
THE FUTURE OF PROPERTY TRANSFERS UNDER THE TRANSFER OF PROPERTY ACT OF 1882: E-CONVEYANCING AND BLOCKCHAIN

Gargi Bose, Assistant Professor, School of Legal Studies, REVA University, Bangalore

ABSTRACT

The Transfer of Property Act, 1882, which governs the majority of India's property transfers, has long been linked to inefficiencies, delays, and a lack of transparency. E-conveyancing, or the practice of carrying out and registering real estate transactions online, presents a viable substitute in a time of digital revolution. As a possible future model for real estate transactions in India, this study investigates the intersection of blockchain technology with e-conveyancing. With an emphasis on sectors including the sale, mortgage, lease, and gift of immovable property, it examines how well these changes mesh with the TPA's current rules.

The study assesses the potential of blockchain's decentralized, impenetrable ledger to protect land records, reduce fraud, and use smart contracts to automate ownership transfers. The legal challenges associated with putting such technologies into practice are also critically examined, including concerns about jurisdiction, data privacy, electronic signatures, and the admissibility of digital recordings under Indian evidence law. The study compares international models, such as Sweden's blockchain registry and the UK's Digital Street, to find best practices that India may use. In the end, the study promotes legislative and regulatory changes to bring India's property law system up to date with digital advancements, guaranteeing increased effectiveness, accessibility, and legal certainty.

Keywords: Transfer of Property Act, E-Conveyancing, Blockchain, Smart Contracts, Digital Land Records, Property Law, Legal Tech, Real Estate Transactions, Indian Registration Act, Property Transfer Reform.

1. INTRODUCTION

The Transfer of Property Act, 1882 (TPA), a piece of colonial-era legislation that continues to form the cornerstone of Indian real estate law, has historically regulated the process of transferring immovable property. Although the Act established a thorough legal framework for real estate transactions, it was written before the advent of digital technology and is becoming more and more out of step with contemporary developments. The advent of blockchain technology and e-conveyancing offers a revolutionary chance to modernize property transfers in today's fast-digitizing world, making them quicker, more transparent, and far less vulnerable to fraud or manipulation.

In accordance with relevant legislation, e-conveyancing entails the creation, execution, submission, and registration of property transfer papers using digital platforms, including -The Transfer of Property Act 1882, The Indian Registration Act of 1908 and The Information Technology Act of 2000, doing away with paper records and in-person procedures. This procedure simplifies the transaction, lessens the administrative load, and may result in real estate transactions being resolved more quickly.¹

Key E-Conveyance Features:

- a) Online Sale Agreements and Deeds
- b) Digital Signatures of the Purchaser and Vendor
- c) Payment of Stamp Duty Online
- d) Electronic Document Submission to the Sub-Registrar
- e) Update of the Digital Land Record
- f) Biometric Authentication Based on Aadhaar

Importance of E-Conveyance:

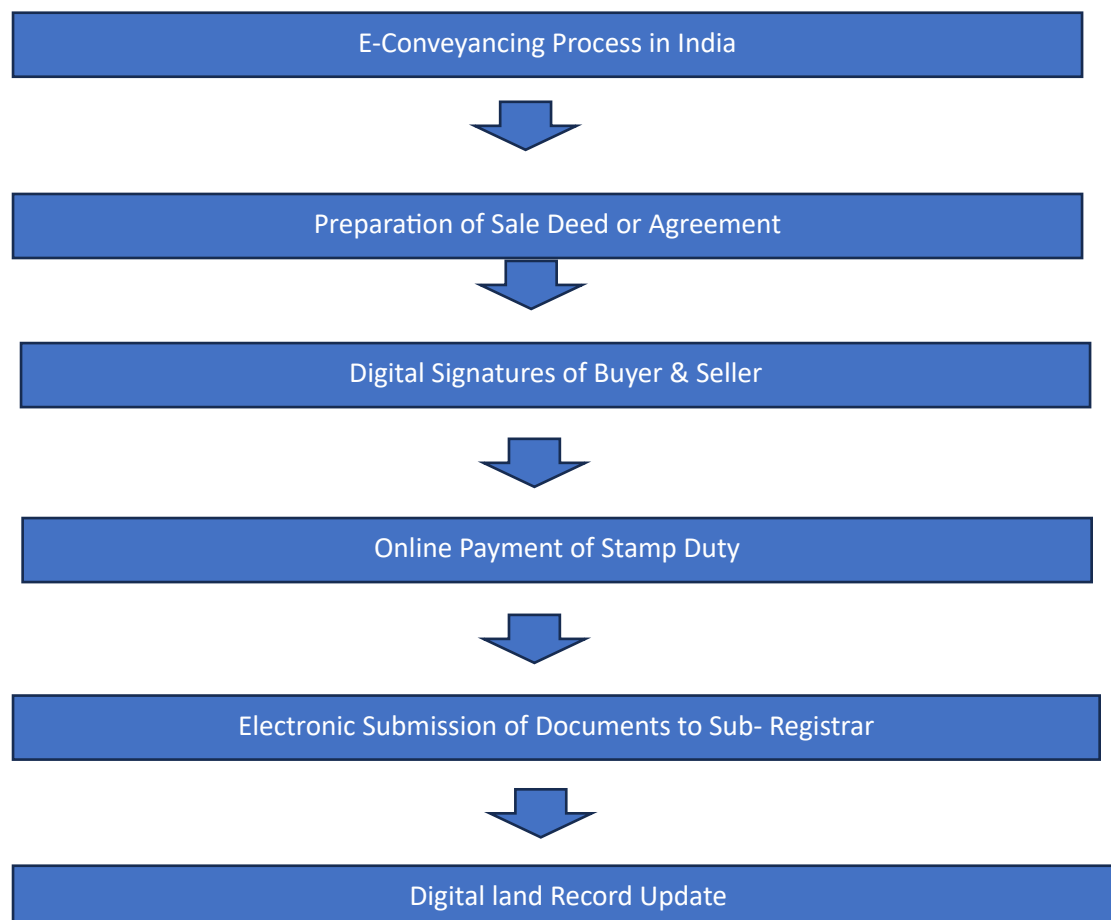
- a) Lowers fraud and manual errors,

¹ R.K. Sinha, *Mulla on the Transfer of Property Act* (LexisNexis 12th ed. 2023).

- b) reduces the time needed to register from weeks to days,
- c) allows for distant real estate transactions,
- d) uses safe systems to facilitate traceability and transparency.

Example: In states like Maharashtra, e-conveyance is used to digitally transfer land or apartment ownership to a housing society, replacing lengthy manual procedures.

Blockchain is a distributed, decentralized digital ledger that securely, openly, and impenetrably records transactions. Using cryptographic methods, each record, also known as a block, is connected to the one before it, creating a chain of blocks—thus the term "blockchain." E-Conveyance when paired with blockchain, a decentralized, unchangeable ledger system, this innovation provides previously unheard-of levels of security, effectiveness, and confidence in real estate transactions. Smart contracts, tamper-proof title verification, and real-time land record updates are just a few of the capabilities that blockchain can offer, which might speed up ownership transfers and lessen disputes.



Many nations have started integrating these technology, and India's trial initiatives have produced promising outcomes. While the Digital India Land Records Modernization Programme (DILRMP) encourages e-governance in land administration, states like Andhra Pradesh and Maharashtra have investigated blockchain in land record management. But even with technological readiness, India's legal system still has a long way to go before completely adopting these advancements, particularly when it comes to the TPA and related property regulations.

This paper explores the intersection of technology and law by examining the applicability of e-conveyancing and blockchain within the framework of the Transfer of Property Act. It also evaluates the legal challenges, infrastructural requirements, and policy implications of integrating such systems into India's property law ecosystem. The study aims to highlight the future possibilities of digital property transfer and assess whether the existing legal framework is prepared to accommodate this technological evolution – or if reform is essential.

By undertaking a doctrinal and comparative analysis, the research seeks to contribute to the ongoing discourse on modernizing Indian property law in alignment with digital innovation and global best practices.

2. LEGAL FRAMEWORK UNDER THE TRANSFER OF PROPERTY ACT, 1882

In India, property transfers between living individuals (inter vivos) are governed under the Transfer of Property Act, 1882. Although its main focus is on immovable property, the Act offers a legal framework for the transfer of both movable and immovable properties. It outlines the terms, rights, and responsibilities for legitimate transactions and covers a range of property transfer methods, including sale, mortgage, lease, gift, and exchange.²

Important clauses pertaining to property transfers include:

- a) The sale of real estate is defined in Section 54, which also requires registration for transactions costing more than Rs. 100.
- b) The obligations and liabilities of purchasers and sellers are outlined in Section 55.

² R.K. Sinha, *Mulla on the Transfer of Property Act* (LexisNexis 12th ed. 2023).

- c) Discuss mortgages and the rights and remedies that both mortgagors and mortgagees have under Section 58-104.
- d) Sections 105–117 address leases of real estate, including their terms, renewals, and lessees' rights.
- e) Section 122-129: Discusses the rules for gifts of property.

Despite being thorough for its time, the Act's capacity to manage electronic signatures, digital documents, and real-time data sharing is constrained. There is potential for fraud and conflicts because it mostly depends on manual title verification and physical paperwork. These restrictions call for a reassessment of the Act in light of blockchain and e-conveyancing.

The TPA does not now specifically acknowledge blockchain-based title systems or electronic contracts. However, a hybrid legal structure that may somewhat accommodate digital operations is forming with the help of related laws like the Indian Registration Act of 1908 and the Information Technology Act of 2000. To promote the full digitization of real estate transactions, however, regulatory revisions are necessary due to the ambiguity surrounding the integration and legal recognition of blockchain data.

3. CONCEPT AND IMPLEMENTATION OF E-CONVEYANCING AND BLOCKCHAIN TECHNOLOGY

From creating sale deeds to registering property documents and updating land records, e-conveyancing entails the full digitization of the property ownership transfer process. It makes it possible to submit, verify, and approve property-related papers online and does away with laborious paperwork. Digital signatures, online stamp duty payments, Aadhaar-based verification, and electronic record storage are frequently used in the process. E-conveyancing decreases fraud and human mistake while increasing transactional efficiency and transparency.

As part of their efforts to modernize their property records, several Indian governments have started e-conveyancing modules. For instance, Andhra Pradesh and Telangana have tested blockchain-based land registries, and Maharashtra has introduced e-conveyance for housing societies. Real-time updates, safe record-keeping, and increased accountability in public land management are the goals of these systems.

In contrast, blockchain technology provides a more tamper-proof and secure alternative. Every transaction is saved as a block and connected to earlier records via a decentralized network, making changes all but impossible. Blockchain can be utilized in property law for:

- a) Title Registration: Permanency and verifiability are guaranteed when title documents are stored on blockchain.
- b) Property transfers are automatically carried out by smart contracts when certain requirements are satisfied, such as payment.
- c) Ownership proof makes assurance that ownership cannot be falsely claimed or copied.
- d) Unauthorized changes to land records are prevented by immutable land records.

Several nations have experimented with or integrated blockchain technology into their land registration processes, including Sweden, Estonia, Georgia, and the United Kingdom. Blockchain technology has been tested for real estate transactions by Sweden's Lantmäteriet (Land Registry), with encouraging outcomes in terms of faster processing times and greater transparency. Blockchain is also being investigated by the UK's Digital Street initiative, which is headed by HM Land Registry, in an effort to improve the security and efficiency of land registration.

India can use these international models as a useful guide as it attempts to update its property law framework. However, public awareness, technical capacity building, legal reform, and policy alignment are necessary for successful implementation.

4. CHALLENGES AND LIMITATIONS IN ADAPTING E-CONVEYANCING AND BLOCKCHAIN WITHIN THE CURRENT INDIAN LEGAL FRAMEWORK

Blockchain technology and e-conveyancing have enormous potential, but there are many barriers to their incorporation into the Indian legal system. The analysis that follows highlights the main obstacles and constraints:

- i) **Outdated Legal Provisions:** Digital deeds, smart contracts, and blockchain-based land records are not specifically recognized under the Transfer of Property Act of 1882 or the Indian Registration Act of 1908. Legal recognition of such technologies is dubious in the absence of

legislative revisions because these statutes were not created to manage digital evidence or automated execution.

ii) Absence of Uniform Digital Infrastructure: Strong digital infrastructure across states is necessary for the implementation of e-conveyancing systems. Uniform adoption is hampered by the fact that many Indian regions, especially rural and semi-urban ones, still lack access to digital platforms and have poor internet connectivity.

iii) Risks to Data Privacy and Cybersecurity: Although blockchain technology is safe, issues with the use, sharing, and storage of private and property-related data still exist. Clear standards are required to safeguard sensitive property data on digital platforms, while India's data protection regulations are still developing.

iv) Limited Technical Literacy and Awareness: Government employees, landowners, and legal professionals frequently lack the technical know-how necessary to interact with e-conveyancing systems or use blockchain-based platforms. Resistance is sparked by this digital gap, which also raises the possibility of implementation failures.

v) Disjointed Administrative Procedures: In India, real estate deals are handled by a number of departments, including local governments, revenue, and registration, many of which work in data silos. Blockchain system integration is hampered by a lack of standardization and collaboration.

vi) Cost and Transition Challenges: A substantial financial investment is needed to develop blockchain infrastructure, train staff, and move away from legacy systems. Due to financial limitations, many state governments could be hesitant to give these reforms first priority.

vii) Judicial Ambiguity: Blockchain records' admissibility and evidential value in real estate disputes are unclear, which could deter parties from implementing the technology.

viii) Regulatory Hesitancy and Bureaucratic Inertia: Decision-making and the adoption of new digital technologies are delayed by government departments' resistance to change and unclear policies.

A coordinated effort including infrastructure development, pilot-based experimentation, capacity-building programs, and legislative reforms is needed to overcome these obstacles. The

traditional property transfer system must be transformed into a contemporary, tech-enabled framework through a gradual, inclusive approach and robust legal support.

5. CASE STUDIES AND PRACTICAL INSIGHTS

a) *K. Gopi v. Sub-Registrar and Others* (2025)

b) Maharashtra's PRATYAY MahaBhumi Portal

With the establishment of MahaBhumi, a comprehensive e-conveyancing platform, more than 70,000 housing societies can now electronically petition for considered conveyance. The procedure reduces paperwork and increases openness by including document submission, online review, and virtual hearings. The goal of every case is to be settled in six months. With this endeavor, full-cycle e-conveyancing has been successfully implemented.

c) Andhra Pradesh Blockchain Pilots

Two significant blockchain-based land registry pilots were spearheaded by Andhra Pradesh: Zebi Data (2018) used blockchain technology to safeguard more over 100,000 land documents in Amaravati.

To guard against manipulation, the ChromaWay partnership created a safe, unchangeable blockchain registry. In order to track land parcels and ownership changes in real time, GIS was integrated.

These tests demonstrated how well the technology reduced fraud, but they also brought up issues with data entry accuracy and centralized private blockchain management.

d) Naksha and Bhudhaar/ULPIN Projects

Launched in 2025 in Andhra Pradesh, the Naksha project surveyed over 9.5 lakh urban properties using LiDAR and GIS in order to create digital records and implement tax reform. In order to centralize and authenticate records across departments, land parcels were simultaneously granted unique IDs under the Bhudhaar and ULPIN systems.

e) Svamitva Yojana and Inter-State Pilots

Drones were utilized in the Svamitva Yojana program of the central government to provide

digital property cards to more than 1.12 crore rural households. Furthermore, blockchain systems supported by the UNDP and private partners were piloted in places including West Bengal and Haryana. These pilots tested modernizing property documentation through the use of Web3 platforms and NFTs.

Important Takeaways:

- i) Pilot projects have decreased processing time, conflicts, and fraud.
- ii) There are still several issues with interagency integration, data authenticity, and legal enforcement.
- iii) The lack of statutory clarity and judicial precedent continues to be a bottleneck notwithstanding the growing public trust.

These case studies highlight the necessity for coordinated policy measures and systemic legal reform for national adoption, even though they also demonstrate encouraging developments. calls for a coordinated effort that includes infrastructure development, pilot-based experimentation, capacity-building programs, and legislative reforms. The traditional property transfer system must be transformed into a contemporary, tech-enabled framework through a gradual, inclusive approach and robust legal support.

6. RECOMMENDATIONS AND FUTURE PROSPECTS

The following strategic recommendations are put forth in order to overcome the issues that have been discovered and clear the path for the broad integration of blockchain and e-conveyancing technologies into India's property law system:

- a) Reforms to the Law: To formally acknowledge digital signatures, blockchain ledgers, smart contracts, and electronic deeds, amend the Indian Registration Act of 1908, the Transfer of Property Act of 1882, and other relevant laws.

Establish legal protocols for the storage, verification, and use of blockchain-based property records as evidence.

- b) **Development of Digital Infrastructure:** To facilitate smooth digital transactions, increase mobile and broadband internet connectivity, particularly in rural and semi-urban areas.

Create a national property blockchain architecture to guarantee uniformity and combine state-level systems.

- c) **Phased implementation and pilot projects:** Extend pilot programs with stakeholder feedback loops and performance monitoring to more states, similar to those in Andhra Pradesh and Maharashtra.

Adopt a gradual deployment plan, starting with high-volume districts and urban areas.

- d) **Increasing Capacity and Raising Public Awareness:** Teach citizens, legal experts, and government representatives how to use digital property systems.

Incorporate legal technology modules into continuing legal education (CLE) courses and law curriculum.

Start nationwide awareness-raising initiatives to increase public literacy and trust.

- e) **Privacy and Data Integrity Protections:** Make sure that strong data protection guidelines that comply with the Digital Personal Data Protection Act of 2023 are implemented alongside blockchain integration.

Create systems to confirm the legitimacy of current land records prior to digitization.

- f) **Judiciary Preparedness:** Organize seminars on blockchain evidence, smart contracts, and digital signatures for judges and attorneys.

Create case law and court standards to establish uniformity in digital conveyancing dispute settlement and admissibility.

- g) **Coordination Across Agencies:** Using connected platforms, make it easier for the municipal, revenue, registration, and land survey departments to work together.

Establish a centralized regulatory body to supervise the certification, compliance, and

standardization of digital property systems.

7. CONCLUSION

The incorporation of blockchain technology and e-conveyancing into the Indian property law system has the potential to revolutionize the property transaction lifecycle, increase transparency, and lower fraud. Even while modernization efforts and pilot programs have made great progress, issues like institutional inertia, infrastructure deficiencies, and legal ambiguity still need to be resolved.

Property transfers under the Transfer of Property Act of 1882 depend on cooperative governance, technical advancement, and progressive legal reform. India can take the lead in creating a safe, digital, and citizen-focused property registration ecosystem that satisfies the needs of the twenty-first century with the correct institutional backing and regulation. calls for a coordinated effort that includes infrastructure development, pilot-based experimentation, capacity-building programs, and legislative reforms. The traditional property transfer system must be transformed into a contemporary, tech-enabled framework through a gradual, inclusive approach and robust legal support.

REFERENCES

1. R.K. Sinha, *Mulla on the Transfer of Property Act* (LexisNexis 12th ed. 2023).
2. Avtar Singh, *Law of Property* (Eastern Book Co. 6th ed. 2022).
3. https://www.bajajfinserv.in/property-law-bare-act?utm_source
4. https://valuationintelligentsystem.com/admin/welcome/blog/recent-changes-in-property-registration-laws-you-should-know-?utm_source
5. <https://iledu.in/impact-of-digitalization-on-property-transactions-and-registration-under-the-transfer-of-property-act-1882/#:~:text=This%20research%20paper%20explores%20the%20impact%20of%20digital,and%20blockchain%20technology%20have%20transformed%20the%20legal%20landscape.>
6. <https://www.ijllr.com/post/impact-of-digitization-on-transfer-of-property-laws>