LEGAL REMEDIES AND INSTITUTIONAL DESIGN TO PREVENT FRAUD AND DOUBLE-COUNTING IN INDIA'S EMERGING CARBON MARKET

Kumar Kartikeya, PhD Scholar (Law), Research Scholar, Department of Law, NIMS, University

Dr Falak Bashir, Assistant Professor, Department of Law, NIMS University

ABSTRACT

The emergence of carbon markets has transformed greenhouse gas emissions reductions into tradable economic assets capable of facilitating climate mitigation while promoting cost-efficient decarbonisation. India's transition towards a formal carbon market under the Energy Conservation (Amendment) Act, 2022 represents a significant development in domestic climate governance and positions the country to participate more actively in international carbon trading under Article 6 of the Paris Agreement. However, the credibility of any carbon market depends upon the integrity of the carbon credits that circulate within it. Concerns regarding fraudulent credit generation, double issuance, double claiming, inaccurate verification, registry manipulation, and cross-border accounting inconsistencies threaten both environmental objectives and market confidence. This paper examines the legal and institutional safeguards necessary to ensure the integrity of India's emerging carbon market. Through doctrinal legal analysis and comparative examination of the European Union Emissions Trading System and major voluntary carbon standards, the paper argues that India should adopt a comprehensive framework combining statutory recognition of carbon credits as transferable incorporeal property, a single authoritative registry, enhanced monitoring and verification requirements, verifier liability, and robust administrative, civil, and criminal remedies. Such reforms would strengthen market integrity, improve investor confidence, and ensure compliance with international accounting obligations under Article 6 of the Paris Agreement.

Executive Summary

India is entering a critical phase in the development of its climate governance architecture. The establishment of a domestic carbon market has the potential to mobilise investment, encourage technological innovation, and support achievement of national climate commitments. Nevertheless, the effectiveness of this market depends fundamentally upon the credibility and legal integrity of the carbon credits that it generates and trades. Carbon credits derive their value from confidence that the represented emissions reductions are genuine, measurable, and not simultaneously claimed by multiple actors. Fraudulent issuance, double-counting, weak verification procedures, and fragmented registry systems therefore pose substantial risks not only to market participants but also to India's broader climate objectives.

This paper argues that India's existing legal framework, while providing a foundation for carbon trading through the Energy Conservation (Amendment) Act, 2022, leaves several important questions unresolved. These include the legal status of carbon credits, the operation of title and transfer rules, the liability of verification entities, and the availability of remedies in cases of fraud or mis-issuance. Drawing lessons from the European Union's Union Registry system and governance practices employed by major voluntary standards such as Verra and Gold Standard, the paper proposes a comprehensive institutional design centred upon a single authoritative registry, strong monitoring and verification mechanisms, statutory title rules, and effective administrative, civil, and criminal enforcement measures. It further argues that these reforms are necessary to ensure compliance with Article 6 accounting requirements and to maintain the environmental integrity of India's emerging carbon market.

1. Introduction

The increasing urgency of climate change has prompted governments worldwide to adopt market-based mechanisms designed to reduce greenhouse gas emissions at lower economic cost. Carbon trading represents one of the most significant developments in this regard. By assigning economic value to emissions reductions, carbon markets seek to incentivise investment in cleaner technologies and facilitate cost-effective climate mitigation. Over the past two decades, carbon markets have evolved from relatively experimental instruments into important components of domestic and international climate governance. Jurisdictions such as the European Union, New Zealand, South Korea, and several subnational governments have implemented emissions trading systems that collectively regulate billions of tonnes of

greenhouse gas emissions annually.

Carbon markets generally operate through two principal models. Compliance markets arise from statutory obligations requiring regulated entities to hold sufficient emissions allowances or credits to satisfy legal requirements. Voluntary carbon markets, by contrast, enable businesses and individuals to purchase credits voluntarily to offset emissions or achieve sustainability objectives. Although these markets differ in their regulatory foundations, both depend upon confidence in the environmental integrity of the credits being traded.

India's decision to establish a carbon credit trading framework under the Energy Conservation (Amendment) Act, 2022 marks a significant shift in domestic climate policy. The new framework seeks to encourage emissions reductions while simultaneously positioning India to engage with emerging international carbon trading opportunities under Article 6 of the Paris Agreement. However, the creation of a carbon market inevitably raises complex legal questions. Unlike traditional commodities, carbon credits represent intangible environmental attributes. Their legal character, ownership, transferability, and enforceability remain uncertain in many jurisdictions. These uncertainties become particularly significant where allegations of fraud, duplicate issuance, inaccurate verification, or double-counting arise.

The problem of double-counting has emerged as one of the most contentious issues in contemporary carbon market governance. Double-counting occurs when a single emissions reduction is counted more than once, thereby creating an artificial inflation of climate benefits. This may occur through duplicate issuance of credits, multiple claims by different entities over the same reduction, or simultaneous accounting by both a host country and an international purchaser. Such practices undermine environmental integrity and reduce confidence in carbon markets. Fraudulent activities, including deliberate misrepresentation of emissions reductions and manipulation of registry systems, further threaten market credibility.

This paper advances the argument that India must adopt a comprehensive legal and institutional framework specifically designed to prevent fraud and double-counting. Such a framework should combine statutory clarification of property rights, centralised registry governance, rigorous monitoring and verification standards, verifier accountability, and effective enforcement mechanisms. Only through an integrated approach can India ensure that carbon credits function as credible and legally reliable instruments capable of supporting both domestic and international climate objectives.

2. Legal and Institutional Background

The legal foundation for India's emerging carbon market is provided primarily by the Energy Conservation (Amendment) Act, 2022. The legislation introduced provisions enabling the establishment of a national carbon credit trading mechanism and expanded the regulatory powers of the Central Government in relation to climate mitigation measures. While the Act does not itself create a detailed trading architecture, it authorises the development of a Carbon Credit Trading Scheme and provides the statutory basis upon which subsequent regulations may be built. The Act therefore represents an enabling framework rather than a complete legal code governing carbon markets.

A notable feature of the legislation is that it establishes the institutional foundations necessary for carbon trading while leaving many substantive questions to future regulations. For example, the Act does not comprehensively define the legal nature of carbon credits or clarify whether such credits should be regarded as property, financial instruments, licences, or sui generis statutory rights. Nor does it provide detailed guidance concerning ownership disputes, transfer procedures, security interests, insolvency treatment, or liability for inaccurate issuance. These omissions are understandable at an early stage of market development but may generate uncertainty as market activity increases.

The international context is equally important. Article 6 of the Paris Agreement creates a framework through which states may cooperate in achieving nationally determined contributions. Article 6.2 permits the transfer of internationally transferred mitigation outcomes between countries, while Article 6.4 establishes a more centralised mechanism supervised under international rules. Both mechanisms are designed to facilitate climate cooperation while ensuring environmental integrity. A central concern during negotiations was the prevention of double-counting, particularly where emissions reductions generated in one country are transferred abroad and used by another country towards its climate targets.

To address this concern, the Article 6 rulebook requires corresponding adjustments. Under this system, a country transferring mitigation outcomes internationally must adjust its own accounting records to ensure that the transferred reductions are not simultaneously counted towards domestic targets. Corresponding adjustments therefore function as an accounting safeguard intended to preserve environmental integrity within international carbon markets. Failure to implement such safeguards could undermine the credibility of both national and

international climate commitments.

Central to the operation of any carbon market is the registry system. Carbon registries perform functions analogous to land registries and securities depositories. They record issuance, ownership, transfer, retirement, and cancellation of carbon credits. The legal significance of registry entries varies across jurisdictions. In some systems, registry records merely provide evidence of ownership. In others, registry entries determine ownership itself. The distinction has important implications for legal certainty and dispute resolution. Effective registry governance is therefore essential to preventing fraud, duplicate issuance, and conflicting ownership claims.

3. Failure Modes in India's Emerging Carbon Market

One of the most significant legal vulnerabilities within India's emerging carbon market concerns the uncertain legal status of carbon credits themselves. In the absence of explicit statutory recognition, disputes may arise regarding ownership, transferability, insolvency treatment, and the rights of third parties. Carbon credits possess characteristics commonly associated with property, including exclusivity, transferability, and economic value. Nevertheless, many jurisdictions have yet to provide a definitive legal classification. This ambiguity creates opportunities for litigation and may discourage investment by increasing transactional risk.

The problem becomes particularly acute in sectors that are expected to participate actively in carbon trading. Consider a sugar mill in Uttar Pradesh that generates carbon credits through methane capture or biomass cogeneration activities. If the project developer enters insolvency proceedings, creditors may seek to assert claims over the credits. Without clear statutory guidance regarding ownership and title, courts may face considerable difficulty determining the legal status of the asset. Similar disputes may arise in relation to project financing arrangements, mergers and acquisitions, or collateralisation transactions.

A second vulnerability concerns fragmented registry arrangements. Carbon markets frequently involve multiple registries operated by governmental authorities, international organisations, or private standard-setting bodies. While such diversity may encourage innovation, it also increases the risk of inconsistent records and duplicate claims. If environmental attributes associated with a single emissions reduction are recorded in more than one registry, the

possibility of double issuance arises. Fragmentation may therefore undermine the reliability of ownership records and complicate enforcement efforts.

A further challenge concerns the role of verification bodies. Carbon markets depend heavily upon monitoring, reporting, and verification systems to establish the validity of claimed emissions reductions. Verifiers serve as gatekeepers whose assessments determine whether credits are issued. If verification standards are weak or accountability mechanisms inadequate, invalid credits may enter the market. In sectors such as cement manufacturing, where emissions calculations can be highly technical, negligent verification may result in substantial over-crediting. The resulting harm extends beyond individual transactions because inaccurate credits compromise the environmental integrity of the market as a whole.

Cross-border accounting presents an additional source of legal risk. As India increasingly participates in international carbon trading under Article 6, the potential for double-counting between domestic and foreign accounting systems becomes more significant. Where reductions generated by Indian projects are transferred abroad without corresponding adjustments, the same climate benefit may effectively be counted twice. Such outcomes would undermine India's credibility within international climate governance frameworks and could expose market participants to reputational and regulatory risks.

4. Comparative Analysis: Lessons from the European Union and Voluntary Carbon Standards

Comparative experience demonstrates that the success of a carbon market depends not merely upon the existence of tradable credits but upon the legal and institutional mechanisms that preserve confidence in those credits. Among existing systems, the European Union Emissions Trading System (EU ETS) offers one of the most sophisticated examples of registry governance and market oversight. Established in 2005, the EU ETS has evolved into the world's largest compliance carbon market and provides valuable lessons for jurisdictions seeking to develop credible carbon trading frameworks. A central feature of the EU ETS is the Union Registry, a centralised electronic platform that records the issuance, transfer, surrender, cancellation, and retirement of emissions allowances. The registry functions as the definitive record of ownership and thereby reduces the likelihood of competing claims or duplicate transactions. By creating a single source of truth for market participants, the Union Registry has enhanced legal certainty and strengthened confidence in the market.

The legal significance accorded to registry entries within the EU framework is particularly noteworthy. Ownership of allowances is closely linked to registry records, and transfers become effective through registration. This approach mirrors principles commonly found in securities settlement systems and provides a clear evidentiary basis for dispute resolution. Equally important is the existence of extensive audit trails that permit regulators to trace transactions and investigate irregularities. Such transparency has proved essential in combating fraudulent conduct, including VAT fraud and cyber-enabled thefts that affected earlier phases of the EU ETS. In response to these incidents, the European Union introduced stronger authentication procedures, enhanced account verification requirements, and more robust supervisory controls.

India's emerging carbon market could benefit substantially from adopting similar principles. A centralised registry with legally recognised title effects would reduce uncertainty regarding ownership and transfer. Moreover, comprehensive audit trails would facilitate regulatory investigations and strengthen enforcement capabilities. The experience of the EU also demonstrates that registry governance should be regarded not merely as a technical matter but as a fundamental legal institution underpinning market integrity.

Important lessons may also be drawn from voluntary carbon market standards, particularly the Verified Carbon Standard administered by Verra and the Gold Standard certification framework. Although these systems operate outside traditional governmental regulatory structures, they have developed sophisticated governance mechanisms designed to maintain market confidence. Both systems rely upon detailed methodologies for project validation, independent verification procedures, public disclosure requirements, and serialised carbon credits capable of being tracked throughout their lifecycle. These features are intended to reduce the risks of over-crediting, duplicate issuance, and fraudulent claims.

One of the most significant contributions of voluntary standards has been the development of transparency norms. Project documentation, monitoring reports, validation statements, and retirement records are generally made publicly available. Such disclosure enables market participants, researchers, and civil society organisations to scrutinise projects and identify inconsistencies. Public transparency thus functions as an additional layer of accountability beyond formal regulatory oversight. While voluntary standards have occasionally faced criticism regarding methodological weaknesses and questions of additionality, their

commitment to public disclosure offers important lessons for regulatory design.

The governance structures employed by Verra and Gold Standard also highlight the importance of verifier independence. These organisations impose accreditation requirements upon verification bodies and establish procedures for reviewing verification quality. Although private governance mechanisms cannot entirely replace statutory regulation, they demonstrate the value of maintaining professional standards and monitoring verifier performance. India's regulatory framework should therefore incorporate not only accreditation requirements but also meaningful consequences for negligent or reckless verification conduct.

Taken together, the experiences of the EU ETS and voluntary carbon standards suggest that effective carbon market governance requires legal certainty regarding ownership, transparent registry systems, rigorous verification procedures, and credible enforcement mechanisms. These lessons provide a foundation upon which India may construct a regulatory framework capable of preventing fraud and double-counting while supporting both domestic and international climate objectives.

Comparative Table: Registry Governance Models

Attribute	**EU Union Registry**	**Verra/Gold Standard Registry**	**Proposed Indian Registry**
Authority	Statutory public authority	Private standard-setting body	Statutory national authority
Legal Effect of Registry	Strong evidentiary and ownership function	Contractual recognition of ownership	Registry determines legal title
Transparency	Comprehensive audit trail	Public project and retirement records	Public transaction and ownership records
Revocation Power	Administrative cancellation by regulator	Programme-based cancellation	Administrative revocation with appeal rights
Double-Counting	Centralised accounting	Serialised credits and	Integrated domestic

Attribute	**EU Union Registry**	**Verra/Gold Standard Registry**	**Proposed Indian Registry**
Controls	and tracking	retirement controls	registry and Article 6 accounting

5. Proposed Legal Framework for India

The prevention of fraud and double-counting within India's carbon market requires a coherent legal architecture rather than isolated regulatory interventions. Such an architecture must address ownership, verification, registry governance, enforcement, and international accounting obligations in an integrated manner. The proposed framework outlined below seeks to achieve these objectives while remaining consistent with the institutional foundations established by the Energy Conservation (Amendment) Act, 2022.

5.1 Statutory Definition and Title Rules

The first requirement is statutory clarification of the legal status of carbon credits. A carbon credit should be expressly recognised as a form of transferable incorporeal property. Such recognition would provide certainty regarding ownership rights, facilitate commercial transactions, and reduce the risk of litigation. The absence of a clear legal classification may lead courts to apply inconsistent doctrines derived from property law, contract law, or regulatory law. A dedicated statutory definition would therefore promote predictability and market confidence.

Recognition as incorporeal property would also assist in resolving issues arising in insolvency proceedings, secured lending transactions, and corporate restructuring. Financial institutions are more likely to accept carbon credits as collateral where ownership rights are clearly defined. Investors similarly benefit from certainty regarding the legal status of assets acquired through market transactions. Importantly, statutory recognition need not transform carbon credits into conventional property in every respect; rather, it should establish a specialised legal category tailored to the unique characteristics of environmental assets.

The legal framework should further provide that title to carbon credits is established and transferred through registration within the national carbon registry. This approach would create

a clear chain of title and reduce opportunities for conflicting ownership claims. Registry records should constitute prima facie evidence of ownership and should record all relevant events affecting the legal status of a credit, including issuance, transfer, retirement, cancellation, and the creation of security interests. By linking ownership directly to registry entries, the law would promote certainty while facilitating efficient market transactions.

5.2 Registry Design and Governance

A second pillar of the proposed framework is the creation of a single authoritative national registry. Fragmented registry systems increase the risk of duplicate issuance and inconsistent records. A centralised registry would provide a unified platform for recording carbon credits generated under domestic regulatory programmes and those intended for international transfer. The registry should operate under statutory authority and be subject to clear governance standards regarding transparency, cybersecurity, and accountability.

Modern registry systems should incorporate technological features that enhance integrity without compromising accessibility. Every transaction should generate a permanent and auditable digital record capable of being reviewed by regulators and, where appropriate, the public. Time-stamped transaction histories would facilitate investigations into suspicious activities and support enforcement actions. Interoperability protocols should also be developed to enable communication between the national registry and approved private or international systems while preventing duplicate issuance.

Public transparency is particularly important. While commercially sensitive information may require protection, basic data concerning project registration, credit issuance, ownership history, retirement status, and regulatory actions should be publicly available. Transparency promotes accountability and enables independent scrutiny by researchers, civil society organisations, and market participants.

5.3 Monitoring, Reporting, Verification, and Verifier Liability

The credibility of a carbon market depends fundamentally upon the accuracy of the emissions reductions it certifies. Monitoring, reporting, and verification systems therefore occupy a central position within the proposed framework. Project developers should be subject to comprehensive disclosure obligations requiring publication of methodologies, baseline

assumptions, monitoring reports, and verification statements. Such disclosures would facilitate regulatory oversight and permit independent evaluation of project performance.

Equally important is the independence of verification bodies. Verifiers should be prohibited from maintaining financial relationships with project developers that could compromise impartiality. Regulatory authorities should establish accreditation standards addressing competence, professional ethics, and conflict-of-interest management. Accreditation should not be regarded as a one-time approval but as an ongoing process subject to periodic review and performance assessment.

Civil liability provides an additional mechanism for promoting verifier accountability. Where negligent or reckless verification results in foreseeable economic loss, affected parties should possess a right to seek compensation. Such liability would encourage professional diligence and reduce incentives for superficial verification practices. Although concerns may be raised regarding excessive litigation, carefully drafted liability provisions can balance accountability with the need to maintain a viable verification industry.

5.4 Remedies and Sanctions

An effective carbon market requires a comprehensive system of remedies capable of addressing misconduct at multiple levels. Administrative remedies should constitute the first line of enforcement. Regulatory authorities should possess statutory powers to suspend disputed credits, revoke improperly issued credits, order corrective disclosures, and require restitution where appropriate. Administrative procedures offer the advantage of speed and flexibility, allowing regulators to respond rapidly to emerging risks.

Civil remedies serve a complementary function by enabling private parties to protect their interests. Purchasers of invalid credits should possess presumptive standing to bring claims for damages, rescission, restitution, or other appropriate relief. The law should recognise that inaccurate or fraudulent carbon credits may cause significant economic harm and should therefore provide meaningful avenues for compensation.

Criminal sanctions should be reserved for intentional misconduct involving fraud, registry manipulation, forgery, or deliberate double-counting. The purpose of criminal liability is not to punish ordinary compliance errors but to deter conduct that threatens the integrity of the

market itself. Targeted criminal offences would signal the seriousness with which the legal system regards carbon market fraud and would strengthen public confidence in the regulatory framework.

5.5 Article 6 Alignment and Cross-Border Transfer Protocols

The long-term credibility of India's carbon market will depend not only upon domestic regulatory integrity but also upon its compatibility with international climate governance frameworks. Article 6 of the Paris Agreement has introduced a new era of international carbon trading in which emissions reductions may be transferred across national borders and counted towards climate commitments in different jurisdictions. While such cooperation creates opportunities for investment and technology transfer, it also introduces significant accounting challenges. The most important of these challenges concerns the prevention of double-counting through the application of corresponding adjustments.

India's regulatory framework should therefore incorporate explicit procedures governing international transfers of carbon credits. Every transfer intended for use outside India should be recorded within the national registry and linked to corresponding accounting adjustments maintained by the relevant governmental authority. Such adjustments should be reflected in national greenhouse gas inventories and reported through internationally recognised transparency mechanisms. Integrating registry operations with national climate accounting systems would reduce the possibility of inconsistencies between domestic and international records.

Transparency should form a central component of this process. Information regarding internationally transferred mitigation outcomes, retirement status, and corresponding adjustments should be publicly accessible wherever possible. Public reporting not only promotes accountability but also enhances confidence among foreign investors and international partners. Furthermore, India should develop standardised protocols governing bilateral and multilateral carbon trading arrangements to ensure consistency across transactions involving different jurisdictions. Such protocols would facilitate regulatory cooperation and reduce legal uncertainty for market participants.

An annual independent audit mechanism should also be established to reconcile domestic registry records with national climate accounting systems. Audits would provide an additional

safeguard against accounting discrepancies and would help identify potential weaknesses before they develop into systemic problems. Given the increasing importance of Article 6 markets, alignment between domestic regulation and international accounting obligations should be regarded as an essential feature of carbon market governance rather than a supplementary consideration.

6. Drafting Annex

Annex A: Draft Statutory Clause Defining Legal Status and Chain of Title

"For the purposes of this Act, a carbon credit shall constitute transferable incorporeal property representing a quantified greenhouse gas emission reduction, avoidance, removal, or sequestration recognised under applicable law. Legal title to a carbon credit shall arise upon issuance in the National Carbon Registry and shall pass only upon registration of transfer within such Registry. The Registry record shall constitute prima facie evidence of ownership, transfer, retirement, cancellation, and any encumbrance affecting the carbon credit. No transfer shall be legally effective unless recorded in accordance with prescribed regulations."

This clause is drafted to create certainty regarding ownership and transfer by linking legal title directly to the national registry, thereby reducing opportunities for competing ownership claims and fraudulent transactions.

Annex B: Draft Criminal Offence Clause for Intentional Double-Issuance and Registry Manipulation

"Any person who knowingly and dishonestly causes, facilitates, or attempts the duplicate issuance, fraudulent registration, unauthorised transfer, manipulation, alteration, concealment, or misrepresentation of a carbon credit or registry record in a manner that results in double-counting, false ownership claims, or unlawful financial gain shall be guilty of an offence punishable with imprisonment for a term which may extend to seven years, or with fine, or with both. Any conspiracy, abetment, or assistance relating to such conduct shall be punishable in the same manner."

This clause focuses on intentional misconduct rather than inadvertent compliance errors and is designed to protect market integrity by criminalising fraudulent conduct that threatens confidence in the carbon trading system.

7. Implementation Roadmap and Timeline

The successful establishment of a robust carbon market requires a phased implementation strategy that recognises both legal and technical realities. Immediate legislative reform should focus on clarifying ownership rights, registry governance, verifier obligations, and enforcement powers. During the first twelve months, the Central Government should undertake stakeholder consultations involving industry participants, environmental regulators, financial institutions, verification bodies, and state governments. These consultations should culminate in the enactment of detailed regulations supplementing the Energy Conservation (Amendment) Act, 2022 and addressing the legal gaps identified in this paper.

Simultaneously, efforts should be directed towards establishing the institutional foundations of the national registry. Technical specifications should be developed with reference to international best practices, particularly the security and audit mechanisms employed within the EU Union Registry. Pilot testing should occur before full deployment to identify operational vulnerabilities and ensure interoperability with existing emissions reporting systems. During this phase, accreditation criteria for verification bodies should also be finalised and implemented.

The second phase, extending over a twenty-four-month period, should focus upon operational implementation and market integration. Priority should be given to sectors possessing substantial emissions reduction potential and relatively mature monitoring capabilities. The power generation, cement manufacturing, and sugar industries are particularly suitable candidates. These sectors possess significant relevance within Uttar Pradesh and can therefore provide useful testing grounds for regulatory design.

A pilot programme centred around the Lucknow region and adjoining industrial districts would offer valuable insights into the practical operation of the proposed framework. Uttar Pradesh's extensive sugar industry, growing renewable energy investments, and expanding industrial base make it an appropriate location for testing registry procedures, verification standards, and enforcement mechanisms. Lessons derived from pilot implementation could then inform national expansion. By the conclusion of the twenty-four-month period, the national registry should be fully operational, integrated with Article 6 accounting systems, and supported by a functioning framework of administrative, civil, and criminal enforcement mechanisms.

8. Methodology and Sources

This study employs a doctrinal and comparative legal methodology. The doctrinal component involves analysis of statutory provisions, treaty obligations, regulatory guidance, and relevant legal principles relating to property law, contract law, administrative law, and criminal law. Particular attention is paid to the Energy Conservation (Amendment) Act, 2022 and the obligations arising under Article 6 of the Paris Agreement. Comparative analysis is utilised to evaluate governance mechanisms employed within the European Union Emissions Trading System and major voluntary carbon standards, including Verra's Verified Carbon Standard and the Gold Standard certification framework. These systems provide useful comparative models because they address many of the same challenges relating to ownership, verification, transparency, and double-counting.

The paper also proposes an empirical research agenda for future study. Such research may include the use of Right to Information applications directed to the Bureau of Energy Efficiency and related authorities, interviews with project developers and verification bodies, and analysis of registry transaction data once publicly available. Combining doctrinal and empirical approaches would contribute to a more comprehensive understanding of carbon market governance within the Indian context.

9. Limitations and Ethics

This paper is based upon regulatory developments and publicly available information up to the year 2025. Carbon market regulation remains an evolving field, and subsequent legislative or policy developments may alter aspects of the analysis presented here. Comparative experiences drawn from foreign jurisdictions and voluntary standards provide useful guidance but may not be entirely transferable to Indian legal and institutional conditions. Accordingly, recommendations should be interpreted as proposals for adaptation rather than direct transplantation.

Future empirical research involving interviews or stakeholder consultations should comply with recognised ethical standards concerning informed consent, confidentiality, and data protection. Where interview data is utilised, respondents should be anonymised unless explicit consent for identification has been obtained. These safeguards are particularly important where participants discuss regulatory weaknesses, commercial practices, or potential compliance

concerns.

10. Conclusion

India's emerging carbon market represents a significant opportunity to mobilise climate finance, encourage technological innovation, and support achievement of national emissions reduction objectives. However, the success of this market depends fundamentally upon the integrity of the carbon credits that it produces and trades. The risks of fraud, mis-issuance, registry manipulation, and double-counting are not merely technical concerns; they are legal challenges capable of undermining environmental outcomes and eroding market confidence.

This paper has argued that effective prevention of such risks requires a comprehensive legal framework combining statutory recognition of carbon credits as transferable incorporeal property, a single authoritative registry, enhanced monitoring and verification systems, verifier accountability, and robust administrative, civil, and criminal remedies. It has further argued that alignment with Article 6 accounting requirements is essential to ensuring the credibility of international carbon transfers. By adopting these reforms, India can establish a carbon market that is both legally robust and environmentally credible, thereby strengthening its position within the evolving architecture of global climate governance.

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