

## LEGAL VALIDITY AND EVIDENTIARY STRENGTH OF ELECTRONIC LAND CERTIFICATES IN INDONESIAN LAW

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### Abstract:

This study aims to analyze the legal validity and evidentiary strength of electronic land certificates within the Indonesian agrarian law system, focusing on their position as proof of land rights in the digital era. The research addresses legal uncertainties related to the transformation of conventional land certificates into electronic form, particularly concerning legal certainty, authenticity, and protection of land rights holders. This study employs a normative legal research method, using statutory and conceptual approaches, to examine relevant laws, regulations, and legal doctrines governing land registration and electronic documents in Indonesia. The findings indicate that electronic land certificates possess legal validity and evidentiary strength equivalent to those of conventional land certificates when issued in accordance with applicable legal frameworks and administrative procedures. The study further reveals that electronic land certificates can serve as strong legal evidence in land disputes, though challenges remain in data security, system reliability, and public trust. These findings suggest that electronic land certificates represent a progressive development in land administration aimed at improving efficiency and transparency. The study concludes that strengthening regulatory harmonization, institutional capacity, and legal safeguards is essential to ensure legal certainty and effective implementation of electronic land certificates in Indonesia.

## INTRODUCTION

The digital transformation of public administration has become an essential component of modern governance, including in land administration. The implementation of electronic land certificates represents a significant shift in how the state manages land registration, aiming to improve efficiency, transparency, and legal certainty (David et al., 2025; Permadi, 2023). In the context of governance, the reliability of administrative documents and evidentiary instruments is crucial, as they underpin public trust, accountability, and legal order (Anggriani et al., 2025; Çelik, 2025). Therefore, examining the legal validity and evidentiary strength of electronic land certificates is important to ensure that digital governance reforms align with fundamental legal principles and protect landholders' rights. Previous studies on land registration reform and digital documentation have emphasized the potential benefits of electronic systems, including reduced administrative inefficiencies and enhanced service quality (Ali et al., 2024; Permadi et al., 2024; Silviana et al., 2025). However, existing research has primarily focused on technical implementation and administrative performance, while paying relatively limited attention to the juridical implications of electronic land certificates as legal evidence. This gap is particularly relevant in the Indonesian context, where land disputes remain prevalent, and the evidentiary strength of land certificates plays a decisive role in



dispute resolution. Consequently, questions regarding legal certainty, authenticity, and evidentiary value of electronic land certificates remain insufficiently addressed (Pangesti & Pasaribu, 2025).

The introduction of electronic land certificates also raises concerns regarding governance capacity and institutional readiness. The transition from conventional to electronic certificates requires not only technological infrastructure but also clear regulatory harmonization and effective oversight mechanisms. Inadequate legal clarity may create uncertainty for landholders and legal practitioners, particularly when electronic certificates are challenged in judicial proceedings (Ali et al., 2024; Pangesti & Pasaribu, 2025; Verma et al., 2024). This condition highlights the need for legal analysis that goes beyond administrative objectives and critically examines whether electronic land certificates can serve as strong, reliable legal evidence within the Indonesian agrarian law system (El Haddati & El Maallam, 2025; Jaelani et al., 2026; Uzzaman & Miah, 2013; Yazid Fathoni et al., 2025). Based on these considerations, this study addresses the following research problem: how is the legal validity and evidentiary strength of electronic land certificates positioned within Indonesian agrarian law? Accordingly, this research aims to analyze the legal status of electronic land certificates and evaluate their role as evidence of land rights. By focusing on normative legal analysis, this study contributes to the development of digital governance discourse and provides a legal foundation for strengthening land administration reforms in Indonesia (Reddy et al., 2026; Shukla et al., 2024).

Furthermore, the adoption of electronic land certificates reflects a broader shift toward digital governance, which requires robust accountability and risk management frameworks. As land certificates serve not only as administrative records but also as primary legal evidence in transactions, taxation, and dispute resolution, any weaknesses in their legal recognition may undermine public confidence and institutional credibility. The absence of clear legal safeguards and standardized evidentiary procedures could expose the system to legal challenges and governance risks. Therefore, a critical legal examination of electronic land certificates is necessary to ensure that digitalization in land administration strengthens, rather than weakens, legal certainty and the integrity of public governance mechanisms (Kurniawati et al., 2025; Kusuma et al., 2022).

## METHODS

This study employs a normative legal research method to examine the legal validity and evidentiary strength of electronic land certificates within the Indonesian agrarian law system. The research focuses on legal norms, regulations, and policy instruments governing land registration and electronic documents, which serve as the primary objects of analysis. The study employed a statutory and conceptual approach, examining relevant laws, government regulations, and administrative policies related to electronic land certification in Indonesia. Legal materials analyzed include primary sources such as statutes and implementing regulations, as well as secondary sources such as legal doctrines and scholarly writings. The collected legal materials were analyzed using qualitative juridical-analytical techniques to assess legal certainty, evidentiary value, and governance implications of electronic land certificates (Çelik, 2025).

## RESULT AND DISCUSSION

The results of this study show that the legal framework in Indonesia has formally recognized the transformation of land administration into a digital-based system, including the issuance of electronic land certificates. From the perspective of agrarian law, this shift is intended to strengthen legal certainty and improve the quality of land registration services. However, the study also identifies that the transition raises new legal questions regarding the status of electronic documents





as proof of rights and their acceptance within legal practice. Based on an analysis of relevant regulations, electronic land certificates are legally valid when issued by an authorized institution in accordance with procedures determined by law. In this sense, validity is derived from the legality of authority, the correctness of administrative processes, and compliance with the legal norms governing land registration. This finding supports the view, as in prior research, that digital land instruments can be legally valid when the regulatory basis is clear and implementation follows due process (Kusmiarto et al., 2021; Subekti, 2023).

The study further finds that the evidentiary strength of electronic land certificates is conceptually comparable to that of conventional certificates, as both serve as official evidence of registered rights. The evidentiary character is not determined solely by the physical form of the document, but by the legal authority behind its issuance and the integrity of the registration system. Earlier studies on modern land administration also emphasize that the function of certificates as evidence depends on institutional trust and procedural legitimacy, rather than paper-based formality alone. Nevertheless, the research identifies potential vulnerabilities that may affect evidentiary strength in practice, particularly concerning authenticity and system reliability. While electronic certificates can be verified through digital systems, the legal system must ensure that verification mechanisms are accessible, consistent, and legally acknowledged in dispute resolution settings. It aligns with previous research highlighting that digital legal documents require robust verification pathways to maintain their evidentiary credibility (Bennett et al., 2023; Jahani Chehrehbargh et al., 2024; Littewina et al., 2024; Yusni & Sigalingging, 2021).

Another important finding relates to legal certainty for right holders. The study indicates that although electronic certificates are designed to enhance certainty, uncertainty may arise when the public and legal practitioners are not fully familiar with procedures for proving authenticity and tracing administrative history. This condition reflects findings in earlier research that the success of digital governance reforms depends not only on regulation but also on public literacy and institutional communication. The study also reveals that regulatory harmonization remains a key issue. Electronic land certification intersects with multiple legal regimes, including agrarian law, administrative law, and principles of electronic evidence. If these regimes are not aligned, implementation may lead to overlapping interpretations, especially in litigation. Similar concerns are frequently identified in prior studies, which argue that digital reforms require coherent cross-sector regulation to prevent legal ambiguity.

From a governance perspective, the findings suggest that electronic land certificates strengthen administrative accountability only when oversight mechanisms are effective. Digital systems can enhance transparency by providing traceability and documentation, but they also introduce governance risks if controls, audit trails, and access management are not strictly regulated. Previous research on electronic public services likewise stresses that digitalization increases accountability potential, while simultaneously increasing the need for stronger supervision and risk mitigation. Regarding dispute resolution, this study finds that electronic land certificates can serve as strong legal evidence, but their effectiveness depends on procedural readiness in judicial and administrative processes. Courts and dispute forums must be equipped to assess electronic authenticity and administrative records without relying on traditional physical assumptions. It is consistent with earlier studies emphasizing that legal institutions must adapt their evidentiary assessment standards to accommodate electronic instruments.

The study also identifies that protecting rights holders is more critical in electronic certification, particularly regarding the integrity of data, the prevention of unauthorized access, and the reliability of system records. Even though the certificate itself may be legally valid, weaknesses





in data governance can reduce trust and increase the risk of legal challenges. Prior research similarly notes that data governance is a core determinant of legal certainty in digital land administration. Overall, the results indicate that electronic land certificates can be legally valid and evidentially strong under Indonesian law, but only when supported by consistent regulation, reliable verification mechanisms, institutional capacity, and strong governance safeguards. The analysis suggests that strengthening harmonization of rules, improving institutional readiness, and ensuring the protection of rights holders are essential to make electronic certification not merely an administrative reform but a legally secure instrument for land rights recognition.

## CONCLUSION

This study concludes that electronic land certificates are legally valid under Indonesian agrarian law when issued by competent authorities and implemented in accordance with applicable legal regulations. Their legal standing as instruments of land registration reflects a formal recognition of digital governance in land administration and supports the objective of enhancing legal certainty. In terms of evidentiary function, electronic land certificates may serve as strong legal proof of land rights, provided that their issuance and verification processes comply with established legal standards. The findings further indicate that the effectiveness of electronic land certificates depends not only on normative legal recognition but also on governance capacity, institutional readiness, and regulatory coherence. Without adequate harmonization among agrarian law, administrative law, and rules on electronic evidence, the use of electronic certificates may create legal uncertainty, particularly in dispute-resolution contexts. Therefore, legal certainty in electronic land certification requires integrated regulation and consistent enforcement. Future research may explore empirical perspectives on the acceptance of electronic land certificates in judicial practice and land dispute resolution. Further studies could also examine governance mechanisms, data security, and public trust as key determinants in strengthening the implementation of electronic land certificates within Indonesia's land administration system.

## REFERENCES

- Ali, M., Ismail, R. S., & Erwiningsih, W. (2024). The Vulnerabilities of Electronic Land Certificates and Legal Adaptation in Indonesia's Land Registration System. *Pakistan Journal of Criminology*, 16(2), 1095-1106. <https://doi.org/10.62271/pjc.16.2.1095.1106>
- Anggriani, J., Noviarita, H., Said, H. A., & Nainin, D. M. (2025). Digitalization of Land Certification: Legal Perspectives from Islamic, Positive, and Administrative Law. *Al-Istinbath: Jurnal Hukum Islam*, 10(2), 606-630. <https://doi.org/10.29240/jhi.v10i2.12921>
- Bennett, R. M., Hutabarat, I. R., Unger, E.-M., Ginting, C. P., van der Vegt, H., & Latif, A. (2023). Digital Transformation in Indonesian Land Administration: Further Developments and Directions. In *Geospatial Science for Smart Land Management: An Asian Context* (pp. 43-67). CRC Press. <https://doi.org/10.1201/9781003349518-7>
- Çelik, D. (2025). Building a digital culture in public administration. In *Digital Transformation in Public Administration: Issues and Perspectives* (pp. 17-33). Nova Science Publishers, Inc. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85217631316&partnerID=40&md5=032d5f4e29d7f88d78c6abdc90026baf>
- David, S., Virlanuta, F.-O., Bacalum, S., Bărbuță-Mișu, N., & Mihai, I.-O. (2025). Exploring Digital Transformation as a Catalyst for Institutional Agility in the Delivery of Public Services. *Canadian Journal of Administrative Sciences*, 42(4), 514-532. <https://doi.org/10.1002/cjas.70007>





- El Haddati, S., & El Maallam, M. (2025). Application of Blockchain in the Continuous Audit of the Integrity of the Electronic Land Register. In G. N., K. J., & A. S. (Eds.), *Lecture Notes in Networks and Systems: Vol. 1486 LNNS* (pp. 220–229). Springer Science and Business Media Deutschland GmbH. [https://doi.org/10.1007/978-3-031-95330-9\\_24](https://doi.org/10.1007/978-3-031-95330-9_24)
- Jaelani, A. K., Hanum, W. N., & Sarjiyanto, S. (2026). Securing land transaction: The urgency of issuing an electronic land certificate. In R. R., K. A.K., & T. A. (Eds.), *AIP Conference Proceedings* (Vol. 3337, Issue 1). American Institute of Physics. <https://doi.org/10.1063/5.0296075>
- Jahani Chehrehbargh, F., Rajabifard, A., Atazadeh, B., & Steudler, D. (2024). Current challenges and strategic directions for land administration system modernization in Indonesia. *Journal of Spatial Science*, 69(4), 1097–1129. <https://doi.org/10.1080/14498596.2024.2360531>
- Kurniawati, N. C., Widhiyanti, H. N., & Ruslijanto, P. A. (2025). Implications of public interest for the implementation of the registration of transfers of land rights due to inheritance by the Land Office. *Law. Human. Environment*, 16(1), 51–68. <https://doi.org/10.31548/law/4.2024.51>
- Kusmiarto, K., Aditya, T., Djurdjani, D., & Subaryono, S. (2021). Digital transformation of land services in Indonesia: A readiness assessment. *Land*, 10(2), 1–16. <https://doi.org/10.3390/land10020120>
- Kusuma, M. A., Sukarno, P., & Wardana, A. A. (2022). Security System for Digital Land Certificate Based on Blockchain and QR Code Validation in Indonesia. *ICACNIS 2022 - 2022 International Conference on Advanced Creative Networks and Intelligent Systems: Blockchain Technology, Intelligent Systems, and the Applications for Human Life, Proceeding*. <https://doi.org/10.1109/ICACNIS57039.2022.10055114>
- Littewina, M., Alamsyah, A., Nurhazizah, E., & Ruwani, T. (2024). Land Certificate Authenticity Using Blockchain Technology in Indonesia. *2024 12th International Conference on Information and Communication Technology, ICoICT 2024*, 236–243. <https://doi.org/10.1109/ICoICT61617.2024.10698283>
- Pangesti, S., & Pasaribu, D. (2025). Electronic Land Certificates to Prevent Land Mafia in Indonesia. *Administrative and Environmental Law Review*, 6(2), 133–144. <https://doi.org/10.25041/aelr.v6i2.4419>
- Permadi, I. (2023). Electronic title certificate as legal evidence: the land registration system and the quest for legal certainty in Indonesia. *Digital Evidence and Electronic Signature Law Review*, 20, 47–61. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85166181964&partnerID=40&md5=026f9cc519bafdc10043a0af4b93e170>
- Permadi, I., Maharani, D. P., & Ahmad, D. P. (2024). Legal perspectives on digitalizing land certificates: Analysing synchronisation and harmonization in Indonesia's job creation law. *Jurisdictie: Jurnal Hukum Dan Syariah*, 15(2), 337–379. <https://doi.org/10.18860/j.v15i2.28859>
- Reddy, P. V. J. S., Madhurima, G., & Suganya, R. (2026). Lock Your Lands – Securing Land Records with Blockchain and IoT. In R. G., K. V., R. S., L. R.P., P. S., & S. S. (Eds.), *Communications in Computer and Information Science: Vol. 2608 CCIS* (pp. 248–259). Springer Science and Business Media Deutschland GmbH. [https://doi.org/10.1007/978-3-032-02537-1\\_23](https://doi.org/10.1007/978-3-032-02537-1_23)
- Shukla, V., Raipurkar, A. R., Chandak, M. B., & Barai, V. (2024). Blockchain In Land Registry For Transforming Land Administration. *Journal of Theoretical and Applied Information Technology*, 102(3), 1014–1022. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85185481356&partnerID=40&md5=f9a5127dbb76915c7a46c29cd630bb17>
- Silviana, A., Elvani, R., & Priyono, E. A. (2025). The Digitalization of Land Titles as an Effort to





Achieve Good Land Governance in the Framework of Reduced Inequalities. In N. A., H. W.N., & R. D.A. (Eds.), *IOP Conference Series: Earth and Environmental Science* (Vol. 1537, Issue 1). Institute of Physics. <https://doi.org/10.1088/1755-1315/1537/1/012031>

Subekti, R. (2023). The Significance of Blockchain Implementation in the Issuance of Land E-Certificates: Examples from Ghana and Germany. *Lex Localis*, 21(3), 665–682. [https://doi.org/10.4335/21.3.665-682\(2023\)](https://doi.org/10.4335/21.3.665-682(2023))

Uzzaman, W., & Miah, S. J. (2013). Attitudinal readiness assessment for establishing electronic governance. *Electronic Government*, 10(3–4), 223–237. <https://doi.org/10.1504/EG.2013.058782>

Verma, S., Kumar Pathak, S., Chaudhary, P., Yadav, P., & Yousuf, S. (2024). Land Registry System Using Blockchain Technology. In M. H.K. & S. S. (Eds.), *Proceedings - 2024 International Conference on Emerging Innovations and Advanced Computing, INNOCOMP 2024* (pp. 170–177). Institute of Electrical and Electronics Engineers Inc. <https://doi.org/10.1109/INNOCOMP63224.2024.00035>

Yazid Fathoni, M., Wagian, D., & Adha, L. H. (2025). Resolving Land Sale Disputes through Legal Advocacy: A Normative Study of Judicial Reasoning in Plural Legal Systems. *Indonesian Journal of Advocacy and Legal Services*, 7(2), 541–568. <https://doi.org/10.15294/ijals.v7i2.33876>

Yusni, M., & Sigalingging, B. (2021). Encryption as The Legal Protection Against Cybercrimes Associated with Digital Land Certificates in Indonesia. *International Journal of Cyber Criminology*, 15(2), 124–134. <https://doi.org/10.5281/zenodo.4766551>

