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Centre opens power bids to four China-linked firms

The Finance Ministry says the exemption is valid for two years and should not be treated as a precedent; decision follows a request from the Power Ministry and inter-ministerial consultations

T.G.A. Sharad Raghavan
NEW DELHI

In a sign of a continuing thaw in India's stance on Chinese investments, the government has issued an order allowing four companies with Chinese ownership or links to bid for projects tendered by the Indian government in the power sector.

The order, dated June 24, 2026, was issued by the Procurement Policy Division of the Finance Ministry's Expenditure Department and has been reviewed by *The Hindu*.

In January, the Power Ministry had written to the Finance Ministry seeking an exemption from a previous order which mandated that companies located in countries that share a land border with India must register with the Indian government before they can bid for critical public power projects. The approval of this registration was solely at the discretion of the government.

Following this, the Committee of Secretaries and the Registration Committee under the Department for Promotion of Industry and Internal Trade (DPIIT)



deliberated on the matter before passing the relaxation order.

Two-year exemption

Under the latest order, four companies – TBEA Energy India, Nanjing Electric India, New Northeast Electric India, and Taikai Electric (India) – have been granted exemption from the restrictions for a two-year period.

TBEA Energy India is the wholly-owned subsidiary of the Chinese company TBEA Group, while Nanjing Electric India is a wholly-owned subsidiary of the Chinese power equipment manufacturer

Nanjing Electric.

New Northeast Electric India has technology transfer ties with Chinese power sector companies, and Taikai Electric (India) is a subsidiary of the China-headquartered Taikai Group.

The Procurement Policy Division's order, however, made sure to state that "such exemption for firms may not be considered as a precedent [sic]".

This order also builds on other partial relaxations the government has recently offered to companies that have investments from China and other countries that share a land

India-Japan ties should not target third party: China

BEIJING

China on Friday said that bilateral ties between countries should not target any third party, a day after India and Japan unveiled key initiatives during Japanese leader Sanae Takaichi's visit. "Cooperation among countries should enhance understanding and trust among regional countries," Foreign Ministry spokesperson said. **» PAGE 3**

border with India.

In May, the Finance Ministry had notified new rules to allow overseas companies with Chinese shareholding of up to 10% to invest in India under the automatic route, rather than first having to obtain government approval.

This was a relaxation made to the 'Press Note 3' that the Indian government had issued in 2020, ostensibly to prevent opportunistic takeovers and acquisitions of distressed Indian companies due to the COVID-19 pandemic.

CONGRESS SLAMS MODI

» PAGE 3

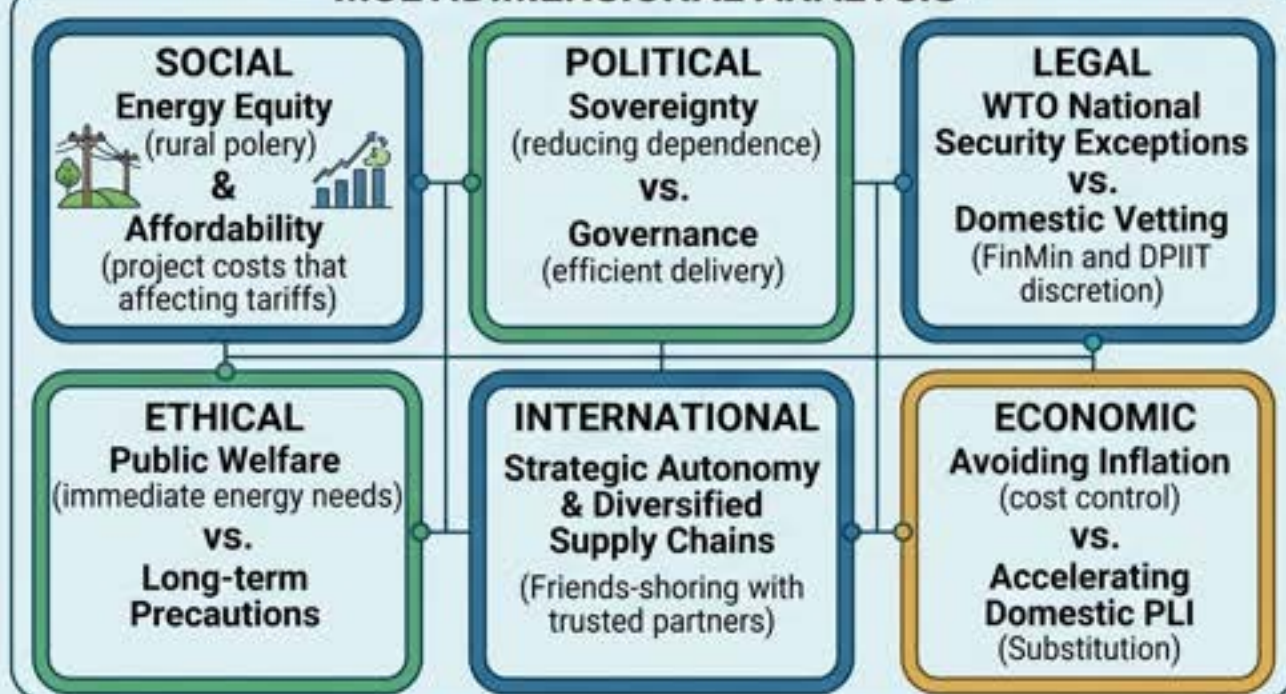
- **Key Terms and Explanations**
- **Press Note 3 (2020):** This refers to a landmark amendment made to India's Foreign Direct Investment (FDI) policy during the COVID-19 pandemic. Its primary mandate requires all investments originating from entities based in countries that share a land border with India—or where the beneficial owner is situated in such a country—to undergo prior government approval.
- **Automatic Route vs. Government Approval Route:** These represent the two regulatory pathways for foreign capital entry. Under the **Automatic Route**, foreign investors do not require prior security or economic clearance from the Reserve Bank of India (RBI) or the government, needing only to notify authorities post-transaction. Conversely, the **Government Approval Route** funnels applications through a rigorous, multi-ministerial vetting process coordinated by specific administrative ministries and the Department for Promotion of Industry and Internal Trade (DPIIT).
- **Sovereign Public Procurement:** This encompasses the purchase of goods, works, and services by government ministries, public sector undertakings (PSUs), and autonomous state bodies using public funds. Unlike private procurement, sovereign procurement is highly regulated by strict guidelines to ensure fiscal prudence, domestic capacity promotion, and national security safeguards.
- **Critical Infrastructure (Power Grid Resilience):** Assets that are vital for the functioning of a society and economy, whose destruction or disruption would have a debilitating impact on national security, public health, or economic stability. In the power sector, this includes high-voltage transmission lines, supervisory control and data acquisition (SCADA) systems, and generation sub-stations.
- **Technology Transfer Ties:** Contractual frameworks where a domestic manufacturing entity acquires intellectual property, design blueprints, and manufacturing know-how from a foreign firm to replicate advanced industrial goods locally.
- **Main Arguments and Substantive Parts**
- **The Realist Reconciliation of Infrastructure Needs**
- The core thesis emerging from this policy pivot suggests that absolute economic decoupling from a dominant global manufacturing hub is structurally unviable in specialized, capital-intensive sectors. The Ministry of Power's initiative to seek bidding exemptions for specific foreign-linked firms acknowledges that domestic supply chains or alternative Western imports cannot immediately match the scale, cost-efficiency, and highly specialized technology required for India's massive power grid expansion.
- **Risk Mitigation Over Absolute Isolation**
- The strategy demonstrates a transition from blanket, retaliatory economic restrictions toward an approach centered on "derisking." Rather than enforcing an absolute ban on foreign-linked entities, the state is deploying a highly controlled, transactional approach.
- **Temporary and Conditional Access:** The permission granted to specific firms (such as TBEA Energy and Nanjing Electric) is strictly time-bound to a two-year window.
- **Non-Precedential Nature:** The administrative order explicitly notes that these exemptions must not be interpreted as a permanent shift or a binding precedent for other industrial domains.
- **Institutional Checks and Balances**
- The decision-making process illustrates how economic utility is balanced with security oversight. The exemptions were not granted unilaterally; they were subjected to inter-ministerial deliberations involving the Committee of Secretaries and the Registration Committee under the DPIIT. This indicates that economic relaxations are tightly tethered to administrative oversight, ensuring that any firm entering the sovereign procurement space undergoes background checks.

- **Historical Evolution of the Issue**
- **Pre-2020: The Era of Unchecked Economic Interdependence** During this phase, India's public and private sectors relied heavily on global supply chains, particularly for heavy machinery, power equipment, and telecommunications components. Chinese equipment manufacturers aggressively undercut domestic alternatives like BHEL, securing a major market share in India's thermal and transmission power projects due to low costs and state-backed financing.
- **2020: The Security Watershed and Economic Retaliation** Geopolitical tensions on the northern borders, combined with vulnerabilities exposed by the COVID-19 pandemic, prompted a major policy overhaul. The introduction of Press Note 3 in April 2020 was designed to prevent opportunistic takeovers of stressed Indian firms. This was soon followed by strict restrictions on public procurement tenders, effectively blocking firms from land-border-sharing states from bidding on public projects without explicit, hard-to-obtain registration.
- **2021–2025: The Push for Self-Reliance and Domestic Substitution** The state introduced Production Linked Incentive (PLI) schemes across various sectors, including high-efficiency solar modules and advanced electrical machinery, alongside strict cybersecurity testing guidelines by the Central Electricity Authority (CEA) to identify embedded malware in imported power equipment.
- **2026: The Emergence of Calibrated Pragmatism** Contemporary policy reflects a nuanced appreciation of industrial realities. Recognizing that complete domestic substitution takes time and that project delays can hinder economic growth, the state has eased restrictions, such as allowing up to 10% foreign shareholding under the automatic route and granting selective, time-bound bidding exemptions.
- **Way Forward**
- **Accelerating Strategic Domestic Substitution:** While current PLI schemes are a step in the right direction, they should be expanded to include heavy engineering components, such as high-voltage transformers, testing equipment, and advanced control systems, reducing reliance on temporary foreign exemptions.
- **Implementing a "Zero-Trust" Cybersecurity Framework:** Rather than relying solely on structural bans, India can establish advanced, mandatory testing laboratories under the Central Electricity Authority (CEA). All imported infrastructure equipment, regardless of its origin, should undergo thorough hardware and software testing to detect potential malware or backdoors before grid integration.
- **Diversifying International Supply Chains ("Friendshoring"):** The state can actively facilitate joint ventures and technology transfers with reliable international partners in nations like Japan, South Korea, Germany, and Taiwan, utilizing diplomatic channels to build secure alternative supply lines for critical components.
- **Creating a Standardized Framework for Procurement Exemptions:** To avoid uncertainty, the government could replace ad-hoc, case-by-case exemptions with a clear, institutionalized review framework. This framework would assess projects based on specific criteria, such as domestic scarcity, strategic importance, and potential security impact, making policy decisions more predictable for industry stakeholders.

DECODING INDIA'S POWER SECTOR POLICY: SELECTIVE EXEMPTIONS & NATIONAL SECURITY ANALYSIS FOR UPSC aspirants.



MULTIDIMENSIONAL ANALYSIS



UPSC CSE SYLLABUS LINKAGES



SAMPLE PYQ TOPICS

- Challenges in Critical Infrastructure Upgrade
- E.g. Meratros in Critical Infrastructure Connction

WAY FORWARD (STRATEGIC PRAGMATISM)

- ACCELERATE Strategic Domestic Substitution** (e.g., expand PLI to heavy components)
- ZERO-TRUST Cybersecurity Framework** (mandatory testing for all imported grid hardware)
- DIVERSIFY through Friendshoring** (Alliances with reliable international partners)
- INSTITUTIONALIZE Clear, Pre-defined Exemptions Framework** (predictable criteria of mantions)



Ladakh to have customised self-governance framework

UT-level elected body will be established, say minutes of meeting between Centre and leaders of civil society groups; model of constitutional safeguards under Article 371 discussed in proposal

Peerzada Ashiq
SRINAGAR

A customised *sui generis* model, which is most suitable for Ladakh, will be adopted under the provisions of Article 371 for the Union Territory (U.T.) of Ladakh, said the draft shared by a team from the Ministry of Home Affairs (MHA) with leaders of civil society groups of the region on Friday.

Referring to the fifth meeting held on May 22 this year of the sub-committee of the High-Powered Committee (HPC) on Ladakh, the MHA team released the minutes of the meeting agreed upon by the Centre and leaders of civil society groups of the Leh Apex Body and the Kargil Democratic Alliance. The MHA note said the next logical step would be to further empower the U.T. through a democratic



Civil society groups in Ladakh have been consistently demanding Statehood for the Union Territory. FILE PHOTO

institutional framework that provided a political voice. It was unanimously decided that while Statehood would remain the long-term aspiration of Ladakh, in the present situation, as a first step, an appropriate customised model of governance, that is, a U.T.-level elected body would be established. A draft proposal covering the

powers and functions – executive, financial and legislative – of this U.T.-level elected body in harmonious relations with the Panchayati Raj Institutions would be prepared for further discussion and fine-tuning.

The minutes of the meeting said the model of constitutional safeguards with Article 371 was also

discussed. "There have been instances of invoking Article 371(A to J) and it was agreed that a customised model which is most suitable for Ladakh would be adopted," it said.

Demand for Statehood

It is the first time that the MHA has made public a detailed presentation on the progress achieved through five rounds of meetings between the Centre and representatives of Ladakh. "The presentation also outlined the probable structure of self-governance in Ladakh. The representatives from Ladakh reiterated the demand for Statehood and Sixth schedule for Ladakh. They also reiterated the demand regarding Ladakh Administrative and Police Service and regarding withdrawal of cases of 24, September 2025 incident," reads the minutes of the meeting.

- **Key Terms and Explanations**

- **Sui Generis Model:** A Latin phrase meaning "of its own kind" or unique in its characteristics. In political science and constitutional law, it refers to a governance structure specifically tailored to a region's unique realities rather than copy-pasting an existing boilerplate model.
- **Article 371 (A to J):** A cluster of special constitutional provisions designed to grant varying degrees of autonomy and protection to specific states (primarily in the Northeast, but also including Maharashtra, Gujarat, Andhra Pradesh, and Karnataka). These provisions shield local customs, land rights, and employment opportunities from external infringement.
- **Sixth Schedule:** Framed under Articles 244(2) and 275(1) of the Indian Constitution, this schedule provides for the creation of Autonomous District Councils (ADCs) in specific tribal areas of Assam, Meghalaya, Tripura, and Mizoram. These councils enjoy significant legislative, judicial, and administrative autonomy to protect indigenous ways of life.
- **Union Territory (U.T.) without Legislature:** A sub-national administrative unit directly governed by the Union Government through an appointed Administrator or Lieutenant Governor, lacking a locally elected legislative body.
- **High-Powered Committee (HPC):** An extraordinary executive committee formed by the central government, comprising senior bureaucrats, ministers, and local stakeholders, tasked with mediating complex regional disputes and drafting policy blueprints for sensitive geopolitical zones.

- **Main Arguments and Substantive Parts**

- The core thesis revolving around Ladakh's governance centers on resolving the "democratic deficit" while simultaneously ensuring national security and ecological preservation. The current discourse, as illustrated in the institutional engagements between the Ministry of Home Affairs and regional leaders, highlights several critical friction points and structural proposals.

- **The Proposed Framework: A Middle Ground**

- The Union Government has proposed a customized, elected U.T.-level body under the umbrella of Article 371. The core argument here is that while complete statehood may not be immediate, a tailored institutional mechanism can effectively devolve executive, financial, and legislative powers to local representatives. This approach seeks to fulfill local aspirations for self-governance without altering the overarching geopolitical status of the Union Territory.

- **The Local Counter-Demands and Aspirations**

- Civil society groups, united under coalitions like the Leh Apex Body and the Kargil Democratic Alliance, present a clear, four-pronged counterargument to direct central administration:
- **Demand for Absolute Statehood:** Local representatives argue that a Union Territory structure without a full legislature reduces accountability and disenfranchises the local population.
- **Inclusion in the Sixth Schedule:** They advocate for constitutional guarantees to protect Ladakh's overwhelmingly tribal demographic profile (over 90% indigenous population) from external commercial exploitation and demographic shifts.
- **Administrative Autonomy:** The demand for dedicated cadres—the Ladakh Administrative Service and the Ladakh Police Service—is rooted in the argument that local administrators understand the region's hyper-arid, high-altitude geography far better than outsourced bureaucratic personnel.

- **Historical Evolution of the Issue**

- **The Pre-Independence Era:** Historically, Ladakh existed as an independent Himalayan kingdom until its integration into the Dogra Empire under Gulab Singh in the 1830s. Consequently, it became a part of the princely state of Jammu and Kashmir. Despite its distinct linguistic, cultural, and geographic realities, it was governed as a singular administrative appendage.
- **Post-Independence Integration (1947–1990s):** Following the accession of Jammu and Kashmir to India, Ladakh felt increasingly marginalized by the political focus concentrated in the Srinagar and Jammu centers. This sense of isolation fueled long-standing demands for direct central administration and separation from J&K.
- **The LAHDC Experiment (1995 & 2003):** To address rising discontent, the government established the Ladakh Autonomous Hill Development Councils (LAHDC) first in Leh (1995) and later in Kargil (2003). While these councils managed local developmental funds, they lacked legislative powers, leaving structural issues unresolved.
- **The 2019 Reorganization Milestone:** The abrogation of Article 370 and the passage of the Jammu and Kashmir Reorganization Act, 2019, fundamentally altered the landscape. Ladakh was carved out as a separate Union Territory without a legislature. While this fulfilled the long-standing demand for separation from J&K, it triggered a new wave of anxiety regarding demographic dilution, loss of political voice, and corporate exploitation of fragile ecologies.
- **The Modern Synthesis Phase:** Recognizing the sustained protests led by local alliances, the Ministry of Home Affairs initiated institutional dialogues, leading to the current proposed consensus: a *sui generis* Article 371 framework featuring an elected U.T.-level body to balance local autonomy with national sovereignty.

- **Way Forward**

- **Clearly Define Legislative Competence:** The statutory blueprint for the new U.T.-level elected body must clearly demarcate its powers. Crucial sectors like land management, cultural preservation, environmental protection, and local employment should be placed firmly under its legislative control to prevent future institutional friction with the Lieutenant Governor's office.
 - **Integrate Environmental Protections:** Given Ladakh's vulnerability to climate change and receding glaciers, the customized framework should legally mandate a specialized "Ecological Impact Assessment" cleared by local bodies for all major infrastructure and tourism initiatives.
 - **Build Institutional Synergy:** The newly proposed U.T.-level body should complement, not overshadow, the existing Ladakh Autonomous Hill Development Councils (LAHDCs) of Leh and Kargil. A clear revenue-sharing and decision-making hierarchy will keep governance decentralized and responsive to local needs.
-

EVOLVING GOVERNANCE: A COMPREHENSIVE ANALYSIS OF LADAKH'S NEW SELF-GOVERNANCE FRAMEWORK



THE MANDATE & DIALOGUE



- **ADDRESSING LOCAL CONCERNS:**
(1. Demographic Safeguards,
2. Environmental Protection
3. Political Voice/Jobs)
- **CONSIDERATIONS:**
Constitutional Safeguards
under ARTICLE 371 discussed

THE *SUI GENERIS* SELF-GOVERNANCE FRAMEWORK



MODEL COMPARISON & KEY DEMANDS



India-Japan relations should not target third party: China

Press Trust of India

BEIJING

China said on Friday that bilateral cooperation between countries should not target any third party or undermine the interests of another nation, a day after India and Japan unveiled a raft of landmark initiatives during Japanese Prime Minister Sanae Takaichi's visit to Delhi. "Cooperation between countries should be conducive to enhancing the understanding and trust among regional countries and safeguarding peace and stability in the region," Foreign Ministry spokesperson Guo Jiakun told the media in Beijing.

He was replying to a question on cooperation between India and Japan on critical minerals to boost resilience in supply chains after talks between Prime Minister Narendra Modi and the Japanese premier. "Such cooperation should not target any third party or harm the interests

On July 2, India and Japan unveiled a raft of landmark initiatives, including an economic partnership framework

of any third party," Mr. Guo said. "It is the responsibility of all countries to keep the global industrial and supply chains safe and stable. All parties should champion openness and cooperation and play a constructive role in the process," he added.

On July 2, India and Japan unveiled a raft of landmark initiatives, including an economic partnership framework. They also expressed "serious concern" at the situation in the East China Sea and South China Sea, and opposed unilateral actions that endanger freedom of navigation as well as attempts to change the status quo by force, as per a joint statement.

- **Key Terms and Explanations**
 - **Supply Chain Resilience:** This refers to the capacity of a supply network to anticipate, withstand, and rapidly recover from unexpected disruptions, such as geopolitical conflicts, natural disasters, or trade embargoes. Instead of relying on a single manufacturing hub, nations diversify their sourcing.
 - **Critical Minerals:** These are metallic or non-metallic elements that are essential for modern technologies, green energy transition, and defense systems, but face significant supply disruption risks. These include lithium, cobalt, nickel, and rare earth elements.
 - **Freedom of Navigation (FoN):** A core principle of international maritime law asserting that ships flying the flag of any sovereign state shall not suffer interference from other states, except in cases provided for in international law. This is particularly vital in global choke points and high-traffic shipping lanes.
 - **Status Quo:** A Latin phrase meaning the existing state of affairs, particularly regarding social, political, or territorial situations. In international relations, maintaining the status quo means preserving current borders and maritime demarcations against unilateral modifications.
 - **Third-Party Targeting / Zero-Sum Geopolitics:** A diplomatic scenario where a bilateral agreement or alliance is perceived as explicitly designed to contain, isolate, or counter an external nation, rather than just fostering mutual growth between the two participating states.
- **Main Arguments and Substantive Parts**
 - The geopolitical friction within the Indo-Pacific stems from a core divergence in how bilateral partnerships are interpreted by regional stakeholders. The strategic landscape is defined by two contrasting viewpoints:
- **The Core Thesis**
 - Geopolitical friction between major Asian powers intensifies when strategic partnerships designed to ensure regional balance, maritime security, and supply chain diversification are perceived by dominant regional neighbors as exclusive containment strategies that undermine broader stability.
- **The Realist Strategy of Counter-Balancing**
 - **Securing Supply Vulnerabilities:** India and Japan are actively establishing robust bilateral economic frameworks to safeguard their industries from vulnerabilities. As seen in the recent collaborative initiatives details outlined in image_5a6e81.png, the focus has intensely shifted toward critical mineral partnerships to build reliable alternative supply routes.
 - **Upholding Maritime Rules:** Both nations have openly voiced serious concerns regarding the volatile situations in the East and South China Seas. Their joint diplomacy emphasizes an explicit opposition to any unilateral attempts to alter the regional status quo by force, advocating instead for absolute freedom of navigation.
- **The Counter-Argument of Regional Inclusion**
 - **Rejection of Exclusive Blocs:** From an opposing regional perspective, represented by Beijing's diplomatic response, bilateral cooperation must not transform into exclusionary mechanisms. The argument posits that partnerships should foster mutual trust across the *entire* region rather than targeting a third party or damaging external national interests.
 - **Cooperative Supply Chains:** The counter-narrative stresses that global industrial supply chains should remain open and stable through universal cooperation, warning that alignment patterns focusing on strategic containment could fracture regional peace.

- **Historical Evolution of the Issue**
- **The Cold War Era and Early Distances (1950s–1990s)**
- **Post-War Reconciliation:** Following World War II, India and Japan established diplomatic relations in 1952, with India refusing to accept reparations to preserve Japanese dignity. However, Cold War alignment systems kept them distant; India pursued Non-Alignment (with a pro-Soviet tilt later), while Japan became a core ally of the United States.
- **Economic Subsidiarity:** For decades, the relationship remained primarily economic, driven by Japan's Official Development Assistance (ODA) to India. Meanwhile, India-China ties suffered a catastrophic breakdown during the 1962 border war, leading to decades of mutual suspicion along the Line of Actual Control (LAC).
- **The Pivot to Strategic Convergence (2000s–2010s)**
- **The Global Partnership:** The turning point arrived in the year 2000 with Japanese Prime Minister Yoshiro Mori's visit to India, establishing the "Japan-India Global Partnership." Both nations realized that a rising, assertive China would fundamentally transform the Asian balance of power.
- **The Confluence of the Two Seas:** In 2007, Prime Minister Shinzo Abe delivered his historic speech to the Indian Parliament, introduces the concept of the "Indo-Pacific" where the Pacific and Indian Oceans dynamically intersect. This laid the ideological foundation for upgrading ties to a "Special Strategic and Global Partnership" and reviving the Quadrilateral Security Dialogue (Quad).
- **The Modern Era of Active De-risking (2020s–Present)**
- **Post-Galwan and Supply Chain Realignment:** The fatal clashes in the Galwan Valley in 2020 permanently altered New Delhi's strategic calculus regarding Beijing. Concurrently, maritime standoffs in the East China Sea over the Senkaku Islands intensified Tokyo's anxieties.
- **Institutionalizing Resilience:** The partnership has matured beyond symbolic statements. The collaboration under Prime Minister Narendra Modi and the Japanese leadership now centers on concrete frameworks for critical minerals, high-technology trade, and joint declarations defending international maritime laws against coercive modifications.
- **Way Forward**
- **Promoting an Inclusive Indo-Pacific Narrative:** India and Japan must consistently emphasize that their partnerships are driven by a positive vision for a *Free and Open Indo-Pacific*, rather than being an anti-China containment mechanism. Keeping diplomatic channels open with Beijing helps prevent miscalculations.
- **Executing De-Risking Over Decoupling:** Complete economic decoupling from a major neighbor is practically impossible and economically damaging. India should focus on strategic "de-risking"—building alternative capacities in critical sectors like pharmaceuticals, semiconductors, and critical minerals—while maintaining regular trade in non-sensitive sectors.

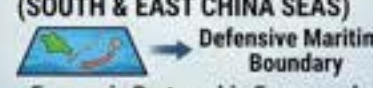
INDIA-JAPAN STRATEGIC ALIGNMENT

KEY PARTNERSHIP PILLARS (INDIA-JAPAN)

- SUPPLY CHAIN RESILIENCE: DIVERSIFYING SOURCING**

- CRITICAL MINERALS COLLABORATION: LITHIUM, COBALT**

- FREEDOM OF NAVIGATION (FoN)**

- MAINTAINING STATUS QUO (SOUTH & EAST CHINA SEAS)**

Defensive Maritime Boundary
Economic Partnership Framework

HISTORICAL CONVERGENCE & EVOLUTION



DEFENSIVE VISION:
SECURING RULES-
BASED ORDER



DEFENSIVE
VISION: SECURING
RULES-BASED ORDER

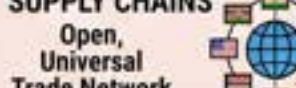
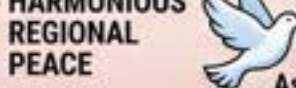
STRATEGIC
GEOPOLITICAL
DYNAMIC

CHINA'S CONCERNS

CHINA'S CONCERNS & COUNTER-ARGUMENTS

- REJECTION OF EXCLUSIVE BLOCS**

- DAMAGE TO THIRD-PARTY INTERESTS**

- COOPERATIVE GLOBAL SUPPLY CHAINS**
Open, Universal Trade Network

- HARMONIOUS REGIONAL PEACE**

Asia

TARGETED
CONTAINMENT
(CHINA'S ZERO-SUM VIEW)



TARGETED
CONTAINMENT
(CHINA'S ZERO-SUM VIEW)

PHILOSOPHICAL BASES

STRUCTURAL REALISM:
BALANCE OF POWER



NEOLIBERAL INSTITUTIONALISM
vs. ZERO-SUM PERCEPTION



UPSC & APSC LINKAGES (EXAM FOCUS)

GS PAPER 2: IR, GROUPINGS



IR, GROUPINGS

GS PAPER 3: ECONOMY, SECURITY



FACTORY



BORDER

NCERT LINKS



CONTEMPORARY
WORLD POLITICS

WAY FORWARD: PRAGMATIC DE-RISKING



INCLUSIVE INDO-
PACIFIC NARRATIVE



DE-RISKING, NOT
DECOUPLING



ASEAN
CENTRALITY



DOMESTIC
CAPACITY BUILDING

Will factor all related developments in approach to Teesta issue: India

Kallol Bhattacharjee
NEW DELHI

Days after Bangladesh Prime Minister Tarique Rahman visited China where the two sides discussed the Teesta River Comprehensive Management and Restoration Project (TRCMRP), India on Friday said its development assistance to projects in Bangladesh work on the basis of a "mutually agreed roadmap", and that India will consider "all related developments" in formulating an "overall approach" to the Teesta river-related project.

The issue came up during a press briefing when the official spokesperson of the External Affairs Ministry, Randhir Jaiswal, was asked a question on whether the Bangladesh-China decision to have a feasibility report on the TRCMRP will impact India's projects in Bangladesh. "India's development assistance for



Pristine waters: A view of the Teesta river at Sevok, some 20 km from Siliguri. AFP

projects in Bangladesh is based on a mutually agreed road map, which is regularly reviewed. Our views on the Teesta river project have been previously conveyed to the Bangladesh side. We will factor all related developments in our overall approach to the Teesta issue," said Mr. Jaiswal.

Officials later clarified that India's statement did not indicate any displeasure at Bangladesh's decision to go ahead with discussing the Teesta project

with China as India-Bangladesh ties stand on their own merit.

The sharing of the Teesta river water has been under discussion between India and Bangladesh for decades but since 2011, the two neighbours have remained in a deadlock with regards to an agreement.

Bangladesh started discussions with China on building a restoration and management project along the river during Sheikh Hasina's prime ministership. In 2024, India shared its

plans on the river with Ms. Hasina when then Foreign Secretary Vinay Kwatra had visited Dhaka. In June that year, Ms. Hasina paid a visit to India when a joint statement mentioned that India would provide assistance for "conservation and management" of the Teesta river inside Bangladesh.

Ms. Hasina's government was toppled in a public uprising in August 2024 and subsequently discussions did not take place during the 15-month long interim government.

While the Teesta issue has received attention during Tarique Rahman's China visit in the last week of June, there are big ticket issues in India-Bangladesh ties that require attention. Diplomats here have pointed out that the renewal of the Ganga water treaty is one such matter that requires urgent attention as the agreement has to be renewed by December 31 this year.

- **Key Terms and Explanations**

- **Teesta River:** A 414 km long transboundary river that originates from the Pahunri glacier (or Tso Lhamo lake) in Sikkim, flows through West Bengal, and enters Bangladesh, where it eventually merges with the Brahmaputra River (known as the Jamuna in Bangladesh). It serves as the primary lifeline for the agricultural economy of North Bengal in India and northwestern Bangladesh.

- **Transboundary River Basin Management:** The collaborative political, technical, and ecological management of water resources that cross international political boundaries. This system requires balancing the sovereign territorial rights of individual nations with international principles of equitable water distribution and ecological preservation.

- **Teesta River Comprehensive Management and Restoration Project (TRCMRP):** A mega-engineering project proposed within Bangladesh designed to manage the river basin structurally. It involves extensive dredging of the riverbed, constructing embankments, building reservoirs, and optimizing water management to mitigate both summer floods and winter droughts. The project has become a geopolitical focal point due to feasibility discussions involving external financing from China and counter-proposals from India.

- **Riparian State Dynamics (Upper vs. Lower Riparian):** This defines the relationship between countries sharing a river system based on geographic location. As the *upper riparian state*, India controls the source and upper flow of the Teesta, giving it infrastructural leverage to construct barrages (like the Gajoldoba barrage) and divert water. As the *lower riparian state*, Bangladesh is entirely dependent on the volume and timing of water released by India, making its agricultural sector highly vulnerable to upstream dry-season diversions.

- **Hydro-Diplomacy:** A specialized branch of international relations that uses diplomatic instruments, legal frameworks, and joint institutional mechanisms to resolve conflicts over shared water resources. It leverages water not just as a scarce commodity, but as a strategic tool to build regional trust, security, and economic interdependence.

- **Ganga Water Treaty (1996):** A landmark, 30-year bilateral agreement between India and Bangladesh that established a strict formula for sharing the waters of the Ganga River at the Farakka Barrage during the lean season (January to May). Expiring on December 31, 2026, its impending renewal acts as a critical institutional baseline and timeline for contemporary sub-continental hydro-diplomacy.

- **Main Arguments and Substantive Parts**

- **The Core Thesis**

The dispute over the sharing and management of the Teesta River has evolved from a localized, bilateral hydro-political disagreement into a complex trilateral strategic matrix. The intersection of India's domestic federal constraints, Bangladesh's urgent economic and ecological requirements, and China's expanding infrastructural footprint in South Asia demands a comprehensive, strategic re-evaluation of transboundary water diplomacy.

- **Key Substantive Pillars**

• **The Geopolitical Pivot (The China Factor):** The diplomatic engagements between Bangladesh and China regarding a feasibility report for the TRCMRP have introduced a major external strategic actor into India's immediate neighborhood. India's official stance—emphasizing that its development assistance works on a "mutually agreed roadmap" and that it will factor in "all related developments"—indicates deep strategic calculations. From New Delhi's perspective, a Chinese-funded engineering project along the Teesta places Beijing's footprint uncomfortably close to the Siliguri Corridor ("Chicken's Neck"), a vital and vulnerable geopolitical chokepoint connecting mainland India to its northeastern states.

• **The Internal Federal Deadlock:** The primary structural barrier to a bilateral treaty is rooted within Indian domestic federalism. In 2011, India and Bangladesh were on the verge of signing an interim 15-year treaty allocating 42.5% of lean-season water to India and 37.5% to Bangladesh. This arrangement collapsed due to intense constitutional resistance from the West Bengal state government. The state argues that the Teesta has suffered a severe decline in total water volume during dry months, and diverting water to Bangladesh would decimate irrigation across five crucial districts of North Bengal, severely impacting domestic food security.

• **Political Shifts and Strategic Balancing in Dhaka:** Following the political transition in late 2024 and the conclusion of the subsequent 15-month interim government, the administration in Dhaka under new leadership has sought to revive dormant infrastructural plans. By re-engaging with China for the TRCMRP while simultaneously keeping communication channels open with India for alternative conservation models, Bangladesh is practicing a strategic balancing act. It is leveraging external infrastructural options to address its severe domestic water distress.

• **The Multi-River Treaty Nexus:** The resolution of the Teesta dispute cannot be achieved in a vacuum. It is deeply connected to the broader hydro-political calendar of South Asia, specifically the expiration of the historic 1996 Ganga Water Treaty on December 31, 2026. This hard deadline compresses the timeline for diplomatic negotiations, forcing both nations to look at comprehensive, multi-basin solutions rather than isolated, piecemeal arrangements.

- **Counterarguments and Differing Perspectives**

• **The Engineering Approach vs. Ecological Restoration:** Proponents of the TRCMRP (and similar Chinese-backed mega-projects) argue that heavy structural interventions—such as building massive reservoirs and artificial embankments—are essential to control floods and store dry-season water. Conversely, environmental scientists and ecological economists argue that such heavy engineering permanently destroys the river's natural flood-plains, alters sediment morphology, and damages riverine biodiversity, advocating instead for soft-path ecosystem restoration.

- **Historical Evolution of the Issue**
- **The Era of Institutionalization (1972–1983)**
 - Following the liberation of Bangladesh in 1971, a new era of bilateral cooperation began. In 1972, the landmark **Indo-Bangladesh Joint Rivers Commission (JRC)** was established to maintain liaison and maximize collective benefits from 54 common rivers. By 1983, an ad-hoc water-sharing agreement on the Teesta was achieved, under which 39% of the flow was allocated to India and 36% to Bangladesh, leaving 25% unallocated for future scientific assessments. However, this ad-hoc arrangement eventually lapsed, leaving water usage uncoordinated and highly contested.
- **The 2011 Breakthrough and Domestic Collapse**
 - After years of diplomatic stagnation, negotiations peaked in September 2011 during Prime Minister Manmohan Singh’s visit to Dhaka. A draft interim agreement was finalized, proposing a formula to divide dry-season waters (42.5% for India and 37.5% for Bangladesh). At the eleventh hour, the Chief Minister of West Bengal pulled out of the official delegation, exercising political leverage over the Union government. Because water is a state subject under the Indian Constitution, the Union chose not to override state concerns, resulting in a prolonged diplomatic deadlock.
- **The Infrastructure Shift and the Present Era (2020–2026)**
 - Faced with a decade-long bilateral stalemate and acute agricultural distress in its northern plains, Bangladesh shifted from a pure water-sharing demand to a river-basin management approach. Around 2020, Dhaka formulated the \$1 billion TRCMRP and approached China for technical and financial assistance. Recognising the strategic threat of Chinese presence near the Siliguri Corridor, India pivotally intervened in mid-2024, offering a state-backed Indian alternative for the "conservation and management" of the Teesta inside Bangladesh.
 - Following the collapse of the Awami League government in August 2024 and the completion of a 15-month interim administration, the current leadership under Prime Minister Tarique Rahman in 2026 has revived feasibility discussions with Beijing while simultaneously preparing for negotiations regarding the mandatory renewal of the 1996 Ganga Water Treaty by December 31, 2026.
- **Way Forward**
- **From Volumetric Sharing to Joint Basin Management**
 - India and Bangladesh should consider moving away from zero-sum negotiations over exact water percentages and shift toward **Integrated Water Resources Management (IWRM)** for the entire Teesta basin. The Joint Rivers Commission should commission an independent, joint satellite-based hydrological study to establish an undisputed, real-time data baseline of the river’s volume during the lean season, removing political guesswork from diplomatic talks.
- **Institutionalizing Inner-Federal Consensus in India**
 - To resolve the domestic deadlock, the Central Government could establish a permanent, statutory **Teesta River Basin Authority (TRBA)** that includes representatives from the Union, Sikkim, and West Bengal.
- **Agricultural Modernization:** The Union can financially support West Bengal to modernize irrigation in North Bengal, shifting local agriculture away from water-intensive *Boro* paddy toward high-value, low-water crops.
- **Sikkim Flow Management:** The TRBA can regulate hydro-electric projects in upstream Sikkim to ensure a steady release of water during dry months, addressing West Bengal's concerns before international water sharing takes place.

CORE DEADLOCK DIAGRAM



Upper Riparian (Sikkim)

- Upper Riparian Control
- Hydropower Flow Regulation



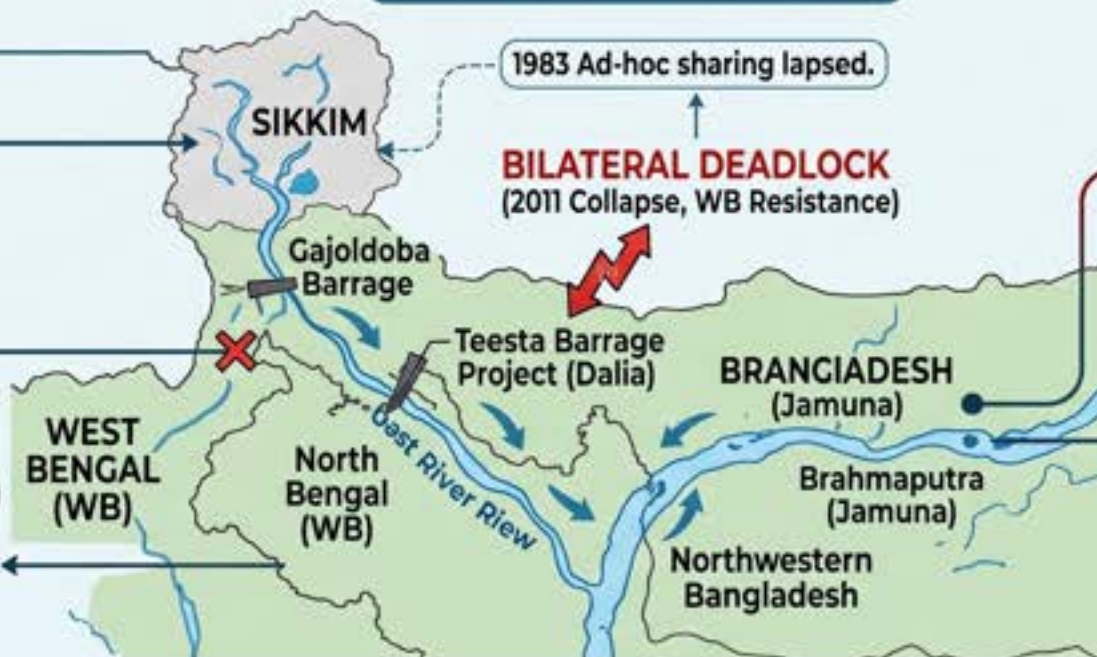
Middle Riparian (WB)

- Federal Constraints
- North Bengal Agri Security
- Boro Paddy Demand



Lower Riparian (Bangladesh)

- Lean Season Scarcity
- Economic & Ecological Distress
- Agricultural Reliance (Boro Rice)



GEOPOLITICAL STRATEGY FRONTIER



BD

China's TRCMRP

- BD Feasibility Report Engagement (e.g., \$1bn Project)
- Infrastructural Footprint (Dredging, Embankments)

→ Near Siliguri Corridor ("Chicken's Neck")



BD

India's Strategic Pivot

- BD Counter-Proposal: "Conservation and Management"
- Joint Ecological Restoration Financing

→ Neighbourhood First & Act East Policy

1947

Partition, No Hydro-Institutional Plan

1972

JRC Established

1983

Ad-hoc sharing: 39% IN, 36% BD

2011

Interim Treaty Draft Fails – WB Opposes

2020s

Chinese TRCMRP & Indian Conservation Offer

2026

Ganga Treaty Renewal Deadline, Compression for Solution



SOCIAL

- Crop Failures
- Agrarian Distress
- Rural Migration



POLITICAL

- Post-Awami League Transition
- Dhaka's Strategic Balancing
- WB Domestic Vote Bank Politics



LEGAL

- Harmon Doctrine vs. Territorial Integrity
- Equitable Utilization Principle
- Lack of UN Convention Signature



ETHICAL

- Distributive Justice
- Ecological Flow Preservation
- Upstream Obligations



INTERNATIONAL

- South Asian Strategic Buffer
- Expanding China's Regional Footprint
- Regional Hegemony



ECONOMIC

- Agri Revenue Loss (BD)
- BBIN Trade Potential
- Long-Term Strategic Investment

WAY FORWARD



1. JOINT BASIN MANAGEMENT (IWRM)

- Commission joint satellite hydrological study, undisputed real-time data base



2. STATUTORY TEESTA RIVER BASIN AUTHORITY (TRBA)

- Include Sikkim, WB, BD representatives
- Mandatory Agro-Modernization and Crop Diversification



3. JOINT FINANCING & COMPREHENSIVE DIPLOMACY

- Expand India's Conservation Assistance
- Multi-River Diplomatic Package Deals (Teesta, Ganga, Feni, etc.)
- Connect to "2026 Deadline"

'No revival of Indus treaty if Pak. does not end terror'

Kallol Bhattacharjee
NEW DELHI

India on Friday said the Indus Waters Treaty (IWT) will remain in "abeyance" till Pakistan "credibly and irrevocably" stops supporting cross-border terrorism. Official spokesperson of the External Affairs Ministry Randhir Jaiswal made the remark in the context of a recent international conference held in Pakistan where it called for the restoration of the treaty. The country is dealing with a severe heatwave. "The Indus Waters Treaty of 1960 will be held in abeyance with immediate effect, until Pakistan credibly and irrevocably abjures its support for cross border terrorism," said Mr. Jaiswal at a media briefing.

Earlier this week, Pakistan organised a conference on the Indus and water sharing where the country's Foreign Minister and Deputy Prime Minister Ishaq Dar referred to the IWT



Point of contention: India's Cabinet Committee on Security had put the IWT in abeyance after the Pahalgam attack. PTI

as vital for "regional peace, stability and cooperation".

The Cabinet Committee on Security had put the treaty in abeyance a day after the Pahalgam terror attack on April 22, 2025, killed 26 civilians and injured dozens. The attack led to India's strikes on terror targets inside Pakistan under Operation Sindoor.

"The IWT was concluded in the spirit of goodwill and friendship as specified in the preamble of the treaty. However, Pakistan has held these principles in abeyance by its promotion

of cross-border terrorism for decades," Mr. Jaiswal had said on May 13, 2025.

On May 22 last year, Mr. Jaiswal had said that India was willing to discuss with Pakistan the modality to get custody of "noted terrorists whose list was provided to Pakistan some years ago". Citing PM Narendra Modi's remarks, he said, "Water and blood cannot flow together". India has intensified the rhetoric on Pakistan recently, especially against the backdrop of protests in Pakistan Occupied Kashmir.

- **Key Terms and Explanations**

- **The Indus Waters Treaty (IWT) 1960:** A landmark water-distribution treaty brokered by the World Bank and signed by Indian Prime Minister Jawaharlal Nehru and Pakistani President Ayub Khan. It divides the Indus River system into two distinct categories: the **Eastern Rivers** (Ravi, Beas, Sutlej) allocated to India for unrestricted use, and the **Western Rivers** (Indus, Jhelum, Chenab) allocated predominantly to Pakistan. India is permitted limited, non-consumptive uses on the Western rivers, such as domestic use, navigation, and run-of-the-river power generation.
- **Abeyance (Treaty Context):** In legal and diplomatic parlance, placing an international agreement in abeyance means temporarily suspending its execution, institutional meetings, or structural reviews without formally terminating the treaty. In contemporary statecraft, India uses this status to signal that diplomatic goodwill cannot exist in isolation from national security realities.
- **Hydro-Diplomacy:** This refers to the utilization of transboundary water resources as a strategic instrument of foreign policy, conflict prevention, and peace-building. When water cooperation is directly linked to behavioral changes in an adversary's security policy—such as ending proxy warfare—it represents a hardline shift in hydro-diplomacy.
- **Operation Sindoor:** A targeted strategic counter-offensive and military operation launched by India against terror infrastructure across the border. It marks a paradigm shift where India matches tactical cross-border terrorism with robust, overt military responses alongside economic and ecological leverage.
- **Run-of-the-River Hydroelectric Projects:** These are power plants that generate electricity by utilizing the natural flow and elevation of a river without requiring massive storage reservoirs. Under the IWT, India's projects on the Western Rivers (like Kishanganga or Ratle) must strictly adhere to these design constraints to ensure that water volume flowing into Pakistan is not diminished.
- **Material Breach:** Derived from Article 60 of the Vienna Convention on the Law of Treaties (VCLT), a material breach is a repudiation of a treaty not sanctioned by the treaty itself, or the violation of a provision essential to the accomplishment of the object or purpose of the treaty. In this discourse, promoting terrorism is viewed as a systemic breach of the "goodwill and friendship" enshrined in the IWT's preamble.

- **Main Arguments and Substantive Parts**

- The structural core of the contemporary hydro-political debate between India and Pakistan revolves around the decoupling or coupling of humanitarian resource sharing and state-sponsored national security threats.

- **The Core Thesis**

- The traditional paradigm that the Indus Waters Treaty is a sacrosanct, apolitical instrument immune to bilateral hostilities has officially dissolved. The modern strategic posture dictates that **ecological cooperation and existential asymmetric warfare cannot coexist**. The foundational spirit of any international treaty is mutual goodwill; when that goodwill is shattered by cross-border violence, the structural components of the treaty automatically enter a state of paralysis.

- **The Indian Strategic Posture**

- **The "Blood and Water" Doctrine:** India's foundational argument rests on the premise that water sharing cannot be viewed as a one-way humanitarian obligation. When an upper-riparian state faces state-sponsored terror attacks—such as the devastating Pahalgam attack of April 2025, which claimed 26 innocent lives—the domestic political mandate shifts. Ecological magnanimity cannot be extended to a state actively fueling proxy wars.

- **Conditional Engagement:** India has placed the IWT mechanisms into strict abeyance. The resumption of regular treaty dialogues, data sharing, or structural modifications is explicitly contingent upon Pakistan taking "credible, verifiable, and irrevocable" steps to dismantle terror infrastructure and handing over wanted individuals on India's high-priority security lists.

- **Integration of Military and Ecological Leverage:** The operationalization of *Operation Sindoor* alongside the suspension of water talks demonstrates that India is deploying a comprehensive state-power approach. Ecological leverage is no longer seen as separate from military deterrence.

- **The Pakistani Counter-Argument**

- **Permanence and Humanitarian Immunity:** Pakistan maintains that the IWT contains no provision for unilateral suspension or "abeyance" based on external political or security grievances. From their perspective, water is an existential, non-negotiable human right, especially during periods of acute climatic distress, such as severe regional heatwaves and crippling water scarcity.

- **Internationalization of the Dispute:** Pakistan consistently seeks third-party mediation, appealing to the World Bank and the Permanent Court of Arbitration. They argue that altering the treaty's status quo threatens regional stability and sets a dangerous precedent for international environmental law.

- **Historical Evolution of the Issue**

- **The Partition and Immediate Crisis (1947–1948):** The line of partition drawn by Sir Cyril Radcliffe cut right through the Indus river basin. The headworks regulating the vital canal colonies of West Punjab (Pakistan) fell inside India's territory (East Punjab). The conflict erupted on April 1, 1948, when the Standstill Agreement expired, and India briefly cut off water supplies to Pakistani canals, underscoring Pakistan's existential vulnerability as a lower-riparian state.
- **The Era of Negotiations (1951–1960):** Recognizing the potential for catastrophic war, David Lilienthal (former head of the Tennessee Valley Authority) proposed a joint development plan, which led to World Bank mediation under Eugene Black. After nearly a decade of intense bargaining, financial compensation packages, and engineering assessments, the Indus Waters Treaty was signed in Karachi in 1960.
- **The Era of Resilience (1965–1999):** Remarkably, the IWT survived three full-scale bilateral wars (1965, 1971, and the 1999 Kargil conflict). During this period, both nations treated the treaty as a technical, legalistic arrangement managed by the Permanent Indus Commission (PIC), keeping it largely insulated from frontline military engagements.
- **The Transition to Technical Disputes (2001–2015):** As India stepped up construction of permitted run-of-the-river projects to meet Jammu & Kashmir's energy demands, Pakistan raised serious legal and technical objections to projects like Baglihar and Kishanganga. This era saw increased reliance on Neutral Experts and the Court of Arbitration, signaling that water was once again becoming a key point of friction.
- **The Strategic Shift (2016–Present):** Following the Uri terror attack in 2016, India explicitly connected water cooperation to state-sponsored terror with the statement, *"Water and blood cannot flow together."* This culminated in April 2025 following the Pahalgam terror attack. India launched *Operation Sindoor* and officially put the treaty in abeyance, establishing a clear link between cross-border security and transboundary water flows.

- **Way Forward**

- **Accelerating Strategic Infrastructure Development:** India should focus on fully utilizing its legally permitted rights under the IWT. This includes completing delayed run-of-the-river projects and maximizing the permitted 3.6 million acre-feet (MAF) of water storage capacity on the Western Rivers. Developing this infrastructure provides clean energy to Jammu & Kashmir while establishing tangible, legal leverage.
- **Formulating an Updated Transboundary Water Doctrine:** India needs to draft a comprehensive, updated hydro-diplomacy doctrine. This policy should explicitly link transboundary resource sharing with regional security guarantees, setting a clear, institutionalized precedent that ecological cooperation requires a baseline of mutual peace.
- **Strengthening the Legal Narrative Around Material Breaches:** On the international stage, India should build a strong legal argument based on the Vienna Convention on the Law of Treaties. By demonstrating that cross-border terrorism violates the core purpose and spirit of the IWT, India can justify its policy of abeyance before global bodies and neutral experts.
- **Establishing a Phased, Verifiable De-escalation Framework:** The return to normal treaty functions must follow a clear, step-by-step process. Pakistan must demonstrate verifiable actions, such as shutting down identified terror camps and handing over wanted individuals, before India resumes regular meetings of the Permanent Indus Commission or shares hydrological data.

INDUS WATERS TREATY (IWT)



& SOUTH ASIAN GEOPOLITICS: A COMPREHENSIVE ANALYSIS

KEY TERMS

Eastern Rivers

Western Rivers

Western Rivers

- **Indus Waters Treaty (1960)**
(Ans: Chenab)
- **Abeysance**
Hydro-clivary intervention
- **Hydro-Diplomacy**
Hydos-River behnees introduce mithe sure rves
- **Run-of-the-River**
Run-of-thies river fur movenent uunervizes nvitemers
- **Operation Sindoor**
Operation Sindoor sun water free and operation sindoor

AXIA
IAS ACADEMY

Indian Posture



Pahalgam Attack
(April 2025)

Water & Blood cannot flow together



Pakistani Counter-Argument



Humanitarian Water Right
Crisis during Heatwaves

HISTORICAL EVOLUTION



1947
Partition
Crisis



1951
World Bank
Mediation



1960
IWT
Signing



Treaty
Survives
Wars
(1965, 1971, 1999)



2016
Uri
Attack



2025/2026
Present
State in
Abeysance

LOGICAL BASE



Spirit of the Preamble



State-Sponsored Terror

Violated Violated

MULTIDIMENSIONAL ANALYSIS

SOCIAL

Farming, water distress vs. public sentiment

ETHICAL

Water Right vs. State Protection

ECONOMIC

K&L energy potential, Compounding vulnerability hydro-projects

POLITICAL

State Resolve, PoK unrest

LEGAL

VCLT Art 60, Material breach, Court of arbitration

INTERNATIONAL

China Precedent, World Bank Credibility

UPSC CSE SYLLABUS



GS Paper 2:
International Relations, Agreements



GS Paper 3:
Cross-Border Terror Management, Leverage



GS Paper 4:
Ethics in IR, Env Ethics

UPSC

PRIORITIZED STATRED STRONG LINKAGES

WAY FORWARD



ACCELERATE Infrastructure
Hydro projects



STRENGTHEN Legal Narrative
Material Breach



FORMULATE New Doctrine
Link resources to security



VERIFIABLE De-escalation
Shut terror camps

PRELIMS PYQs

PRELIMS FOCUS: INDUS RIVER SYSTEM

- Which river joins indus direct?
(Ans: Chenab)
- Which rivers flow through AP?
(Ans: Lohit, Subansiri)

KEY TOPICS FROM MAINS PYQs:

- IWT in changing equations
- Non-traditional strategies



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- **Key Terms and Explanations**
 - **Three-Language Formula**
 - This is a pedagogical framework first conceptualized in 1968 and reaffirmed by the National Education Policy (NEP) 2020. It mandates that students study three distinct languages at the school level. In Hindi-speaking states, the formula typically comprises Hindi, English, and a modern Indian language (preferably from Southern India). In non-Hindi-speaking states, it encompasses the regional state language, Hindi, and English. The core objective is to foster national integration while promoting multilingualism.
 - **Bharatiya Bhashas (Native Indian Languages)**
 - This term refers to the indigenous languages originating within the geographical and cultural boundaries of India. These predominantly include, but are not limited to, the 22 official languages listed under the Eighth Schedule of the Constitution of India. The current mandate requires that at least two of the three languages taught under the school curriculum must be native Indian languages.
 - **National Education Policy (NEP) 2020**
 - A comprehensive blueprint designed to overhaul the Indian education system from primary school to higher education. One of its key pillars is the revitalization of Indian languages, arts, and culture, promoting mother-tongue or regional-language instruction up to Class 5 and re-engineering the language curriculum in secondary education to reinforce local heritage.
 - **Eighth Schedule of the Constitution**
 - A constitutional framework containing a list of 22 official languages of India. Languages included enjoy state patronage, institutional development, and recognition in public examinations. Foreign languages (such as French or German) and various indigenous tribal dialects are excluded from this schedule, impacting how they are classified in national educational directives.
 - **Ethno-Linguistic Diversity**
 - The co-existence of multiple distinct ethnic groups, each possessing its own unique native spoken language or dialect, within a single geographic or political territory. A clear example of this is seen in Northeast Indian states like Nagaland, where over 30 distinct indigenous dialects coexist, creating a unique socio-linguistic environment distinct from mainstream mainland language patterns.

- **Main Arguments and Substantive Parts**

- **The Central Thesis**

- The core issue revolves around the structural friction caused by the strict implementation of the Three-Language Formula from Class 6 onwards. While intended to fortify national identity and revive indigenous languages, its uniform enforcement creates an implementation conundrum. It forces a complex choice between preserving cultural roots and pursuing global career utility, while simultaneously clashing with regional aspirations and ground-level infrastructural realities.

- **Key Contentions and Supporting Evidence**

- **Displacement of Foreign Languages:** The directive requiring two out of the three languages to be native Indian languages effectively pushes popular foreign electives like French and German out of the main curriculum. This shift has triggered significant anxiety among parents who view foreign languages as essential tools for global employment, leading to legal challenges in apex courts.

- **Diplomatic and Institutional Friction:** International educational bodies and foreign embassies have raised concerns. Countries like Germany and France have invested heavily in local school ecosystems through teacher training programs and cultural exchange frameworks. The sudden exclusion of these languages from the formal curriculum disrupts these long-term educational partnerships.

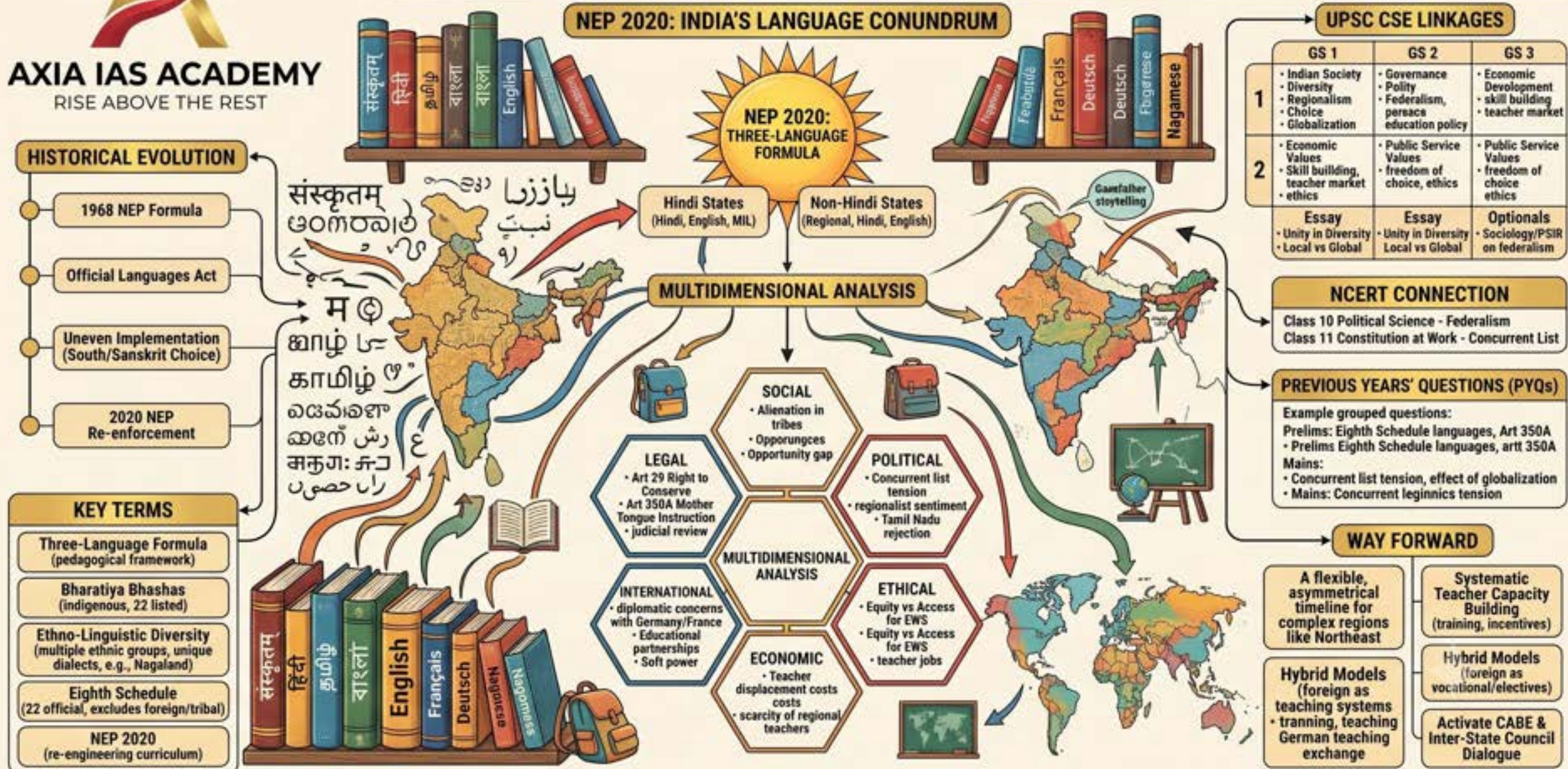
- **The Infrastructure Deficit:** There is a severe mismatch between policy mandates and ground-level execution capabilities. The data reveals an acute shortage of qualified teachers for regional and minority languages. Schools are often forced to drop local languages entirely and adopt choices like Sanskrit or Hindi simply because they cannot find accredited teachers for regional options like Konkani.

- **Counterarguments and Policy Adjustments**

- Proponents of the strict policy argue that early childhood exposure to indigenous languages enhances cognitive flexibility and protects dying dialects from linguistic imperialism. To mitigate immediate disruptions, policymakers have introduced mid-session relaxations, grandfathering existing students in older grades to allow them to complete their chosen foreign language tracks, while systematically applying the new rules to fresh batches.

- **Historical Evolution of the Issue**
- **Pre-Independence Foundation**
- Linguistic identity was a core pillar of the Indian national movement. The choice of a future national or official language was highly contested, with leaders balancing the need for a common communicative bond against the preservation of India's immense regional linguistic diversity.
- **Post-Independence Fractures (1950s–1960s)**
- The constitutional provision to transition from English to Hindi as the sole official language sparked widespread anxiety, culminating in intense anti-Hindi agitations in 1965, particularly in Tamil Nadu. This historical flashpoint underscored the reality that language policy in India is directly tied to political stability and regional pride.
- **The 1968 Compromise (First National Policy on Education)**
- To resolve the North-South linguistic divide, the Three-Language Formula was introduced. The strategy aimed to promote national integration by encouraging Hindi speakers to study a Southern Indian language, while non-Hindi states would learn Hindi alongside their regional language and English.
- **Implementation Asymmetry (1970s–2010s)**
- The implementation of the 1968 compromise was uneven. Hindi-speaking states largely bypassed Southern languages, frequently opting for Sanskrit as their third option. Conversely, Tamil Nadu formally rejected the model via state legislation, permanently adopting a strict Two-Language Formula (Tamil and English) that remains in place today.
- **The Current Paradigm (NEP 2020 onwards)**
- The rollout of the National Education Policy 2020 sought to standardize and strictly enforce the Three-Language Formula across central boards like the CBSE. This triggered the modern phase of this debate, characterized by curriculum realignments, legal disputes, and administrative friction between central guidelines and local school boards.
- **Way Forward**
- **Asymmetrical and Flexible Implementation Timeline**
- Instead of executing a rigid, uniform timeline across all states, the central government should adopt an asymmetrical approach. States with complex ethno-linguistic profiles, particularly in the Northeast, should be granted extended transition periods and the autonomy to customize their language tracks to match local tribal realities.
- **Systematic Teacher Resource Capacity Building**
- No language mandate can succeed without qualified educators. The state must invest heavily in institutional infrastructure by establishing specialized regional language teacher training institutes and offering targeted incentives to build a sustainable pipeline of accredited language professionals before making a curriculum mandatory.
- **Constructing a Hybrid Integration Model**
- Foreign languages do not need to be entirely removed from the school environment. They can be effectively integrated as accredited vocational skills, elective audit courses, or co-curricular options. This allows interested students to maintain global mobility pathways without undermining the core goals of the Three-Language Formula.
- **Activating Institutional Cooperative Federalism**
- To avoid protracted legal disputes and administrative paralysis, forums like the Central Advisory Board of Education (CABE) and the Inter-State Council should be actively utilized. Regular institutional dialogue ensures that central boards and state education departments can align their policies through consensus rather than top-down directives.

UPSC CSE: COMPREHENSIVE ANALYSIS - INDIA'S LANGUAGE CONUNDRUM & THREE-LANGUAGE FORMULA PREPARATION GUIDE



- **Key Terms and Explanations**
- **Eco-Centric Nature Worship (Animism):** A spiritual and philosophical belief system where nature itself—mountains, rivers, glaciers, and forests—is revered as the living embodiment of the divine, rather than a mere dwelling place for deities. For instance, instead of constructing a concrete temple to house an idol, an indigenous community views a physical mountain peak like Om Parvat as the ultimate sacred entity that requires no artificial modification.
- **Commercial Pilgrimage (Religious Tourism):** The transformation of sacred, ecologically sensitive landscapes into high-density tourist hubs driven by commercial infrastructure, such as hotels, motorable roads, and stalls. This differs from traditional, low-impact pilgrimage by prioritizing mass access and commercial footprint over ecological and spiritual preservation.
- **Cultural Assimilation:** The process through which a minority indigenous culture gradually loses its distinct identity, language, and customs by being absorbed into a dominant, mainstream socio-religious framework. An example is when localized, nature-centric rituals are replaced or overshadowed by pan-Indian institutionalized religious practices.
- **Sacred Geography:** A concept where specific geographical terrains are embedded with deep spiritual narratives by local communities. In this framework, the landscape itself is the repository of history, community identity, and ecological balance, making any physical alteration a disruption of both faith and ecology.
- **Sanskritization:** A sociological phenomenon where lower castes or indigenous tribal communities adopt the rituals, customs, and ideologies of dominant mainstream communities to seek upward mobility or social alignment, occasionally risking the dilution of their own unique heritage.
- **Main Arguments and Substantive Parts**
- The core tension centers on the clash between institutionalized, anthropomorphic religious practices and indigenous, nature-centric belief systems within fragile ecological borderlands.
- **The Preservation of Pristine Sacredness:** Indigenous border communities argue that the natural form is the deity itself. They contend that a mountain peak or a rushing river does not require man-made markers, such as concrete idols or shrines, to be holy. The introduction of external symbols is viewed not as an act of devotion, but as an intrusion that alters the sacred character of the land.
- **The Slippery Slope of Commercialization:** A major substantive concern is that installing external religious structures triggers an irreversible cycle of commercialization. The placement of a single idol eventually leads to fencing, donation boxes, concrete temples, and roadside shops. This commercial sprawl degrades the fragile Himalayan ecosystem and replaces spiritual quietude with commercial chaos.
- **Mainstream Integration vs. Local Autonomy:** Proponents of installing mainstream icons argue that these structures guide devotees, mark safe pilgrimage routes, and foster a sense of national spiritual integration. However, counterarguments emphasize that such moves often disregard local customary rights and can be used to assert territorial or institutional control over lands historically managed by indigenous clans.
- **The Paradox of Accessibility:** Modern infrastructure, such as all-weather strategic roads, has vastly improved connectivity in border regions. While essential for national security, this ease of access accelerates unregulated mass tourism, bringing mainstream socio-religious pressures into direct conflict with isolated, vulnerable border cultures.

- **Historical Evolution of the Issue**
- **The Pre-1962 Era of Trans-Himalayan Autonomy:** Historically, indigenous border communities operated as vital links in trans-Himalayan trade routes connecting India, Tibet, and Nepal. Their migratory lifestyle and geographical isolation allowed their syncretic belief systems—blending nature worship, animism, and regional faiths—to thrive without external interference.
- **The 1962 Sino-Indian War as a Turning Point:** The geopolitical shock of the 1962 war led to the sudden closure of international borders, completely shattering the traditional economic backbone of these trading communities. Displaced from their ancestral trade, these populations were forced to transition toward settled agriculture, government services, and migration to the plains, exposing their unique oral traditions to external cultural currents.
- **The Infrastructure Boom of the 21st Century:** For decades, reaching these high-altitude sacred sites required arduous treks lasting several days, which naturally regulated the volume of visitors. The recent, rapid construction of strategic border highways transformed these remote valleys into easily accessible destinations within a matter of hours, acting as the primary catalyst for the current friction between mass tourism and indigenous preservation.
- **Way Forward**
- **Implementation of Carrying Capacity Legislation:** The state must legally define and strictly enforce the ecological carrying capacity of high-altitude Himalayan zones. Tourist and pilgrim inflows should be mathematically regulated based on the region's ability to handle waste, water demands, and vehicular emissions.
- **Community-Led Eco-Cultural Tourism:** Tourism and pilgrimage models should be handed over to local traditional councils or community trusts. This ensures that economic benefits remain local, and all visitors are strictly sensitized to respect the nature-worshipping protocols of the indigenous population.
- **Legal Protection for Natural Sacred Sites:** The government should consider declaring pristine peaks, glaciers, and alpine meadows as "Eco-Cultural Reserves" or "Community Reserves" under the Wildlife Protection Act. This legal status would automatically bar the construction of permanent, man-made concrete structures.
- **Mandatory Local Consent Frameworks:** Introduce a mandatory consultative mechanism where any external socio-religious or developmental group must secure a No Objection Certificate (NOC) from the local tribal bodies before initiating any project, ensuring that border security, local ecology, and cultural sentiments remain perfectly aligned.

MULTIDIMENSIONAL DIMENSIONS



SOCIAL

- Distinct Rung Identity Erosion
- Language Preservation



POLITICAL/INTERNATIONAL

- Strategic Border Context
- Tri-junction Sensitivity



ECONOMIC

- Commercial Pilgrimage pressures
- Sustainable Development clash



INTERNAL SECURITY

- Community alienation
- Sensitive zone



ETHICAL/LEGAL

- Local vs Mainstream Claims
- Customary Rights

AXIA IAS ACADEMY PRESENTS: COMPREHENSIVE UPSC ANALYSIS - THE HIMALAYAS AS A BATTLEGROUND OF BELIEF

UPSC RELEVANCE:

GS I (Society/Geography),
II (Governance),
III (Environment/Security),
IV (Ethics)

INDIGENOUS RUNG PERSPECTIVE



EXTERNAL GROUP PERSPECTIVE



WAY FORWARD

COMMUNITY-LED
SUSTAINABLE TOURISM

CULTURAL
SENSITIZATION

BALANCED
INFRASTRUCTURE

LAND USE
REGULATION

HISTORICAL EVOLUTION



PRE-1962

Trans-Himalayan
trade



1962

SINO-INDIAN WAR
End of trade



ADAPTATION

Settled
Agriculture



RECENT ROAD
BUILDING

Commercial
Pressures



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Centre orders blocking of battery management apps

Action comes after e-rickshaws in various parts of the country were turned off via apps developed by Chinese firms to manage lithium ion battery packs; extortion incident reported in Ujjain

The Hindu Bureau
NEW DELHI

The Union government on Friday issued orders to block battery management apps after some users discovered they were able to shut down e-rickshaw batteries even as those vehicles were transporting passengers, an official said.

The apps, mostly developed by Chinese firms, appeared to be designed for legitimate battery owners.

The developers of three such apps – named by a Ministry official – Shenzhen Grenergy Technology, Shenzhen Ruichuang Liheng Technology, and Daly BMS, did not respond to queries from *The Hindu*.

It is unclear if banning the apps would completely eliminate the vulnerability, as these apps do not require Internet access to hijack and shut off battery units without a configured password or PIN. Testing standards to certify e-rick-



Soft targets: Testing standards to certify e-rickshaws do not include cybersecurity requirements. FILE PHOTO

shaws do not include cybersecurity requirements.

Lithium ion battery packs include battery management systems to monitor charge, voltage, temperature and cell health. Instagram reels demonstrating this vulnerability on roads went viral over the week, showing rickshaws grinding to a halt.

A senior official pointed out to *The Hindu* that stranding vehicles like this was a punishable offence, and that “regular IPC/BNS sections of criminal mis-

chief will apply”.

The Information Technology Act, 2000 also contains anti-hacking provisions that could apply to smart battery systems.

In Ujjain, the police even caught a person demanding money from e-rickshaw drivers after using the exploit to disable their vehicles. Neel Ganga Police Station in-charge Tarun Kuril stated that the racket came to light following a targeted extortion incident at Loti Tiraha.

“We received informa-

tion that an auto-rickshaw driver’s vehicle had stalled at Loti Tiraha, and a young man charged him ₹200 on the pretext of fixing it.

Upon inquiry, the driver revealed that e-rickshaws in the city are being shut down remotely. Specifically, their batteries are being disabled via a mobile app.

“Some miscreants use this app to immobilise the vehicles and then demand money to restart them,” Mr. Kuril said.

Three-wheeler e-rickshaws are typically categorised as LSM vehicles, and manufacturers such as Speego obtain certifications from the International Centre for Automotive Technology (ICAT). A review of the certification requirements on ICAT’s website shows that while electrical and mechanical safety and roadworthiness are covered, cybersecurity requirements enumerated in standards such as AIS-189 are not required for e-rickshaws.

(With agency inputs)

- **Key Terms and Explanations**
- **Battery Management System (BMS):** The electronic system inside a vehicle that manages a rechargeable battery pack. It acts as the "brain" of the battery, monitoring parameters such as total voltage, temperature, state of charge, and cell health. In modern applications, a smart BMS can communicate wirelessly with mobile apps, which, if unsecured, creates an entry point for unauthorized access.
- **L5M Vehicle Category:** Under the Central Motor Vehicles Rules (CMVR), vehicles are classified into distinct tiers. The L5M category specifically represents three-wheeled motor vehicles designed to carry passengers, featuring a maximum speed capability exceeding 25 km/h. E-rickshaws frequently fall under or near this operational classification for urban transport.
- **International Centre for Automotive Technology (ICAT):** A premier testing, certification, and research and development agency operating under the aegis of the Ministry of Heavy Industries, Government of India. It validates whether vehicles conform to safety, environmental, and operational standards before they are allowed onto public roads.
- **Automotive Industry Standards (AIS-189):** A specialized regulatory standard formulated in India that outlines safety requirements for liquid-cooled or advanced lithium-ion battery packs. While it focuses heavily on thermal runaway and mechanical safety, it lacks comprehensive mandates for digital or cybersecurity defenses.
- **Local Wireless Vulnerabilities (Proximity Hijacking):** A security flaw where electronic devices can be accessed, controlled, or shut down via short-range wireless protocols (like unencrypted Bluetooth or local Wi-Fi networks) without requiring internet access or central cloud server validation.
- **Main Arguments and Substantive Parts**
- The core challenge revolves around a critical policy blind spot: the rapid adoption of green technology has outpaced the implementation of necessary digital safety nets.
- **The Core Vulnerability**
- Smart applications designed to optimize and monitor lithium-ion batteries often possess deep hardware integration but minimal authentication security. As demonstrated by recent field reports, these apps can communicate directly with a vehicle's BMS over short distances. Without a mandatory password or PIN setup, anyone within radio range can gain administrative control and remotely shut down the vehicle's power supply.
- **The Threat Grid: Beyond National to Grassroots Security**
- Cyber threats are often conceptualized as high-level attacks on government databases or power grids. However, this development illustrates a shift toward decentralized, grassroots cyber-crimes. Miscreants have begun using these vulnerabilities for street-level extortion, intentionally stalling moving e-rickshaws carrying passengers and demanding quick financial payouts to unlock them.
- **The Regulatory Deficit**
- While agencies like ICAT strictly test vehicles for mechanical stability, structural integrity, and fire prevention, they do not mandate cybersecurity assessments for lower-tier public transport options like e-rickshaws. This regulatory gap allows low-cost, insecure firmware—frequently sourced from foreign developers—to enter the domestic supply chain unchecked.

- **Historical Evolution of the Issue**
- **The Unregulated Proliferation Era (Early 2010s):** E-rickshaws rapidly spread across Tier-1 and Tier-2 Indian cities as an informal solution for last-mile connectivity. Early regulatory efforts focused solely on basic legal compliance, registering drivers, and preventing structural overloads under the Motor Vehicles Act.
- **The Safety and Standardization Push (Post-2015):** As battery fires and structural failures drew public attention, the government introduced rigorous testing standards via bodies like ICAT. The priority during this phase was physical safety—ensuring batteries did not overheat and chassis could withstand daily wear and tear.
- **The Smart IoT and EV Revolution (2020–2025):** Driven by the FAME (Faster Adoption and Manufacturing of Hybrid and Electric Vehicles) scheme, the industry shifted toward smart mobility. To lower production costs, manufacturers heavily integrated third-party, internet-of-things (IoT) enabled Battery Management Systems, often relying on imported software architectures from manufacturing hubs like Shenzhen.
- **The Cyber-Physical Threat Horizon (Present):** Vehicles have transformed into mobile digital endpoints. As a result, the threat landscape has shifted from mechanical failures to software vulnerabilities, where unprotected wireless access points allow external actors to disrupt physical transport infrastructure.

- **Way Forward**

- **Mandatory Cyber-Physical Certification Protocols**

- Regulatory authorities like ICAT must update their evaluation frameworks to include cybersecurity mandates alongside mechanical testing. Compliance with standards like AIS-189 should be expanded to require basic digital defenses—such as mandatory encryption and unique, user-configured PINs—before any IoT-enabled vehicle is approved for commercial sale.

- **Localizing Firmware and Promoting Open-Source Development**

- To reduce reliance on insecure foreign software, the Ministry of Electronics and Information Technology (MeitY), alongside private stakeholders, should incentivize the creation of domestic, open-source BMS architectures under the "Make in India" initiative. This ensures that the code running public transport can be fully audited and secured locally.

- **Creating Grassroots Cyber-Protection Desks**

- Law enforcement agencies need specialized training to handle decentralized cyber-crimes. Setting up dedicated cyber-desks at the district level ensures that localized extortion rackets targeting EV operators can be quickly investigated and neutralized using both the IT Act and the Bharatiya Nyaya Sanhita.

- **Enhancing Factory-Level Security Settings**

- Manufacturers must move away from generic, open-access default settings. All smart components should leave the factory with strict security baselines, requiring an individual initialization process that prevents unauthorized, proximity-based connections.



UPSC/APSC ANALYSIS: CENTRE BLOCKS E-RICKSHAW BATTERY APPS & CYBER-SECURITY VULNERABILITIES

1. THE INCIDENT: VULNERABILITY EXPOSED



Centre orders blocking of BMS apps, after e-rickshaws stalled remotely via Chinese-developed apps in multiple cities (e.g., Ujjain)

Malicious actors use apps for localized extortion to 'restart' vehicles.

2. KEY VULNERABILITIES & REGULATORY GAPS



Shows an unconfigured, **proximity wireless access** (e.g., via local local Wi-Fi, Bluetooth) giving as **deep system access without PIN**

- 'Local Proximity Hacking' risk via unsecured protocols
- ICAT testing covers mechanical and electrical safety, but cybersecurity requirements are NOT mandatory in AIS-189 standards for e-rickshaws (L5M)

PHYSICAL
SAFETY
CERTIFIED

DIGITAL
SAFETY
GAP



3. MULTIDIMENSIONAL IMPACT (UPSC CSE/APSC)

Social (GS1/2)



- Impact on driver livelihoods (marginalized operators)
- Passenger safety risk

Political (GS2)



- Threat to critical urban mobility
- Public trust in green (EV) initiatives affected
- Digital sovereignty concerns

Economic (GS3)



Confidence loss in EV ecosystem adoption

Internal Security (GS3)



Grassroots cyber-physical threats

Ethical (GS4)



COST SECURITY
Corporate responsibility vs. profit-motive

International (IR)



Global supply chain dependencies and vulnerabilities

4. THE STRATEGIC WAY FORWARD



Mandatory cybersecurity certification (AIS, ICAT) mandatory UNIQUE Passwords/PINs



Localizing BMS architectures and promoting indigenous open-source development (Make in India)



Establishing grassroots cyber-protection desks at district levels



Auditing foreign firmware

A Coordinate Approach for Smart Mobility.

'Indian firms will have to leave comfort zone to achieve \$1 tn exports'

The Hindu Bureau
NEW DELHI

Commerce Minister Piyush Goyal on Friday reiterated his target of \$1 trillion of exports this year, but also said that Indian companies would have to push themselves out of their "cosy and comfortable" domestic market and actively work towards building their brands abroad.

'Difficult, yet possible'

Speaking at the Board of Trade meeting at the Ministry of Commerce, Mr. Goyal admitted that the \$1 trillion export target would be difficult to achieve, but added that it was possible since the other countries were keen to trade with India.

"The world wants to work with us," he said. "We have to go out and capture those world markets. Wherever I go in the world, they are very keen to work with us. It's our industry that shows weakness. We are cosy and comfortable in our domestic market, but to get into the export market, we need



Piyush Goyal

scale, quality, and outreach. It will not happen by just sitting at home."

He told the gathered export promotion councils that the government's Export Promotion Mission would help them set up overseas branding, warehousing, and exhibitions if they needed.

"Please demand what you need, so your products can go to developed countries and countries with whom we have Free Trade Agreements," Mr. Goyal said.

Several trade bodies made presentations at the meeting. According to sources present during the meeting, a common demand was for greater export-related credit.

- **Key Terms and Explanations**
- **Export Promotion Mission**
 - An institutional and strategic framework designed by the government to systematically boost a nation's export capabilities. Instead of treating exports as a passive byproduct of domestic manufacturing, this mission actively facilitates overseas branding, establishes shared warehousing facilities in destination countries, and sponsors global exhibitions.
 - *Example:* Think of it as a state-backed launchpad that helps a domestic textile manufacturer display their products in high-end trade fairs in Paris or New York, absorbing the initial risk of global market entry.
- **Domestic Market Bias / "Comfort Zone" Inertia**
 - An economic phenomenon where domestic firms prefer selling within national borders due to a massive home consumer base, familiar regulatory environments, and lower operational risks. This creates a protectionist mindset where companies avoid the stringent quality checks and aggressive pricing competition found in global markets.
 - *Example:* An Indian automobile or consumer goods manufacturer finding sufficient profit margins within India's billion-plus consumer market, choosing not to upgrade its quality standards to meet strict European Union environmental regulations.
- **Free Trade Agreements (FTAs)**
 - Pacts between two or more nations that reduce or eliminate tariffs, import quotas, and non-tariff barriers on goods and services traded across their borders. FTAs are designed to give preferential market access to member nations, creating a level playing field or competitive edge over non-signatory nations.
 - *Example:* The India-UAE Comprehensive Economic Partnership Agreement (CEPA) allows Indian jewelry and engineering goods to enter UAE markets with zero or highly concessionary customs duties.
- **Export-Related Credit (Trade Finance)**
 - Financial instruments and credit facilities—such as pre-shipment and post-shipment credit—provided by banks and financial institutions to exporters. This credit addresses working capital gaps, allowing businesses to procure raw materials and manufacture goods long before payment is received from international buyers.
 - *Example:* A handicraft exporter receiving a low-interest working capital loan from the Export-Import (EXIM) Bank of India to execute a massive holiday-season order for a retail chain in the United States.
- **Economies of Scale**
 - The cost advantage that an enterprise obtains due to its scale of operation, where the cost per unit of output decreases as fixed costs are spread over a larger volume of goods. Global trade demands huge production volumes to drive down prices and compete with manufacturing giants.
 - *Example:* A smartphone assembly plant increasing production from 10,000 units to 10 million units, which significantly lowers the sourcing cost of components and the per-unit overhead cost, making the final product globally price-competitive.

- **Main Arguments and Substantive Parts**
- **The Core Thesis**
 - India cannot achieve its trillion-dollar export vision through incremental or residual trade. It requires an aggressive behavioral and structural transformation where domestic firms break free from the protective cushion of India's massive internal market. To capture global value chains, Indian industry must transition from being domestic-first to global-first, prioritizing structural scale, uncompromising quality, and proactive brand building.
- **Key Arguments and Supporting Evidence**
 - **The Trap of the "Cosy" Domestic Market:** For decades, the sheer size of India's middle class and the country's rapid economic growth have acted as a double-edged sword. While providing a safe revenue cushion, it has inadvertently insulated domestic firms from global competition. Companies often opt for the lower regulatory hurdles and predictable margins of the domestic arena rather than braving the volatile, highly competitive waters of international trade.
 - **The Global Receptivity Disconnect:** There is an unprecedented geopolitical and economic alignment favoring India. Global supply chains are actively seeking diversification under "China+1" strategies, and international buyers are eager to engage with Indian manufacturers. The bottleneck, therefore, is not a lack of global demand or external market access, but rather an internal supply-side reluctance to step up and capture these spaces.
 - **The Triad of Global Penetration (Scale, Quality, Outreach):** To compete effectively with manufacturing powerhouses in East and Southeast Asia, Indian products must stand on three pillars:
 - *Scale:* Moving away from fragmented, small-scale production to mega-manufacturing hubs.
 - *Quality:* Aligning domestic manufacturing with the absolute highest international standards, eliminating the tolerance for defects.
 - *Outreach:* Moving beyond anonymous contract manufacturing to active, direct brand-building in foreign territories.
 - **The Dual Role of Government and Credit:** While the state is stepping in with institutional mechanisms like the Export Promotion Mission—offering shared infrastructure, global warehousing, and marketing support—the industry's core demand remains unresolved: **adequate and affordable export-related credit**. Without deep financial plumbing and trade credit access, micro, small, and medium enterprises (MSMEs) cannot scale production to meet large international contracts.
- **Counterarguments and Structural Challenges**
 - Critics and industry representatives often note that leaving the "comfort zone" is not merely a psychological barrier but a response to structural constraints. High logistics costs within India, complex regulatory compliance frameworks, fluctuating currency values, and the high cost of capital make global risk-taking prohibitive for smaller firms. Therefore, expecting companies to venture abroad without first lowering the domestic cost of doing business is an uphill task.

- **Historical Evolution of the Issue**
- **Pre-Independence Era: Colonial Extractive Trade**
 - Under British rule, India was systematically positioned as an exporter of primary raw materials (like raw cotton, indigo, and jute) and an importer of finished industrial goods from Lancashire and Manchester. This de-industrialized the domestic economy and instilled a long-standing wariness toward unregulated foreign trade and global capital.
- **1947–1991: The Era of Inward-Looking Protectionism**
 - Post-independence, India adopted an **Import Substitution Industrialization (ISI)** model, influenced by socialist planning and a desire for self-reliance. High tariff walls, strict import quotas, and the "License Raj" shielded domestic industries from foreign competition. While this built a basic industrial foundation, it led to inefficiencies, low product quality, and "export pessimism"—the belief that India could not compete globally. This inward focus culminated in the structural Balance of Payments (BOP) crisis of 1991.
- **1991–2010s: Liberalization and the Service-Led Export Growth**
 - The historic 1991 economic reforms dismantled the License Raj, devalued the rupee, and integrated India into the global trading system. However, instead of a manufacturing revolution, India witnessed an unprecedented boom in **services exports** (IT and business process management). Manufacturing growth remained constrained by rigid labor laws, poor infrastructure, and weak logistics. The Special Economic Zones (SEZs) Act of 2005 attempted to create export enclaves, but met with mixed success due to land acquisition challenges and tax uncertainties.
- **The 2020s to Present: Structural Ambition and Strategic Trade**
 - Today, India's trade policy has shifted toward structural aggressive globalism. Recognizing that services alone cannot employ millions of youth, the focus has returned to manufacturing through the **Production Linked Incentive (PLI)** schemes and the **Make in India** initiative. Rather than retreating into protectionism, India is actively signing high-quality, swift Free Trade Agreements (FTAs) with developed markets and setting explicit, time-bound targets like the \$1 trillion export milestone, supported by target-driven programs like the Export Promotion Mission.



- **Way Forward**
- **Democratizing and Deepening Trade Finance**
 - The issue of export credit must be resolved on a priority basis. India needs to expand the scope of the **Trade Receivables Discounting System (TReDS)** to include international trade receivables, allowing MSMEs to unlock working capital instantly. Additionally, the Export Credit Guarantee Corporation (ECGC) should offer enhanced insurance cover at lower premiums, reducing the risk premium for commercial banks extending credit to first-time exporters.
- **Reducing the Cost of Doing Business (Logistics Infrastructure)**
 - Indian firms cannot compete globally if their domestic transit costs remain high. The continuous implementation of the **National Logistics Policy (NLP)** and the **PM Gati Shakti National Master Plan** must be fast-tracked to lower logistics costs from around 13-14% of GDP down to global benchmarks of 8%. This involves building seamless multi-modal connectivity hubs, digitizing port clearances, and reducing turnaround times at major ports.
- **Strict Alignment with Global Quality Infrastructure**
 - The domestic manufacturing philosophy must change from "Chalta Hai" (imperfections are acceptable) to a strict focus on quality, such as the **"Zero Defect, Zero Effect"** standard. The government must co-invest with industry bodies to establish world-class, internationally accredited testing laboratories and certification centers across manufacturing clusters. This will prevent Indian consignments from being rejected abroad due to phytosanitary or technical compliance issues.
- **Institutionalizing Strategic Brand Building**
 - The proposed **Export Promotion Mission** should be run by industry experts rather than generic bureaucratic setups. It must actively work alongside Indian diplomatic missions abroad to carry out market intelligence mapping. Instead of focusing only on generic commodities, India should aggressively market high-value products—such as indigenous electronics, defense equipment, and specialty chemicals—building strong global consumer brands that command premium pricing.
- **Maximizing Free Trade Agreement (FTA) Utilization**
 - Signing FTAs is only half the battle won; India must actively help its industries utilize them. Dedicated "FTA Utilization Cells" should be set up across industrial clusters to guide businesses through complex **Rules of Origin** clauses and compliance pathways. This ensures that domestic manufacturers can seamlessly leverage preferential access tariffs to outcompete global rivals.

INDIA'S STRATEGIC LEAP: TO ACHIEVE THE \$1 TRILLION EXPORT MILESTONE

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Key Economic Terms & Definitions

- EXPORT PROMOTION MISSION TRADE FAIR STAND**
Examples: Trade fair stand :: promotion, global globe, trade fair stand
- DOMESTIC MARKET BIAS**
Comfortable house and comfortable
Examples: Comfortable markets
- FREE TRADE AGREEMENTS (FTAs)**
Zero Tariffs as tariffs
Examples: Shaking hands as Zero Tariffs
- EXPORT-RELATED CREDIT (Trade Bank cards, coins, optimal for national and economic promotion)**
Examples: bank cards
- ECONOMIES OF SCALE**
Mass production lines for strategy and learning of export quality
Examples: factory lines

Main Arguments & Behavioral Shift

From DOMESTIC-FIRST
(Current State)

- SAFE CUSHION
- LOW QUALITY

GLOBAL-FIRST
(Future State)

- UNCOMPROMISING QUALITY
- STRUCTURAL SCALE

Multidimensional / Contrast

BOTTLENECK
Internal Supply
Reluctance

VS

OPPORTUNITY
• Global Supply Chains ("China+1")
• Unprecedented Geopolitics

DOMESTIC CI TRAP



DOMESTIC COMFORT TRAP

Logic flow: Market → Trap → Scale/Quality/Outreach → Credit/Missions

A STRATEGIC LEAP



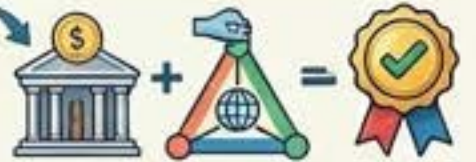
TRILLION DOLLAR EXPORT GOAL



TRILLION DOLLAR EXPORT GOAL

Triad of Global Penetration (Scale, Quality, Outreach)

Dual Role of Government and Credit



Dual Role of Government and Credit



Economic & Philosophical Bases



Multidimensional Analysis



NCERT & UPSC Linkages

NCERT LINKAGES
(Class XI, XII, X)
David Ricardo, Covenantine & Soking, Planten & Stacaus

UPSC CSE SYLLABUS LINKAGES
(GS II, III, Essay, Optionals)

Way Forward Strategy Matrix

Financial Plumbing (TReDS, Export Credit Guarantees)	Logistics Revolution (NLP, PM Gati Shakti)
Logistics Revolution (NLP, PM Gati Shakti)	Quality & Branding (Zero Defect/Effect, Export Promotion Mission)

Matrix

Assam estate sells country's first commercially produced matcha tea

The Hindu Bureau

GUWAHATI

An Assam tea estate on Friday sold India's first commercially-produced matcha tea, marking a significant shift from conventional teas.

Matcha is made after shading *Camellia sinensis* tea leaves for three to four weeks before harvest. According to tea planters, blocking 90% of sunlight from the leaves boosts chlorophyll and amino acid levels and gives them distinct colour and flavour.

"Five kilograms of the first-ever batch of India-



Matcha tea field in Japan. (For representational purpose only)

produced matcha tea was sold at the Guwahati Tea Auction Centre during sale number 27. Auctioned by J. Thomas & C. Pvt. Ltd. and bought by Guwahati-based

Sheosons Chai Co., the premium tea fetched ₹3,000 per kg," Dinesh Bihani, the secretary of Guwahati Tea Auction Buyers' Association, said.

Making of matcha

"Matcha is made by finely grinding shade-grown tea leaves into vibrant green powder. Unlike usual green tea where leaves are steeped and discarded, matcha is whisked into water and taken entirely, giving higher levels of antioxidants, amino acids and natural caffeine," he said.

The matcha came from Chota Tingrai Tea Estate in

eastern Assam's Tinsukia district. Mrityunjay Jalan, the Chota Tingrai's director, said his estate spent a decade collaborating closely with Japanese tea makers, agronomists, equipment suppliers and tea experts for matcha.

"We sought to bridge traditional Assam tea heritage with authentic Japanese expertise by establishing a fully automated, state-of-the-art Japanese tea manufacturing facility on our estate. We are confident matcha from Chota Tingrai will appeal to Indian and international households," he said.

- **Key Terms and Explanations**

- **Matcha Tea:** A premium, vibrant green powder made from finely ground, shade-grown tea leaves (*Camellia sinensis*). Unlike conventional green tea—where leaves are steeped in hot water and subsequently discarded—matcha involves whisking the entire pulverized leaf directly into water. This ensures the consumer ingests 100% of the leaf's nutrients, offering significantly higher concentrations of antioxidants, L-theanine (amino acids), and natural caffeine.
- **Shade Cultivation (Sunlight Occlusion):** An advanced agronomic technique where tea bushes are covered with specialized nets to block approximately 90% of sunlight for three to four weeks prior to harvest. By depriving the plant of light, the regular photosynthetic process is altered. To adapt, the leaves aggressively boost their chlorophyll production (resulting in a deep, vibrant green color) and accumulate elevated levels of amino acids, which yields a distinct sweet, umami flavor profile rather than bitter tannins.
- **Value Addition in Agriculture:** The process of changing a raw agricultural commodity into a high-value product through specialized processing, packaging, or technological intervention. For example, rather than selling raw, bulk black tea leaves for minimal margins, an estate processes the harvest into specialized automated matcha, multiplying its market value and profitability exponentially.
- **Agro-Technology Transfer:** The cross-border sharing, adaptation, and implementation of agricultural knowledge, mechanical systems, and agronomic expertise. This is perfectly exemplified by Indian tea estates collaborating over a decade with Japanese master tea makers, agronomists, and equipment manufacturers to install state-of-the-art, fully automated processing facilities on Indian soil.
- **Guwahati Tea Auction Centre (GTAC):** Established in 1970, GTAC is one of the world's premier and busiest tea trading hubs. It plays a critical institutional role in price discovery, quality benchmarking, and market access for teas produced in Northeast India, acting as the primary gateway connecting local producers with national and global buyers.

- **Main Arguments and Substantive Parts**

- The core thesis revolving around this agricultural breakthrough rests on a simple yet powerful premise: the future of the Indian plantation sector lies in transitioning from a volume-driven, low-margin paradigm to a value-driven, technology-intensive model.

- **Core Arguments and Supporting Evidence**

- **Breaking the Commodity Trap:** For decades, traditional Indian tea estates have suffered from stagnating global prices and rising production costs. The introduction of domestic matcha, which fetched a premium price of ₹3,000 per kg at the Guwahati Tea Auction Centre, demonstrates that high-end agro-processing can decouple local producers from the vulnerabilities of the volatile bulk commodity market.
- **Technological Convergence as a Growth Driver:** The transition to gourmet tea variants is not merely an agricultural shift but a technological one. The successful production achieved at the Chota Tingrai Tea Estate in Tinsukia was made possible by a decade-long collaboration with Japanese experts and the installation of a fully automated, state-of-the-art manufacturing facility. This proves that long-term capital investment in foreign technology transfer yields high-value economic returns.
- **Capitalizing on the Global Wellness Economy:** Modern consumer preferences are shifting rapidly toward functional foods and premium health beverages. By marketing a product rich in antioxidants and amino acids, Indian tea companies are positioning themselves to capture lucrative segments of both domestic and international urban households.

- **Historical Evolution of the Issue**
- **The Colonial Genesis (1820s–1947):** The formal tea industry in India began when Major Robert Bruce identified indigenous tea bushes (*Camellia sinensis var. assamica*) growing wild in Assam in 1823. The British Empire actively promoted tea plantations through the Assam Company (1839) to break the Chinese monopoly on tea. The entire ecosystem was built as a colonial extractive enterprise: high-volume, low-cost black tea produced via indentured labor, meant strictly for western export.
- **Post-Independence Consolidation (1947–1990s):** Following independence, the government sought to formalize and regulate the sector through the **Tea Act of 1953**, creating the Tea Board of India. This era saw the rise of the **Crush, Tear, Curl (CTC)** processing method, turning tea into a cheap, mass-market staple for domestic consumption. The establishment of the Guwahati Tea Auction Centre in 1970 democratized price discovery but locked the region into a volume-heavy, orthodox-and-CTC monoculture.
- **The Structural Crisis and Liberalization (Late 1990s–2010s):** With economic liberalization, the Indian tea sector faced severe headwinds. New, low-cost global competitors like Kenya and Vietnam emerged, depressing global prices. Traditional estates faced systemic distress due to aging tea bushes, stagnant auction realisations, high social overhead costs for labor, and changing climate patterns.
- **The Modern Paradigm Shift (2020s–Present):** Realizing that mass production was no longer economically viable, progressive planters began diversifying into organic teas, white teas, and purple teas. The breakthrough achieved in 2026 by integrating authentic Japanese shading techniques with traditional Assam tea heritage represents the absolute pinnacle of this historical evolution—shifting from basic agrarian harvesting to elite agro-industrial technology.
- **Way Forward**
- **Democratizing Technology Access via Hub-and-Spoke Models:** The Tea Board of India, in coordination with the **Tea Research Association (TRA) Tocklai**, should establish state-funded automated processing hubs. Under a hub-and-spoke model, nearby Small Tea Growers (STGs) can bring their shade-grown green leaves to a central, high-tech automated facility for matcha pulverization, allowing smallholders to benefit from premium processing without prohibitive upfront capital costs.
- **Targeted Fiscal Incentives and Subsidies:** The Ministry of Commerce and Industry should offer targeted capital subsidies under the *Tea Development and Promotion Scheme*. These subsidies should specifically fund automated processing equipment, shading nets, and cold-chain infrastructure to encourage more estates to pivot from volume to value.
- **Institutional Skill Development:** Scale up targeted training programs under the **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)** specifically tailored for plantation workers in the Northeast. Training should focus on the technical nuances of shade cultivation, automated machinery operation, and strict phytosanitary maintenance, turning traditional labor into certified agro-technicians.
- **Aggressive International Brand Building:** The Tea Board of India should leverage global trade fairs and diplomatic channels to aggressively market "Indian Assam Matcha." By positioning it as a distinct gourmet variety that combines traditional Assam strength with Japanese smooth umami flavor, India can directly compete with established global exporters.

TRANSITIONING FROM VOLUME TO VALUE



Low Margin,
Bulk CTC Commodity

High Margin,
Specialty Product

ECONOMIC IMPACT



- Breaking Commodity Trap
- Premium Price (e.g., ₹3,000/kg at GTAC)
- Value Chain Ascent

SOCIAL IMPACT



- Labor Upskilling
- Technical Training
- Rural Human Capital Enhancement

INTERNATIONAL & POLITICAL



- Indo-Japan CEPA Model
- 'Make in India' in Agriculture
- Act East Policy



AXIA IAS ACADEMY PRESENTS: THE REVITALIZATION OF ASSAM'S TEA SECTOR.

A CASE STUDY IN VALUE-ADDITION, TECHNOLOGY TRANSFER & THE FIRST COMMERCIAL MATCHA

IMPACT GTON GROWTH



FROM CAMELLIA SINENSIS LEAF TO MATCHA POWDER

1 90% Sunlight Occlusion
(Shading) for 3-4 Weeks



SPECIAL SHATS

90% Sunlight Occlusion
(Shading) for 3-4 Weeks

+CHLOROPHYLL
+AMINO ACIDS

2



STATE-OF-THE-ART
JAPANESE MANUFACTURING
A Decade of Japanese
Collaboration.

3



FINE GRINDING TO
VIBRANT GREEN POWDER
Whisked, taken entirely,
rich in antioxidants.

HISTORICAL CONTEXT & WAY FORWARD



- Indigenous Discovery (1823)
- Tea Board (1953)
- GTAC (1970)
- CTC Dominance (1990s)
- First Matcha (Present)

WAY FORWARD

- Hub-and-Spoke Processing Centers
- Fiscal Incentives & Subsidies
- Global Brand Building ("Indian Assam Matcha")

UPSC & APSC CSE RELEVANCE (GS PAPERS & ETHICS)



GS3: Major Crops,
Food Processing,
Technology Missions

GS1: Industrial Location
Factors

GS2: Bilateral Agreements

GS4: Ethical Capitalism

ESSAY themes and PYQ
concepts

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