

Original article

# Public–Private Partnerships in Fostering Growth and Infrastructure Development: Issues and Challenges with Special Reference to North East India

Madhurya Chetia\*<sup>1</sup>

<sup>1</sup>Department of Economics, Karmashree Hiteswar Saikia College, Guwahati-22, Assam, India

\*Corresponding author email: chetiamadhurya433@gmail.com

**Citation:** Chetia, M. (2023). Public–Private Partnerships in Fostering Growth and Infrastructure Development: Issues and Challenges with Special Reference to North East India. *Journal of Intellectuals*, 3(1), 63–68. Retrieved from <https://journals.bahonacollege.edu.in/index.php/joi/article/view/joi2023-3-1-7>

Accepted: 08 December, 2023  
Published: 25 December, 2023

**Publisher's Note:** JOI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



**Copyright:** © 2023 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

government schemes—such as NESIDS, SARDP NE, PM DevINE, and efforts under DoNER—have begun to address these gaps, the region continues to lag behind national averages in infrastructure and economic growth. In this complex context, Public Private Partnerships (PPPs) are framed as essential tools to mobilize private capital, technical expertise, and operational efficiency to complement public efforts. Road and rail ventures, such as the North Eastern Railway

**Abstract:** Private Partnerships (PPPs) serve as a vital mechanism for bridging infrastructure deficits and promoting economic growth in India, particularly in the North East region. Historically, the region's infrastructure has suffered from colonial legacies—uneven development shaped by "normal" vs. "excluded" areas—and a security-driven approach that often-sidelined local needs. In recent years, numerous government-backed initiatives—such as the Act East Policy, Special Accelerated Road Development Programme–North East (SARDP NE), and multimodal logistics parks—have adopted PPP models to bridge gaps in roads, railways, waterways, and energy systems. Examples include the Dhola–Sadiya (Bhupen Hazarika) Bridge and development of multimodal logistics parks like Jogighopa via PPP. Additionally, innovative last-mile connectivity solutions like ropeways in Tawang, Kamakhya, and urban centers are gaining traction through PPP schemes. This paper examines the dynamics of PPPs—including their models, enablers, issues, and contextual challenges—while focusing on regional complexities. The analysis highlights governance, risk allocation, socio political factors, and policy efficacy.

**Keywords:** Public–Private Partnerships, Infrastructure Development, North East India, Risk Allocation, Governance.

## 1. Introduction

North East India, comprising eight strategically crucial but geographically challenging states, has long faced persistent deficits in roads, railways, air connectivity, and utilities—driven by rugged terrain, sparse population, insurgency, and historical neglect. Although

Connectivity Project and electrification of major lines, show early PPP traction—yet they remain constrained by land acquisition in areas governed by Sixth Schedule autonomy, socio political protests, environmental clearances, and security concerns. Recent events—like ferry disruptions due to bridge completion in Guwahati, electrified tracks boosting passenger and freight efficiency, and stalled tunnel contracts in Aizawl due to geopolitical vetting—illustrate both promise and pitfalls in PPP-led infrastructure in the region. This study preliminarily frames that inquiry, setting the stage for deeper analysis of models, barriers, and policy solutions. The North East region of India suffers from chronic infrastructure deficits—poor road, rail, air, and utility networks—due to complex geography, sparse population, socio-political tensions, and historical neglect. PPPs are promoted as a strategy to address these gaps, leveraging private investment, technical know-how, and efficiency. Yet, their practical implementation in the region faces unique challenges that merit focused study.

## 2. Objectives of the study

1. Analyze various PPP models and their national relevance to infrastructural development.
2. Identify critical issues—governance, risk allocation, and capacity—in PPP implementation in India.
3. Contextualize specific challenges in North East India (e.g., insurgency, land acquisition, environmental concerns).
4. Examine selected regional case examples (e.g., Dhola–Sadiya Bridge, Trans-Arunachal Highway).
5. Propose policy recommendations to enhance PPP effectiveness in the region.

## 3. Methodology

- Literature Review: Examined academic studies and reports on PPP frameworks, risk-sharing, governance (e.g., Carbyne Infra, Scientia Tutorials, MDPI) Document Analysis: Reviewed government initiatives (DoNER, NESIDS, PM DevINE) pertinent to regional infrastructure.
- Case-Study Review: Scrutinized Nepal's PPP failures, the Dhola–Sadiya Bridge, Trans-Arunachal Highway, and railway projects to reveal model benefits and constraints.

## 4. Review of Literature

PPP Models & National Landscape: India employs PPP models including BOT, DBFO, BOO, O&M, JVs, and Annuity models (levelupias.com). National programs like the National Infrastructure Pipeline (NIP) and Viability Gap Funding (VGF) underpin PPP growth (en.wikipedia.org) Core Benefits: PPPs mobilize private capital, introduce innovation, share risks, improve service delivery, and enhance accountability—leading to better infrastructure outcomes and localized employment (scientiatutorials.in.)

### Common Issues: From pan-India experiences:

- Risk misallocation leading to financial stress for private partners
- Policy and regulatory uncertainty causing project halts
- Institutional capacity deficits within Govt. agencies hamper contract design and execution
- Land acquisition/environmental socio-political hurdles further delay projects (scientiatutorials.in.)

## 5. Discussion & Analysis:

Institutional & Regulatory Weaknesses: Fragmented governance frameworks: Multiple agencies (DoNER, NEC, state PPP cells, PPP Appraisal Committee at Centre) often create overlapping responsibilities, leading to coordination

failures. Contract capacity: Local agencies frequently lack experience in drafting and monitoring complex PPP contracts, causing poorly structured agreements that heighten the risk of disputes and renegotiations.

**Land Acquisition & Cultural Resistance:** Coverage under Sixth Schedule: Tribal land governed by autonomous councils complicates acquisition, requiring sensitive engagement with community norms and consent. Without early stakeholder consultation, projects often stall. Encroachment & eviction conflicts: Regular railway evictions (e.g., 29 structures cleared by NFR in Guwahati) highlight the prevalence of informal settlements in project corridors; enforcement without community buy in fuels backlash and delays.

**Security and Socio-political Instability:** Insurgency impacts: Ongoing tensions (e.g., Meghalaya and Manipur conflicts) introduce risks to construction and O&M phases. Such disruptions increase costs, deter bidders, and raise risk premia. Ethnic tensions: Events like the Kuki–Meitei standoff in Manipur (over land rights) underscore how underlying disputes can easily spill into infrastructure zones, threatening continuity.

**Financial Viability & Market Acceptance:** Low toll and user-fee uptake: In sparsely populated areas like the Barak Valley, user payment unwillingness and low traffic volumes undermine revenue models, making projects financially unattractive to private players. Limited fiscal space: States in the region generate low tax revenues and rely heavily on Centre funds. Even with GGF/VGF, dense project pipelines and low credit appetites among public banks hamper capitalization.

**Environmental & Social Sensitivity: Fragile ecosystems:** NE India's rich biodiversity and vulnerable agro-ecology mean infrastructure expansion (like highways, tunnels) must be cautious. Reddit feedback highlights public concerns over ecological balance. Balancing development, sustainability, and community rights is essential but often overlooked in project design, leading to local resistance and legal hurdles.

**Strategic Priority vs Local Benefits:** Border infrastructure emphasis (e.g., Project Udayak, Arunachal Frontier Highway) drives fast-tracked execution due to defense priorities. Pros: Enhanced strategic connectivity, security, and national integration. Cons: Local development outcomes (jobs, entrepreneurship) may lag; communities may perceive these as externally driven projects offering them limited economic value.

**Corruption & Governance Deficits: Fund's leakage:** Reddit users perceive high levels of local-level corruption in fund disbursement, particularly in tribal regions, often eroding both fiscal efficiency and trust. Renegotiations & Payment delays: Loopholes in long-term contracts often lead to frequent renegotiations or government delays in payments, harming investor confidence.

**Infrastructure Ecosystem & Stakeholder Integration: Weak local-tech uptake:** Unlike mature PPP sectors such as highways and airports. The region struggles to integrate service-based PPPs (e.g., healthcare; e governance). Community exclusion: Without formal mechanisms for local representation in PPP contracts, benefits disproportionately accrue to contractors, sidelining intended beneficiary groups.

**Synthesis & Strategic Insights: PPP projects in NE India hold transformative potential—but only if planned and executed with contextual intelligence:**

- Stakeholder inclusion: Engage tribal councils, NGOs, and local leaders from inception to ensure cultural acceptability.
- Risk-calibrated financing: Adjust VGF or viability support mechanisms for projects facing security or low traffic risk, and incentivize early private sector involvement.
- Institutional strengthening: Invest in PPP training, standardize contracting tools (RFQ, RFP, MCA), and empower infra monitoring agencies within states.
- Sustainable & Local Benefit Orientation: Ensure PPP contracts include clauses for local employment, skill development, and environmental safeguards.

- Robust grievance and dispute resolution: Establish fast-track tribunals to handle land claims, service issues, and contract disputes transparently.

### **Challenges in North East India:**

**Geographical & Demographic:** Mountains, floodplains, sparse population, and inter-state councils (e.g., Sixth Schedule provisions) complicate land acquisition and project planning.

**Security & Socio-Political Disruption:** Insurgency, ethnic tensions, and community resistance can destabilize projects—evident in protests like against NH 315 and mega-dam hydropower efforts.

**Institutional Neglect & Capacity Gaps:** Delayed start of ITIs via PPP, low public-private collaboration in skilling, and limited government experience in PPP contracts demonstrate structural weakness.

**Project Case Studies:** Dhola–Sadiya Bridge (BOT-Annuity): Completed in 2017 by Navayuga Engineering through PPP, this landmark improved connectivity despite delays and cost overruns. Trans Arunachal Highway: A multi-package PPP initiative bogged down by land and environmental clearances. Rail Connectivity Projects / Electrification: The North Eastern Railway Connectivity Project aims to link state capitals by 2030; electrification by IRCON enhances passenger and freight efficiency.

## **6. Conclusion**

Public–Private Partnerships (PPPs) hold transformative promise for North East India’s growth—connecting rugged terrain, integrating strategic border regions, and injecting private innovation into public infrastructure. As highlighted through initiatives like the electrification of major rail lines, projects under Project Udayak, and military civil fusion efforts, PPPs can strategically bridge long-standing connectivity and security gaps. The NE region’s unique demography, terrain, politics, and culture demand a tailored PPP approach—not a one-size-fits-all model. With calibrated risk-sharing, enhanced governance, and deep community engagement, PPPs can become a durable engine for strategic connectivity and inclusive socio-economic transformation. To realize North East India’s potential and achieve Amit Shah’s vision of 2047, PPPs must be comprehensive—not just contracts, but vehicles of participatory, resilient, and inclusive transformation across socio-economic and ecological landscapes. PPPs hold considerable promise for transforming North East India’s infrastructure and economic landscape—mobilizing private capital, driving innovation, and aligning with strategic goals. Nonetheless, their success relies on addressing governance gaps, capacity constraints, socio-political sensitivity, and ensuring equitable benefit-sharing with local communities.

Looking forward, PPPs can be tailored into a climate- and context-responsive development model:

- Integrating ecological safeguards into contract clauses;
- Establishing community-led grievance redress mechanisms;
- Embedding local entrepreneurship and skill development as contractual deliverables;
- Extending incentives for climate-resilient infrastructure like renewable energy and water management.

## **7. Recommendations**

1. Strengthen Institutional Mechanisms: Build PPP-specific capacity within DoNER and local state agencies; replicate PPPAC-level oversight regionally.
2. Enhance Risk Mitigation: Tailor VGF and guarantees for NE projects; adjust for security and political risks.
3. Promote Stakeholder Engagement: Ensure early consultations with tribal councils and gram sabhas to reduce resistance in land/environment projects.

4. Embed Institutional Flexibility: Allow flexible land acquisition protocols under Sixth Schedule to streamline infrastructure rollout.
5. Scale Strategic Projects: Accelerate investments in transport, energy (rail electrification), and digital connectivity — aligning with PM Gati Shakti.
6. Integrate with Regional Vision: Leverage PPPs in schemes like PM DevINE and NESIDS to pool funds across ministries and localities for coherent growth.

A sustainable PPP framework must confront persistent and region-specific issues:

- **Governance & Institutional Capacity: Overlapping agencies and weak contract management capabilities can stall implementation. Strengthened PPP cells and built-in capacity development are critical.**

- **Land, Ecology & Community Ownership**

Project delays stemming from Sixth Schedule land protocols, ecological sensitivity, and grassroots protests make early consultation and benefit-sharing mechanisms non-negotiable.

- **Security & Economic Viability**

Insurgency concerns and low traffic volumes raise risk premiums. Tailored Viability Gap Funding, project guarantees, and robust risk-sharing must be protocolized.

- **Strategic vs Local Benefits**

While infrastructure bolsters national defense and international connectivity, local communities must also reap tangible economic and social dividends — through jobs, training, and inclusive services.

- **Transparency & Trust-Building**

Addressing perceptions of corruption, ensuring contract clarity, and promoting open dispute resolution protocols will be key to maintaining investor confidence and public legitimacy.

## References

1. Appel, H., Anand, N., & Gupta, A. (2015). The infrastructure of injustice. *Socio Anthropology Review*, 15(3), 329–349.
2. Jha, R. (2024, August 9). Improving PPP strategies for municipal infrastructure and service delivery (Issue Brief No. 724). Observer Research Foundation
3. Malik, S., & Kaur, S. (2020). Challenges of financing infrastructure deficits through PPPs: Lessons from global experience. *Indian Journal of Finance*, 14(10 11). DOI:10.17010/ijf/2020/v14i10-11/155968
4. Ahlawat, A., & Singh, G. (2019, May). Challenges in public–private partnership infrastructure projects: A case study. Conference Paper, PMI Research and Academic Conference 2019.
5. Heinisch Boll Stiftung. (2022, February 4). Politicking infrastructure development in Northeast India. Heinrich BöllStiftung – India.
6. Heinisch Boll Stiftung. (2019, March 19). Youth and infrastructure development in Northeast India. Heinrich BöllStiftung – India.

7. Heinisch Boll Stiftung. (2019, June 7). "Pickled" infrastructure and connectivity: Locating community engagement in Northeast India's infrastructural transformation. Heinrich BöllStiftung – India
8. Cruz, C. O. (2009). Public-private partnerships in Indian cities: Barriers, enablers, and the way forward. *Journal of Construction Engineering and Management*, 136(4).
9. ORF.(2025, May).Connectivity and the Northeast: Challenges to India's Neighbourhood First and Act East Policies.Observer Research Foundation.
10. Reuters. (2025, January 10). How empowering smallholder farmers with AI tools can bolster global food security.
11. Times of India. (2025, June 17). Students body seeks halt to mega dams and national disaster status for Assam floods.
12. Times of India. (2025, June 3). NFR razes 29 structures built on railway land between Kamakhya& Guwahati station