

TRANSFORMING HOUSING IN INDIA: LEGAL DIMENSIONS OF BLOCKCHAIN IN NEXT-GENERATION REAL ESTATE IN INDIA

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BEST CITATION – JASRAJ BHOWMIK & DR. VIJAISHREE DUBEY PANDEY, TRANSFORMING HOUSING IN INDIA: LEGAL DIMENSIONS OF BLOCKCHAIN IN NEXT-GENERATION REAL ESTATE IN INDIA, *INDIAN JOURNAL OF LEGAL REVIEW (IJLR)*, 6 (7) OF 2026, PG. 689-695, APIS – 3920 – 0001 & ISSN – 2583-2344.

ABSTRACT

India's real estate sector—one of the largest in the world—has long struggled with opacity, fraud, fragmented regulation, and poor liquidity. While the Real Estate (Regulation and Development) Act, 2016 (RERA) addressed some of these problems, it cannot fix everything on its own. Blockchain technology offers a structural solution: immutable title records, smart contract-based transaction automation, and property tokenization that enables fractional ownership and secondary market liquidity.

This dissertation examines the legal and regulatory dimensions of blockchain adoption in Indian real estate. It analyzes how blockchain interacts with existing frameworks—RERA, the Transfer of Property Act, the Registration Act, stamp duty law, FEMA, and SEBI's REIT regulations—and explores how two established investment vehicles, Limited Liability Partnerships (LLPs) and Real Estate Investment Trusts (REITs), can be enhanced through blockchain integration. The study adopts a doctrinal methodology, drawing on statutes, judicial decisions, government reports, and comparative insights from Singapore and the UK. It concludes with concrete recommendations for policymakers, investors, and legal practitioners.

Keywords: *Blockchain, Real Estate Tokenization, RERA, LLP, REITs, Smart Contracts, FEMA, SEBI.*

CHAPTER 1: INTRODUCTION

1.1 Background

Real estate contributes roughly seven percent of India's GDP, employs tens of millions across construction and finance, and is projected to become a one-trillion-dollar sector by 2030. Yet the industry has a credibility problem—buyers routinely face opaque project timelines, misappropriated funds, fraudulent title claims, and inadequate dispute resolution. RERA, enacted in 2016 and fully operational by May 2017, was a genuine improvement: it mandated project registration, ring-fenced buyer funds in dedicated escrow accounts, standardized the

definition of carpet area, and created appellate bodies for disputes. But RERA is a regulatory fix, not a structural one. It cannot eliminate the friction that slows transactions, creates information asymmetries, or prevents smaller investors from participating in a market historically reserved for the wealthy.

Blockchain offers something different. Rather than imposing rules on intermediaries, it changes the architecture of transactions. A blockchain-based property registry is tamper-proof and publicly verifiable without depending on any single authority. Smart contracts execute transfers automatically once pre-set

conditions are met. Tokenization—representing fractional ownership as a digital token—opens real estate investment to people who could never afford to buy outright. None of this, however, can happen in a legal vacuum. Land is a state subject under Entry 18 of the Seventh Schedule. Stamp duty and land revenue are similarly decentralized. Any blockchain framework for property transfers must navigate this constitutional complexity—and that tension is at the heart of what this paper examines.

1.2 Objectives and Research Questions

This dissertation pursues five objectives: analyzing existing property law for conflicts with blockchain; investigating how blockchain addresses transparency, security, and liquidity problems; examining blockchain integration with LLPs and REITs; evaluating challenges for different stakeholders; and proposing legislative reforms to enable adoption.

Three research questions organize the analysis. First, how can India's existing real estate laws—RERA, the Transfer of Property Act, the Registration Act, and stamp duty law—be harmonized with blockchain-based transactions and tokenization? Second, what legal barriers arise when property rights are represented through tokens, and how can these be reconciled with state-level land laws? Third, in what specific ways can blockchain enhance LLPs and REITs within the Indian real estate sector?

1.3 Methodology and Scope

The study adopts a doctrinal research methodology, primarily library-based and qualitative. Primary sources include statutes, SEBI and RBI circulars, and judicial decisions. Secondary sources include peer-reviewed journals, working papers, and policy briefs. Where useful, comparative insights from Singapore and the UK inform the analysis. The Bluebook citation format is followed throughout. Empirical study of market behavior—surveys, interviews—is outside the scope of this work,

though acknowledged as valuable for follow-up research.

CHAPTER 2: REGULATORY FRAMEWORK AND REAL ESTATE TRANSFORMATION

2.1 RERA and Its Impact

Before RERA, buying property in India was an exercise in faith. Developers diverted buyer funds between projects at will, inserted punitive clauses in sale agreements, misrepresented carpet areas, and faced minimal consequences for delays. RERA changed the incentive structure fundamentally. The seventy-percent escrow requirement ended fund diversion. Standardized carpet area calculation eliminated inflated pricing. Mandatory project disclosure—timelines, approvals, financial statements—gave buyers real information for the first time. The Appellate Tribunal provided a specialized, faster alternative to civil courts. Brokers, previously an entirely unregulated four-billion-dollar industry, were brought into a licensing framework.

RERA's limits are structural. It applies prospectively—most legacy disputes fall outside its reach. It does not address title opacity: India's deeds-based registration system records transactions but does not guarantee that the underlying title is good. It does not create a digital land registry. And it does not solve the liquidity problem—real estate remains an illiquid asset class accessible only to those who can commit large sums for extended periods. These residual problems are precisely where blockchain offers something qualitatively different.

2.2 The Broader Legal Architecture

Understanding blockchain's integration challenges requires clarity about the legal framework it must navigate. The Transfer of Property Act, 1882 governs how immovable property is transferred, requiring written instruments for sales above a nominal threshold. The Registration Act, 1908 mandates registration of such instruments with the Sub-Registrar—creating a public record but not

guaranteeing title. Stamp duty, levied under state legislation, taxes these instruments at rates varying from four to ten percent of transaction value across states.

A blockchain system recording property transfers must comply with all three: the transfer instrument must satisfy the Transfer of Property Act, the document (or its blockchain equivalent) must be registered, and stamp duty must be paid. The constitutional dimension adds further complexity—land is a state subject, making any comprehensive national blockchain framework dependent on voluntary state adoption. FEMA adds another layer for cross-border transactions, restricting NRI investment to residential and commercial property, imposing repatriation limits, and requiring bank-routed transactions. If property tokens are offered publicly, SEBI's securities jurisdiction may be triggered; alternatively, classification as Virtual Digital Assets under the Finance Act, 2022 would attract a flat thirty-percent tax with no loss deductions. This classification question is the most urgent unresolved issue in the field.

2.3 How Reforms Pave the Way for Blockchain

RERA has created the expectation of transparency—mandatory disclosure, digital project portals, electronic document management. The Digital India Land Records Modernization Programme has begun digitizing land records across states. These are preconditions for blockchain integration. More specifically, RERA's escrow requirement is functionally similar to what a smart contract does: it holds funds and releases them only when specified conditions are met. This conceptual alignment means blockchain can extend and enforce what RERA mandates, rather than operating parallel to it.

CHAPTER 3: CHALLENGES FOR FOREIGN NATIONALS AND NRIs

3.1 The FEMA Framework and Its Friction

India is the second most favored FDI destination in the Asia-Pacific, and the housing sector contributes five percent of GDP. NRI remittances

exceed eighty billion dollars annually, with a significant share flowing into real estate. Yet the regulatory mechanics for NRI property investment are cumbersome. Under FEMA's property acquisition regulations, NRIs may buy residential and commercial property without prior RBI approval, but agricultural land, plantation property, and farm houses remain off-limits without explicit clearance. Repatriation of sale proceeds is restricted to two residential properties, subject to tax compliance and bank routing requirements. Each transaction requires documentation tracing the funding source across multiple government offices. The process disproportionately disadvantages smaller NRI investors who lack professional support.

A blockchain-based smart contract that automatically verified FEMA compliance at the point of token issuance—checking investor classification, funding source, and property type—could dramatically reduce these costs. KYC/AML verification stored on-chain could be reused across transactions rather than repeated each time. Cross-border payment settlement through RBI-compliant programmable instruments could reduce transaction times from weeks to hours. The legal caveat is important: a property token is still subject to FEMA's rules regardless of its blockchain format. Compliance must be built into the token design from the outset, not added as an afterthought.

3.2 The Title Problem and Blockchain's Answer

The deepest problem for any investor—foreign or domestic—is title. India's deeds-based system records transactions without guaranteeing that the underlying title is good. A buyer must trace the chain of title through potentially decades of documents, checking for encumbrances, family disputes, and government acquisition notifications—an expensive, slow, and never fully conclusive exercise. Foreign investors face this with compounded difficulty: they lack local networks, cannot easily read regional-language

documents, and may not understand the customs governing informal property rights in different states.

A blockchain-based land registry addresses this at the root. An immutable, chronologically ordered record of all transactions and encumbrances on a given property—accessible to any investor globally—transforms due diligence. Singapore's Monetary Authority has issued clarity on property token classification, enabling an active tokenization market. The UK's HM Land Registry has piloted blockchain-based title registration successfully. India's constitutional structure makes a single national solution impossible, but these examples show the legal challenges are manageable with deliberate regulatory engagement.

CHAPTER 4: LIMITED LIABILITY PARTNERSHIPS IN REAL ESTATE

4.1 Structure and Advantages

The Limited Liability Partnership Act, 2008 created exactly what Indian real estate investment needed: partnership flexibility combined with limited liability at low compliance cost. An LLP holds property in its own name, enters contracts, and litigates as a separate legal entity. Partners are exposed only to their capital contribution, not personal assets. Formation requires at minimum two designated partners (one resident in India), modest government fees, and only two annual compliance filings. There is no minimum capital requirement and no cap on partner numbers.

The tax structure is genuinely efficient. LLP income from real estate is taxed at thirty percent at the entity level; partners receive distributions without additional tax, since there is no dividend distribution tax at the partner level. Deductions for maintenance, property taxes, and depreciation reduce taxable income further. Compared to a private limited company—where profits are taxed at the company level and again when distributed as dividends—the LLP structure saves meaningful amounts on each transaction cycle.

4.2 Blockchain Integration with LLPs

Blockchain can enhance LLP-based real estate investment in three stages. At the first stage—immediately feasible under existing law—partnership interests are tokenized on a permissioned blockchain for use among existing partners only. This avoids SEBI classification questions (no public offer) and FEMA complications (resident partners only). Smart contracts automate profit distributions based on token holdings, and all transactions are recorded on-chain, giving all partners real-time visibility into the LLP's financial position—something the current paper-based framework entirely lacks.

At the second stage, tokenized partnership interests can be transferred to new partners through a blockchain platform, subject to LLP Act compliance and stamp duty on the assignment. SEBI guidance becomes necessary at this point to confirm whether such interests constitute securities. The third and most ambitious stage allows tokenized LLP interests to be offered publicly, enabling broad retail participation—but this requires classification as securities, prospectus disclosure under SEBI rules, and likely amendments to both the LLP Act and the Securities Contracts (Regulation) Act. The legal path is long but navigable with deliberate policy action.

CHAPTER 5: REAL ESTATE INVESTMENT TRUSTS (REITs)

5.1 India's REIT Journey

SEBI's first attempt at a REIT framework in 2007 was incomplete. A second effort in 2008, structured as Real Estate Mutual Funds, also failed to attract investors. The REIT Regulations were finally gazetted in 2014 but remained commercially inert until 2016, when SEBI relaxed its norms and the Union Budget removed Dividend Distribution Tax on REIT distributions. Embassy Office Parks REIT listed in April 2019—India's first—followed by Mindspace and Brookfield. All three focus on office assets. Retail and residential REITs remain absent, partly

because those asset classes generate lower yields on a cost basis.

Under the current framework, a REIT must hold at least eighty percent of assets in completed, rent-generating properties and distribute at least ninety percent of net distributable cash flows to unit holders at least twice a year. The REIT must be listed on a recognized exchange, and assets must be held through Special Purpose Vehicles. The minimum public offer size of five hundred crore rupees effectively excludes smaller developers and regional markets—a significant constraint on the model's reach.

5.2 Blockchain's Potential to Transform REITs

Blockchain does not replace REITs—it enhances them. Tokenizing REIT units on a blockchain, alongside or instead of the current depository system, enables faster settlement, lower custody costs, and twenty-four-seven trading that the current exchange-based system cannot support. SEBI would need to recognize blockchain-based unit records as equivalent to depository records, and the REIT Regulations would require amendment—but these are targeted changes, not wholesale reform.

More transformatively, a REIT could issue micro-units as blockchain tokens with a minimum denomination far below the current trading lot threshold. This dramatically expands the retail investor base, including NRIs and international investors currently priced out. Smart contracts handle distribution calculations and payments automatically. Unit holder governance votes can be conducted via tamper-proof, auditable blockchain systems with real-time results. The legal change required is modest—SEBI amending the REIT Regulations to permit sub-unit tokenization and recognize on-chain governance mechanisms.

CHAPTER 6: BLOCKCHAIN INTEGRATION – A WAY FORWARD

6.1 The Core Legal Conflicts

Four primary legal barriers must be addressed. First, the Registration Act requires physical (or

legally recognized digital) registration of property transfer instruments. A blockchain record alone does not satisfy this requirement—an amendment recognizing blockchain timestamps plus digital signatures as equivalent to registration is needed. Second, stamp duty—levied at state level at up to ten percent of transaction value—applies to tokenized transfers as to any other. A model stamp duty law for blockchain transactions, developed centrally and adopted by states, is the most practical solution. Third, property token classification remains unresolved: SEBI must issue guidance determining whether tokens are securities, VDAs, or a new asset class—each carrying different regulatory consequences. Fourth, the constitutional state-subject structure of land means no comprehensive national blockchain land registry is possible without voluntary state adoption, incentivized through the existing DILRMP framework.

6.2 Policy Recommendations

Seven concrete recommendations follow from this analysis.

One: the Ministry of Housing and Urban Affairs should commission a blockchain integration roadmap for land records, building on DILRMP, with specific milestones and financial incentives for participating states.

Two: the Law Commission should examine the Registration Act and stamp duty law with a mandate to recommend how blockchain instruments can be accommodated—through interpretation in the short term, with targeted amendments to follow.

Three: SEBI should issue a consultation paper on blockchain real estate token classification, considering security, VDA, and sui generis treatment, with stakeholder input.

Four: SEBI should amend the REIT Regulations to permit blockchain-based unit tokenization, recognize on-chain governance, and authorize micro-unit issuance with appropriate investor protections.

Five: RBI and SEBI should jointly clarify FEMA compliance obligations for NRI investors in blockchain-based real estate tokens—the existing framework was designed for traditional transactions and its application to fractional tokenized interests is genuinely unclear.

Six: the Ministry of Electronics and Information Technology should establish a regulatory sandbox specifically for blockchain real estate applications, offering temporary relief from identified barriers while projects demonstrate proof of concept.

Seven: the government should clarify that a smart contract satisfying the conditions of Section 10 of the Indian Contract Act—offer, acceptance, consideration, capacity, and free consent—constitutes a valid contract, perhaps through a targeted clarificatory amendment.

CHAPTER 7: CONCLUSION

India's real estate sector stands at a genuine inflection point. RERA established that transparency and accountability are non-negotiable. The REIT framework demonstrated that institutional investment structures can work in the Indian market. The LLP has proven its value as a flexible, tax-efficient property investment vehicle. Blockchain can build on these foundations—not replace them.

The obstacles to blockchain adoption in Indian real estate are not primarily technical. Distributed ledger technology is mature enough for every application described in this paper. The obstacles are legal and institutional: a constitutional structure that fragments land governance across states; property law that was not designed with digital instruments in mind; and a regulatory classification framework that has not kept pace with new asset types. These are solvable problems. They require deliberate legislative action, regulatory creativity, and sustained investment in digital infrastructure—not an overhaul of the existing system.

This dissertation has contributed three things. First, it maps the specific legal conflicts between

blockchain-based property transactions and Indian law with greater precision than the existing literature achieves—locating conflicts in the Registration Act, stamp duty framework, FEMA restrictions, and SEBI's securities regime, and identifying what changes would resolve them. Second, it proposes stage-wise integration frameworks for LLPs and REITs that begin with changes achievable under existing law and build toward models requiring statutory reform. Third, it offers seven concrete policy recommendations grounded in legal analysis and calibrated to political and administrative feasibility.

India has demonstrated repeatedly—through UPI, Aadhaar, and DigiLocker—that it can build and deploy transformative digital platforms at scale. Real estate is harder, because it involves constitutional complexity and entrenched interests that payment infrastructure did not. But the direction is clear, the technology is ready, and the regulatory gaps are identifiable. The remaining question is whether policymakers act with the urgency this transition demands.

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