GUARANTEE OF LEGAL CERTAINTY ON THE ISSUANCE OF ELECTRONIC LAND CERTIFICATES

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Abstract-- The Ministry of Agrarian and Spatial Planning/National Land Agency has issued a new regulation, Minister of Agrarian and Spatial Planning Regulation (Permen) Number 1 of 2021 on Electronic Certificates, to replace Conventional Certificates with Electronic Certificates. This decision has faced mixed opinions from supporters and opponents regarding legal certainty and appropriateness. Article 4, paragraph 1 of the Ministerial Regulation requires that Electronic Certificates must be secure, reliable, and responsible. This article discusses the issue of Electronic Certificates using doctrinal legal research. The results show that Electronic Certificates are necessary for modernizing land services and improving business ease and public services. Land services must be carried out professionally, safely, and accountably using information and communication technology.

Keywords— Electronic Land Certificate, Certificate Issuance, Legal Certainty

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INTRODUCTION

It is undeniable that technology and science have rapidly developed in Indonesia, as evidenced by the widespread use of technology in daily life, which has become integral to human activities (Hutabarat et al., 2022). This includes using technology to find information or support economic, social, cultural, political, and educational developments. To keep up with the times, it is essential to adopt innovative measures, such as implementing an electronic land certificate issuance system.

Utilizing technology to facilitate land registration is a favorable move towards increasing productivity and efficiency, as paper-based systems have proven costly, difficult to store and retrieve, and time-consuming (Mujiburohman, 2021). In order to establish a high level of legal certainty regarding land ownership and registration, it is imperative that a thorough and comprehensive study is conducted that takes into account both the juridical and technical aspects of electronic certificates (Mertokusumo, 2010). The law regulates legal relations between individuals and society, and as such, the issuance of electronic land certificates can be considered a legal relationship.

A certificate is a proof of information on property or things that have been done based on a series of procedures that have been followed. When someone registers something, such as land, for the first time or on the basis of a transfer of rights, it cannot be denied that issuing land certificates can be done using electronic means.

The government is making efforts to effect changes by implementing policies as of 12 January 2021. One of the policies issued by the Central Government through the Ministry of ATR/BPN is the replacement of printed land certificates with electronic or digital certificates. This step is evident in the Regulation of the Minister of ATR/BPN Number 1 of 2021 concerning Electronic Certificates.

Regulation of the Minister of ATR/BPN Number 1 of 2021 concerning Electronic Certificates also explains the replacement of certificates into electronic certificates for land that is already owned, as stipulated in Article 15, which reads:



- "(1) The replacement of a certificate into an electronic certificate as referred to in Article 14 shall be carried out if the physical data and juridical data in the land book and certificate are in accordance with the physical data and juridical data in the Electronic System.
- (2) In the event that the physical data and juridical data as referred to in paragraph (1) are not yet in accordance, the Head of the Land Office shall conduct validation."

The government has received both support and opposition from the public regarding the plan to issue electronic land certificates due to concerns over data security and regulatory uncertainty. In the 5.0 era characterized by technological advancements, cases of data leakage often occur and can be misused by irresponsible parties (Salam et al., 2023). However, there are some risks to be taken if land certificates are issued electronically. There is a connection between the advantages and disadvantages of issuing electronic certificates. Some of the advantages that can be felt from the issuance of electronic certificates include facilitating data validation, efficiency in the land registration process, providing legal certainty and protection, and reducing the number of disputes, conflicts, and court cases related to land, which can improve the Ease of Doing Business (EoDB) ranking.

The electronic issuance of Land Certificates is expected to increase efficiency at all stages, from input, process, to output, and reduce physical meetings between service users and service providers (Pradnyadana & Tanaya, 2022). The objective of electronic issuance of Land Certificates is not only to minimize land transaction costs but also to reduce negative impacts (Febrianti, 2021). Therefore, the security and appropriateness of the regulations issued in the process of issuing Land Certificates are very important. One of the reasons for issuing Land Certificates electronically is to increase security for landowners. However, there are several factors that raise concerns over mistrust in the data security process, including personal information and ownership of the Land Certificate that may change due to errors or omissions from the National Land Agency or acts of crime in the digital world known as cybercrime.

The implementation of electronic land certificates raises concerns from the public regarding the security of data that will be converted to digital by the government. The public doubts the security of electronic certificates that have not been guaranteed by the government and feels that the government has not been able to protect the data because of the data leakage case in the e-KTP program. People are worried that data leakage will lead to identity theft and manipulation of property data (Martin et al., 2017). Hence, there is a need for clarity and feasibility of legalized rules as well as the development of a reliable system for electronic certificates.

This article aims to discuss the issue of Electronic Certificates. By providing an overview of the current situation and relevant regulations, this article seeks to inform and guide readers on the issue of electronic certificates and their potential impact on land registration in Indonesia. Ultimately, the goal is to contribute to a better understanding of this important issue and to promote informed decision-making in the field of land registration in Indonesia.

METHODOLOGY

The type of research used in this study was doctrinal legal research, which involved examining law as a norm and reality (behavior) or as something that is aspired to and as a reality or living law (Soekanto & Mamudji, 2013). Additionally, the nature of the law was rational theoretical, so the reasoning mode used was deductive logic. A juridical method was utilized for this research, considering the problems discussed based on legislation and norms, theories in practical application. In the statutory approach method, researchers needed to understand the hierarchy and the existence of principles in legislation (Marzuki, 2016). According to article 1 point 2, a law was a written regulation that contained legal norms that were binding in general and was formed or stipulated by a state institution or authorized official through procedures stipulated in laws and regulations (Marzuki, 2016).

The study conducted an inventory of laws related to electronic information and transactions, agrarian law, and land certificates to ensure legal certainty over land. The research approach utilized primary legal materials such as legislation and court decisions (Marzuki, 2016). The primary raw materials used were the 1945 Constitution, Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia Number 1 of 2021 concerning Electronic Certificates, Law No. 19 of 2016, Law No. 51 of 2009, and Law No. 5 of 1960. The author used document studies and collected data



from books, legislation, and internet sources. The juridical method approach was used for data analysis.

RESULTS AND DISCUSSION

The policy in the issuance of electronic certificates aims to create legal protection and certainty

In land registration activities, there are "simple, safe, affordable, up-to-date, and open principles that form the basis for its implementation" (Ramadhani & Abduh, 2021). Simple principles facilitate understanding for interested parties, but in practice, there are often obstacles such as long processing times and unaffordable costs, which prevent complete land registration. The safe principle aims to ensure that land registration is carried out carefully and accurately to provide legal certainty (Ramadhani & Lubis, 2021). However, there are often typos in the names of subjects or land object locations due to human negligence in BPN public services and bureaucratic systems.

The principle of accuracy is crucial in a land registration system, and an accurate certificate is considered secure. Services related to land registration must be affordable for all parties, including those from lower economic classes. The up-to-date and open principle refers to adequate completeness in the implementation of land registration and maintenance of balanced data. Land registration data must be continuously maintained to reflect ground conditions. The open principle ensures that "land data at BPN offices is publicly available, and the public can access correct information on the data."

Article 2 of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency Number 1 of 2021 regulates the electronic land registration system. The regulation allows for electronic land registration, including first-time registration and maintenance of land registration data. However, the registration process is carried out in stages and determined by the Minister. Electronic documents can be used as evidence and to improve the ease of doing business in public services by optimizing technology. This policy on electronic certificates differs from the Land Registration Regulation, which still requires manual or analog certificates.

To protect the rights of landholders, the Ministry of ATR/BPN is collaborating with the National Cyber and Crypto Agency to create a safe and secure land administration system and electronic land certificates (Kusmiarto et al., 2021; Syarief, 2021). Despite being regulated in Article 2 of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency Number 1 of 2021, not everyone accepts the existence of electronic land certificates due to concerns about personal data misuse and data leakage. This policy aims to provide easy, fast, and affordable information services in the land sector while ensuring data security by using electronic certificates issued by the National Cyber and Crypto Agency (BSSN). Through this cooperation, the prevention of public data leakage, especially for land rights holders, can be achieved.

BSSN was established as a government agency in Indonesia in 2017, in accordance with Presidential Regulation Number 28 of 2021 (Marwan et al., 2022). BSSN's mandate is to ensure security, provide protection, and strengthen national cyber sovereignty while enhancing national economic growth. Electronic land registration will be secured through data storage in the BSSN database, making online registration easier to find and offering more guaranteed data security than manual registration. BPN will not store documents and electronic signatures in one server to provide security guarantees to the public, particularly land rights holders.

There is public concern about the withdrawal of analogue certificates after the issuance of electronic certificates (Kurhayadi et al., 2020). However, Article 16 of the Ministerial Regulation on Electronic Certificates provides rules for replacing analogue certificates with electronic certificates and converting land books, measurement letters, and drawings of flat unit plans into electronic documents. Furthermore, the Head of the Land Office will withdraw analogue certificates after replacing them with electronic certificates, following predetermined procedures. The government must be ready to provide guarantees of confidentiality and security of electronic documents to prevent cybercrime. To support the land digitization policy, the government should strengthen human resources and information technology development at the National Land Agency Offices in the regions. This policy aims to improve public services and minimize land disputes in Indonesia.

The government needs to promote the use of electronic certificates and online land registration to facilitate the transition from analogue to digital certificates. However, this transition carries the risk of data leakage and cyber attacks, which must be anticipated from the beginning. Advanced digitalisation

technology has a positive impact, but it also creates opportunities for cybercrime (Younies & Al-Tawil, 2020). According to the National Cyber and Crypto Agency, there were around 1 billion cyberattacks in Indonesia, and this number is expected to increase by 2022 due to the widespread use of technology during the pandemic. The use of electronic land certificates in Indonesia is still vulnerable to hacking, which is a concern for the public. Several hacking cases, such as the Indonesian Attorney General's Office database, the National Intelligence Agency internal network, and the BPJS Health website, illustrate the risk of cybercrime. Moreover, the handling of hacking cases is still ineffective and requires more effort and specialized personnel because perpetrators can commit crimes at any time and from anywhere.

To minimize the risk of forgery and duplication of documents, the current system for implementing electronic certificates uses hash codes, QR codes, and electronic signatures certified by the Electronic Certification Centre (Warasart & Kuacharoen, 2012). Under this system, the public can access electronic data directly through the internet. Land registration and validation are done using electronic signatures that employ cryptographic technology. In this technology, each person has a unique code on their signature, making the signature different from other documents. This allows the sender to be responsible for the content of the document. Furthermore, this system can generate a unique hash code to identify any changes that occur in the document.

The term Single Identity refers to the Land Parcel Identification Number assigned to each land with predefined boundaries (Rachman & Hastri, 2021). The process is carried out using security technology from BSSN to maintain data security. However, there are still issues that need to be considered, such as the storage of data and information from electronic certificates. Article 3, paragraph (3) of Permen ATR/Head of BPN on Electronic Certificates states that all electronic data, information, and documents are stored in an electronic system database. However, the provisions of the database in the electronic system are not further explained in the regulation, so the public doubts the security of the system. If the database is hacked, then all public data can be lost.

To address concerns about the security of electronic certificate systems, blockchain technology can be used as a decentralized encryption system. This blockchain system shares data with members connected through the network, verified, and stored by those members so that data storage is not centralized. The network integration of the blockchain system is difficult for hackers to penetrate because of its layered security. The system is known for its transparency, which means that all records and information about electronic documents can be accessed by many parties. This will be very beneficial for the developers of this system, as they can create a database that includes parties such as buyers, banks, PPAT, and BPN. Information on land status and updates can be verified by members of the network, and if there are any changes, the blockchain system will confirm them. In certificate generation, this technology will generate an encryption code that will be handed over to the landowner.

This system ensures time efficiency and effectiveness, which previously required direct communication between developers and land buyers with the PPAT office in handling the transfer of land rights. Buyers who take out Home Ownership Loans also do not need to worry because communication with the Bank will be easier, as well as the repayment of credit payments. To ensure the authenticity of land certificates, blockchain can perform tracing to find the actual owner of the land certificate, thus preventing cases of forgery and duplication of land certificates.

The blockchain system offers many conveniences, but there are still many obstacles to its implementation in Indonesia (Hidajat, 2020). First of all, the regulation on electronic certificate security still relies on Ministerial Regulation No. 1 of 2021. To improve this regulation, there should be a higher law to create legal certainty and justice for the people. Secondly, Indonesia still lacks support in terms of human resources and infrastructure to implement blockchain technology, especially in some areas that are not yet familiar with the technology.

Although blockchain technology is still relatively new in Indonesia and is only operated by a few people, this does not mean that all obstacles are hindering its application in Indonesia. In fact, the Indonesian government has been using blockchain in equity crowdfunding at OJK, which focuses on finance. However, blockchain technology has yet to be applied to archiving, even though it can be used for that purpose. To achieve the Industrial Revolution 4.0 in Indonesia, this technology can be immediately applied in various fields to accelerate digital transformation, which, in turn, will facilitate the industrial sector in the future and maintain the authenticity of land certificates. Of course, this should be done with the improvement

and strengthening of regulations and practices.

The implementation of the electronic certificate program in Indonesia is carried out in stages, starting with government agencies, legal entities, and regions that have adequate infrastructure. Printed electronic documents can be used as valid evidence based on applicable procedural law in Indonesia and can be accessed through electronic systems. The rules regarding electronic land documents are regulated in several regulations, such as Permen ATR/Head of BPN No. 7 of 2019, Article 1 point 2 Permen Agrarian Spatial Planning/Head of BPN Number. 1 of 2021, as well as Article 84 paragraph (3) of PP No. 18 of 2021, which states that electronic information and data, as well as their printouts, are valid legal evidence.

Electronic certificates play an important role in the evidentiary process and court hearings in Indonesia. In general, certificates are recognized as proof of ownership of land rights. Article 5 of Law Number 11 of 2008 concerning Electronic Information and Transactions has been amended into Law Number 19 of 2016, which stipulates that electronic documents or printouts are valid as legal evidence. Therefore, both analogue and digital certificates have strong evidentiary power and are recognized by courts to enforce the law.

In the Civil Code, rules on proof are provided for in Article 1866. The plaintiff must prove the argument of the lawsuit in a civil case, while if there is a refusal from the defendant, the defendant must prove the evidence of the refusal. In civil cases, what is sought is formal truth. However, in the State Administration event, evidence is not absolute because what is proven is the validity of the actions of the State Administration Officer.

Legal certainty of Electronic Certificate Issuance

The regulatory basis for land registration in Indonesia is hierarchically regulated in Article 19 of the UUPA, and for technical implementation, it is regulated in Government Regulation Number 24 of 1997 concerning Land Registration. The results of land registration based on government regulations are in the form of evidence of rights for land rights, management rights, waqf land, ownership rights over apartment units, and mortgage rights, each of which has been recorded in the relevant land book.

The nature of law, which is always open and dynamic following the dynamics of changing community needs, is expected to answer the need for legal certainty (de Rooy et al., 2021). Legal certainty departs from a grand theory of legal objectives. Ahmad Ali divides this grand theory into three parts, namely the grand western theory, which consists of classical theory and modern theory, eastern theory, and Islamic legal theory (Ali, 2009). The grand western theory consists of ethical theory where the purpose of law is solely to realize justice, utilitarian theory where the purpose of law is solely for utility, and finally, legalistic theory, which can be understood as the purpose of law solely to realize legal certainty (Ali, 2009). Although basically in line with Gustav Radbruch's teaching that the application of legislation is expected to achieve the three objectives of law, namely to provide justice (gerechtigkeit), provide benefits (zweckmaeszigkeit), and become a guarantee of legal certainty (rechtssicherheit) for the community.

The study of legal certainty can be examined through the perspective of legal sociology, as described by Satjipto Rahardjo, where legal certainty is seen as the icon for modern law. The function of modern law is perceived by everyone as a producer of legal certainty (Ali, 2009). Legal certainty is a new addition to the level of legal objectives that emerged with the entry of modern times, where the law began to be written down, positivized, and known by the public. Legal certainty pertains to the problem of "sicherheit durch das recht," which ensures that a certain act is a crime, and "sicherheit des recht selbst," which is certainty about the law itself (Ali, 2009).

In this context, when associated with current conditions where modern times are accompanied by rapid developments in science, technology, and information, a legal product is expected to produce legislation that guarantees legal certainty in both substance and application. One of the legal products expected to keep pace with these developments is the Regulation of the Minister of Agrarian and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia Number 1 of 2021 concerning Electronic Certificates, particularly in the land sector. To determine whether the Ministerial Regulation is a guarantee of legal certainty, it must be studied in accordance with the meaning of legal certainty itself.

Legal certainty encompasses various aspects such as clarity, absence of ambiguity or multiple interpretations, absence of contradictions, and enforceability. As a legal instrument of a country, legal certainty guarantees the rights and obligations of citizens based on the existing cultural norms of the

society. Therefore, the law must be applied consistently, transparently, and without contradiction to avoid confusion and doubt (Monalu, 2023).

In order to achieve legal certainty, laws and regulations must be created and promulgated with attention and consideration to this principle. By doing so, a clear, logical, and reasonable rule can be established without any doubt or conflict with other norms or regulations. According to Law Number 12 of 2011, which regulates the formation of laws and regulations, Article 6 letter i requires that the content of laws and regulations reflect the principle of legal certainty. Thus, legal certainty in regulations can serve as a constraint on individuals' actions towards one another (Marzuki, 2016).

There are four elements that relate to the meaning of legal certainty. The first is that the law is positive and takes the form of legislation (*gesetzliches recht*). Second, the law is based on facts (*tatsachen*), not on a judge's opinion or interpretation. Third, the facts must be formulated in a clear and easily interpretable manner. Fourth, positive law should not be subject to frequent change (Purwaningdyah & Wahyudi, 2014).

The Ministerial Regulation on Electronic Certificates, issued on 12 January 2021, is clearly a positive law that is classified in the hierarchy of laws and regulations in Indonesia, in accordance with Law Number 12 of 2011 on the Establishment of Legislation. Ministerial Regulations issued after the enactment of the law, both those based on orders from higher laws and regulations and those based on the authority vested in the minister in a particular area of government affairs, are considered laws and regulations (Rumiarta, 2015).

The second interpretation concerns the formulation of laws based on facts (*tatsachen*). The facts in question relate to conditions that underlie the need for laws and regulations, which can be found by referring to the preamble of the Regulation of the Minister of Agrarian and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia Number 1 of 2021 on Electronic Certificates. In the weighing section, it is explained that in order to modernize land services and improve business ease indicators and public services, it is necessary to optimize the use of information and communication technology by implementing electronic-based land services, where the results of land registration activities are issued in the form of electronic documents. In this case, it is evident that land services require an increase in services to the community, which requires the use of information and communication technology, reflecting the progress of technology and information as an indicator of a country's modernity.

The third interpretation implies that facts should be formulated in a clear and easily applicable manner. Clarity means that there should be no doubts or multiple interpretations, while logicality ensures that the norms do not conflict with other norms (Prayogo, 2016). The Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia Regulation Number 1 of 2021 regarding Electronic Certificates is structured using regulatory drafting techniques, starting with the title, a preamble consisting of a phrase with the grace of God Almighty, the regulator's position, i.e., the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia, followed by the consideration, the legal basis, and finally, the dictum. The body of the regulation consists of general provisions (Article 1), regulated subject matter (Articles 2-19), transitional provisions (Article 20), and closing provisions (Articles 21-22). The closing section and appendices contain details and examples of the format of electronic documents, such as measurement drawings, space drawings, land parcel maps, space maps, measurement letters, plan drawings, space measurement letters, and electronic certificates (sertipikat-el).

The fourth interpretation suggests that positive law should not be changed frequently. This interpretation does not aim to prevent a regulation from becoming legally stagnant. Instead, if a regulation is still effective in society and conforms to the times, it does not require immediate changes. The Regulation of the Minister of Agrarian and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia Number 1 of 2021 concerning Electronic Certificates is still in the preparation stage before it can be enforced on the general public. Therefore, this regulation will not be changed for a considerable amount of time.

Aside from the theoretical concept of legal certainty, it is essential to understand that a regulation must ultimately ensure legal certainty for the community in case issues arise in the future related to the output of the regulation. This is similar to the case of analog certificates where legal certainty for individuals holding proof of land rights in the form of certificates is guaranteed by law (Muhammad et al.,

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2018). According to Andi Suci Febrianti, the First Land Administrator of the Ministry of ATR/BPN of Mamuju Tengah Regency, in interviews conducted with her, the output of the Regulation of the Minister of Agrarian and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia Number 1 of 2021 concerning Electronic Certificates in the form of electronic documents, both issued through an electronic system (*sertipikat-el*) and documents derived from media transfer into electronic documents, namely from analogue certificates to certificates-el, can be used as evidence.

The position of electronic information and/or electronic documents has already been regulated by Law Number 11 of 2008 concerning Electronic Information and Transactions. From Article 1 Point 4, Article 5 Paragraph (3), Article 6, and Article 7, electronic documents can be categorized as "formal and material requirements of electronic documents to have evidentiary value" (Panggabean, 2012). To begin with, electronic data refers to "information that can be viewed, shown, or heard via a computer or electronic device, such as text, sound, images, and other meaningful forms that can be understood by people who have the ability to comprehend them." Secondly, "an electronic record is considered legitimate if it is produced or obtained from an electronic system in accordance with the legal requirements laid down in the regulations." Lastly, "an electronic document is considered legitimate if the data it contains can be retrieved, displayed, verified for accuracy, and traced back to clarify a circumstance."

The Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency Number 1 of 2021 replaces the previous Regulation Number 7 of 2019 and aims to modernize land services through the use of electronic certificates and technology. Electronic certificates and documents are defined as information that can be seen, displayed, and/or heard through electronic devices and procedures, including text, sound, images, and other meaningful forms.

To ensure the security and legal certainty of Electronic Certificates, Article 4 of Regulation of the Minister of Agrarian Affairs/Head of the National Land Agency Number 1 of 2021 on Electronic Certificates requires that the operation of the Electronic System used must be carried out in a professional, safe, and accountable manner. Moreover, Article 5 specifies that electronic documents and their printouts are valid physical forms under the law and are considered as expanded evidence according to the applicable civil law. These electronic documents can be accessed through the system used as valid evidence.

According to Permen ATR/BPN Number 1 of 2021, Electronic Certificates use Electronic Signatures (TTE) that do not require physical presence like analogue certificates. The use of TTE is regulated by the Ministry of Communication and Information through Law Number 19 of 2016 on Amendments to Law Number 11 of 2008 on Electronic Information and Transactions. TTE issued by an Indonesian Electronic Certification Provider (PSrE) and recognized by the Ministry of Communication and Information has the same legal force as a wet signature, and its validity and authenticity can be accounted for. To obtain a certified TTE, the public must meet the criteria set by the government, as stipulated in Government Regulation No. 71/2019 on the Implementation of Electronic Systems and Transactions Article 60 paragraph (3). With a certified TTE, the administration process becomes easier and more cost-effective, as there is no need to incur document delivery costs, file printing costs, and travel expenses.

In the context of electronic certificates, electronic documents containing certificates can be considered equivalent to written documents made on paper and their printouts. Therefore, e-certificates have the same legitimacy as written documents and can be used as evidence in court, as long as the data stored in the electronic system is guaranteed to be intact, as stated in the land book.

The use of e-certificates in land registration must adhere to the standards outlined in the Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency Number 1 of 2021, which sets rules for electronic systems, documents, data, databases, and signatures. This regulation allows for various electronic documents, including measurement drawings, space drawings, maps, and certificates, to be used as legal evidence as long as they meet the formal and material requirements of electronic documents. According to Article 5 of this regulation, electronic documents and their printouts are legal evidence and can be accessed through an electronic system (Hartono & Yuliartini, 2020). This also clarifies that the Ministerial Regulation does not conflict with any other laws or regulations.

CONCLUSION

In sum, the implementation of electronic land certificates through the Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency Number 1 of 2021 is a necessary

step towards modernizing land services in Indonesia. This regulation is well-structured and considers ecertificates as legal evidence in accordance with Indonesian procedural law. It aims to improve business ease indicators and public services by providing easy access to digital data and reducing the risk of forged land certificates. Although there are potential risks associated with electronic land certificates, their benefits outweigh the risks, and the government should continue to ensure the security and appropriateness of the regulations in this area.

REFERENCES

- [1] Ali, A. (2009). Menguak Teori Hukum (Legal Theory) dan Teori Peradilan (Judicialprudence), termasuk Interpretasi Undang-Undang (Legisprudence). Kencana Prenada Media Group, Jakarta. Edisi Pertama, Cetakan Ke-2.
- [2] de Rooy, O. R., Salmon, H., & Nendissa, R. H. (2021). Hak Atas Tanah Pada Kawasan Konservasi. PAMALI: Pattimura Magister Law Review, 1(1), 40-54.
- [3] Febrianti, S. (2021). Perlindungan Hukum Terhadap Pemegang Sertipikat Hak Atas Tanah Elektronik. Indonesian Notary, 3(3).
- [4] Hartono, M. S., & Yuliartini, N. P. R. (2020). Penggunaan Bukti Elektronik Dalam Peradilan Pidana. Jurnal Komunikasi Hukum (JKH), 6(1), 281-302.
- [5] Hidajat, T. (2020). Unethical practices peer-to-peer lending in Indonesia. Journal of Financial Crime, 27(1), 274-282.
- [6] Hutabarat, D. T. H., Salam, A., Zuwandana, A., Al Azmi, C., Wijaya, C. R., Darnita, Tania, I., Lubis, L. K. A., Sitorus, M. A. P., Adawiyah, R., & Sinaga, R. (2022). Analysis of The Implementation of Law in every level of Society in Indonesia. Policy, Law, Notary and Regulatory Issues (POLRI), 1(2), 9-14. https://doi.org/10.55047/polri.v1i2.80
- [7] Kurhayadi, H., Rohayati, Y., & Bambang Sucipto, M. M. (2020). Kebijakan Publik di Era Digitalisasi. Insan Cendekia Mandiri.
- [8] Kusmiarto, K., Aditya, T., Djurdjani, D., & Subaryono, S. (2021). Digital transformation of land services in Indonesia: A Readiness Assessment. Land, 10(2), 120.
- [9] Martin, K. D., Borah, A., & Palmatier, R. W. (2017). Data privacy: Effects on customer and firm performance. Journal of Marketing, 81(1), 36-58.
- [10]Marwan, A., Jiow, H. J., & Monteiro, K. (2022). Cybersecurity Regulation and Governance During the Pandemic Time in Indonesia and Singapore. International Journal of Global Community, 5(1 (March)), 13-32
- [11]Marzuki, P. M. (2016). Penelitian Hukum, Edisi Revisi, Cetakan Ke-12. Jakarta: Kencana.
- [12]Mertokusumo, S. (2010). Mengenal Hukum. Cahaya Atma Pustaka.
- [13]Monalu, T. J. (2023). Kedudukan Yuridis Penerbitan Sertifikat Tanah Ke Sistem Elektronik Sebagai Jaminan Keamanan. LEX PRIVATUM, 11(2).
- [14] Muhammad, N., Agustian, R. A., & Salfutra, R. D. (2018). Kepastian Hukum Bagi Para Pihak Pemegang Surat Tanda Bukti Atas Tanah Berupa Sertifikat Hak Milik Ditinjau Dari Hukum Agraria. PROGRESIF: Jurnal Hukum, 12(1), 2028-2047.
- [15]Mujiburohman, D. A. (2021). Transformasi dari kertas ke elektronik: Telaah yuridis dan teknis sertipikat tanah elektronik. BHUMI: Jurnal Agraria Dan Pertanahan, 7(1), 57-67.
- [16]Panggabean, H. P. (2012). Hukum pembuktian teori-praktik dan yurisprudensi Indonesia. Alumni.
- [17]Pradnyadana, K. D. R., & Tanaya, P. E. (2022). Pipil Documents Legality as Proof Of Land Ownership Rights Ownership in Bali. Policy, Law, Notary and Regulatory Issues (POLRI), 1(4), 75-82.
- [18]Prayogo, R. T. (2016). Penerapan Asas Kepastian Hukum Dalam Peraturan Mahkamah Agung Nomor 1 Tahun 2011 Tentang Hak Uji Materiil Dan Dalam Peraturan Mahkamah Konstitusi Nomor 06/Pmk/2005 Tentang Pedoman Beracara Dalam Pengujian Undang-Undang. Jurnal Legislasi Indonesia, 13(2), 191-201.
- [19] Purwaningdyah, M. W., & Wahyudi, A. (2014). Konsep dasar administrasi dan administrasi pertanahan. Administrasi Pertanahan, 1-39.
- [20]Rachman, A. A. M. I., & Hastri, E. D. (2021). Analisis Kendala Implementasi Peraturan Menteri ATR/Kepala BPN Nomor 1 Tahun 2021 Tentang Sertipikat Elektronik. Mulawarman Law Review, 91-104.
- [21]Ramadhani, R., & Abduh, R. (2021). Legal Assurance of the Land Registration Process in the Pandemic Time of Covid-19. Budapest International Research and Critics Institute-Journa, 4, 349.
- [22]Ramadhani, R., & Lubis, U. S. (2021). The Function of the Delimitation Contradictory Principle in the Settlement of Land Plot Boundary Disputes. International Journal Reglement & Society (IJRS), 2(3), 136-148.
- [23]Rumiarta, I. N. P. B. (2015). Kedudukan Peraturan Menteri pada Konstitusi. Kerta Dyatmika, 12(2).
- [24]Salam, R., Sinurat, M., Yasin, A., & Sacipto, R. (2023). Implementation of Artificial Intelligence in



Governance: Potentials and Challenges. INFLUENCE: INTERNATIONAL JOURNAL OF SCIENCE REVIEW, 5(1), 243-255.

- [25]Soekanto, S., & Mamudji, S. (2013). Penelitian Hukum Normatif Suatu Tinjauan. Singkat, Jakarta: CV. Rajawali.
- [26]Syarief, E. (2021). Electronic Land Certificates: Its Goals and Challenges. Research Horizon, 1(4), 120-125. [27]Warasart, M., & Kuacharoen, P. (2012). based document authentication using digital signature and QR code. 4TH International Conference on Computer Engineering and Technology (ICCET 2012).
- [28] Younies, H., & Al-Tawil, T. N. (2020). Effect of cybercrime laws on protecting citizens and businesses in the United Arab Emirates (UAE). Journal of Financial Crime, 27(4), 1089-1105.