children under five** each year.

Economic Cost of Illness and Inequality Effects

1. Households face **high out-of-pocket expenditure (OOPE)** which accounts for **55% of total health spending (NHA 2023).**
2. Poorer families, unable to afford filtration or bottled water, suffer greater morbidity, reinforcing **intergenerational poverty** and lowering workforce productivity.
3. Cognitive impairments from arsenic and fluoride reduce **learning outcomes** and long-term earning potential **(UNICEF 2022).**

Healthcare Burden and Workforce Loss

1. Toxic exposure results in **skeletal deformities, kidney failure, gastro-intestinal disorders**, raising medical bills and eroding savings.
2. The article notes how families fall into **cycles of medical debt**, deepening rural distress.

Agricultural and Economic Losses from Polluted Groundwater

1. Declining Productivity and Soil Degradation: Polluted groundwater accelerates desertification and damages soil microbiome; **30% of India's land** is **degraded (ISRO).** Heavy metals and nitrates reduce crop yields and lower income of farmers near polluted water sources.

2. Threat to Food Quality and Agro-Exports: Traceability requirements by EU, US, and Gulf markets increase scrutiny. Instances of **export rejections** for rice, vegetables, and spices due to residues risk India's **$50-billion agricultural export sector**.

3. Vicious Cycle in Over-extracted Regions: Punjab extracts **1.5 times its sustainable limit**, forcing deeper drilling and increasing contamination exposure. Dependence on urea and agro-chemicals worsens nitrate pollution.

Why India Needs a Nationwide, Real-time Groundwater Monitoring System

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

1. **Early Warning and Risk Mapping:** A digital, sensor-based system—integrated with **CGWB, CPCB and IMD**—can detect contamination (arsenic, fluoride, nitrates, heavy metals) rapidly. Helps create **contamination hotspots**, vital for targeted interventions.

2. **Transparent, Open-Access Data Empowering Communities:** Open data encourages social accountability and enables **Gram Panchayats, FPOs, SHGs** to demand corrective action. Reduces information asymmetry—the "invisible crisis" becomes visible.

3. **Strengthening Regulation and Industrial Compliance:** Real-time monitoring will curb illegal discharge of industrial effluents and untreated sewage by enabling **automated alerts and penalty mechanisms**. Supports India's commitment under **SDG-6: Clean Water and Sanitation**.

4. **Enabling Better Agricultural Decision-making:** Farmers can adopt crop diversification, organic practices, and micro-irrigation based on local water quality data. Successful examples:

    a. **Nalgonda (Telangana)**: community purification units cut new fluorosis cases.

    b. **Punjab–Haryana diversification pilots**: shift to maize/pulses reduced chemical use and groundwater stress.

5. **Integrating with Digital Public Infrastructure (DPI):** A unified water-data platform can be built along the lines of **IndiaStack**, linking **PMKSY, MGNREGS water structures, Jal Jeevan Mission** testing kits, and remote-sensing data.

Conclusion

As highlighted in the **World Bank's Quality Unknown**, ignoring contamination imposes irreversible human and economic losses. A transparent, real-time groundwater monitoring system is indispensable for sustainable agriculture and resilient public health.

Critically analyze the legal and ecological implications of post-facto environmental clearances. Justify why reversing the Vanashakti ruling must remain an exception, not the rule, in environmental governance.

Introduction

India's environmental governance framework—framed under the Environment (Protection) Act, 1986 and EIA Notification 2006—rests on prior approvals, yet recurring post-facto clearances expose regulatory dilution, ecological risks, and weakening of ex-ante environmental safeguards.

Legal Implications of Post-Facto Environmental Clearances

1. **Contradiction to "ex-ante" principle of EIA**: The core rationale of the Environmental Impact Assessment is **preventive environmental jurisprudence**, enabling informed decision-making before project activities begin. **Common Cause vs. Union of India (2017)** and **Alembic Pharmaceuticals (2020)** held post-facto ECs as legally impermissible for activities requiring prior EC.
2. **Erosion of "Polluter Pays" and "Precautionary Principle"**: These principles—integral to Indian environmental jurisprudence since Vellore Citizens' Welfare Forum (1996)—become weak when violations can be "regularised" after the fact by paying fines.

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

3. **Normalising illegality**: Post-facto ECs can legitimize unlawful constructions and industrial operations undertaken without mandatory permissions. This undermines:
   - **Article 21** (Right to clean environment)
   - **Public Trust Doctrine**
   - Credibility of the regulatory system
4. **Regulatory arbitrariness and judicial inconsistency**: Reversing the **Vanashakti (May 2025)** ruling and reopening the legality of post-facto ECs risks inconsistent application and the perception of "regulatory backdoor entries".
5. **Impact on federal environmental governance**: State authorities, already burdened, may use post-facto clearances to bypass procedural rigour, weakening the **National Green Tribunal's** deterrent role.
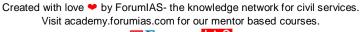
Ecological Implications

1. **Environmental damage becomes irreversible**: Once construction, mining, deforestation, or industrial emissions begin, ecological impacts—groundwater contamination, habitat fragmentation, biodiversity loss—are often **irreversible** or expensive to remediate.
2. **Loss of cumulative impact assessment**: Post-facto approvals negate **Cumulative Impact Assessment, Strategic EIA**, and **Carrying Capacity Studies**—critical in ecologically fragile zones such as:
   - Western Ghats (Gadgil & Kasturirangan Reports)
   - Aravallis
   - Himalayan states prone to landslides
3. **Ineffectiveness of ex-post mitigation**: Mitigation measures post-construction become "cosmetic", not structural. A 2022 **CAG Report** observed that 40% of EIA conditions remain unmonitored, making post-facto compliance almost impossible to verify.
4. **Encouragement of environmental moral hazard**: Industries may knowingly violate norms, expecting future "regularisation"—creating a **pollution-friendly moral hazard**.

Why Reversing the Vanashakti Ruling Must Remain an Exception

1. **Maintaining rule of law in environmental governance**: Allowing post-facto ECs as a norm dilutes statutory procedures and violates the object of the **EPA 1986** and EIA notification that explicitly mandate prior clearance.
2. **Avoiding discrimination between past and future violators**: The argument of differential treatment—used by the majority judgment—is valid, but should be addressed by **tightening legacy clearances**, not reopening the path for fresh violations.
3. **Preserving India's environmental credibility**: India's commitments under **Paris Agreement**, **CBD**, and **SDG-13 and SDG-15** require strong domestic compliance mechanisms—not retrospective relaxations.
4. **Exceptional allowance only in extraordinary circumstances**: Limited post-facto clearance may be acceptable when: Substantial public investments are already committed, no irreversible ecological damage has occurred and strict penalties and compliance audits accompany approval. But these must remain **narrow, rare, and time-bound exceptions**.

Conclusion

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

As highlighted in **Ostrom's institutional governance insights**, sustainable environmental regulation demands robust, preventive frameworks; hence, post-facto clearances must remain rare exceptions to uphold ecological integrity and legal certainty.

Examine the potential of India's Blue Revolution in fisheries and aquaculture for an inclusive future. Justify FAO's role in guiding this sector towards resilience and sustainability.

Introduction

India is the world's second-largest aquaculture producer, contributing 10.23 million tonnes annually. The Blue Revolution and PM Matsya Sampada Yojana aim to transform fisheries into engines of inclusive growth, sustainability, and export competitiveness.

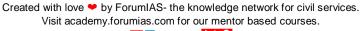**Potential of India's Blue Revolution for an Inclusive Future**

1. **Economic Growth & Export Competitiveness**: Fisheries contribute **1.09% to India's GDP** and **6.72% to agricultural GDP**. India exported **USD 8.09 billion seafood in 2023-24 (MPEDA)**, with shrimp dominating global markets.
2. **Employment and Social Equity**: The sector supports **28 million fishers and workers**, largely from coastal and marginalized communities. **PMMSY (₹20,050 crore)** aims to create 55 lakh employment opportunities, advancing **inclusive growth**.
3. **Food and Nutritional Security**: Per capita fish consumption is rising (from 5 kg to 9 kg in a decade), crucial for addressing **protein deficiency and malnutrition**, especially under **POSHAN Abhiyan** and **mid-day meal programmes**.
4. **Regional Development and Blue Economy Vision 2047**: India's **7,516 km coastline**, 3 million hectares of reservoirs, and 1.2 million hectares of brackish water provide significant space for **mariculture, cage culture**, and **recirculatory aquaculture systems (RAS)**, supporting **SDG-1, SDG-2 & SDG-14**.
5. **Technology-led transformation**: Key reforms include:
   - **Vessel transponders** improving marine safety
   - **Matsya Seva Kendras** improving service delivery
   - **Kisan Credit Card inclusion** for fishers
   - **Digital traceability & cold-chain infrastructure** enhancing export compliance
   - **Climate-Resilient Coastal Fishermen Village Programme**

Challenges Hindering Inclusivity and Sustainability

1. **Overfishing and habitat degradation** (CMFRI 2024 recorded a 2% marine landing drop)
2. **IUU fishing**, weak **Monitoring, Control and Surveillance (MCS)**
3. Fragmented value chains & inadequate **post-harvest infrastructure** (losses ~₹15,000 crore annually)
4. Poor access to technology, finance, and logistics for **small-scale fisheries**

FAO's Critical Role in Guiding the Sector

1. **Institutional Partnership and Global Best Practices**: FAO supports an ecosystem-based, science-led model aligned with **Ecosystem Approach to Fisheries Management (EAFM)** and **Guidelines for Sustainable Aquaculture (GSA)**.

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

2. **Policy and Capacity Strengthening**: FAO's collaboration began with **Bay of Bengal Programme (BOBP)** strengthening small-scale fishers, safety, and post-harvest systems. **BOBLME project** aided combating **IUU fishing**, endangered species conservation & National Action Plans.
3. **Sustainable Aquaculture Initiatives**: **GEF-funded project in Andhra Pradesh** transforms aquaculture into a climate-resilient sector using **Ecosystem Approach to Aquaculture (EAA)**.
4. **Value Chain and Infrastructure Support**: FAO's **Technical Cooperation Programme** assists modernizing **fishing ports** (Vanakbara & Jakhau), strengthening market access, hygiene, and environmental compliance.
5. **Ensuring Inclusivity and Climate Resilience**: FAO focuses on **smallholder empowerment**, digital traceability, and reducing environmental footprints—aligning with **Blue Transformation Strategy 2030**.

Conclusion

As emphasized in **Amartya Sen's Development as Freedom**, sustainable and equitable growth requires institutional support. India's Blue Revolution, guided by FAO cooperation, can secure resilient aquatic systems and inclusive prosperity.

Examine the Supreme Court's ruling clarifying the Governor's powers regarding Bill assent. Critically analyze the legal implications of this verdict on the Centre-State legislative relationship.

Introduction

A **2025 Constitution Bench** clarified **Governor–State legislative relations** under **Articles 200–201,** ruling Governors cannot indefinitely delay Bills. The judgment rebalances India's federal structure, safeguarding democratic accountability against procedural paralysis in law-making.

Key Clarifications by the Supreme Court

Issue	SC's Clarification	Constitutional Citation	Implication
Governor's options on Bills	Assent, return for reconsideration, or reserve for President	Article 200	Eliminates **"withhold assent simpliciter"** misuse
Governor bound by Cabinet advice?	Discretion exists **only** in assent decisions	Article 163	Prevents **mechanical assent** but preserves **constitutional harmony**
Judicial review allowed?	**Merits non-justiciable,** but **indefinite inaction reviewable**	Articles 200, 361	Ends **delay-based veto**
Timelines by judiciary?	Courts **cannot** prescribe rigid deadlines	"As soon as possible"	**Separation of powers respected**

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

Use of Article 142?	No "deemed assent"; judiciary cannot substitute executive action	Article 142	Upholds **constitutional design**
Unassented Bill becomes law?	Clear **No**	Article 200–201	Assent **indispensable for enforceability**

Critical Analysis: Strengthening Federalism & Legislative Certainty

Strengths of the Judgment

1.   Reinforces **cooperative federalism (SC: S.R. Bommai v. Union of India)**.

2.   Prevents **executive obstructionism** – earlier incidents include:
 •**Kerala (2023-24)**: Bills pending for 2+ years.

• **Punjab**: Governor refused session summoning

3.   Clarifies constitutional silence, reducing **constitutional deadlocks**.

4.   Respectful to **State autonomy** and democratic mandate

5.   Greater transparency in **discretion → constitutional morality (Justice D.Y. Chandrachud doctrine)**

Weaknesses / Grey Areas

1.   Still no **mandatory time limit**, allowing continued delays.

2.   Discretion **not bound by advice → potential politicization**.

3.   Presidential decision on reserved Bills remains **non-justiciable → Centre influence persists.**

4.   Judicial review limited to **inaction**, not misuse of reservation power

Implications for Centre-State Legislative Relationship

Positive Outcomes	Concerns Persist
Limits potential arbitrariness of Governors	Ambiguity allows continued Centre leverage
Faster **disposal of Bills → policy continuity**	Reservation power could bypass States
Strengthens **bicameral legislative accountability**	Judiciary's inability to prescribe timelines may weaken direction
Protects State mandates in politically competitive federalism	Potential for **asymmetric federal tensions**

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

This reflects India's evolution toward a **"functional federalism"** where neither constitutional office can paralyze governance.

Way Forward

1. Constitutional amendment or **National Commission to Review Centre-State Relations**–like framework can set reasonability standards
2. Codification of Governor's discretionary boundaries
3. Parliamentary guidelines on assent processing timelines
4. Increase accountability through **annual constitutional conduct reports**

Conclusion

As **Granville Austin's Working a Democratic Constitution** notes, India's federalism embodies cooperation. The Court's ruling strengthens democratic legitimacy, ensuring Governors act as constitutional guardians, not political gatekeepers in legislation.

Examine the reasons for the resistance faced by India's National Action Plan on AMR. Justify the necessity of a fresh commitment to implement its second version effectively.

Introduction

According to **WHO's Global Antibiotic Resistance Surveillance Report (2023)**, **one in three bacterial infections in India is resistant to commonly used antibiotics,** highlighting the urgent need for robust AMR policy implementation.

AMR as Public Health Trust

1. Antimicrobial Resistance (AMR) is considered by **UNEP (2023)** as one of the top **global public health threats**, causing **nearly 5 million deaths annually (Lancet, 2022)**.

2. India, being the world's **largest consumer of antibiotics (OECD, 2020)** and having a high communicable disease load, faces heightened vulnerability.

3. The **National Action Plan on AMR (NAP-AMR 2017-21)** aimed to establish antibiotic stewardship, strengthen laboratory surveillance, and promote the **One Health approach**, but faced substantial resistance and implementation challenges.

Reasons for resistance faced by NAP-AMR

1. Weak inter-governmental coordination: Health is a State subject; implementation required strong cooperation. Only **Kerala adopted and executed a State AMR policy**, showing measurable reduction in resistance levels. Most States lacked institutional mechanisms.

2. Overuse and misuse of antibiotics: Easy over-the-counter access, aggressive pharmaceutical marketing, and irrational prescription patterns impede stewardship. **CDDEP study (2022)** reported **60% antibiotic prescriptions in India were inappropriate**.

3. Limited surveillance and laboratory capacity: Although **NCDC expanded its surveillance network** during COVID-19, monitoring remains fragmented, especially in Tier-2/3 regions and rural areas.

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

4. Influence of livestock and agriculture sectors: Use of antibiotics as growth promoters in poultry and aquaculture worsened resistance. Although **colistin was banned in 2019**, enforcement remains weak.

5. Lack of awareness and behavioural resistance: Public demand for quick cures, limited education on microbial threats, and poor infection prevention and control (IPC) standards hinder adoption.

6. Fragmented One Health implementation: Cross-sector collaboration among health, veterinary, food safety and environment ministries remains minimal, despite the multidisciplinary nature of AMR transmission.

Why a fresh commitment for NAP-AMR 2025–29 is necessary

1.   **Escalating health crisis:** Rising resistance in pathogens like **E.coli and Klebsiella pneumoniae** has made **last-line antibiotics ineffective**, leading to unmanageable hospital infections.

2.   **Economic burden:** World Bank estimates AMR could push **28 million people into poverty by 2050** and cause **about 3.8% GDP loss** in low-income nations, including India.

3.   **Strengthening global leadership:** As a **G20 member**, India must demonstrate global stewardship and align with the **Global AMR Action Plan (WHO, FAO, OIE)**.

4.   **Need for enforceable regulation:** Stronger prescription rules, clinical audit systems, and environmental discharge standards for pharma industries are required to curb antimicrobial pollution.

5.   **Integrating One Health:** Holistic AMR control must cover hospitals, farms, wastewater, and community behaviour simultaneously—not isolated silos.

Conclusion

As **Amartya Sen argues in *The Idea of Justice***, institutional intent without implementation is inadequate. A strengthened NAP-AMR 2.0 must transform commitments into actionable, enforceable, accountable public health reforms.

Critically analyze the proposition that industrial green cover is a poor substitute for natural ecosystems. Justify the need for rethinking environmental responsibility beyond mere on-site plantations.

Introduction

According to the **IPBES Global Biodiversity Assessment (2019)**, nearly **1 million species face extinction** due to ecosystem degradation, proving industrial plantations cannot replicate complex ecological functions of natural forests and wetlands.

Natural Vegetation and Fragmentation Of Habitats

1.   Industrial expansion frequently demands land-use change, leading to clearing of natural vegetation and fragmentation of habitats.

2.   While industries often showcase internal **green belts or plantation buffers** as symbols of environmental stewardship, research indicates that such efforts are mitigative at best and fail to replace ecological services supported by intact ecosystems.

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

3. Green belts provide limited benefits such as **dust suppression, noise reduction (10–17 dB)**, micro-climate regulation, and aesthetic improvement.

4. Studies indicate that well-designed green belts may reduce **Total Suspended Particulates (TSP) by up to 65%**, but these benefits are localised and temporary.

5. In contrast, natural ecosystems support **carbon sequestration, hydrological cycles, nutrient cycling, biodiversity conservation, soil regeneration, pollination, and climate regulation**, which plantations cannot reproduce due to monoculture and limited structure diversity.
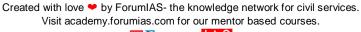
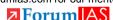**Why industrial green cover is a poor ecological substitute**

1. Loss of ecological complexity and biodiversity: Natural forests and wetlands sustain layered vegetation, symbiotic relationships and microhabitats. Industrial plantations are often **mono-specific**, narrow and biologically sterile.

2. Fragmentation and broken ecological connectivity: Natural ecosystems maintain corridors essential for wildlife movement. Plantation belts create **ecological islands**, exacerbating genetic loss and species isolation.

3. Limited climate mitigation potential: Natural forests store up to **300 tonnes of carbon per hectare**, while plantation forests store barely **50–100 tonnes** (FAO Forest Resource Assessment).

4. Hydrological disruption: Wetlands and natural catchments regulate floods and groundwater recharge—functions industrial green cover cannot replicate.

5. Ecological inequity and misleading perception: Such plantations can become a **greenwashing tool**, creating symbolic compliance while masking continued ecosystem destruction.

Why environmental responsibility must go beyond on-site plantations

1. **Need for landscape-level ecological planning:** Nature-Based Solutions (NbS) and **landscape restoration** strategies demand ecological regeneration across river basins, corridors and degraded lands, not just isolated plantation pockets.

2. **Context-specific environmental policies:** International comparisons of green cover norms ignore geographic and population differences. Dense regions like India require stronger buffers for liveability.

3. **Off-site ecological compensation:** Mandatory restoration linked to **carbon markets or green credit programmes** can transform industries into ecological stewards, not just compliance entities.

4. **Strengthening climate and biodiversity commitments:** Aligns with **India's NDC targets under the Paris Agreement**, the **National Mission for Green India**, and **LiFE (Lifestyle for Environment)** initiative.

5. **Participatory governance:** Community-industry-state partnerships can support **wetland revival, mangrove protection, urban forest models (e.g., Miyawaki forests)** and **biodiversity offsetting**.

Conclusion

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

As **Rachel Carson warned in** *Silent Spring*, cosmetic solutions cannot heal ecological wounds. Industrial sustainability demands large-scale ecosystem restoration beyond factory fences, ensuring resilience, biodiversity protection, and genuine ecological responsibility.

Examine the potential of Bharat NCAP 2.0 in enhancing India's vehicle and pedestrian safety. Critically analyze how its focus on 'crashworthiness' goes beyond basic 'roadworthiness' standards.

Introduction

India accounts for **11% of global road accident deaths**, with **1.68 lakh fatalities in 2022 (MoRTH report)**. Bharat NCAP 2.0 marks a critical shift toward crashworthiness-focused safety beyond mere roadworthiness compliance.
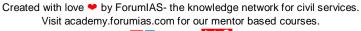
Road Safety Concerns

1.   Road safety in India remains a grave public health challenge. According to **WHO Global Road Safety Report 2023**, road crashes are the **leading cause of death among 5–29-year-olds**, emphasizing the need for robust safety frameworks.

2.   While roadworthiness ensures a vehicle is mechanically fit to operate, **crashworthiness evaluates survivability and injury mitigation during collisions**, making Bharat NCAP 2.0 a transformative safety mechanism.

Potential of Bharat NCAP 2.0 in Enhancing Safety

1. Broadened safety assessment verticals: Bharat NCAP 2.0 incorporates **five evaluation dimensions**— Safe Driving (10%), Accident Avoidance (10%), Crash Protection (55%), Vulnerable Road User (VRU) Protection (20%), and Post-Crash Safety (5%). This integrated approach shifts from compliance-based safety to **outcome-based safety performance**.

2. Expanded crash testing regime: The number of mandatory crash tests has increased from 3 to **5**, including:

- **64 km/h frontal impact** (deformable barrier)
- **50 km/h side impact**
- **32 km/h pole test**
- **50 km/h full-width frontal**
- **50 km/h rear impact**

Use of **Anthropomorphic Test Devices (ATDs)** scientifically assesses injury risk, promoting better structural integrity and restraint systems.

3. Protection of vulnerable road users: Pedestrians account for **over 20%** of Indian crash deaths (MoRTH). Bharat NCAP 2.0 introduces headform and legform impact tests along with optional **Autonomous Emergency Braking System (AEBS)** for pedestrian and motorcyclist scenarios, aligning with **UN Regulation 127**.

4. Greater emphasis on safety technologies: ESC becomes mandatory for star rating eligibility, while AEBS, lane assist, and reverse collision mitigation support accident avoidance. This addresses India's high share of collision-related deaths caused by **driver error (77%)**.

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

5. Stricter star rating benchmarks: The threshold for **4-star and 5-star ratings** rises to 65 and 80 points. A **5-star vehicle cannot score zero** in any vertical, reducing rating inflation and enhancing accountability.

Crashworthiness vs Roadworthiness

Roadworthiness	Crashworthiness
Ensures vehicle can safely operate	Ensures survival in crash scenario
Mechanical and emission checks	Structural integrity, restraint efficiency
Minimum regulatory compliance	Performance-based global benchmarking
Preventive focus only	Preventive + Protective + Post-crash management

1.   **Roadworthiness** ensures vehicles function safely, but cannot prevent **catastrophic fatalities from structural failure**, as seen in cases of compact cars that met regulatory norms but performed poorly in **Global NCAP tests** (e.g., early Maruti S-Presso, Renault Kwid).

2.   Bharat NCAP 2.0 aligns Indian standards with **Euro NCAP and ASEAN NCAP**, supporting export competitiveness and domestic consumer awareness.

Conclusion

As **Nitin Gadkari notes in India Drives Transformative Mobility**, safety must precede affordability. Bharat NCAP 2.0 symbolizes systemic reform beyond compliance, making Indian roads safer for passengers and pedestrians alike.

Examine the core provisions of the proposed Higher Education Commission of India (HECI) Bill 2025. Critically analyze its potential impact on autonomy and regulatory effectiveness in Indian higher education."

Introduction

With India hosting over **1,100 universities and 43 million enrollments,** NEP 2020 emphasizes quality reforms. HECI Bill 2025 proposes a single regulatory authority to replace fragmented oversight and enhance accountability, transparency, and excellence.

Core Provisions of HECI Bill 2025

1. **Single Regulator for Higher Education**: Merges **UGC, AICTE, NCTE** → eliminating overlapping jurisdictions. Medical and legal education kept outside the ambit.
2. **Four-Vertical Regulatory Architecture** *(as proposed in NEP 2020)*: **National Higher Education Regulatory Council (NHERC),** regulation, compliance, licensing **National Accreditation Council (NAC),** institutional accreditation using **outcome-based evaluations**. **General Education Council (GEC):** Minimum learning outcomes, credit framework, NHEQF. **Higher Education Grants Council (HEGC):** funding support mechanisms
3. **Autonomy, Accountability, and Light-but-Tight Regulation**: Shifts from micro-regulation to **norms-based governance**. Promotes **graded autonomy** for "High-Performing Institutions".

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

4. **Reduced Bureaucratic Delays**: Single-window *approval-monitoring-accreditation* system → improves **Ease of Academic Governance**.
5. **Merit-based Composition**: Independent experts with strong public service credentials and integrity envisioned to reduce corruption and conflicts of interest.

Potential Positive Impacts

Reform Objective	Likely Outcomes
Regulatory consolidation	Eliminates duplication; uniform national standards
Focus on quality and outcomes	Better rankings; improved **NAAC-based accreditation**
Boost for Multidisciplinary Education	Supports Indian Knowledge Systems and Liberal Arts model
Institutional Autonomy	Universities evolve into **self-governing bodies**
Internationalisation	Facilitates investments, collaborations, and **foreign campuses**

● Could support the NEP target of **50% Gross Enrollment Ratio (GER) by 2035**.
● Helps India move from **"degree-centric" to "learning-centric"** education.
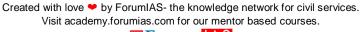
Major Concerns and Critical Challenges

1. **Centralisation of Authority**: States fear **diminished control** → **potential federal tension**. Parliamentary Standing Committee warned against *"excessive concentration of power"*.
2. **Funding Ambiguity**: If financial allocation remains with the Centre, HECI may become **a regulator without purse power** — limiting reform implementation.
3. **Erosion of University Autonomy**: Appointments dominated by **central government** → **politicization risk**. Could reduce academic freedom under **compliance pressure**.
4. **State Universities Left Vulnerable**: 80% of enrollment is in **State institutions → risk of regulatory burden** and uneven resource distribution. Past examples: State-Centre disputes over **RUSA funding**, **reservation policies**.
5. **Stakeholder Representation Issues**: Concerns over inadequate inclusion of **women, SC/ST, differently-abled, and minority voices**.

Way Forward

1. Cooperative federalism model with **State Higher Education Councils** integration
2. Decentralised financial powers and performance-linked grants
3. Transparent stakeholder engagement norms
4. Strengthening **internal Quality Assurance Cells (IQAC)**
5. Clear accountability and grievance redressal mechanisms

Conclusion

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

As **Yashpal Committee** emphasised, regulation must nurture creativity, not control. HECI's success depends on balancing autonomy with accountability, ensuring quality-centric governance while respecting India's federal diversity and institutional independence.

Examine the ten key takeaways of the recent G20 Leaders' Declaration, focusing on Africa, climate change, and UNSC reform. Critically analyze the implications of US boycott on global consensus.

Introduction

With **G20 contributing 85% global GDP and 75% emissions**, its Johannesburg Declaration 2024, despite U.S. boycott, emphasized Africa's centrality, climate justice, global debt sustainability, multilateral reforms and renewed commitment to inclusive development.

Key Takeaways of G20 Johannesburg Declaration
1.   **Africa's Centrality in Global Decision-Making:** First G20 Summit hosted in Africa; Ubuntu philosophy highlighted. Aligns with African Union's recent inclusion as **permanent G20 member**.

2.   **Enhanced African Representation in Global Finance:** New **25th IMF Executive Board chair** for Sub-Saharan Africa. SDR channelling surpasses **$100 billion** to support economic resiliency.

3.   **Debt Sustainability Efforts:** Renewal of **G20 Common Framework**, advocating debt transparency, capacity-building. Promotes **debt-for-climate** and **debt-for-development** swaps.

4.   **Accelerating Climate Action:** Need to raise climate finance **from billions to trillions**. LDCs/SIDS prioritised; aligns with COP30 roadmap for renewables and forest protection.

5.   **Just Energy Transition:** Supports tripling global renewable capacity by 2030. Africa's **600 million without electricity** emphasised; World Bank-AfDB Mission 300 welcomed.

6.   **Critical Minerals Framework:** Diversified, **resilient supply chains** to reduce geopolitical vulnerabilities. Promotes **local beneficiation** instead of raw export dependency.

7.   **Food Security and Right to Food:** Alarm over **720 million people affected by hunger** in 2024. Encourages AfCFTA-led local food production, counters supply chain volatility.

8.   **Responsible AI and Digital Inclusion:** Ethical regulation of AI: **fairness, accountability, explainability**. Launch of **AI for Africa Initiative** for technological equity.

9.   **Inclusive Human Capital Development:** Nelson Mandela Bay Target: **Reduce NEET Youth by 5% by 2030**. Revised Brisbane-eThekwini Goal: **25% gender gap reduction** in labour force participation by 2030.

10.   **UNSC Reform Commitment:** Strong call for **transformative reform** making UNSC more representative. Supports permanent representation for **Africa, Global South, IBSA nations**.

Implications of US Boycott: A Critical Assessment

Consequences	Analysis
Reduced traditional leadership in climate cooperation	US is largest historical emitter; absence weakens Paris momentum

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

Emergence of multipolar consensus	Strengthens **Global South coalitions** (India-Brazil-China leadership)
Climate finance uncertainties	U.S. owes **~$2 billion** to Green Climate Fund
Declining relevance of Western veto	Highlights **shift in global governance power**
Perception of U.S. isolationism	May accelerate alternate institutions (BRICS+, NDB)

However: Some analysts argue a non-US negotiated text could **embolden broader developing nation priorities** without Western conditionality.

Way Forward

1. Strengthen SDR reallocation and concessional finance
2. Promote inclusive reform of Bretton Woods institutions
3. Enhance G20-UN coordination on climate and UNSC reform
4. India can leverage **Voice of Global South Summits** for collective diplomacy

Conclusion

As Antonio Guterres asserted, **"multilateralism must reform or perish." G20's Africa-first, climate-aligned leadership** shows consensus can thrive beyond U.S. participation, signaling a decisive shift toward equitable global governance.
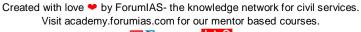
Examine the strategies to transform India's early numeracy gains into lasting progress. Justify the need for middle-grade support and linking mathematics to everyday life.

Introduction

ASER 2024 shows only 30.7% of Class 5 students can solve basic division, despite literacy gains under **NIPUN Bharat**. India's numeracy crisis demands sustained reforms beyond early grades and real-life learning integration.

Examination of Strategies for Lasting Numeracy Progress

1. Extending Foundational Support into Middle Grades: Mathematics is **cumulative and hierarchical**; early learning gaps widen with class progression. With more than **50% of Class 8 students unable to perform division (ASER 2024)**, intervention limited to Class 3 is insufficient. **Case Study: Dadra & Nagar Haveli and Daman & Diu**, where extending FLN programs until Class 8 improved outcomes significantly (Parakh Rashtriya Survekshan 2024), demonstrating the value of **continuum-based learning support**.

2. Introduction of FLN+ Competencies: To ensure transition to higher-order math, India must strengthen **FLN+ skills (fractions, decimals, percentages, ratios, integers)** — essential for STEM readiness, financial literacy, and **Class 10 board preparation**. **World Bank (2023)** notes that **each year of quality schooling increases lifetime earnings by 8–10%**, underscoring numeracy as an economic asset.

3. Teaching at the Right Level (TaRL) Approach: Research by **Pratham and J-PAL** proves that **level-based instruction**, not syllabus-based progression, raises learning outcomes, especially in underperforming classrooms. Evaluation shows **TaRL improved numeracy outcomes by 20%–30%** across pilot states when combined with targeted remediation.

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

4. Making Mathematics Real and Contextual: A **J-PAL study** shows students scoring well in classroom tests often fail in real market calculations, proving a **cognitive transfer gap**. Embedding mathematics in real experiences (shopping, transport, budgeting, measurement, data handling) can improve **applied numeracy and problem-solving competencies**.

5. Innovative and Activity-Based Pedagogy: Replacing rote methods with **play-based learning**, manipulatives, math labs, gamification, and **experiential pedagogy** aligns with **NEP 2020**. Example: **Kerala's Maths Kalolsavam** and **Rajasthan's Mission Buniyaad** have shown measurable improvements in competency-based evaluation.

6. Teacher Capacity Building: With only **42% teachers trained in competency-based assessment (NCERT 2023)**, professional development through **digital platforms (DIKSHA, NISHTHA)** and mentoring is essential. AI-powered adaptive learning tools like **Sangati** can help personalize learning support.

7. Community and Parental Engagement: Projects like **Haryana's Saksham Ghoshna** demonstrate that social accountability improves performance. Home-based numeracy practices — price comparison, household budgeting — deepen retention.

Justifying the Need for Middle-Grade Support

1. **Board exam failures** in mathematics are the leading cause of dropout at secondary level.
2. **70% of future jobs need functional numeracy (ILO 2022)**.
3. Bridges early FLN gains with lifelong learning and prevents **education-based inequality (Matthew Effect)**.

Conclusion

As **Amartya Sen argues in The Idea of Justice,** education must empower capabilities. Strengthening middle-grade numeracy and real-world learning can convert early gains into equitable, sustainable human development.

Examine the necessity for legislation explicitly defining personality rights in the Age of AI. Justify the need for AI watermarking, platform liability, and global collaboration for enforcement.
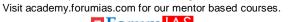
Introduction

ASER-like digital studies show a 900% rise in deepfake circulation since **2020 (EUROPOL 2023).** AI-generated impersonations increasingly threaten privacy, dignity, and economic autonomy, necessitating legally codified personality rights and robust global safeguards.

Need for Explicit Legislation on Personality Rights in the AI Age

Rising Identity Misappropriation Through AI

1.   Generative AI, deepfakes, and voice clones can replicate facial expressions, speech patterns, and mannerisms with near-perfect accuracy. India witnessed lawsuits by **Aishwarya Rai Bachchan, Abhishek Bachchan, Anil Kapoor, Amitabh Bachchan**, and **Arijit Singh**, showing real-world identity misuse causing **reputational, emotional, and financial harm**.

2.   AI erodes the boundary between authenticity and simulation, making implicit constitutional protections under **Article 21** inadequate without explicit statutory guidance.

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

Current Indian Framework is Fragmented and Reactive

1.   India follows a **hybrid privacy–property model**, but personality rights are derived only from court precedents:

- ○   Amitabh Bachchan v. Rajat Nagi (2022): protected likeness and voice.
- ○   Anil Kapoor v. Simply Life (2023): banned AI misuse of "Jhakaas".
- ○   Arijit Singh v. Codible Ventures (2024): protected vocal identity.

2.   However, **no dedicated legislation** defines identity, likeness, voice, digital persona, or post-mortem rights. Enforcement under the **IT Act 2000** and **Intermediary Guidelines 2021/24** remains weak due to anonymity, cross-border hosting, and absence of training-data transparency.

Economic Stakes Necessitate Codification

1.   Technologies increasingly monetise celebrity images through advertising, gaming, and virtual worlds.

2.   The U.S. "right of publicity" shows identity is an **economic resource**, and the global digital persona market is projected to exceed **USD 30 billion by 2030**.

3.   Without codified rights, celebrities, artists, and creators lose control over **commercial exploitation** of their digital selves.

Justification for AI Watermarking

1. Ensures Traceability and Accountability: The **EU AI Act (2024)** mandates deepfake labelling and watermarking for transparency. Watermarks create **audit trails** to identify AI-generated content and deter impersonation, fraud, and misinformation.

2. Mitigates Democratic and Social Risks: NITI Aayog (2023) flagged deepfake-enabled political manipulation as a "critical national security threat." Watermarking reduces virality of doctored content affecting elections, public trust, and communal harmony.
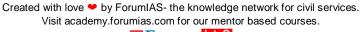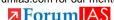
Need for Platform Liability

1. Platforms Enable Mass Dissemination: Google, YouTube, Meta, and Character.AI host and algorithmically amplify deepfakes. Without liability, platforms treat identity violations as third-party content. U.S. cases against Character.AI (2024) show harm caused by chatbots encouraging self-harm or impersonation.

2. Harmonising Safe-Harbour with Duty of Care: Safe-harbour protections under **Section 79 IT Act** must be balanced with obligations for:

- ●   **Rapid takedowns**
- ●   **Content provenance checks**
- ●   **Model training disclosures**
- ●   **Preventing re-uploading loops**

Countries like **China, EU, South Korea** already mandate proactive filtering.

Need for Global Collaboration

1. AI is Transnational; National Laws Alone Are Insufficient: Storage, training data, servers, and models operate across borders. UNESCO's **Recommendation on the Ethics of AI (2021)** insists on global interoperability for identity safeguards.

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

2. Harmonising Definitions and Enforcement: Standardising laws on digital persona, likeness, post-mortem rights, and training-data consent is essential, as recommended in: **Aldrich & Smith (2024)** on high-risk deepfake governance **and Guido Westkamp (2025)** advocating extended personality rights

Conclusion

As **Yuval Harari warns in Homo Deus,** technology must not erode human dignity. Codified personality rights, strong platform accountability, and global AI governance are imperative for safeguarding identity in the algorithmic era.

Examine the assertion that the Constitution is the ideal guide for achieving 'Viksit Bharat'. Justify its role in fostering inclusivity and empowering marginalized communities through progressive interpretations.

Introduction

India's Constitution—crafted through nearly three years of deliberation and reflecting global best practices—established **universal adult franchise in 1950**, enabling inclusive democratic participation and forming the foundational moral, legal, and institutional roadmap for a future Viksit Bharat.

Why the Constitution Is the Ideal Guide for Achieving Viksit Bharat

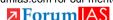**A Vision Document Rooted in Transformative Constitutionalism**

1.   The framers envisioned a Constitution not as a static legal code but as an evolving instrument of **transformative constitutionalism**, capable of social engineering and long-term nation-building.

2.   Its core values—**Liberty, Equality, Justice, Fraternity**—are inseparable from the vision of a developed, just, and self-reliant India by 2047.

Democratic Empowerment Through Universal Adult Franchise

1.   India became the **first large postcolonial nation** to grant universal adult franchise from day one, empowering all citizens irrespective of caste, gender, literacy, or wealth.

2.   This strengthened political inclusion, making democracy the bedrock of India's development model.

3.   The **Election Commission of India**, empowered under Article 324, has ensured high voter participation—over **67% turnout in the 2019 Lok Sabha elections**, narrowing gender gaps in political representation.

Fostering Inclusivity and Empowering Marginalized Communities

1. Constitutional Safeguards for Social Justice: The Constitution explicitly incorporates affirmative action and safeguards:

- **Articles 15(4), 15(5), 16(4)**: reservation for SCs, STs, OBCs
- **Fifth & Sixth Schedules**: tribal autonomy and cultural protection
- **Article 46**: promotion of educational and economic interests of weaker sections
  Landmark policies—**Mandal Commission implementation, Forest Rights Act 2006, PESA 1996**—are grounded in these constitutional principles.

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

2. Progressive Judicial Interpretation Expanding Rights: The judiciary has played a vital role in broadening rights through purposive interpretation:

- **Kesavananda Bharati (1973)**: Basic Structure doctrine ensures constitutional continuity.
- **Minerva Mills (1980)**: balance between fundamental rights and directive principles.
- **NALSA v. Union of India (2014)**: recognition of transgender persons.
- **Puttaswamy (2017)**: right to privacy as a fundamental right.
- **Vishaka v. State of Rajasthan (1997)**: protection against workplace harassment. These decisions demonstrate the Constitution's capacity to protect emerging vulnerabilities and empower marginalized groups.

3. Economic and Social Development through Directive Principles: Directive Principles (Part IV) guide the State in pursuing:

- universal education (Article 45 → **Right to Education Act 2009**)
- equitable redistribution (Article 39(b) & (c))
- gender justice and equal pay (Article 39(d))
- nutrition, health, livelihoods (Article 47)

These principles have informed programmes like **MGNREGA, NFSA, Swachh Bharat Mission, Beti Bachao Beti Padhao, JAM Financial Inclusion**, and now **Digital India**.

4. Constitutional Amendability Enabling Adaptive Governance: With **106 amendments**, the Constitution allows institutional restructuring without losing its core values. Examples:

- **73rd & 74th Amendments** created grassroot democracy
- **103rd Amendment (EWS)** widened social justice
- **GST (101st Amendment)** ensured cooperative fiscal federalism

This adaptability is crucial for building a modern, resilient, and inclusive Viksit Bharat.

5. Parliament as an Agency of Social Transformation

Parliament has enacted transformative legislation—**anti-untouchability laws (1955), abolition of privy purses (1971), transgender rights (2019)**—demonstrating the Constitution's enabling framework for equity-oriented reform.
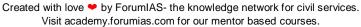
Conclusion

As **Granville Austin noted, India's Constitution is a "seamless web of social revolution."** Its inclusive ethos, adaptive framework, and progressive jurisprudence make it the most reliable guide to a truly Viksit Bharat.

Examine how the 16th Presidential reference could potentially endanger the will of the people. Critically analyze its implications for the federal structure and judicial review."

Introduction

India is constitutionally a **cooperative federal polity**, where elected State governments reflect popular will. The 16th Presidential Reference (2023) over gubernatorial powers, if expansively interpreted, risks diluting democratic mandates, constitutional morality, and federal balance.

How the 16th Presidential Reference May Endanger the Will of the People

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

1. Inversion of Democratic Accountability: Governors are **unelected constitutional heads**, yet the reference—by validating broad discretionary space—may allow them to override or delay legislation passed by **democratically elected State Assemblies**, undermining **popular sovereignty** (Article 326). Example: Several State Bills in **Tamil Nadu, Kerala, Punjab, Telangana** were kept pending for months, effectively creating a **pocket veto** contrary to constitutional conventions.

2. Erosion of Representative Mandates: If Governors return Bills repeatedly or indefinitely reserve them for the President, the elected Legislature becomes subordinate to an appointee of the Union. This contradicts:

- **Ambedkar's stance**: Governors must act as "constitutional heads," not parallel authorities.
- **S.R. Bommai (1994)**: Federalism is part of the **Basic Structure**.

3. Potential for Executive Overreach: The article highlights coordinated centralization moves: Delayed **GST compensation**, Excessive conditionalities in CSS schemes, Use of ED/CBI/IT to pressure State governments, Governor's delays becoming a political tool. The reference risks formalising such trends, enabling the Union to engineer political outcomes by non-legislative means.

Implications for India's Federal Structure

1. Weakening of Cooperative Federalism: The Supreme Court's opinion, by not fixing a **reasonable timeline** under Article 200, may strengthen asymmetry in favour of the **Union**, reducing States to "subordinate administrative units." **Finance Commission 15th Report (2021)** already notes growing fiscal centralisation—States' share in divisible pool stagnates ~42% while cess/surcharge (non-shareable) crossed **25% of gross tax revenue**.

2. Departure from Constitutional Scheme: The Constituent Assembly debates emphasised that: Governors must "aid and advise" the Council of Ministers (Article 163), Discretion should be exceptional, not routine. The reference, however, allows expanded discretion without accountability, violating the **doctrine of limited government** and **federal comity**.

3. Risk to Pluralism and Regional Autonomy: States are the primary arenas of land, agriculture, law & order, public health—core to **Schedule VII, State List**. Unchecked gubernatorial powers could destabilise regional policy priorities (e.g., farm reforms, reservation policies, police reforms).

Implications for Judicial Review

1. Curtailing Judicial Oversight: If actions of Governor/President in withholding, delaying, or reserving Bills are treated as immune, this undermines: **Judicial Review (Kesavananda Bharati, 1973)**—a Basic Structure feature, **Reasonableness under Article 14**, **Administrative non-arbitrariness (Maneka Gandhi, 1978)**.

2. Rise of "Political Constitutionalism" over "Legal Constitutionalism": Judicial reluctance to set timelines shifts constitutional accountability from courts to political actors, weakening the **checks and balances** essential to federal governance.

Conclusion

As Granville Austin observed, India's Constitution is a **"seamless web of federalism and democracy."** Preserving judicial review and limiting gubernatorial overreach remain vital for protecting people's mandate and constitutional balance.

Examine the significance of COP30's shift in narrative from negotiation to 'implementation' in the climate fight. Critically analyze the challenges in achieving concrete global action.

Introduction

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

With 2024 recording the first breach of the 1.5°C threshold (WMO), COP30's shift from endless negotiations to concrete 'implementation' signals an urgent global pivot towards operationalising Paris promises through adaptation, finance, and just transitions.

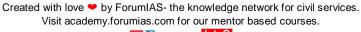**Significance of COP30's Shift Toward 'Implementation'**

1. Moving from Pledges to Delivery: COP30 emphasized mutirão (collective action), stressing that the decade-old Paris Agreement must now translate into quantifiable outcomes. Global emissions must fall **43% by 2030** (IPCC AR6). Yet GHG emissions continue to rise **1.1% annually (UNEP Emissions Gap Report 2023)**. Implementation aims to bridge the persistent "ambition–action gap."

2. Recognition of Adaptation and Everyday Climate Stress: Unlike earlier COPs focused on mitigation, COP30 foregrounded: **Adaptation finance**, **Local resilience**, **Just transition** for workers and vulnerable communities. This shift is crucial as developing countries face **$215 billion/year adaptation costs** by 2030 (UNEP Adaptation Gap Report 2023).

3. Reassertion of Multilateralism in a Fragmented World: With geopolitical tensions (Ukraine war, US domestic politics), COP30's focus on implementation reaffirmed that only multilateral platforms can guide coordinated global decarbonisation. The absence of the U.S. weakened traditional blocs, allowing Brazil to position itself as a bridge between Global North and Global South.

4. Enhanced Focus on Equity and CBDR-RC: COP30 implicitly reinforced **Common but Differentiated Responsibilities and Respective Capabilities**, stressing that developing nations need fair carbon space and predictable finance for implementation.
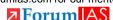India, for example, has achieved **40% non-fossil electricity capacity nine years ahead of target**, but requires ~**$170 billion annually** to reach net-zero by 2070.

Challenges in Achieving Concrete Global Climate Action

1. Deep North–South Divide Over Fossil Fuel Phase-Out: Developed countries push for hard targets on fossil fuel phase-out, whereas developing nations highlight: low historical responsibility, energy poverty, developmental imperatives. Petro-states oppose prescriptive language, delaying consensus.

2. Chronic Under-delivery of Climate Finance: The $100 billion annual pledge (promised in 2009) is still **unmet**. Loss and Damage Fund saw pledges, but operational flows remain negligible relative to estimated needs of **$400 billion annually**. This undermines trust and slows national-level implementation.

3. Competing Domestic Priorities and Economic Pressures: Even nations committed to climate action struggle due to: inflationary pressures, energy security concerns post-Ukraine war, political reluctance to impose carbon pricing or coal phase-out timelines.
Example: Europe reopened coal plants in 2022 despite ambitious NDCs.

4. Weak Monitoring, Reporting and Verification (MRV) Systems: Lack of standardized MRV prevents: accountability, transparent tracking of climate finance, verification of emission reductions. The Global Stocktake found that implementation remains "off-track in all sectors."

5. Corporate Influence and Fossil Fuel Lobbying: Fossil fuel industries continue to influence negotiations. At COP28, nearly **2,400 fossil fuel lobbyists** registered — more than any national delegation. Such influence inhibits bolder implementation commitments.

Conclusion

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

As Nicholas Stern's review noted, climate action is "the growth story of the 21st century." COP30's implementation focus matters—but sustained finance, equity, credible monitoring and political will remain decisive for meaningful global progress.

Examine the implications of the abrupt rollback of Quality Control Orders on industrial policy. Critically analyze how hasty and opaque implementation affects mandatory product standards and business confidence.
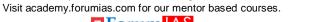
Introduction

India rolled back over 20 Quality Control Orders (QCOs) in 2025 after imposing nearly 700 since 2017, highlighting concerns that abrupt regulatory shifts undermine industrial policy stability, supply chains, MSMEs and investor confidence.

Implications of Abrupt Rollback of QCOs on Industrial Policy

1. Regulatory whiplash affecting predictability: Industrial policy requires **consistency, sequencing and transparency**. The sudden removal of QCOs—after years of aggressive expansion—creates a **regulatory whiplash**, discouraging firms from long-term investment planning. The **UNIDO Industrial Competitiveness Report** emphasises that stable standards frameworks are essential to building manufacturing capability.

2. Supply chain recalibrations and market instability: Earlier, QCOs distorted markets by restricting access to raw materials (e.g., specialised polymers, synthetic yarns, 1,300 steel grades). Now, rollbacks—without transition periods—risk: **Dumping of cheap imports**, particularly from China, Sudden price crashes for steel, plastics and synthetic fibres. Closure of domestic capital-intensive input producers. This reverses the earlier problem of shortages with the opposite problem of **import surges**, weakening domestic industry resilience.

3. Undermining of 'Atmanirbhar Bharat' industrial ambitions: Mandatory standards were originally meant to: Reduce substandard imports, Improve domestic manufacturing quality. Align Indian products with **global value chain (GVC)** requirements. Abrupt rollback interrupts this learning curve. Countries like Japan and South Korea used **gradual, predictable standardisation** as a tool to climb the technological ladder—India risks losing that opportunity.

Impact of Hasty and Opaque Implementation on Mandatory Product Standards

1. Erosion of trust in regulatory institutions: The BIS Act (2017) gave wide powers to ministries, but opaque execution—uneven foreign factory audits, months-long NOC delays—created uncertainty. At ports such as Nhava Sheva and Mundra, imported containers reportedly waited **weeks**, raising logistics costs. This unpredictability undermines **Ease of Doing Business** and violates principles of good regulatory governance.

2. Monopoly creation and anti-competitive behaviour: QCO-led supply restrictions earlier enabled a few domestic firms to raise prices above global levels, particularly in steel and plastics. Abrupt withdrawal now exposes MSMEs to import shocks without safeguards. Such pendulum swings reflect absence of a **competition-sensitive regulatory design**, harming both producers and consumers.

3. Impact on MSMEs—double jeopardy: MSMEs suffered both during imposition and rollback: Earlier: double certification, high costs, shortages. Now: sudden import competition without tariff or safeguard frameworks. Without **sequenced calibration**, MSMEs face volatility instead of stability.

4. Lack of consultation weakens democratic policy design: he Rajiv Gauba Committee's recommendations—revoking 27 QCOs, suspending 112, deferring 69—were not made public, violating

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

principles of: **Transparency**, **Stakeholder participation**, **Predictability**. This contradicts OECD's "Better Regulation Framework," widely used by advanced economies.

Way Forward

1. Restrict QCOs to safety-critical and consumer-facing products only.
2. Reform BIS: time-bound approvals, audit transparency, global harmonisation.
3. Improve import surveillance via **DGTR real-time alerts**.
4. Provide phased transitions, impact assessments and structured consultations.

Conclusion

As Dani Rodrik argues in The Globalization Paradox, effective industrial policy requires stability and transparency. India must replace abrupt regulatory swings with predictable, consultative standards to strengthen competitiveness and business confidence.
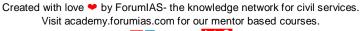
Examine how the Four Labour Codes aim to create a modern and future-ready labour ecosystem. Critically analyze their potential to support the dynamism of the Indian economy.

Introduction

With **643 million workers and rising formalisation**, India's fragmented labour laws needed consolidation. The **Four Labour Codes—hailed by the ILO and Second National Commission** on Labour—seek transparency, protection and competitiveness for a future-ready workforce.

How the Four Labour Codes Enable a Modern, Future-Ready Labour Ecosystem

1. Legal consolidation and simplification for a unified labour architecture: By merging **29 central labour laws** into four Codes—Wages, Industrial Relations (IR), Social Security (SS), and Occupational Safety, Health & Working Conditions (OSH)—India shifts from a complex regulatory regime to a coherent, predictable system. Promotes **regulatory harmonisation**, uniformity across States and reduced compliance costs. Similar consolidations in **Vietnam and Indonesia** helped boost labour productivity and FDI inflows.

2. Greater worker welfare and universal protection: The Codes aim to ensure **universal labour rights**, particularly for the unorganised workforce (over 90% of workers). Key provisions include: **National floor wage** and universal minimum wage standards. **Mandatory appointment letters**, time-bound wage payments. OSH Code's **safety committees**, free annual health check-ups and improved workplace standards. Social Security Code extends **ESIC and EPF benefits** without geographic restrictions and creates a **National Social Security Fund**. These reforms align with **SDG-8 (Decent Work)** and **World Bank Human Capital Index principles**.

3. Recognising new forms of work: gig and platform economy: India's gig workforce is projected to rise from **1 crore (2025) to 2.35 crore (2030)** (NITI Aayog 2022). The SS Code is the first in India to legally recognise: **Gig workers**, **Platform workers**, **Unorganised sector workers**, bringing them under social protection architecture—an essential step in the digital economy.

4. Boost to "Ease of Doing Business" and investment climate: The Codes modernise labour regulation through: **Single licence, single registration, single return**, Algorithm-based digital inspections (reducing inspector-raj), Uniform definition of wages reducing litigation, Decriminalisation of minor offences. This strengthens India's competitiveness and attractiveness for **GVC integration**, similar to reforms in **Mexico after NAFTA**.

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

5. Industrial relations stability and productivity enhancement: The IR Code promotes quicker dispute resolution and clear processes for layoffs, closures and negotiations. Empowers workers with defined rights while giving firms **greater flexibility** to respond to market shifts. Encourages **collective bargaining efficiency**, reducing industrial unrest—important for manufacturing expansion.

6. Gender-inclusive labour market expansion: With India's female LFPR at **32.8% (ILO 2024)**, the Codes encourage women's participation by: Equal remuneration guarantees, Expanded maternity benefits, Night-shift provisions with safety protections, Social protection for informal women workers. Countries like Bangladesh saw significant gains in women's employment after labour reforms enabling safer workplaces—India can replicate similar outcomes.

Critical Analysis: Challenges and Concerns

1. Implementation asymmetry across States: Labour is a **Concurrent List** subject. Many States are yet to notify rules, risking non-uniformity and compliance uncertainty, similar to initial GST rollout issues.

2. Concerns of reduced worker security: Trade unions argue that flexibility in retrenchment and fixed-term employment may increase precarity if not balanced with robust grievance mechanisms.

3. Informal sector absorption capacity: Despite reforms, 85–90% of workers remain informal. Without strong enforcement, Codes may struggle to shift enterprises to the formal sector.

4. Possible administrative capacity constraints: Algorithm-based inspections and digitalisation require significant capacity-building at State labour departments.

Conclusion

As highlighted in **Amartya Sen's Development as Freedom**, empowerment requires supportive institutions. Effective, uniform implementation of Labour Codes can marry worker welfare with economic dynamism, strengthening India's transformative growth trajectory.

Examine the necessity for India to lead the Global South following COP30 and G20. Justify how the upcoming BRICS Presidency offers an opportunity to resist hegemonic politics and promote multipolarity.
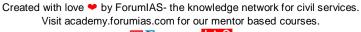
Introduction

COP30's weak outcomes and G20's fragmented leadership reflect declining global consensus. With major powers absent and multipolarity under strain, India's credibility, demographic strength and G20 success elevate expectations for leading Global South coalitions.

India and the Global South: Why Leadership Has Become Necessary

Weakening multilateralism necessitates alternative leadership

1. COP30's failure to secure fossil-fuel phase-out, diluted NDC commitments, and stalled Paris Agreement verification demonstrate systemic multilateral fatigue.

2. Over **80 countries** demanded fossil fuel control, yet the Belém Declaration avoided explicit commitments. G20 Johannesburg saw boycotts and non-attendance by the US, China, Russia, Mexico, and Saudi Arabia, weakening collective decision-making.

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

3. This vacuum directly impacts Global South concerns—climate finance, adaptation needs, and just energy transitions—making India's stable leadership indispensable.

Rising pushback against Global South voices

1. Major powers are **signalling discomfort with Global South assertiveness.**

   2. Donald Trump's "**G2 is returning**" rhetoric reflects a push toward **bipolarity**, sidelining emerging economies.
   3. China–US rivalries have overshadowed multilateral forums such as WTO, UNSC, and APEC.

4. India, with its **non-aligned legacy**, **G20 New Delhi Declaration success**, and broad acceptability, becomes the natural pivot to safeguard multipolarity.
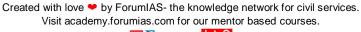
India's proven ability to forge consensus

1. At **G20 New Delhi (2023)**, India brought the US, Russia, EU, China, and Global South together—something Johannesburg 2025 couldn't achieve.

2. India has introduced impactful multilateral initiatives: **Global Biofuels Alliance, Digital Public Infrastructure (DPI) framework, Global Traditional Knowledge Digital Repository, Critical Minerals Circularity Initiative, Global Health Rapid Response Team.**

3. This track record strengthens expectations that India can steer global governance toward inclusiveness.

Shared developmental challenges bind India with the Global South

1. India mirrors the structural realities of the Global South: high climate vulnerability **(Germanwatch Global Climate Risk Index),** energy transition pressures, digital divides and supply-chain marginalisation.

2. Therefore, India's leadership is not symbolic—it is representative.

BRICS Presidency: A Strategic Opportunity for India

1. Platform to institutionalise multipolarity: As BRICS expands to include Middle Eastern, African and Latin American economies, India can: strengthen **South–South cooperation**, expand **BRICS+**, resist domination by any single major power, promote balanced governance within a diverse group. This aligns with **Hedley Bull's pluralist international order**, where power is dispersed to maintain stability.

2. Reform of global economic governance: India can advance Global South priorities through BRICS: **SDR reallocation**, **restructuring multilateral development banks**, **fair climate finance architecture**, **resilient supply chains**. With developing economies contributing **over 55%** of global GDP in PPP terms (IMF 2024), a collective BRICS voice strengthens bargaining power.

3. Countering hegemonic politics: BRICS offers India a platform to: resist revival of G2-style bipolarity, dilute great-power dominance in climate negotiations, advocate for **UNSC reforms**, prioritise equity-based climate and trade rules.

4. Harnessing India's soft power and digital model: India's **DPI exports**, vaccine diplomacy, and development partnerships with **Africa, ASEAN and Latin America** enable India to shape BRICS as a development-focused grouping, not a geopolitical bloc.

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

Conclusion

Influence rests on credibility and agenda-setting. India's BRICS leadership can shape fairer multilateralism, reinforcing multipolarity and promoting Global South empowerment.

Examine the lessons from campaigns against TB, polio, and HIV relevant to Antimicrobial Resistance (AMR). Justify how fostering citizen ownership transforms AMR into a shared social challenge.

Introduction

Antimicrobial Resistance (AMR) threatens global health security, causing an estimated **4.95 million deaths** annually **(Lancet, 2022).** India's TB, polio, and HIV campaigns provide vital behavioural and community-driven lessons for AMR containment.

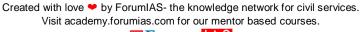**Lessons From TB, Polio, and HIV Campaigns for AMR Governance**

1. Community mobilisation as the anchor of behaviour change: India's polio eradication succeeded due to mass mobilisation through **Pulse Polio Campaigns**, religious leaders, panchayats, celebrities, and school networks. **Lesson for AMR:** Behavioural change—rational antibiotic use, adherence to prescriptions, resisting OTC misuse—requires similar community-led mobilisation and sustained awareness.

2. Survivor networks and peer support improve adherence: TB treatment adherence improved through **Nikshay Mitras**, TB survivor advocates, and community DOTS providers. HIV campaigns used **peer educators**, **targeted intervention (TI) groups**, and PLHIV networks. **Relevance to AMR:** Antibiotic misuse often stems from incomplete dosages. Peer-led reinforcement can ensure completing antibiotic courses and discouraging self-medication.

3. Strong surveillance and monitoring systems work only with societal cooperation: TB surveillance (Nikshay Portal), HIV Sentinel Surveillance and polio micro-planning illustrate that technical systems succeed when communities report symptoms early. **AMR parallel:** National AMR Surveillance Network and NAP 2.0 require community participation in reporting irrational antibiotic sale, infection outbreaks, and hygiene violations.

4. Stigma reduction helps improve compliance

HIV campaigns effectively reduced stigma through counselling, mass communication (NACO red ribbon), and sensitisation. **AMR analogy:** Misconceptions such as **"antibiotics cure viral infections"** or "strong antibiotics mean better medicine" require destigmatising discussions and scientific temper.

5. Infection prevention and control (IPC) is central: Polio campaigns strengthened sanitation and hygiene. TB efforts promoted cough hygiene. HIV efforts improved safe practices. **For AMR: Fewer infections → fewer antibiotics → less selective pressure**. Citizen-led interventions—handwashing in schools, vaccination uptake, clean water efforts—mirror IPC-based reductions in antibiotic demand.

6. Public communication campaigns build societal accountability: Polio's **"Do Boond Zindagi Ki", TB's "Mitigate TB"**, and HIV's multimedia drives generated trust. AMR needs similar **social marketing**, targeting: virus–antibiotic misconception, leftover antibiotic use, OTC sales from informal vendors. Examples: Thailand's community AMR awareness reduced unnecessary purchases. UK's **"Keep Antibiotics Working"** campaign lowered demand for antibiotics for viral infections.

Citizen Ownership: Making AMR a Shared Social Challenge

Created with love ❤ by ForumIAS- the knowledge network for civil services.

Visit academy.forumias.com for our mentor based courses.

Forum IAS

1. Bridging gaps in weak enforcement: Despite Schedule H1 restrictions, antibiotic OTC sales remain widespread. Empowered citizens can question irrational prescriptions and avoid unlicensed sellers, complementing regulatory constraints.

2. Democratising scientific literacy: Citizen ownership transforms AMR from a **"technical issue"** to societal responsibility. Local influencers, SHGs, ASHA workers, youth networks, and teacher–student groups serve as **"behavioural multipliers".**

3. Strengthening multisectoral One-Health response: Citizens influence food hygiene, livestock antibiotic misuse, waste disposal, water quality, and vaccination uptake—critical for the **One Health** AMR framework linking humans, animals, and environment.

4. Ensuring long-term sustainability of NAP 2.0: Global experience shows NAP success correlates with community engagement. Citizen ownership ensures that AMR containment transcends government schemes and becomes embedded in daily practices.

Conclusion

As Paul Farmer notes in **Pathologies of Power,** public health succeeds when communities participate. Embedding citizen ownership in AMR strategies ensures behavioural change, social responsibility, and lasting health security.

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