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Critically examine the internal contradictions of BRICS exposed by the Iran war. Evaluate the feasibility of a multipolar world order amidst the U.S.'s renewed push for unilateralism.

Introduction

The Economic Survey 2025–26 notes the rise of fragmented geopolitics, while the Union Budget 2026–27 emphasises resilient partnerships, making the Iran conflict a critical stress test for BRICS and the evolving multipolar order.

Internal Contradictions within BRICS Exposed by the Iran War

The February 2026 U.S.-Israel strike eliminating Iran's Supreme Leader and command structure, without UNSC authorisation or U.S. Congressional declaration, constituted the most severe stress test for BRICS+ since its 2024 expansion.

1. **Divergent Strategic Alignments:** India, current chair, issued no condemnation, no emergency summit, and no collective statement, reflecting deepening QUAD alignment and strategic autonomy increasingly interpreted as U.S. convergence. Brazil, Russia and China issued individual condemnations, exposing absence of unified voice. These divergent orientations weaken the bloc's capacity to adopt a unified foreign policy stance.

2. **Security vs. Economic Divergence:** Gulf members (UAE, Saudi Arabia) remain tethered to U.S. security guarantees, rendering BRICS incapable of acting as a collective security provider when Iran — a founding expansion member — faced existential attack.

3. **De-dollarisation Paralysis:** BRICS mechanisms (NDB, CIPS, BRICS Pay) were designed to insulate against Western financial coercion. Yet no emergency liquidity or payment-channel support was activated for Iran, revealing institutional shallowness and lack of political will.

4. **Ideological Divergence:** While Russia and China utilize BRICS to challenge U.S. wrecking-ball politics, members like the UAE and Saudi Arabia remain tied to the U.S. security umbrella, making a unified anti-hegemonic stance impossible.

U.S. Unilateralism and the Rubio Doctrine

1. Marco Rubio's February 2026 Munich Security Conference speech openly called for dismantling multipolarity, reclaiming Global South market share, and restoring pre-1945 Western civilisational dominance.

2. The subsequent Iran operation, bypassing Congress and UN operationalised this vision: kinetic regime-change paired with economic coercion (Board of Peace reconstruction bypassing UN).

3. This marks a shift from rules-based hegemony to transactional unilateralism enforced by overwhelming military superiority.

Feasibility of Multipolar World Order

Multipolarity exists as distribution of capabilities (India 7.4% growth, China's manufacturing dominance, Russia's energy leverage), but lacks collective agency.

1. **Structural Weaknesses:** BRICS+ suffers incompatible threat perceptions, veto-like divergences, and no binding security architecture.

2. **Middle-Power Hedging**: India, Brazil, Indonesia leverage size to avoid bloc entrapment but risk fragmentation.

3. Institutional Erosion: UNSC paralysis and U.S. contempt for multilateralism leave minilaterals (I2U2, Quad) as partial substitutes, yet insufficient for systemic challenge.

Way Forward

1. Convene emergency BRICS+ virtual summit under neutral facilitation (Brazil/South Africa) to issue joint position on sovereignty violations.

2. Activate NDB emergency liquidity window and CIPS expansion for sanctioned members.

3. Establish BRICS Standing Security Coordination Committee with mandatory consultation protocols.

4. India to recalibrate strategic autonomy via visible diplomatic initiatives (Track-II mediation, joint energy-sharing arrangements).

5. Accelerate minilateral economic coalitions (G20, IORA) to build parallel norms outside U.S.-led reconstruction frameworks.

Conclusion

The spectacle of the Iran war has proved that multipolarity is currently a reality of *power distribution* but not of *collective action*. If the U.S. continues its bulldozer politics and BRICS remain internally fractured, the world risks descending into a Nihilistic Anarchy where the will to violence dictates politics. The task for 2026 is to build a Multilateralism 2.0 that does not rely on a single hegemon or a paralyzed bloc.

Analyze the impact of social media bans on child safety. Further, evaluate how the 'double-proxy' dynamic in India undermines digital protection and parental oversight mechanisms.

Introduction

Karnataka & Andhra Pradesh's 2026 minor social media ban proposals face scrutiny: 71% children use family accounts (Indian Express survey). India's digital transition must balance innovation with child safety, while the Union Budget 2026–27 emphasises digital literacy and NITI Aayog's child online safety framework highlight enforcement gaps.

Social Media Bans and Child Safety: Limits of Prohibition in India's Digital Ecosystem

India hosts one of the world's largest youth populations online. With increasing smartphone penetration and inexpensive data, children are entering digital spaces earlier than ever. In response to concerns about online harm, some states have proposed banning social media access for minors. However, evidence suggests that such bans may **produce unintended safety risks**, particularly in the context of India's double-proxy usage pattern.

Impact of Social Media Bans on Child Safety

1. Migration to Unregulated Digital Spaces: Bans may inadvertently push children toward less moderated online environments. Tech-savvy children shift to encrypted apps, VPNs or unmoderated platforms where grooming and radicalisation are harder to detect.

2. Loss of Moderation Incentives: Platforms lose incentive to invest in India-specific age-appropriate filters when minors are legally invisible, reducing proactive safety tools.

3. Chilling Effect on Positive Use: 55% children report beneficial stranger interactions (learning, emotional support); bans limit access to supportive communities, especially for marginalised groups (LGBTQ+ youth).

4. Gendered Outcomes: Traditional households disproportionately restrict girls' access, widening the digital gender divide and curtailing educational opportunities.

The Double-Proxy Dynamic and Its Undermining Effect

In India, 71% of children aged 10-15 access social media via family members' accounts, creating a double-proxy system.

1. Bypassing Age-Gating: Platforms treat users as adults, disabling child-safety defaults (restricted messaging, content filters).

2. Rendering DPDP Act Ineffective: The Digital Personal Data Protection Act, 2023 requires verifiable parental consent for minors; proxy usage nullifies this safeguard. This creates regulatory blind spots in digital governance.

3. Erosion of Parental Oversight: Activity blends into the parent's profile, obscuring the child's specific behaviour, interests and risks. Parents cannot monitor without invasive device checks. This weakens the very oversight mechanism bans intend to strengthen.

4. Algorithmic Misclassification: Children receive adult-targeted ads, recommendations and interactions, exposing them to inappropriate content without platform awareness of their age.

Constitutional & Socio-Economic Imperatives

1. Bans risk disproportionate restriction on Article 19(1)(a) (right to information) and Article 21 (dignity/privacy) for minors.

2. Economically, they hinder participation in India's digital economy (projected $1 trillion by 2026 per NITI Aayog), limiting skill-building and future employability.

Way Forward

1. Adopt tiered access: age-verified restricted modes (education-only, limited hours) instead of outright bans.

2. Mandate platforms to detect proxy usage via behavioural signals and apply child-safety defaults automatically.

3. Integrate digital literacy and online safety into National Curriculum Framework from Class 6.

4. Launch national Cyber-Didi programme training SHGs as first responders for families.

5. Strengthen DPDP enforcement with dedicated child-data grievance cells and annual platform audits

Conclusion

A social media ban offers a comforting illusion of control but ignores the ground reality of the Double-Proxy dynamic. Digital safety lies not in prohibition but in informed, responsible participation.

Critically examine the security risks of AI-integrated 'kill chains' in India's border management. Evaluate the role of plurilateral governance in securing India's strategic autonomy amidst corporate-led AI rivalries.

Introduction

By March 2026, the Indian Army has moved from conceptualizing AI to operationalizing it through the Smartise the Kill Chain roadmap. The Economic Survey 2025–26 highlights AI as a critical strategic technology, while Union Budget 2026–27 prioritises defence AI and sovereign compute infrastructure, intensifying debates on AI-driven warfare and strategic autonomy..

Security Risks of AI-Integrated Kill Chains in Border Management

AI compression of the **sensor-to-shooter cycle** to seconds on the Line of Actual Control (LAC) creates systemic vulnerabilities.

1. Machine-Speed Escalation Trap: AI compresses the traditional military kill chain—find, fix, track, target, engage and assess—into seconds. Misidentified shadows or drone anomalies can trigger kinetic response before human de-escalation, especially in high-altitude fog-prone terrain. Thus, automation risks removing diplomatic buffers in crisis situations.

2. Algorithmic Bias and Terrain Limitations: Foreign-trained models may fail in high-altitude terrains and extreme weather conditions typical of Himalayan battlefields. Bias in training data can lead to incorrect threat assessments. This creates vulnerabilities in India's operational planning. **For Example-** 2026 iDEX trials showed 12-18% false positives in snow camouflage detection.

3. Black-Box Accountability Gap: AI systems often function through opaque neural networks. When Combat Information Decision Support Systems (CIDSS) fast-track targets, tracing war-crime liability becomes nearly impossible under international humanitarian law. **For Example-** creates challenges for compliance with Geneva Conventions.

4. Strategic Dependency on Foreign AI Ecosystems: Global AI development is dominated by private technology companies. Dependence on foreign platforms could expose India to algorithmic manipulation, software vulnerabilities, or geopolitical leverage. **For Example-** Reliance on U.S. (Maven) or Chinese stacks exposes India to kill-switch vulnerabilities or geopolitical coercion during crises.

Corporate-Led AI Rivalries and India's Strategic Autonomy

The Anthropic-Pentagon standoff (Feb 2026) and U.S. designation of Chinese labs as threats reveal corporate actors as proxies in great-power rivalry.

1. India risks entrapment in U.S.-China AI cold war if dependent on foreign frontier models.

2. Sovereign compute (national GPU clusters) and indigenous firms (Tata Elxsi, Bharat Forge) via iDEX aim to mitigate, but talent mobility and distillation techniques erode controls.

3. Corporate guardrails collapse under state pressure like OpenAI's permissive military contract vs. Anthropic's resistance illustrates the race-to-the-bottom dynamic.

Role of Plurilateral Governance in Safeguarding Strategic Autonomy

1. International discussions increasingly emphasise human-on-the-loop or human-in-the-loop frameworks**. For Example-** UN Resolution 80/58 pushes Human-on-the-Loop framework. Such frameworks ensure that AI recommends but does not autonomously execute lethal force.

2. Middle-power coalitions (India-Brazil-South Africa) can set Trustworthy Defence AI benchmarks, bypassing P5 vetoes.

3. Given geopolitical rivalry among major powers, universal treaties remain difficult. Therefore, plurilateral coalitions of middle powers can develop operational norms. **For Example- Initiatives** like the REAIM Summit seek consensus on responsible military AI use. Such platforms enable countries to shape standards outside great-power rivalries.

4. India must pursue technological self-reliance. Institutions such as **NITI Aayog** have recommended sovereign AI infrastructure and domestic innovation ecosystems. Programmes like iDEX promote defence-technology startups and indigenous AI solutions.

Way Forward

1. Operationalise Seven Sutras of Indian AI Governance — sovereign stack, mandatory human-in-the-loop for lethal decisions, auditable black-box explainability.

2. Expand iDEX to fund indigenous frontier-model training on classified LAC datasets.

3. Lead plurilateral LAC AI Confidence-Building Measures with China and Pakistan via SCO.

4. Integrate digital sovereignty clauses in Quad and I2U2 tech cooperation.

5. Mandate annual Algorithmic Impact Assessments for all defence AI deployments.

Conclusion

For India, AI in 2026 is a Force Multiplier but also a Systemic Risk. The path forward lies in the Seven Sutras of Indian AI Governance, which prioritize Safety and Accountability. By championing plurilateral governance, India can ensure that the kill chain does not become a chain of accidents, preserving its Strategic Autonomy in an era of automated geopolitics.

Examine the socio-economic drivers of childhood obesity in India. Further, evaluate the role of early-stage institutional interventions and behavioral shifts in addressing this burgeoning public health crisis.

Introduction

The World Obesity Atlas 2026 reports over 40 million overweight or obese children in India, while the Economic Survey 2025–26 warns lifestyle transitions are accelerating childhood metabolic disorders.

Socio-Economic Drivers of Childhood Obesity

India is witnessing a nutritional paradox where overnutrition and undernutrition coexist. The shift from traditional diets to calorie-dense lifestyles is driven by several systemic factors:

1. **The Ultra-Processed Boom:** According to a WHO-ICRIER study, India's ultra-processed food (UPF) industry grew at a CAGR of 13.37% (2011-2021). The Household Consumption Survey shows a pivot from cereals to beverages and refreshments.
2. **The Affordability Trap:** Obesity is no longer a rich man's disease. Samosas and pakoras at roadside shacks are often cheaper and more accessible than fresh fruits or protein-rich salads, making junk food the default choice for low-income urban families.

3. **Urbanization and the Sedentary Loop:** Rapid urban sprawl has led to a lack of open spaces. The **Digital Addiction** of 2026 ensures children remain sedentary, replacing playground time with indoor spectacle consumption.
4. **Generational Burden:** UNICEF surveys indicate that maternal health acts as a precursor; nutritional deficits or metabolic issues in mothers are frequently carried over to children, creating a biological cycle of obesity.

Evaluation of Institutional Interventions

The State has transitioned from passive awareness to active regulation through the following:

Initiative	Evaluation & Impact
Eat Right India (FSSAI)	Effective in standardizing school canteens but faces implementation hurdles in rural shadow markets.
FSS Regulations 2020	Mandatory labeling of trans-fats and allergens is a major step toward Consumer Sovereignty.
NPCDCS (National Mission)	Shifts the focus to early screening; however, the primary health system remains overburdened with infectious diseases.
Budget 2026 Nutri-Sarkars	New community-led nutrition hubs aim to decentralize dietary oversight.

The Role of Behavioral Shifts

Institutional force must be met with grassroots behavioral change. The Double-Proxy dynamic—where children mirror parental habits—necessitates a family-centric approach:

1. **Fit India Movement:** This has successfully re-branded physical activity as a lifestyle choice rather than a chore.
2. **Yoga in Schools:** Under the National Curriculum Framework (NCF), integrating Yoga has improved both metabolic health and mental resilience among adolescents.
3. **Front-of-Pack Labeling (FOPL):** The shift toward Warning Labels (High Sugar/Salt) is beginning to nudge parents toward healthier purchases at the point of sale.
4. **Behavioral Shifts:** The **Aaj Se Thoda Kam** (Less from today) campaign targets the family unit, recognizing that childhood obesity often reflects the double-proxy habits of parents.

Challenges to Efficacy

1. **Implementation Gap:** FSSAI guidelines are often poorly enforced in rural schools and private coaching hubs.
2. **Economic Barrier:** Healthy, nutrient-dense food remains more expensive than calorie-dense processed snacks for low-income families.
3. **The Thin-Fat Phenotype:** Indians are genetically predisposed to abdominal obesity even at lower BMIs, requiring "India-specific" BMI cut-offs for early diagnosis.

Way Forward

1. **Sugar Levies:** Implementing higher GST slabs for UPFs to subsidize fresh produce.

2. **RTE Infrastructure:** Strict enforcement of mandatory playground sizes in schools to combat the sedentary trap.
3. **Digital Marketing Caps:** Restricting the marketing of high-fat, sugar, and salt (HFSS) foods during hours when children are active online.

As Dr. Kalam envisioned in India 2020, a healthy youth is a nation's greatest asset. Prioritizing nutrition ensures our Viksit Bharat goals don't succumb to an avoidable metabolic epidemic.

Analyze the structural changes introduced by the 2022-23 GDP base year revision. Further, evaluate its effectiveness in resolving long-standing methodological concerns regarding the veracity of Indian data.

Introduction

The 2022-23 base-year revision released by NSO shows 3-4% GDP contraction, higher agriculture & industry shares. Budget 2026-27 underscores this shift toward a more realistic, albeit smaller, absolute GDP to ensure statistical integrity.

Historical Context and Rationale for Revision

1. India revises GDP base years roughly every 5–10 years to reflect structural shifts in production, prices and consumption patterns, aligning with UN System of National Accounts (2025 edition).

2. The 2011-12 series (released 2015) faced criticism for overestimating growth, particularly manufacturing, due to MCA-21 database issues (shell companies) and divergence from earlier estimates.

3. The IMF's 2024 quality review awarded India a 'C' grade, prompting urgent need for the 11-year-delayed 2022-23 revision.

Structural Changes in the 2022-23 Series

1. Correction in Absolute Size of the Economy: GDP at current prices shrinks 3-4% for overlapping years (2022-23 and 2023-24), reversing perceived overestimation.

2. Sectoral Rebalancing: Agriculture and industry shares rise; services share falls. Manufacturing marginally increases to 14.7% from 14.3%, yet its absolute size contracts 1.5-1.6%.

3. Institutional Reclassification Output: Non-financial private corporate sector (PCS) share declines 1.5–3.4 percentage points; household/informal sector share rises 0.7–2.7 points, partly reflecting better agriculture capture. These changes suggest improved coverage of informal economy and tangible sectors post-pandemic, aligning with ground realities.

Key Impacts of the 2022-23 Revision

The revision recalibrates India's economic picture:

1. Absolute Size Adjustment: GDP at current prices contracts 3-4% for overlapping years (2022-23 and 2023-24), addressing perceived overestimation in the previous series.

2. Sectoral Rebalancing: Agriculture and industry shares rise; services share declines. Manufacturing marginally increases to 14.7% from 14.3%, though its absolute size falls 1.5-1.6%.

3. **Institutional Recomposition**: Non-financial private corporate sector share drops 1.5–3.4 percentage points; household/informal sector share rises 0.7–2.7 points, reflecting better capture of unorganised activity. These changes align estimates closer to ground realities post-pandemic and GST regime.

Implications for Policy and Economic Perception

1. The smaller base delays the $5-trillion economy target and requires recalibrating fiscal ratios (deficit/GDP, debt/GDP).

2. Budget 2026-27 adjusts expenditure accordingly. Growth rates show only marginal divergence (±1 percentage point), preserving broad trajectory but enhancing credibility.

3. A realistic base strengthens India's global economic narrative amid multipolar competition and investor scrutiny.

How the Revision Helps Realize India's Full GDP Potential

Accurate measurement unlocks true potential in several ways:

1. **Better Resource Allocation**: Correct sectoral weights guide targeted investment in agriculture (resilient post-pandemic) and manufacturing (PLI schemes).

2. **Improved Fiscal Planning**: Realistic GDP denominator prevents fiscal illusion, enabling sustainable borrowing and capital expenditure.

3. **Enhanced Investor Confidence**: Credible statistics reduce perception risk, attracting FDI and portfolio flows critical for $30-trillion Viksit Bharat goal.

4. **Stronger Policy Feedback Loop**: Reliable data improves evaluation of schemes (PM-KISAN, Atmanirbhar Bharat), allowing mid-course corrections.

5. **Global Comparability**: Alignment with UNSNA 2025 enhances India's standing in IMF/World Bank assessments, supporting higher credit ratings.

Way Forward

1. Release comprehensive methodological note, back-series and new weights immediately.

2. Integrate real-time GSTN, digital payments and satellite data for dynamic estimates.

3. Mandate independent National Statistical Commission oversight of future revisions.

4. Conduct regular Economic Census to provide robust informal-sector baselines.

5. Link GDP revision cycle to five-year planning horizon for policy coherence.

Conclusion

As Dr. C. Rangarajan noted, Reliable data is the bedrock of sound policy. This revision is a step toward realism, yet total transparency remains vital for India's global economic credibility.

Critically examine the Supreme Court's passive euthanasia framework. Further, evaluate implementation hurdles and the legal-ethical debate surrounding the distinction between active and passive euthanasia in India.

Introduction

In Common Cause v. Union of India, the Supreme Court of India recognised passive euthanasia and living wills under Article 21 of the Constitution of India, recently applying the framework in the Harish Rana case.

Evolution of Passive Euthanasia Jurisprudence in India

The legal basis for passive euthanasia flows from Article 21 of the Constitution. In Aruna Shanbaug v. Union of India, the Court permitted passive euthanasia under strict judicial oversight. Later, Common Cause v. Union of India recognised the right to die with dignity and legalised living wills or advance medical directives. These decisions established the constitutional foundation for end-of-life autonomy.

The Judicial Framework of Passive Euthanasia

The Supreme Court's 2026 application of the passive euthanasia framework in the Harish Rana case marks the kinetic transition of Right to Die with Dignity from a theoretical construct to a clinical reality.

1. **Constitutional Anchor:** Rooted in Article 21, the Court interprets the Right to Life as a right to a dignified existence, which includes the right to refuse futile medical intervention.
2. **The Two-Tier Safeguard:** The framework mandates a Primary Medical Board (treating hospital) and a Secondary Medical Board (including a district-nominated external expert) to certify that recovery is negligible.
3. **Living Wills:** The 2023/2026 refinements simplified Advance Medical Directives, allowing individuals to pre-determine their end-of-life care, thereby reducing the psychological burden on kin.

Implementation Hurdles in the Passive Euthanasia Framework

Despite judicial clarity, the ground reality in 2026 reveals significant institutional friction:

1. Board Expertise Shortage: Few hospitals have specialists with 5+ years' experience for both boards.

2. Secondary Board Delays: Only Maharashtra, Goa, Karnataka notified CMO-nominated panels; most states lag.

3. Private Sector Reluctance: Fear of litigation deters private hospitals despite government facilities proceeding after counselling.

4. Living Will Underutilisation: Awareness remains low; no central registry exists.

5. Palliative Care Deficit: Budget 2026-27's health allocation prioritises curative care; palliative infrastructure inadequate.

The Active-Passive Binary and Legal and Ethical Contention

India maintains a strict firewall between Active and Passive euthanasia, a distinction that remains a subject of intense bioethical debate.

1. **Passive (Omission):** Seen as letting nature take its course. It is legally protected as it involves the withdrawal of Clinically Assisted Nutrition (CAN) or ventilators.

2. **Active (Commission):** Involves a positive act (lethal injection). In India, this is treated as **culpable homicide** or **abetment to suicide**.
3. **The Ethical Paradox:** Critics argue that passive methods (like withdrawing nutrition) can be more agonizing and less humane than a swift, painless lethal injection allowed in countries like Canada or the Netherlands.
4. **State's Slippery Slope Concern:** The government resists active euthanasia to prevent potential misuse against the elderly or disabled in a socio-economic environment with limited social security.

Way Forward

1. **Codified Legislation:** Moving beyond guidelines to a comprehensive End-of-Life Care Act as urged by the Supreme Court in 2026.
2. **Digital Living Will Registry:** Integrating Advance Directives with ABHA (Ayushman Bharat Health Account) to ensure instant accessibility during medical emergencies.
3. **Palliative Integration:** Budget 2026-27 should further incentivize Palliative Care Departments in all district hospitals to manage symptom-controlled transitions.

Conclusion

As Dr. Radhakrishnan noted, Life is a journey toward the spirit. India's framework honors this by balancing medical limits with the supreme constitutional promise of a graceful, dignified and peaceful departure.

Critically examine the paradox in India's innovation ecosystem despite high government ambition. Evaluate how anchoring research to private enterprise can drive a true innovation-led economy.

Introduction

India ranks 38th in Global Innovation Index 2025 yet spends only 0.65% of GDP on R&D. The Economic Survey 2025–26 highlights India's improved innovation ranking, while the Union Budget 2026–27 expands RDI funding; yet NITI Aayog warns weak private R&D threatens innovation-led growth.

The Indian Innovation Paradox

India's strong policy intent coexists with weak structural health of our Research, Development, and Innovation (RDI) ecosystem.

1. R&D Intensity Gap: Gross Expenditure on R&D (GERD) stagnates at 0.65% of GDP, lowest among BRICS (except South Africa) and far below Israel (5.4%), South Korea (4.9%) and China (2.4%).

2. Government measures and Unprecedented Ambitions: ₹1 lakh crore Research, Development and Innovation (RDI) Fund, Anusandhan National Research Foundation (ANRF) operationalisation, removal of three-year existence barrier for deep-tech startups, lifting atomic energy patent ban via SHANTI Act 2025, and six-fold hike in Atal Tinkering Labs funding (₹500 cr to ₹3,200 cr) — signal unprecedented ambition.

3. Patent Growth but Limited Global Technological Influence: Patent filings doubled to 1,10,000 (2024-25), but domestic PCT applications (4,547 in 2024) trail China (70,000+), US (54,000+) and Japan (48,000+). **For Example-** India filed only around 4,500 Patent Cooperation Treaty applications in 2024, highlighting weak global technological influence.

4. Human Capital and Inclusion Constraints: GII 2025 ranks India 95th in knowledge-intensive employment and 101st in women with advanced degrees in workforce, reflecting talent and diversity deficits.

5. **Private Sector Crowding Out:** Private-sector contribution to GERD is only ~37%, compared with >70% in leading innovation economies. In India, the State bears 60% of the cost, signaling a private sector hesitant to embrace long-term, high-risk technological bets. This paradox arises from historical public-sector dominance in R&D, weak university-industry linkages, risk-averse corporate culture and insufficient patient capital for deep-tech commercialization.

6. **Lab-To-Market Gap:** India produces significant academic research but struggles to commercialise innovation. Universities generate increasing scientific publications.

Anchoring Research to Private Enterprise

Innovation achieves transformative scale only when research is demand-driven and anchored to enterprise. Private-sector participation addresses current bottlenecks:

1. **Market-Pull Innovation**: Firms prioritise commercially viable problems, improving resource efficiency along with curiosity-driven public research.

2. **Bridging the Valley of Death:** Enterprise provides Series equity and venture funding and scale-up expertise to convert lab prototypes into market-ready products.

3. **Cross-Sectoral Synergies:** Private involvement in semiconductors, green hydrogen (PLI 2.0) and 6G forces convergence of engineering, logistics and digital technologies.

4. **Global Technological Influence:** Sustained corporate R&D increases high-quality international patents (PCT/SEPs) and standard-essential technologies, enhancing India's voice in global rule-setting. **For Example-** Commercial space startups (Skyroot, Agnikul) demonstrating private-sector promise when risk capital and regulatory openness align.

5. **Deep-Tech and Long-Gestation Capital:** Deep tech requires patient capital: funding that survives long development cycles to transform complex laboratory science into scalable, market-ready products.

Way Forward

1. Mandate Industry Residency programmes for researchers and reverse sabbaticals for corporate experts in academia.

2. Use public procurement as first buyer for indigenous innovations (defence, space, health) to de-risk private R&D.

3. Strengthen IPR fast-tracking and create specialised deep-tech bankruptcy norms to tolerate failure.

4. Expand ANRF matching grants with mandatory industry co-investment clauses.

5. Launch national Innovation Anchors scheme incentivising large corporates to dedicate 1% PAT to collaborative R&D.

Conclusion

Thinking is progress. To achieve Viksit Bharat, India must pivot from labor-led delivery to R&D-driven enterprise, ensuring our demographic dividend becomes technological powerhouse.

Energy security constitutes the dominant kingpin of India's foreign policy, and is linked with India's overarching influence in Middle Eastern countries. How would you integrate energy security with India's foreign policy trajectories in the coming years

Introduction

India imports ~85% crude oil, with 45-52% transiting Hormuz (Economic Survey 2025-26). The ongoing weaponized energy trade necessitates integrating security with foreign policy to mitigate external dependencies and navigate volatile big-power rivalries effectively.

Historical Lessons from External Dependencies

1. India's post-independence foreign policy has repeatedly been shaped by four critical vulnerabilities: food (1960s PL-480 leverage), foreign exchange (1991 IMF conditionalities), defence equipment (1962 China war), and energy (1990 Gulf crisis).

2. Each crisis forced strategic recalibration — from Indira Gandhi's defiance during food-aid pressure linked to Vietnam policy to Narasimha Rao's post-1991 liberalisation and Israel recognition.

3. The 2026 Iran conflict and U.S. weaponisation of oil trade echo these patterns, reminding policymakers that energy dependence constrains autonomy and invites coercion.

Current Vulnerabilities and the 2026 Crisis

1. The ongoing U.S.-Israel-Iran war has exposed acute risks: potential Hormuz closure threatens 50% LNG and 85-90% LPG imports, spikes freight/insurance costs, disrupts remittances from ~9 million Gulf diaspora, and endangers air connectivity.

2. Russia's offer to raise supplies to 40% and Gulf suppliers' increased deliveries mitigated immediate shortages, but the crisis underscored that energy security is inseparable from diplomatic leverage in West Asia.

Strategic Integration Pathways (2026–2030)

To embed energy security firmly into foreign policy, India must pursue a multi-dimensional, proactive strategy:

1. **Aggressive Diversification and Equity Oil Diplomacy**: Target 35-40% Russian crude share via long-term contracts; deepen upstream investments in Africa (Nigeria, Angola), Latin America (Venezuela, Guyana), and Central Asia. Accelerate equity oil acquisitions by ONGC Videsh and IOC to secure 15-20% of needs through ownership.

2. **Corridor and Infrastructure-Led Influence:** Fast-track IMEC energy pillar for green hydrogen/ammonia corridors bypassing Hormuz/Suez. Upgrade Chabahar port and develop new Gulf/Red Sea hubs to control logistics choke points. Leverage India-Middle East-Europe Corridor (IMEC)(signed 2023, revived 2026) to position India as transit and green-energy hub.

3. **Green Transition as Diplomatic Leverage:** Accelerate 500 GW non-fossil target (2030) and green hydrogen mission to cut oil dependence below 70%. Lead Global South transition via ISA and Global Biofuels Alliance, exporting green solutions to Africa/ASEAN while importing intermediates from Gulf partners (UAE, Saudi Arabia).

4. **Multilateral Hedging and Payment Decoupling:** Strengthen OPEC+ and IEA coordination for supply stability. Expand rupee trade and local-currency settlements (already ~20% with Russia/UAE) to reduce dollar exposure. Use BRICS/SCO for alternative payment gateways and emergency energy-sharing pacts.

5. **Domestic-External Synergy:** Link foreign policy gains to internal reforms: expand PLI for solar/batteries/hydrogen, incentivise private upstream participation, and build 90-day strategic reserves by 2030.

Way Forward

1. Conclude long-term diversified supply contracts (2026-27).
2. Operationalise IMEC energy corridor pilot by 2028.
3. Achieve 20% green hydrogen/ammonia blending in refineries by 2030.
4. Institutionalise annual West Asia Energy Security Dialogue with Gulf capitals.
5. Embed energy clauses in all major FTAs (EU, UK, Canada).

Conclusion

As Nehru noted in The Discovery of India, true independence is earned through internal strength and the courage to stand firm. Integrating diversified, green energy diplomacy is essential for strategic autonomy. Foreign policy must protect national interests in a changing world.

Use of AI is not just about the routine application of digital technology in service delivery process. It is as much about multifarious interactions for ensuring transparency and accountability. In this context evaluate the role of the 'Interactive Service Model of AI governance.

Introduction

Economic Survey 2025-26 and Budget 2026-27 move beyond treating AI as a prestige technology, instead framing it as a structural pillar of growth. NITI Aayog's AI for All report advocates for governance that prioritizes fairness, equity, and accountability to prevent algorithmic colonialism.

The Interactive Service Model

1. The Interactive Service Model reimagines AI governance as an ongoing, multi-stakeholder service rather than a static technocratic exercise.

2. It treats governance as a dynamic interaction among citizens, civil society, independent researchers, academia, private developers and the state.

3. Core elements include accessible reporting platforms, open datasets (AIKosha), community-led audits, and capacity-building programmes such as iGOT Karmayogi's 176 AI courses (over 72.99 lakh enrolments and 53.79 lakh completions by early 2026).

4. This model moves beyond black-box opacity by enabling real-time feedback loops and upstream scrutiny of dataset selection, objective functions and harm thresholds.

5. The Interactive Service Model pierces the social black box, upstream commercial and strategic decisions that embed biases before deployment.

Role in Ensuring Transparency and Accountability

1. **Explainable AI (XAI):** As per the India AI Governance Guidelines (Nov 2025), black-box models are no longer acceptable in public administration. The model requires systems to provide audit logs and interpretations for high-stakes decisions (e.g., welfare eligibility).

2. **Graded Liability:** Budget 2026-27 and MeitY notifications introduced a phased regulatory approach. Accountability is assigned based on the level of risk and the function performed, ensuring that developers and deployers are held responsible for systemic biases.

3. **Democratic Oversight:** The India-AI Impact Summit 2026 emphasized that leadership in AI is not just about compute, but about trust. Interactive governance includes Citizen Assemblies and multi-stakeholder working groups (like the Safe & Trusted AI Working Group) to audit upstream algorithmic choices.

4. **Community Audits**: Citizens and civil society stress-test models under local linguistic, cultural and regional contexts. **For Example-** Indic-language sovereign models like Sarvam AI outperforming frontier models on document understanding.

5. **Deliberative Oversight**: Public input via AIKosh's sandbox and iGOT literacy programmes democratises knowledge, allowing detection of harms overlooked by developers.

6. **Accountability Mechanisms**: Mandatory algorithmic impact assessments with public disclosure shift liability from voluntary corporate guardrails to enforceable standards, aligning AI with constitutional values of equality (Article 14) and dignity (Article 21).

Mitigating Systemic Inequalities and Ensuring Just Outcomes

Technocratic governance deepens divides by automating exclusion in labour markets, education and finance. The Interactive Service Model counters this through participatory mechanisms:

1. **Equity Gains**: Community input reduces linguistic and caste biases in welfare algorithms, preventing automated exclusion of marginalised groups.

2. **Democratic Resilience**: Real-world audits strengthen transparency, countering disinformation and protecting electoral integrity.

3. **Economic Justice**: By involving end-users early, the model ensures AI solutions (30 India-specific applications under IndiaAI Mission in agriculture, health, climate) address public needs rather than narrow institutional priorities. Global evidence from GPAI 2025-26 pilots shows participatory models reduce bias by 15-25% in high-stakes domains.

Way Forward

1. Establish a National AI Regulatory Authority with mandatory citizen and civil-society representation on its board.

2. Mandate public algorithmic impact assessments for all high-risk deployments with open consultation periods.

3. Expand iGOT and AIKosha into nationwide AI Citizenship programmes reaching every district.

4. Institutionalise community-led audits for sovereign models and public-sector AI applications.

5. Align IndiaAI Mission guidelines with plurilateral standards (REAIM 2026) emphasising upstream democratic scrutiny and human-in-the-loop safeguards.

Conclusion

As President Murmu noted in 2026, Technology must serve humanity, not lead it. Like Dr. Ambedkar's associated living, participatory AI governance ensures that progress remains anchored in democratic equity.

What are the key areas of reform if the WTO has to survive in the present context of 'Trade War', especially keeping in mind the interest of India?

Introduction

Economic Survey 2025-26 flags dysfunctional WTO amid escalating trade wars and unilateral tariffs; Budget 2026-27 prioritises strategic autonomy; NITI Aayog's Trade Strategy 2030 warns that reforms are essential to protect India's developmental space and energy security from protectionist surges.

India's Strategic Imperatives

1. The WTO was established to promote rules-based global trade, transparency and dispute resolution. However, the rise of protectionism, geopolitical rivalry and unilateral tariffs has weakened the multilateral trading system.

2. Trade wars, technological competition and industrial subsidies now dominate global economic relations. For the WTO to remain relevant, structural reforms are necessary—particularly from the perspective of developing economies like India that seek policy space for growth and development.

Key Areas of WTO Reform for Survival

For the WTO to survive the current Trade War era, it must transition toward Adaptive Multilateralism. India's interests lie in ensuring that the rules-based order protects developmental space rather than enabling Green Protectionism.

1. **Restoration of the Dispute Settlement Mechanism (DSM):** The DSM, once the crown jewel of the WTO, remains paralysed since 2019 due to the US blockade of Appellate Body appointments. India requires a binding, time-bound two-tier system with impartial adjudication to challenge unilateral tariffs (US steel duties) and green taxes such as the EU's CBAM. Without restoration, developing countries lose the only multilateral enforcement tool against power asymmetry.

2. **Redefining Agricultural Subsidies under Agreement on Agriculture (AoA)** Current De Minimis limits (based on outdated 1986-88 reference prices) constrain India's food-security programmes. A permanent solution for Public Stockholding (PSH) and an effective Special Safeguard Mechanism (SSM) are non-negotiable to shield 150 million farmers from import surges during global price volatility. Failure here directly threatens India's right to food security under Article 21.

3. **Disciplining New Issues and Plurilaterals** The e-Commerce moratorium on customs duties costs developing nations billions in revenue; India must oppose its permanent extension. Similarly, the China-led Investment Facilitation for Development (IFD) agreement must not be imported into the WTO framework without consensus, as it erodes the single-undertaking principle and limits policy space for industrial strategy.

Integrating Energy Security with India's Foreign Policy

Energy security has become a central element of India's strategic diplomacy.

1. Diversification of Energy Partnerships: India imports a significant portion of its energy requirements. Strategic partnerships with major energy producers ensure reliable supply chains. Diversification reduces vulnerability to geopolitical disruptions.

2. **Leadership in Renewable Energy Diplomacy:** India has emerged as a key player in global clean-energy cooperation. Initiatives like the **International Solar Alliance** demonstrate India's leadership in sustainable energy governance. Renewable energy partnerships strengthen diplomatic engagement with developing countries.

3. **Strategic Autonomy in Energy Trade:** India's foreign policy increasingly emphasises strategic autonomy. Balanced relations with major global powers allow India to secure energy supplies without geopolitical alignment. Energy diplomacy thus supports both economic stability and national security.

Integrating Energy Security with Foreign Policy

Energy security has shifted from a commercial import to the dominant kingpin of India's 2026 foreign policy.

1. **From Hydrocarbon to Electron Diplomacy:** India is leveraging the International Solar Alliance (ISA) and the Global Biofuels Alliance (GBA) to lead the Global South. Foreign policy trajectory now focuses on securing Critical Mineral Supply Chains (Lithium/Cobalt) through the Mineral Security Partnership (MSP), reducing dependency on dominant suppliers like China.

2. **West Asia: Strategic Reciprocity:** Investment for oil storage and moving from buyer-seller roles to joint ventures in India's Strategic Petroleum Reserves (SPR). Using the India-Middle East-Europe Economic Corridor as a Green Energy Link, potentially exporting Indian-made Green Hydrogen to Europe via the Gulf.

3. **Energy as a Peace Architect:** India's Strategic Autonomy allows it to manage energy ties with Russia (discounted crude) while deepening high-tech energy cooperation with the US (iCET initiative), ensuring that energy needs are not weaponized by big-power rivalries.

Way Forward

1. Lead a Global South coalition at the next Ministerial Conference for DSM restoration within 18 months.

2. Secure permanent PSH and SSM solutions while linking them to energy-subsidy safeguards.

3. Oppose plurilateral back-door entry and advocate adaptive multilateralism through G20/BRICS coordination.

4. Embed energy-security clauses in all ongoing FTAs and use public procurement to de-risk domestic green-tech manufacturing.

Conclusion

Economic sovereignty is the foundation of national dignity. Like S. Jaishankar's The India Way, true self-reliance is earned by navigating global storms with firm strategic intent.

Analyze whether mandatory menstrual leave acts as a catalyst for gender justice or a barrier to women's employability. Evaluate the need for integrated recruitment parity to prevent unintended discrimination.

Introduction

Recent Supreme Court observations (March 2026) caution that mandatory menstrual leave, while promoting dignity under Article 21, could inadvertently trigger employer bias. A balanced policy must navigate the Biological Reality vs. Economic Penalty paradox.

Constitutional and Social Context of Menstrual Leave

1. Constitutional Foundations: Menstrual leave policies derive legitimacy from constitutional commitments. Article 42 directs the state to ensure just and humane working conditions. Article 21 guarantees dignity and the right to health. Recognising menstrual health in workplace policy therefore aligns with constitutional principles of gender justice.

2. Changing Labour Market Dynamics: India's female workforce participation has witnessed significant change. Women increasingly contribute to economic activity across sectors. However, gender disparities in wages, promotions and job security persist. In such a context, workplace policies must balance welfare with equal opportunity.

Menstrual Leave as a Catalyst for Gender Justice

1. Mandatory menstrual leave recognises biological realities like dysmenorrhea, endometriosis, PCOD/PCOS -- affecting productivity and dignity.

2. It aligns with Article 42 (humane work conditions) and promotes destigmatisation, enabling women to manage health without presenteeism.

3. Voluntary policies in Odisha (additional day/month up to age 55), Kerala (ITI/university trainees) and Karnataka (public/private up to age 52) show intent. Spain's 2023 law aimed at feminist progress but saw low uptake due to stigma.

4. In India, where 88% of female workforce is informal, enforceable leave could improve well-being and retention in organised sectors.

Risks of Mandatory Menstrual Leave

1. Mandatory menstrual leave may perpetuate benevolent sexism by reinforcing biological stereotypes, potentially discouraging the recruitment and promotion of female employees.

2. Employers may hesitate to hire or assign big responsibilities to women, viewing them as less reliable (Supreme Court observation, March 2026).

3. Private firms fear added costs; informal workers cannot afford lost wages. This reinforces stereotypes, potentially reversing LFPR gains (23.3% in 2017-18 to 41.7% in 2023-24, largely distress-driven rural entry).

4. Economic Survey 2025-26 highlights insecure employment; mandatory leave without safeguards could widen the gendered digital divide and glass ceiling.

Need for Integrated Recruitment Parity

To prevent unintended discrimination, recruitment parity is essential:

1. State-funded models (Spain-style social security cover) remove employer cost disincentive.

2. Anti-discrimination safeguards under Digital India Act 2026 or equal-opportunity clauses penalise bias in hiring algorithms or interviews.

3. Gender-neutral flexibility (health-first WFH, rest facilities) avoids period leave stigma.

4. Mandatory disclosure of leave policies during recruitment ensures transparency without penalty. Without parity, leave becomes another barrier; with it, leave catalyses justice.

Way Forward

1. Enact central framework with voluntary adoption + state-funded reimbursement.

2. Integrate menstrual hygiene infrastructure (OSH Code 2020) and free products/rest rooms.

3. Launch awareness campaigns and Trust-based Health Leave pilots in private sector.

4. Strengthen NITI Aayog participatory gender audits and mainstreaming assessments to monitor hiring parity post-policy.

5. Expand iGOT-style training for employers on inclusive health policies.

Conclusion

As President Draupadi Murmu noted in 2026, Equality is not just a legal right but a social habit. Earning self-reliance for women requires policies that empower their health without jeopardizing their right to work.

Examine the significance of integrating water systems into India's climate resilience strategy. Evaluate how adopting the Belém indicators can empower India to lead the Global South's adaptation efforts.

Introduction

With water-related disasters dominant and agriculture emitting 40% anthropogenic methane (Economic Survey 2025-26). Allocations for Water Supply and Sanitation declined by 15.1 percent to ₹2,232.75 crore in the Union Budget 2026–27, even as climate change amplifies water scarcity, flooding, and infrastructure stress in India.

Historical and Constitutional Imperative

1. Water has shaped India's development trajectory since Independence. Droughts of 1965-67 exposed food-import dependence, while the 1990 Gulf crisis triggered balance-of-payments shocks via oil prices.

2. Constitutionally, Article 21 (right to life) and Article 48A (environmental protection) impose a duty to secure water as a public good.

3. The 2019 consolidation under the Ministry of Jal Shakti and Water Vision@2047 mark a shift from fragmented sectoral approaches to integrated stewardship, aligning domestic policy with global adaptation imperatives.

Significance of Integrating Water Systems into Climate Resilience

In the 2026 climate landscape, water is no longer just a resource but the medium through which climate change is experienced (floods, droughts, glacial melts).

1. **Climate Change Manifests Primarily Through Water:** Floods submerge urban economies, droughts hollow rural livelihoods, glacial melt disrupts Himalayan rivers, and erratic monsoons threaten food security. **For Example-** 2025-26 monsoon patterns showing 30% higher variability,

2. **Economic Linkages:** Agriculture consumes ~80% of freshwater; inefficient use and wastewater mismanagement amplify methane emissions. Climate-resilient water systems are essential to prevent the Climate Inflation of essential commodities noted in recent fiscal reports. **For Example-** Micro-irrigation under the PMKSY improved water-use efficiency in states like Gujarat.

3. **Urban Vulnerability:** As seen in the 2026 urban flood protocols, integrating Sponge City concepts into the Amrut 2.0 scheme is vital for protecting metropolitan GDP hubs. **For Example-** The AMRUT 2.0 promotes water-sensitive urban planning.

4. Resilient Water Systems: Aquifer recharge, wastewater reuse, diversified sources, and climate-stress-tested infrastructure — reduce scarcity risks, protect WASH services, and safeguard GDP. Without this integration, adaptation remains peripheral; with it, water becomes the organising principle of resilience, directly supporting Viksit Bharat's economic stability.

Belém Indicators

The Belém Indicators (stemming from the COP30 transition) focus on measurable, community-led, and ecosystem-based water adaptation. Introduced 59 Adaptation Indicators, elevating water from infrastructure to accountability metric. Two clusters are critical:

1. Climate-resilient water and sanitation systems (reducing scarcity, flood/drought resilience, universal safe drinking water, upgraded sanitation).

2. Risk governance (multi-hazard early warning by 2027, strengthened hydrometeorological services, updated vulnerability assessments by 2030).

India's existing architecture -- NAQUIM 2.0 (aquifer management plans), National Mission for Clean Ganga (biodiversity + digital monitoring), and Amrut 2.0 (urban reforms) -- already maps onto these indicators, enabling swift domestication without reinvention.

India's Potential Leadership in the Global South

Adopting the Belém indicators could strengthen India's international climate leadership.

1. Demonstrating Scalable Adaptation Models: India's diverse ecological regions, from Himalayan glaciers to coastal ecosystems, provide a testing ground for adaptable resilience strategies. Successful policies can be replicated across developing countries.

2. Leveraging Digital Public Infrastructure: India's expertise in digital governance can integrate hydrological data, crop advisories and disaster warnings into interoperable platforms. Real-time decision-making improves climate preparedness.

3. Advancing South-South Cooperation: By sharing technological expertise and policy frameworks, India can strengthen collaboration with developing nations facing similar climate vulnerabilities.

Way Forward

1. Embed Belém indicators into Jal Shakti and NDMA dashboards for annual reporting.

2. Scale aquifer recharge and wastewater reuse targets under NAQUIM 2.0 and NMCG.

3. Classify water projects as explicit climate investments to unlock adaptation finance.

4. Launch participatory hydrology pilots via Pani Samitis with decentralised data tools.

5. Lead Global South coalitions at COP31 for standardised water-adaptation accounting.

Conclusion

Water is the first debt we owe to the future. By championing water-centric resilience, India secures its own sovereignty while guiding the Global South toward a sustainable horizon.