

Legal Analysis of the Protection and Legal Certainty of Electronic Land Certificates as an Instrument of Land Reform in Indonesia

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Article info

Received: Jan 22, 2025

Revised: March 17, 2025

Accepted: April 29, 2025

DOI: <https://doi.org/10.31599/krtha.v19i1.3628>

Abstract : *Electronic land certificates serve as a solution for the reform of the land system in the digital era. However, challenges related to legal protection and certainty remain the main issues, particularly in how the electronic land certificate system can be integrated with the legal system and how the rights of the public can be safeguarded. The primary objective of this research is to examine the aspects of legal protection and certainty of electronic land certificates and the impact of their implementation on the efficiency of the land system in Indonesia. The research adopts a normative juridical approach, utilizing secondary data sources. The legal protection and certainty of electronic land certificates in Indonesia are ensured through a system that uses cryptographic technology and electronic signatures, which guarantee authentication, integrity, and data security, providing legal certainty equivalent to physical land certificates for rightful landholders. The implementation of electronic land certificates in Indonesia has a significant positive impact on the efficiency of the land system, facilitating and accelerating the processes of registration, verification, and the issuance of certificates digitally.*

Keywords : *Digital, Land Registration, Land Affairs, Electronic Land Certificate*

Abstrak : Sertifikat tanah elektronik menjadi solusi reformasi sistem pertanahan di era digital. Namun demikian, tantangan terkait perlindungan dan kepastian hukum masih menjadi isu utama, khususnya bagaimana sistem sertifikat tanah elektronik dapat terintegrasi dengan sistem hukum dan bagaimana hak-hak masyarakat dapat dilindungi. Tujuan utama penelitian ini adalah untuk mengkaji aspek perlindungan dan kepastian hukum sertifikat tanah elektronik serta dampak penerapannya terhadap efisiensi sistem pertanahan di Indonesia. Penelitian ini menggunakan pendekatan yuridis normatif dengan memanfaatkan sumber data sekunder. Perlindungan dan kepastian hukum sertifikat tanah elektronik di Indonesia dipastikan melalui sistem yang menggunakan teknologi kriptografi dan tanda tangan elektronik, yang menjamin otentikasi, integritas, dan keamanan data, serta memberikan kepastian hukum yang setara dengan sertifikat tanah fisik bagi pemilik tanah yang sah. Penerapan sertifikat tanah elektronik di Indonesia berdampak positif yang signifikan terhadap efisiensi sistem pertanahan, memfasilitasi dan mempercepat proses pendaftaran, verifikasi, dan penerbitan sertifikat secara digital.

Kata kunci : Digital, Pendaftaran Tanah, Pertanahan, Sertifikat Tanah Elektronik



I. INTRODUCTION

The development of technology influences the policies and/or systems designed and created by the government to regulate the order of national and state life and achieve the welfare of the people as the goal of the state. This development also affects the national agrarian system; agrarian reform is one of the strategic steps in building a fair and sustainable land system. In an effort to improve and resolve various land issues, one very important aspect is the strengthening of the legality and legal certainty of land rights. Land certificates as valid proof of land ownership or control become an important instrument in creating an orderly land system.

A land certificate is the result of land registration. Land registration is a governmental function aimed at establishing legal certainty regarding land rights. Therefore, based on Article 19 of Law No. 5 of 1960 concerning the basic agrarian regulations, the government supervises land registration through Government Regulation No. 10 of 1961 and Government Regulation No. 24 of 1997. The process of acquiring ownership rights involves many stages, including land registration, where verification is conducted, and subsequent steps must be completed before land ownership rights can be granted. Without undergoing this procedure, one cannot establish a strong basis of rights over their property. The purpose of land registration as stated in Article 3 of Government Regulation number 24 of 1997 is as follows: ¹

1. To provide legal clarity and protection for holders of rights over a plot of land, apartment units, and other registered rights, facilitating direct demonstration of their rights over those rights;
2. To provide information to relevant stakeholders, including government agencies, to facilitate the acquisition of data necessary to carry out legal transactions related to registered land and residential units;
3. For the systematic implementation of Defense Administration

Boedi Harsono emphasized that the purpose of land registration is to gather and provide comprehensive information regarding land parcels, validated by the potential registration of land parcels with incomplete physical or legal data, or those still in dispute, even in the absence of a certificate as proof of ownership.² MP Siahaan emphasized that an important aspect of property registration is the availability of identity documents related to property ownership and management. Property identity describes plot features, including rights, area, boundaries, condition, location, ownership, and other attributes.³

A land certificate is a proof of land rights that is issued after the rights registration process at the local land office. Initially, conventional or traditional land certificates were manual, meaning land rights were recorded in land books. Meanwhile, an electronic land certificate is a proof of land rights integrated into an electronic system that can be accessed by the rights holder anytime and anywhere. Electronic land certificates are expected to become an effective instrument in enhancing transparency, efficiency, and reducing the potential for conflicts and abuses in land management. The implementation of electronic land certificates in Indonesia is also in line with the advancements in information technology that have been widely applied in various sectors, including the land sector.

¹ Peraturan Pemerintah Nomor 24 Tahun 1997 Tentang Pendaftaran Tanah

² Boedi Harsono, *Hukum Agraria Indonesia, Himpunan Peraturan-peraturan Hukum Tanah*, (Jakarta: Djambatan, 1982), hlm. 87

³ MP. Siahaan, *Bea Perolehan Hak Atas Tanah dan Bangunan, (Teori dan Praktek)*, (Jakarta: PT. Raja Grafindo Persada, 2003), hlm. 16

The use of electronic land certificates allows the process of land registration and transfer of rights to be carried out digitally, which can certainly minimize human error and facilitate public access to land information. However, although electronic land certificates offer various potential benefits, challenges related to legal protection and certainty remain the main issues. There is a need for an in-depth study on how the electronic land certificate system can be integrated with the existing legal system, as well as how the protection of community rights can be guaranteed in this digital era. Therefore, a legal analysis of the protection and legal certainty in the implementation of electronic land certificates is very important to ensure that the goals of land reform can be optimally achieved without creating new legal issues in the future.

II. RESEARCH METHODS

This research uses a normative legal method, focusing on the use of secondary materials in the form of literature as a reference. The study methodology used is descriptive-analytical, intended to describe existing laws and connect them with relevant positive legal theories related to the issues being researched. This normative research aims to evaluate the validity of the correlation between the supremacy of law and legal norms.⁴ The data used is qualitative data, obtained through in-depth analysis of texts that refer to secondary sources such as books, scientific articles, laws, and other sources.

III. DISCUSSION

Aspects of Protection and Legal Certainty of Electronic Land Certificates in the Land Administration System in Indonesia

Land registration in Indonesia is mandated to regulate and manage the allocation, control, ownership, and utilization of land, addressing various land-related issues. In essence, land registration aims to provide certainty of rights and legal protection for land rights holders through the issuance of land certificates, functioning as an instrument for land ownership regulation and as a mechanism for controlling land use and utilization.⁵ Article 3 of Government Regulation Number 24 of 1997 concerning Land Registration stipulates that the purpose of land registration is to provide clarity and legal protection for holders of rights over land parcels, apartment units, and other registered rights. The holders of these rights are expected to be able to demonstrate their ownership easily. In addition, Land Registration aims to provide relevant information to key stakeholders, including the government, to facilitate the collection of accessible data on land parcels and residential units for legal purposes. Ultimately, the land registry facilitates the systematic execution of administrative functions.

The purpose of land registration, as stipulated in Article 19 of the basic agrarian law and reaffirmed in Government Regulation No. 24 of 1997, is to provide legal clarity regarding land issues. Legal certainty includes certainty of boundary locations and land area, land status, individuals entitled to the land, and the issuance of documents in the form of certificates.⁶

⁴ Peter Mahmud Marzuki, *Pengantar Penelitian Hukum*, (Jakarta: Prenada Media Group, 2014), p. 47

⁵ Adrian Sutedi, *Sertifikat Hak Atas Tanah*, (Jakarta: Sinar Grafika, Cetakan Kedua, 2012), p. 59

⁶ Reda Manthovani dan Istiqomah, "Pendaftaran Tanah Di Indonesia," *Jurnal Magister Ilmu Hukum*, Vol. 2 No. 2, 2017, p. 24

Indonesia implements a negative yet constructive land registration system, indicating that land registration occurs within a negative framework that allows for the assertion of property rights. The government seeks to verify the accuracy of this statement by examining the available information. Government Regulation No. 10 of 1961 stipulates that legal certainty is granted to those who have legitimate land rights. However, parties listed in the property register are subject to judicial proceedings.⁷ The mechanism of land registration issuance raises concerns about the reliability of the data provided by the state due to land registration operations. Additionally, questions arise about the legal consequences if someone uses that data to carry out legal procedures on registered property, only for the data to later be deemed incorrect.

This approach protects the rights of legitimate holders and facilitates the examination of property history before the issuance of certificates. In a negative system, land registration officers are not required to verify the accuracy of the applicant's rights claims. Rights are recorded in the name of the applicant without thorough examination, facilitating a quick and smooth registration or transfer process. The drawback of this approach is the lack of assurance regarding the accuracy of data in the Public Register. If the registered party is not the rightful holder, the rightful holder must bear the risk themselves.⁸

Legal rules protect the rights of land certificate holders during the issuance process. However, the physical and legal information in the certificate may not be entirely accurate; nonetheless, the court must consider it as original evidence until contradicted by other evidence. This clause continues to allow other parties who believe they have equal rights to the land to contest the issuance of the certificate.⁹ Article 32 paragraph (2) of Government Regulation Number 24 of 1997 stipulates that if a certificate has been lawfully issued to an individual or legal entity who acquires the land in good faith and genuinely possesses it, then other parties claiming the land are prohibited from demanding the execution of rights or initiating legal proceedings regarding the ownership of the land or the issuance of the certificate.

Article 32 paragraph (2) of Government Regulation No. 24 of 1997 stipulates that legal protection for land certificate holders depends on the fulfillment of various criteria.¹⁰ The certificate must be issued legally in the name of an individual or legal entity, indicating that the certificate was issued by the County/City property office for the registered property. Second, the land is acquired in good faith, meaning it is obtained to protect the interests of the party that confidently acquires individual rights considered legitimate as the holder of those rights. Third, the land must be effectively managed, either directly by the rights holder or by another party with the owner's consent. Fourth, within five years from the issuance of the certificate, no written complaints shall be submitted to the certificate holder or the head of the property office, nor shall there be any legal claims regarding property ownership or the issuance of the certificate. After completing the five-

⁷ Boedi Harsono, *Hukum Agraria Indonesia Sejarah Perkembangan Undang-Undang Pokok Agraria, Isi dan Pelaksanaanya*, (Jakarta: Universitas Trisakti, 2018), p. 478

⁸ Adrian Sutedi, *Sertifikat Hak Atas Tanah*, (Jakarta: Sinar Grafika, 2014), p. 118

⁹ Peraturan Pemerintah Nomor 24 Tahun 1997 Tentang Pendaftaran Tanah

¹⁰ Urip Santoso, *Hukum Agraria: Kajian Komprehensif*. (Jakarta: Kencana, 2015), p. 319

year term, the certificate holder becomes unassailable, thereby ensuring legal certainty and reducing concerns about potential external interventions.

Land certificates also serve as proof of land rights with a number of information recorded within them. This information includes the type of land rights, such as Ownership Rights, Building Use Rights (HGB), Use Rights, Business Use Rights (HGU), or Management Rights, along with their duration, except for Ownership Rights which do not have a time limit. In addition, the certificate records the identity of the right holder, which will be updated in the event of a transfer of rights, such as through sale, donation, or inheritance, so that the certificate always reflects the rightful holder. Physical data of the land, including area, dimensions, location, and boundaries, are also included in the Survey Letter or Situational Map that is part of the certificate. Other information includes encumbrances on the land, such as if the land is mortgaged to a bank or if there are other rights on the land, such as HGB over Hak Milik. In addition, the certificate also contains records of legal events related to the land, such as sale and purchase, grants, inheritance, or contributions as capital in a company. This ensures that the certificate becomes a document that provides legal certainty regarding land rights.¹¹

At the beginning of 2021, the Minister of ATR/Head of BPN issued a policy regarding land ownership proof documents in electronic form or Electronic Certificates (Sertipikat-el). This policy aims to implement the provisions of Law Number 11 of 2020 concerning Job Creation, which stipulates that services in the land sector, including documents proving land ownership, be converted into electronic form. The policy is outlined in the Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency No. 1 of 2021 concerning Electronic Certificates.¹²

The path towards the electronic-based Land Registration Service has been established since the enactment of Government Regulation No. 24 of 1997. Article 35 paragraphs (5), (6), and (7), stipulate that land registration data must be recorded and displayed progressively through electronic devices or microfilm. Documents produced from electronic devices or microfilm will have evidentiary value if signed and stamped by the head of the Local Land Office. The Minister determines the form, method of storage, and appearance of documents until they are disposed of, in accordance with existing laws and regulations. This provision indicates that the BPN has diligently planned to provide electronic-based land registration services for a long period.¹³

The recognition of electronic evidence in civil litigation not only pertains to its legality but also significantly contributes to the protection and legal certainty of the interested parties. This emphasizes that electronic evidence is an important component in the legal proof process for both civil and criminal cases.¹⁴ With the recognition of the status of electronic evidence, stronger legal certainty is created in dispute resolution. With

¹¹ Abdul Mukmin Rehas, "Sertifikat Sebagai Alat Bukti Sempurna Kepemilikan Hak Atas Tanah Ditinjau dari Peraturan Pemerintah Nomor 24 Tahun 1997 Tentang Pendaftaran Tanah," *Jurnal Ilmiah Hukum*, Vol. 1 No. 1, 2017, p. 82

¹² Ana Silviana, "Urgensi Sertifikat Tanah Elektronik Dalam Sistem Hukum Pendaftaran Tanah di Indonesia," *Administrative Law & Governance Journal*, Vol. 4 No. 1, 2021, p. 56

¹³ Suci Febrianti, "Perlindungan Hukum Terhadap Pemegang Sertipikat Hak Atas Tanah Elektronik," *Indonesian Notary*, Vol. 3 No. 3, 2021, p. 213

¹⁴ Erycha Febyana Dila Puspita dan Agus Supriyo, "Perlindungan Hukum Terhadap Kepemilikan Sertifikat Tanah Elektronik," *Pagaruyuang Law Journal*, Vol. 8 No. 2, 2025, p. 199

this recognition, electronic certificates can be used as valid proof of ownership and have legal force in court.¹⁵

The formal provisions regarding electronic evidence are outlined in Article 5 Paragraph (4) of the ITE Law, which states that electronic information or documents are not documents or letters mandated by law to be in written form. On the other hand, the substantive criteria outlined in Articles 6, 15, and 16 of the ITE Law stipulate that electronic evidence admissible in court must ensure its availability, integrity, and authenticity.¹⁶ Electronic land certificates, recognized as electronic proof of ownership under the ITE Law, specifically discussed in Article 6, do not pose legal challenges regarding their validation.

The conversion of physical certificates to electronic certificates only applies to registered land, and the right holders must submit a data maintenance application. This process ensures that physical and legal data are verified first before entering the electronic system, thereby providing a guarantee of legal certainty. In addition, electronic certificates provide significant legal protection, such as reducing the risk of loss or damage to physical documents and minimizing the potential for fraud due to certificate duplication. This system also allows rights holders to more easily access information and verify their land ownership.

In terms of legal protection, legal protection is a legal provision made to protect every legal subject regarding the rights they have,¹⁷ electronic land certificates are recognized to have the same legal validity as physical certificates. This provides a guarantee of legally protected rights to its owner. In addition, electronic certificate holders are entitled to receive clear and accurate information regarding their rights and the procedures related to the certificate. The National Land Agency (BPN) is obligated to provide transparent information regarding how the electronic system works and the potential risks that may be encountered.

The protection of personal data is also one of the important focuses in the implementation of electronic land certificates. The data contained in the certificate is strictly managed to prevent leaks or misuse of personal information. In the event of a dispute, electronic certificates provide a more efficient resolution mechanism compared to physical certificates. Electronic evidence can be used as a basis for resolving disputes legally, thereby expediting the resolution process. The Ministry of ATR/BPN has anticipated public concerns about the possibility of data leaks from irresponsible parties by collaborating with the National Cyber and Crypto Agency (BSSN). Electronic land certificates include electronic signatures and encryption technology certified by BSSN. BSSN protects the sharing of data and information by using electronic certificates that provide authenticity, integrity, and non-repudiation of the shared data. Electronic Certificates ensure data authentication by displaying the owner's identity in the document, maintaining data integrity by guaranteeing its completeness and detecting any changes that

¹⁵ Muhd Nafan, "Kepastian Hukum terhadap Penerapan Sertipikat Elektronik sebagai Bukti Penguasaan Hak Atas Tanah di Indonesia," *Jurnal Pendidikan Tambusai*, Vol. 6 No. 1, 2022, p. 3353

¹⁶ Budi Suhariyanto, *Tindak Pidana Teknologi Informasi (cybercrime) Urgensi Pengaturan dan Celah Hukumnya*, (Jakarta: Raja Grafindo Persada, 2013), p. 10

¹⁷ Eliska Vioni, Ridha Wahyuni, Protection of Consumers Using Beauty Products Promoted by Marketing Influencers: A Comparative Study of the United States –Indonesia, *KRTHA BHAYANGKARA*, Vol. 19, No. 1 (2025), pp. 86-99 <https://doi.org/10.31599/krtha.v19i1.3693>

occur in the document, and protecting against denial by proving the signing time and preventing forgery against data integrity.

The Impact of Implementing Electronic Land Certificates on the Efficiency of the Land System in Indonesia

Electronic land certificates are a new breakthrough in the modern era as a form of adaptation to the digitalization era. The breakthrough of the progressive system must evaluate efficiency, which compares the resources expended in the business process with the results achieved. The goal is to minimize resource consumption - such as energy, time, and costs-while still delivering results that align with the established plans or expectations.¹⁸ The efficiency of a system or policy means being able to accommodate the expected results with fewer resources than those used in conventional or traditional systems.

Electronic land certificates must be designed with efficiency in mind; this system is designed to expedite the registration or recording of land rights integrated into a secure and effective electronic (digital) system, allowing owners to access it anytime and anywhere. The electronic certificate includes all entities contained within it, validated with an electronic signature, particularly those indicating data and identities relevant to the legal status of the parties involved. This certificate is managed by an official entity responsible for performing validation and auditing of electronic certificate data. [1] According to the regulations of the Minister of Agrarian and Spatial Planning, as well as the director of the National Land Agency, a certificate is defined as a document in electronic form, commonly referred to as an electronic certificate.¹⁹ The Ministry of Agrarian Affairs and Spatial Planning, along with the director of the National Land Agency, is transitioning land certificates from physical to electronic format to encourage adaptation to technological advancements.²⁰

Electronic land certificates are one of the instruments for land registration, and of course, electronic certificates are created for the efficiency of land registration and to achieve the principles of land registration as regulated in Article 2 of Government Regulation Number 24 of 1997, including:²¹

1. The purpose of this concept is to ensure that fundamental rules and processes can be understood by the relevant stakeholders, particularly land rights holders.²²

¹⁸ Sevilla, "Efisiensi: Pengertian, Konsep, Jenis, dan Manfaat," Gramedia Blog, 2021, diakses pada 25 Desember 2024 pukul 16.00 WIB, <https://www.gramedia.com/best-seller/efisiensi/>

¹⁹ Peraturan Menteri Agraria dan Tata Ruang/Kepala Badan Pertanahan Nasional Nomor 1 Tahun 2021 Tentang Sertifikat Elektronik

²⁰ Audry Zefanya dan Fransiscus Xaverius Arsin Lukman, "Tolak Ukur Pemenuhan Penguasaan Fisik Atas Tanah Melalui Surat Pernyataan Penguasaan Fisik Bidang Tanah," *Jurnal USM Law Review*, Vol. 5 No. 2, 2022, p 441

²¹ Peraturan Pemerintah Nomor 24 Tahun 1997 Tentang Pendaftaran Tanah

²² Rabita Tul Adawiyah, *Implementasi Azas Sederhana, Aman, Terjangkau, Mutakhir, dan Terbuka oleh Penyelenggara Pendaftaran Tanah di Kota Makassar 2008-2014*, Skripsi, (Makassar: Fakultas Syariah dan Hukum Universitas Islam Negeri Alauddin Makassar, 2015), p. 18

2. Principle of security, This concept aims to demonstrate that land registration must be carried out meticulously to provide legal certainty for the rights holders, in accordance with the fundamental objectives of land registration.²³
3. Principle of affordability, This concept explains the accessibility of land registration for those in need, especially considering the needs and capacities of economically disadvantaged groups. Services for land registration organizations must be economically accessible to the parties involved.²⁴
4. Latest principles, This idea aims to provide technology that ensures continuity in the maintenance or preservation of its data during execution. This concept requires the continuous and ongoing maintenance of land registration data, ensuring that the information stored in the Land Office is consistently aligned with the current field conditions.²⁵
5. Open principle, This concept indicates that the public can access or obtain information about physical and legal facts in accordance with the regulations of the District/City Land Office.²⁶

Impact is the result of the implementation of a system or policy, whether temporary or long-term, and the impact can be negative or positive. However, in the focus of this research, the impact referred to is the positive impact of the electronic land certificate system. Broadly, the impact of implementing the electronic land certificate system has social and economic impacts, as well as legal impacts.

The social and economic impact of implementing the electronic land certificate system has several positive effects, including improving public access to land services. This is important to support ease of doing business and improve Indonesia's Ease of Doing Business (EoDB) ranking, particularly in terms of property registration.²⁷ In addition, it can increase public trust; with a more transparent and secure system, it is hoped that public trust in land administration will improve, thereby encouraging active participation in land programs. Legally, electronic land certificates can provide legal protection to the public because the data security of electronic certificates is protected by a strict security system and safeguarded by laws/regulations.

The ATR / KBPS Ministry, in this digital era, has adopted electronic certificates as a progressive step to enhance services and modernize operations. Technological advancements have made several actions more practical and contemporary, facilitating convenience for individuals. This enhanced technology facilitates the registration of reports that were previously recorded manually, allowing their transfer to an electronic archiving system. This electronic submission aims to facilitate the provision of more substantive evidence. This phase also aims to consolidate the data held by the Ministry of ATR / KBPS. Through electronic certificates, data and information integration can

²³ Ibid, p 18-19

²⁴ Ibid, p. 19

²⁵ Ibid

²⁶ Urip Santoso, *Pendaftaran dan Perlindungan Hak atas Tanah*, (Surabaya: Prenada Media Group, 2010), p. 16

²⁷ Dwi NH, A P Sari, "Tingkatkan Efisiensi Pendaftaran Tanah, Kementerian ATR/BPN Terapkan Sistem Sertifikat Elektronik," Kompas.com, 2021, diakses pada 25 Desember 2024 pukul 18.20 WIB, <https://kilaskementerian.kompas.com/kementerian-atr-bpn/read/2021/02/09/165009821/tingkatkan-efisien>

provide legal protection for the community, making it easier to track documents related to land rights.²⁸

The implementation of electronic land certificates in Indonesia has a significant impact on the efficiency of the land system. The most noticeable efficiency impact is the faster registration process; electronic certificates allow land registration to be conducted digitally, which reduces the time and costs required in the land certificate management. This reduces the need for face-to-face meetings between applicants and officers, thereby speeding up the entire administrative process. Electronic certificates are stored in the Electronic System database, where security is consistently enforced by the cyber teams of both the Indonesian government and the National Land Agency, thus providing legal certainty for the public regarding the implementation of electronic land certificates.²⁹

With the digitization of land certificates, the process of application, verification, and issuance of certificates becomes faster and more transparent. The process that previously took a long time, such as applying for land and issuing certificates, can now be done online more efficiently. In addition, land title owners can easily access and print electronic certificates independently through the Sentuh Tanahku application provided by the Ministry of ATR/BPN.

Electronic land certificates can reduce the potential for human error in the process of recording land data. Through a computerized system, data related to land boundaries, locations, and ownership status can be recorded more accurately, reducing errors that can occur in the manual management of land data. In addition, electronic land certificates can reduce the potential for manipulation and forgery, as better data security and the use of digital signatures or encryption in electronic certificates decrease the likelihood of land certificate forgery. This can improve the integrity of the land system and reduce disputes related to land ownership claims.

Another efficiency from the positive impact of electronic land certificates is the creation of easier access and public services, where the community can access information related to the status and history of land certificates online without having to visit the land office in person. This increases convenience for landowners, potential buyers, and authorities to obtain accurate and up-to-date data, and the use of an electronic system facilitates the government's monitoring and supervision of land data. The process of tracking changes in land status or ownership transfers can be done more transparently, reducing illegal practices such as buying and selling land without proper authorization.

Efficiency is also seen from the fulfillment of the principles of land registration as referred to in Article 2 of Government Regulation Number 24 of 1997 concerning Land Registration. The fulfillment of the principles in that article can be described as follows:

1. The principle is simple, the electronic land certificate is designed to simplify the land administration process. Through the electronic system, the registration procedures become easier for the public to understand, thereby increasing accessibility for land rights holders. The process that was previously complicated can now be carried out more efficiently and

²⁸ Reza Ardiansyah Putra dan Atik Winanti, "Urgensi Penerbitan Dokumen Sertifikat Tanah Elektronik Pasca Peraturan Menteri ATR/BPN Nomor 3 Tahun 2023," *Jurnal USM Law Review*, Vol. 7 No. 2, 2024, p. 841

²⁹ M Ilham Dwi Putranto dan Amin Mansyur, "Urgensi Penerapan Sertipikat Tanah Secara Elektronik," *Repertorium: Jurnal Ilmiah Hukum Kenotariatan*, Vol. 12 No. 1, 2023, p. 22

transparently, allowing the public to better understand the steps required in land registration.³⁰

2. The principle of security, the electronic land certificate is designed to simplify the land administration process. Through the electronic system, the registration procedure becomes easier for the public to understand, thereby increasing accessibility for land rights holders. The process that was previously complicated can now be carried out more efficiently and transparently, allowing the public to better understand the steps required in land registration.³¹
3. The principle of affordability, electronic land certificates also aim to reach all layers of society, including the economically disadvantaged. A simpler registration process and a digitalization system allow the public to access information about their land rights without high costs. This creates affordability in land registration services.
4. The principle of being up-to-date, the principle of being up-to-date demands the continuous and accurate maintenance of data. Electronic certificates allow for real-time updates of legal and physical data, ensuring that the available information always reflects the latest conditions on the ground. This is important to maintain the accuracy of land data and ensure that every change is well documented.³²
5. Open principle, the electronic certificate system supports the open principle by providing the public with access to information regarding the physical and legal data of their land. Through applications like Sentuh Tanahku, users can easily access information related to their certificates at any time, increasing transparency in land data management.³³

Based on the above descriptions, overall, the implementation of electronic land certificates in Indonesia not only meets the principles of land registration but also contributes to the modernization of the land administration system, enhancing efficiency, security, and accessibility for the entire community.

IV. CONCLUSION

In Indonesia, electronic land certificates are comprehensively regulated by the Electronic Information and Transactions Law (ITE Law) and Ministerial Regulation ATR/BPN No. 1 of 2021, making them legally recognized proof of ownership with guaranteed legal protection. The security of these certificates is maintained through technologies such as electronic signatures, Hash Codes, and QR Codes that ensure authenticity and prevent forgery. The implementation of electronic land certificates has a significantly positive impact on the efficiency of the land system, by accelerating the processes of registration, verification, and digital issuance of certificates, as well as reducing time, costs, and the potential for human error. In addition, this system enhances transparency, data security, and facilitates public access, in accordance with the principles of land registration that are simple, secure, affordable, up-to-date, and open, supporting the modernization of land administration and public services.

³⁰ Rosmidah, Elizabeth Siregar dan Dony Yusra Perbrianto, "Sosialisasi E-Sertifikat Tanah dalam Rangka Mewujudkan Kepastian Hukum di Indonesia, *Jurnal Karya Abdi*," Vol. 5 No. 3, 2021, p. 67

³¹ Ibid

³² Suyus Windayana, "Sertifikat Elektronik sebagai Jaminan Perlindungan Hak atas Tanah di Indonesia," Media Indonesia, 2024, diakses pada 25 Desember 2024 pukul 19.55 WIB, <https://mediaindonesia.com/opini/718308/sertifikat-elektronik-sebagai-jaminan-perlindungan-hak-atas-tanah-di-indonesia>

³³ Ibid

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