EDITORIALS - 27TH NOV 2026

1. THE SIANG DAM: STRATEGIC AMBITION, ECOLOGICAL FALLOUT (GS PAPER II INTERNATIONAL RELATIONS)

This editorial '**The Siang dam: strategic ambition, ecological fallout**' was published in **The Hindu** on 27th Nov 2026, highlights the **trade-off** between India's strategic **response** to China's **Medog project** and the **Siang dam**'s social, seismic and ecological costs.

Strategic Rationale

- China's **60 GW Medog project** on Tibet's Yarlung Tsangpo, roughly three times the capacity of the Three Gorges Dam, turned Arunachal Pradesh's **11,200 MW Siang Upper Multipurpose Project (SUMP)** from a hydropower proposal into a national security project.
- SUMP's proposed **9.2 billion cubic metres of live storage** would provide a **strategic buffer** by absorbing sudden upstream releases and sustaining downstream flows during reduced discharge.

Indigenous Rights and Displacement

- The reservoir could submerge **27 ancestral villages** and displace **over 1.5 lakh people**, nearly 11% of Arunachal Pradesh's population, while the initial deployment of armed forces deepened local resistance.
- Arunachal Pradesh falls outside the **Sixth Schedule** framework of Autonomous District Councils and relies partly on a **tribal land transfer law** that restricts transfers to non-tribals but permits government acquisition for public purposes, leaving community rights vulnerable in strategic projects.
- Communities revere the Siang as **Anni (Mother)**, and financial compensation cannot replace the livelihoods, sacred sites, burial grounds and **customary institutions** tied to ancestral land.

Seismic and Ecological Risks

- Medog exploits a roughly **2,000-metre drop** around Namcha Barwa through tunnels reportedly 20–40 km long, but an active fault threatens tunnel stability and raises the risk of landslides and river blockages, as underscored by the **1950 magnitude-8.6 Tibet–Assam earthquake**.
- The proposed **280–300-metre gravity dam** would require extensive inundation and engineering to withstand a magnitude-8.0+ earthquake, as its foundation could slide or liquefy and reservoir pressure could reactivate faults through **reservoir-triggered seismicity**.
- Sediment trapped in the reservoir could release sediment-poor **'hungry water'** that erodes riverbeds and banks, deprives Assam's floodplains of nutrient-rich silt and threatens **Majuli**, already shrinking from erosion.

- In the **Indo-Burma biodiversity hotspot**, the reservoir would fragment aquatic habitats, disrupt **Golden Mahseer** migration and submerge old-growth forests already under pressure from projects such as the 1,000 MW Naying project in the Siyom basin.
- A large artificial lake in the narrow gorge could alter **humidity, evaporation and mist patterns**, disrupting **high-altitude farming**.

Transboundary Water Governance

- Geopolitical mistrust, border disputes and unequal power obstruct **transboundary water-sharing**, while neither India nor China has ratified the **1997 UN Watercourses Convention**, leaving them without a common legal framework for equitable use and prevention of significant downstream harm.
- The absence of a **Himalayan river commission** involving China, India, Nepal, Bhutan, Pakistan and Bangladesh fragments cooperation on the **Brahmaputra and Indus** as climate impacts intensify.

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Reducing Downstream Vulnerability in the Siang Basin

- **Upstream monitoring**: Pair satellite imagery with river gauges to track water bodies and detect sudden rises, drawing on ISRO's mapping of the 2023 South Lhonak Lake outburst.
- **Advance release alerts**: Build on the 2018 India–China Brahmaputra flood-season data agreement by seeking advance notice of planned releases and immediate emergency alerts.
- **Last-mile preparedness**: Adapt Assam's Flood Early Warning System for the Siang by linking forecasts to village sirens, evacuation routes and drills.
- **Floodplain zoning**: Use Manipur's 1978 Flood Plain Zoning Act as a precedent for keeping new homes, schools and hospitals out of high-risk stretches.
- **Distributed flood storage**: Test how much smaller storage areas could reduce Siang flood peaks, drawing on England's Leigh scheme, which protects downstream towns.
- **Dry-season water security**: Apply Sikkim's *Dhara Vikas* approach to restore spring recharge zones and strengthen village water supplies during lean months.
- **Comparison of alternatives**: Include floodplain measures from the Netherlands' *Room for the River* programme and compare options by flood protection, dry-season supply, cost and displacement.

2. BRIDGING INDIA'S CRITICAL BORDER INFRASTRUCTURE GAP (GS PAPER III ECONOMY)

This editorial '**Bridging India's critical border infrastructure gap**' was published in **The Hindu** on 27th Nov 2026, highlights how India can close its border infrastructure gap with China through coordinated **investment,** stronger **execution** and sustained **civilian presence**.

Border Infrastructure Gap

- India accelerated border works after the **2017 Doklam standoff**, but the **2020 Ladakh crisis** exposed how reactive, annual funding slowed mobilisation and constrained the movement, resupply and rotation of troops along the LAC.
- Tibet's **2021–25 five-year plan** committed over 600 billion yuan to infrastructure, while China's **2022 Land Border Law** made border development statutory, extending military reach through roads, rail, airfields, 5G and Xiaokang settlements.
- The **Border Roads Organisation (BRO)** received ₹12,107.41 crore in 2024–25, up from ₹10,179.5 crore in 2023–24, with actual spending reaching ₹16,690 crore. Atal and Sela tunnels have cut seasonal closures, while Zoji La, Shinku La and the **Arunachal Frontier Highway** aim to extend all-weather access.
- The **Bilaspur–Manali–Leh** and **Missamari–Tenga–Tawang** rail lines have completed surveys and project reports but await approvals, leaving logistics dependent on trucks, while lower-altitude bases give India an airlift advantage.
- The **Vibrant Villages Programme** followed China's settlement push by several years and connected and electrified remote areas, where power still relies on **diesel and solar**.

Strategic and Institutional Causes

- China uses roads and settlements to assert **territorial claims** on the ground, a logic also visible in the **South China Sea**, while India held back on border roads for four decades after 1962 before reversing course.
- Divided authority across ministries, states and regulators stretched **Indo-China Border Roads Phase I** to 16 years (2005–21), while the **Border Infrastructure Management Scheme**, created in 2022 to address fragmentation, remains under-resourced.

Policy and Execution Priorities

- An **India Border Infrastructure Act** should establish a single authority to coordinate clearances and multi-year funding, with a **Composite Frontier Infrastructure Index** to compare capacity with China sector by sector and guide joint planning.
- Treat border development as national infrastructure by assigning **forward operational works** to the BRO and **hinterland connectivity** to NHAI and other public and private agencies.
- Scale up L&T's tunnelling capacity and apply **Qinghai–Tibet permafrost techniques** to improve designs, with independent audits and **ISRO monitoring** to flag defects and delays early.
- Equip **inhabited border villages** with reliable power, fibre, health services and livelihoods so their civilian presence, local knowledge and resources can **sustain forward-deployed troops**.

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The Cumulative Ecological Cost of Himalayan Border Construction

- **Basin-wide assessment**: Apply the Char Dham review's cumulative approach to roads, tunnels and quarries that put pressure on the same Himalayan slopes and streams.

- **Hazard-based alignment**: Screen proposed corridors using ISRO's route-wise landslide records, then verify unstable stretches in the field before fixing road alignments.
- **Slope stabilisation**: Plan slope protection alongside widening, as on Nepal's landslide-prone Narayanghat–Mugling road, to reduce the risk of closures.
- **Cross-drainage design**: Align culverts with natural channels and assess adjoining road stretches together so their combined runoff does not destabilise slopes or flood settlements.
- **Debris disposal**: Apply Char Dham safeguards by using designated disposal sites and keeping excavated debris off downslope areas and vulnerable river bends.
- **Spring protection**: Map village springs before tunnelling and track seasonal flows during construction, using Sikkim's joint inspection of the Reshi Road Tunnel as a monitoring precedent.
- **Wildlife movement**: Plan crossings across whole corridors, drawing on the Delhi–Dehradun corridor, where monitoring documented 18 wild species using an underpass.

3. PRESSURE TACTICS (GS PAPER III ECONOMY)

This editorial '**Pressure tactics**' was published in **The Hindu** on 27th Nov 2026, highlights how proposed **U.S. tariffs** pressure India to sign a **trade deal** despite limited concessions.

Tariffs as Trade Leverage

- The **U.S. Trade Representative (USTR)** proposed a **25% tariff** on India, the second-highest among 14 countries targeted, citing alleged strategic excess manufacturing capacity that harms U.S. industry.
- The proposed rate, net of existing tariffs, is close to the **26% 'Liberation Day' tariff** announced in April 2025 and matches the **25% tariff** imposed in July 2025 before an additional 25% levy over Russian oil imports.
- The offer of a **17% tariff** hinges on signing a trade deal and gives India only a one-point improvement over both the **February 2026 joint statement's 18% rate** and the rates for Indonesia and Malaysia.

India's Export Position and Negotiating Stand

- India's **import dependence** and the decline in **manufacturing's share of GDP** over the past decade weaken the U.S. claim of excess manufacturing capacity.
- U.S. demand for Indian **generic pharmaceuticals** and **telecommunications equipment** reflects India's established expertise and is unlikely to fall substantially because of a small tariff disadvantage.
- U.S. imports of Indian **renewable energy goods** have risen as Washington cuts **purchases from China**, limiting the effect of higher tariffs on those imports.
- The **100% tariffs** tied to India's purchases of **Russian oil** are only temporarily paused and remain a risk in trade negotiations.

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India's Red Lines in a U.S. Trade Deal

- **Product-wise tariff relief**: Secure written duty rates for textiles and apparel, as the India–UK agreement did through zero-duty commitments on textile tariff lines.
- **Sensitive-sector exclusions**: Shield vulnerable farm livelihoods by excluding sensitive products, as India did for milk and other dairy products in its agreement with Australia.
- **Calibrated farm access**: Cap the volume eligible for lower duties where limited opening is viable, as India did for Australian oranges and almonds.
- **Usable market access**: Seek transparent testing and certification rules, drawing on the India–Australia agreement's provisions on technical barriers, to help smaller exporters use tariff preferences.
- **Rules of origin**: Use product-specific criteria, as in the India–Australia agreement, to let qualifying goods made with imported inputs receive preferences while blocking simple transshipment.
- **Energy sourcing autonomy**: Retain flexibility to choose crude suppliers on price and reliability, with strategic reserves at Visakhapatnam, Mangaluru and Padur cushioning disruptions.
- **Enforceable tariff commitments**: Seek time-bound dispute settlement modelled on the U.S.–Mexico–Canada Agreement, which permits suspension of equivalent benefits if a dispute remains unresolved after a panel ruling.