Vol. 3, No. 1, March 2025

Legal Force of Electronic Certificates (E-Certificates) Issued ... (Dwi Adi Pangestika Putra Rihesta & Taufan Fajar Riyanto)

Legal Force of Electronic Certificates (E-Certificates) Issued by The National Land Agency (BPN) as A Form Oo Land Rights Ownership

Dwi Adi Pangestika Putra Rihesta¹⁾ & Taufan Fajar Riyanto²⁾

- ¹⁾ Master of Notary Law, Faculty of Law, Universitas Islam Sultan Agung (UNISSULA) Semarang, Indonesia, E-mail: adipangestika05@gmail.com
- ²⁾ Master of Notary Law, Faculty of Law, Universitas Islam Sultan Agung (UNISSULA) Semarang, Indonesia, E-mail: taufanfajarriyanto@unissula.ac.ud

Abstract. Land certificates issued based on the Basic Agrarian Law (UUPA) have significant evidentiary power (as regulated in Article 19 paragraph (2) letter c). This means that the evidentiary power of the certificate is not absolute, but strong. The research method that will be used in this research is a qualitative approach, namely a way or research method that emphasizes analysis or descriptive. Based on the research results, there are research results on the Legal Power of Electronic Certificates (E-Certificates) Issued by the National Land Agency (BPN) as a Form of Land Rights Ownership, namely the Legal Power of Electronic Certificates (E-Certificates) Issued by the National Land Agency (BPN), namely electronic certificates with analog certificates have the same position as valid evidence and provide legal certainty for land rights holders in land registration in Indonesia. The implementation of this electronic certificate has not been implemented in the meeting of Commission II of the Indonesian House of Representatives and the Minister of ATR/BPN on the grounds of delaying the security of data listed on the electronic certificate and the regulations of the Minister of ATR/BPN have not regulated data security on digital land certificates as a form of weakness in the regulation, and the Security Guarantee of E-Certificates Issued by the National Land Agency (BPN) as a Form of Land Rights Ownership, namely the Issuance of e-Certificates by BPN brings many advantages in terms of security, efficiency, and transparency in the management of land rights in Indonesia. This secure and technologybased system provides assurance to the community that their land ownership rights are protected and clearly recorded in a legitimate system, reducing the potential for conflict and increasing ease in managing land rights.

Keywords: Certainty; Certificates; Electronic; Legal.

1. Introduction

Land plays a very important role, not only as a medium for production, but also as a location for residence. The existence of land has great significance, especially in Indonesia where many people still do not have access to land, and issues related to land ownership often become disputes that must be resolved in court. The aspect of control over land is a key element in agrarian politics, where land ownership plays a central role in shaping the social framework of society. Land is the main resource in building a just and prosperous society. The state must design regulations related to land ownership and utilization of potential by considering aspects of justice, and objectively realizing that land is also a key capital in the development of an industrial country. According to land utilization in the context of justice refers to the regulation of community access to land ownership as a source of human life, including economic, social, and cultural aspects. Issues regarding land ownership are often a source of conflict between individuals and legal entities. Disputes over land seem to never end and continue, because land is an increasingly important resource along with population growth, which always increases the demand for land. Proof is the steps taken to submit, use, or defend evidence in the applicable legal process. The main purpose of evidence is to reach a decision that is clear, certain, without doubt, and has legal consequences²

Land certificates issued based on the Basic Agrarian Law (UUPA) have significant evidentiary power (as specified in Article 19 paragraph (2) letter c). This means that the evidentiary power of the certificate is not absolute, but strong. As long as the physical data and legal data are in accordance with the information contained in the Land Book and Measurement Letter, the data is considered valid, unless proven otherwise in Court. The impact in Indonesia is that land certificates can still be modified if there are deficiencies in the legal or administrative aspects when they are issued. This decision was taken to provide legal protection to individuals who acquire or own land with good intentions.

The development towards the digital age has become inevitable. In the Land sector, efforts to modernize land services are being carried out by implementing electronic-based services, even towards the production of documents in electronic form. In 2021, the policy related to the launch of the Electronic Land Certificate (STE) began with the issuance of Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency No. 1 of 2021 concerning Electronic Certificates. This regulation was officially signed by the Minister of Agrarian Affairs, Sofyan Djalil, on January 12, 2021. It is hoped that the presence of the Electronic Point System (STE) can provide convenience for land

¹Aniscasary, S., and DR Ramasari. 2022. "Legal Review of the Legal Force of Electronic Land Certificates Based on the Regulation of the Minister of Agrarian Affairs and Spatial Planning Number 1 of 2021." Journal of Health Law and Ethics 2(1).

²Jatmika, DES, and EC Ayuningtyas. 2019. Utilization of Yard Land to Improve Family Nutrition. Yogyakarta: KMedia

rights owners, such as easy access to land data , proving certainty of ownership and type of rights, and reducing the risk of forgery. To maintain public trust in STE, the government and related institutions must ensure transparency and accountability in the implementation and management of STE. Authorities must provide easy and open access to check data and information on STE, so that land rights holders can ensure the accuracy and validity of the certificates. In addition, the implementation of STE must be supported by sophisticated technology and high cybersecurity to overcome the potential risk of hacking and data manipulation. In addition, clearer and more stringent legal regulations are needed to ensure the validity of STE as valid evidence in court. As a solution, cooperation between related institutions, legal experts, and the private sector in developing STE is a must to maintain public trust and increase the effectiveness of the existing legal system.

Agrarian Law Expert Kurnia Warman presents another perspective on the challenges that arise along with the introduction of electronic land certificates, as reported by the quoted source, the possible problem that can arise from the adoption of electronic land certificates is the inaccuracy of physical data contained in the measurement letter or situational drawings attached to each certificate. This is due to the difference in the level of accuracy of the measuring instruments used in the past with the modern measuring instruments used today. The existence of this difference can cause a mismatch between the land size listed in the old certificate and the electronic model certificate. This situation raises concerns among the public, especially regarding the potential for legal violations related to data inaccuracy or attacks on electronic systems. The public is concerned that the printed certificates they have, which are officially valid, can become a source of conflict because the registration is done electronically. With the existence of the Electronic Information and Transactions Law (UU-ITE), the problem arises regarding whether electronic evidence is considered an extension of existing evidence or is a completely new legal entity. Differences of opinion regarding the status of electronic evidence may arise due to regulations regarding new evidence, which are not only regulated in the Criminal Procedure Code and HIR, but also in other sectoral laws. The position of electronic evidence in law is a matter of debate, because its regulation is contained in laws that have an equal position. Based on the description above, this study chose the title: Legal Force of Electronic Certificates (E-Certificates) Issued by the National Land Agency (BPN) as a Form of Land Ownership Right.

2. Research Methods

The research method that will be used in this study is a qualitative approach, namely a way or method of research that emphasizes analysis or descriptive. In a

³Sapardiyono, Sapardiyono, and Sukmo Pinuji. 2022. "Consistency of Legal Protection of Ownership and Land Rights Through Electronic Land Certificates." Widya Bhumi 2(1):54–64. doi: 10.31292/wb.2i1.19.

qualitative research process, things that are of a subject perspective are more explained and theoretically based are utilized by researchers as a guide, so that the research process is in accordance with the facts found in the field when conducting research, in the form of interviews with the BPN to find relationships (correlations) between various symptoms or variables as a data collection tool consisting of document studies, observations (observations), and interviews (interviews). Researching the Legal Force of Electronic Certificates (E-Certificates) Issued by the National Land Agency (BPN) as a Form of Land Rights Ownership⁴

3. Results and Discussion

3.1. Legal Power of Electronic Certificates (E-Certificates) Issued by the National Land Agency (BPN).

Electronic land certificates have several advantages, but they cannot replace conventional land certificates, which can be used as legal proof of land ownership. Both electronic land certificates and conventional land certificates have the same role as valid legal evidence. The results of the electronic land registration process, as explained in paragraph (1), can include electronic data, information, and/or documents. In addition, electronic data and information, as well as their printouts as explained in paragraph (3), are an extension of valid evidence in accordance with the provisions of the applicable procedural law in Indonesia, as explained in paragraph 4 of Article 84. In addition, this regulation stipulates that land registration must be carried out both regularly and sporadically to speed up the process. The importance of the evidentiary power of electronic land certificates in the context of land is an issue that is increasingly emerging along with technological developments. This is closely related to two main aspects: legal certainty and protection of individual property rights. For years, traditional land certificates have been the standard of valid evidence in land cases, resulting in reasonable questions about whether electronic land certificates can be comparable in terms of evidentiary power. Electronic certificates are an extension of valid evidence in the context of procedural law in Indonesia. Currently, the government has announced an initiative to digitally issue land certificates, with land title holder data integrated into the land system. In Indonesia, the implementation and regulations related to electronic land certificates can vary. The legal force of proof of electronic land certificates in court can be explained by the following legal bases:

1) Law Number 11 of 2020 concerning Job Creation,

Which states that land certificates can be in electronic form Article 147 is also an important legal basis that plays a role in the use of electronic land certificates in Indonesia. This article emphasizes its commitment to increasing the efficiency and

⁴Bambang Sunggono, 2006, Legal Research Methods, Rajawali Press, Jakarta, p. 75

⁵Lubis, Mhd. Yamin., & Lubis, Abd. Rahim. (2012). Land Registration Law Revised Edition (III). Bandung: CV. Mandar Maju

effectiveness of services related to land certificates. With the existence of electronic land certificates, the administrative process related to land ownership can be carried out faster and easier. It can be concluded that land certificates in electronic form have a level of legal validity that is equivalent to printed land certificates based on applicable regulations. This allows the issuance of land certificates in electronic format with legal validity that is on par with conventional land certificates that are physically printed. The implementation and further details regarding electronic land certificates are likely to be regulated in more detail in implementing regulations or related legislation.⁶

2) Law Number 11 of 2008 concerning Electronic Information and Transactions (UU ITE)

With the enactment of Law Number 11 of 2008 concerning Electronic Information and Transactions or better known as the ITE Law, electronic information and documents become part of valid evidence and have valid legal consequences. As specified in the ITE Law, electronic land certificates are valid evidence in the eyes of the law. This is reinforced by Article 5 paragraph (2) and Article 6 of the ITE Law which states that electronic information and/or documents and/or printouts of such electronic documents are an extension of valid evidence in accordance with the applicable procedural law in Indonesia. The presence of the ITE Law gives priority to issues or problems of evidentiary law, this can be seen in the general explanation of the ITE Law which states about the importance of evidence considering that electronic information has not been accommodated in the existing procedural law system in Indonesia comprehensively but in reality it is also very vulnerable.⁷

3) Government Regulation Number 71 of 2019 concerning Integrated Electronic Systems

Government Regulation Number 71 of 2019 concerning Integrated Electronic Systems (abbreviated as PP 71/2019) is one of the regulations that has a significant impact on the development of the land administration system in Indonesia. This regulation brings major innovations in terms of Electronic Land Certificates (e-Certificates) and various related aspects. In this analysis, we will investigate the main aspects of PP 71/2019 related to Electronic Land Certificates with a focus on the relevant articles. Article 2 provides an important definition in the context of Electronic Land Certificates. It also provides a basic framework for a better understanding of the concept of Electronic Land Certificates in PP 71/2019. Article 3 explains the main objectives of the introduction of Electronic Land Certificates. These include increasing efficiency and transparency in land administration,

⁶NOTARIUS Scientific Journal, Volume 16 Number 2 (2023) E-ISSN: 2686-2425 ISSN: 2086-1702 Qonita Rizkiana, Widhi Handoko the Existence of Electronic Certificates Against the Job Creation Law in Guaranteeing Legal Certainty Faculty of Law, Diponegoro University

⁷Dian Dewi Khasanah, 2021, Legal Analysis of the Legal Force of Electronic Land Certificates in Proving Civil Procedure Law, vol 1, no 1, page 18

reducing the risk of loss or damage to physical certificates, and providing easy access for landowners to check their information and ownership status. Based on this legal basis, Electronic Land Certificates have a level of validity that is equivalent to traditional land certificates in the context of Indonesian positive law.⁸

4. Regulation of Land Rights Registration According to Regulation of the Minister of ATR/BPN Number 1 of 2021 Concerning Electronic Certificates

Land registration as a mandatory activity is carried out by every person as the owner of land rights so that the land has legal certainty and is registered as ownership at the Land Agency Office in accordance with laws and regulations in Indonesia, namely PP No. 24 of 1997 concerning Land Registration and now there is PP No. 18 of 2021 concerning Land Rights Management Rights, Apartment Units, and Land Registration which further regulates the electronic system that has not been regulated in previous government regulations. The government carries out regular, continuous land registration starting with the collection, processing of data, bookkeeping, and presentation, as well as maintenance of physical data and legal data related to land plots.

3.2. Security Guarantee of E-Certificates Issued by the National Land Agency (BPN) as a Form of Land Ownership Rights

The basic land law in Indonesia is Law Number 5 of 1960 concerning Basic Agrarian Law, which regulates land registration, including the issuance of land ownership certificates. Land registration is a term for Cadaster or recording. According to Article 3 of Government Regulation No. 24 of 1997 concerning Land Registration. According to Article 19 of the Basic Agrarian Law and Article 32 paragraph (1) of Government Regulation No. 24 of 1997, land certificates are considered strong evidence of ownership, as long as the physical data and legal data are in accordance with the data in the measurement letter. and land books (registers) therein (Sumartoputra & Endipradja, 2020). Based on the theory of land registration, there are two types of land registration consisting of registration with a deed system and registration with a rights system. There are also two types of publication systems consisting of a negative publication system and a positive publication system. Basically, land registration with a negative publication system always uses a deed registration system, and the state does not guarantee the accuracy of the data presented in the list.⁹

As a country based on law, the concept of the Pancasila rule of law is the basis for the concept and foundation of legal policy for legal protection strategies for land rights holders and access to natural resources. The theory of the rule of law is one

⁸Parlindungan, A. (1994). Land Registration in Indonesia. Bandung: CV. Mandar Maju.

⁹Sumanto, L. (2020). Land Disputes Due to Two Certificate Titles on the Same Land in Indonesia. Proceedings on International Conference of Science Management Art Research Technology (IC-SMART), 1(1), 146–150

of the consequences of choosing the principle of a state based on law as implied in the soul or philosophy of the Indonesian nation, namely the Pancasila Principles and the 1945 Constitution concerning the objectives of the Indonesian rule of law. This land registration aims to provide legal certainty known as rechts cadaster/legal cadaster. The guarantee of legal certainty that is intended to be realized in this land registration includes legal certainty regarding the status of land rights, certainty of legal subjects, and certainty of legal objects. This land registration produces a certificate as proof of its rights. The opposite of land registration which is rechts cadaster in nature is fiscal cadaster, namely land registration which aims to determine who is required to pay land tax. This land registration produces proof of payment of land tax which is now known as the Land and Building Tax Letter.¹⁰

The transformation of technological advances has shifted the land registration system from a paper-based process to electronic. In Indonesia, the use of information and communication technology has progressively changed market transactions and public services from analog (manual) to electronic-based services (Abaidata, 2021). One of them is the electronic Land Ownership Certificate. These services have been implemented in the government and general public sectors as a form of efficiency, transparency and accountability in providing public services. This program is carried out in stages, including with e-certificates with the issuance of the Regulation of the Minister of ATR/Head of BPN Number 1 of 2021 concerning Electronic Certificates

The existence of the Ministerial Regulation has become a polemic, and the public is restless because not long ago the public had received millions of analog land certificates through the Complete Systematic Land Registration program or PTSL, suddenly the public was asked to exchange them for e- certificates. It is as if the policies made by the Government are contradictory, unplanned and unsystematic. The land registration program for the entire territory of Indonesia must be prioritized or completed first because land certificates are proof of rights granted at the final stage. So after the land is registered, land service modernization will be carried out, including its certificates. Various policies and land registration acceleration programs have been carried out by land authorities, such as the Land Administration Project (PAP), Land Management and Policy Development Project (LMPDP), Adjudication program, Larasita, and the National Agrarian Program (Prona) and PTSL The importance of land, for a long time the Indonesian Government has paid serious attention to land issues, including land registration as stated in the law. Formally, the Government has the authority to regulate land areas that grow and are rooted in Article 33 paragraph (3) of the 1945 Constitution

Personal data is a component of privacy that must be protected as emphasized in various international, regional, and national legal instruments, which ensure the

¹⁰Murni, CS, Kelen, BB, & Sulaiman, S. (2022). the Legal Certainty of Land Ownership Rights in Registration'S Context. International Journal of Law Reconstruction, 6(1), 13.

importance of maintaining the security of personal data. The right to protection of personal data as the primary owner of an individual. As we know that the identity of personal data must be filled in as the first stage before further stages can be carried out. The need for legal certainty to protect personal data because the understanding of confidentiality or a person's right to privacy must be maintained, protected, and upheld by laws and regulations. Crime in the digital world is very common, to overcome the problem of personal data security, the government has formed a legal source, namely Law Number 11 of 2008 concerning information and electronic transactions with Law Number 27 of 2022 concerning the protection of personal data. Because without a security system, confidential information will turn into the privacy of a person or company, even information related to state secrets will be vulnerable to data leaks and exploited by irresponsible individuals.

The issuance of the Regulation of the Minister of ATR/BPN Number 1 of 2021 concerning Electronic Certificates has caused much debate in the community regarding both its advantages and disadvantages. Some people agree with this strategy because they view it as a form of modernization of land services that will provide a sense of security, legal certainty and legal protection to land rights owners as the purpose of land registration in Indonesia, but not a few people oppose it. this proposal as a very hasty plan and has not been supported by thorough preparation, thus allowing for conditions of insecurity of land registration data and can lead to uncertainty of land ownership rights. This electronic certificate includes 7 (seven) additional documents as an inseparable part of the electronic certificate, namely Measurement Drawings, Spatial Planning Drawings, Land Plot Maps, Spatial Maps, Measurement Letters, Floor Plan Drawings, Spatial Measurement Letters, and certificates in the form of electronic documents made according to the format of the national land agency¹¹

The difference between Analog Certificate and Electronic Certificate is that the analog certificate document code uses a serial number consisting of letters and numbers with a white background on the blank while the electronic certificate uses a hash code and there are 2 QR Codes listed on the electronic certificate that can be scanned by the system. Electronic certificates use electronic signatures, while analog certificates use manual signatures that are easier to duplicate or forge. In terms of the form of the analog certificate document, it is printed on paper and has a hologram with the BPN symbol on it, while the electronic certificate is in the form of a PDF file sent via Email, the name of the agency is written with the logo of the ATR/BPN ministry which is placed on the upper left side parallel to the Garuda symbol located in the middle above, plus a red writing pattern on the left side of the document explaining that this certificate was issued by the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency, this electronic certificate is also equipped with a wavy fine line pattern as its

¹¹Utama, HK & IWKJ (2021). Agrarian Law Land Rights (Certificates in the Perspective of Legal Certainty in the Digital Era). Indomedia Library

background which is said to indicate a continuous service pattern, this makes the electronic certificate difficult to forge. The information contained in the Copy of the land book and the measurement letter which is the certificate of ownership must be considered as accurate information, both in disputes and outside disputes, as long as it cannot be proven otherwise so that the certificate is valid as strong evidence. Electronic certificates use security technology such as cryptography by the National Cyber and Crypto Agency (BSSN).¹²

The integrity of the data on the electronic certificate is guaranteed, meaning that the information of the land rights holder will always be intact, unchanged, and its confidentiality has been protected using BSSN encryption technology. This electronic certificate supports the government's go green initiative by reducing the use of paper and ink, facilitating and accelerating the signing and service process, and implementing a digital signature that guarantees data authentication, integrity, and anti-rejection of land certificates. In addition, it is easy to maintain and manage, access can be done anytime and anywhere and avoids the risk of loss, burning, rain, and theft of physical documents. Later, the information is protected with complicated coding codes so that it can only be seen by certain parties and cannot be accessed by unauthorized parties (illegal). Data security weaknesses depend on the manager and user. Hackers will do everything they can to get data that can benefit hackers by selling data and harm the data owner, as is known, hackers will claim to have forgotten their password and ask for a new one by sending and entering data on the link provided by the hacker. That way, the hacker has obtained the desired data, so there is a mistake in the leakage of personal data. The concept of legal protection for land rights holders cannot be separated from the discussion of fundamental legal principles, including the creation of order, regularity, peace, certainty, benefit and justice. Because the system of issuing proof of rights is a strong evidence, the publication system is a negative system that contains positive elements in the land sector as a form of legal protection.¹³

Basically, electronic certificates have not yet been implemented and there has been a delay in the implementation of electronic certificates by Commission II of the Indonesian House of Representatives. There are several factors behind the decision to postpone the implementation of electronic certificates, including concerns about weak system security that facilitates certificate forgery, such as cases where there are currently many personal data leaks. Until now, the Ministry of ATR/BPN has not submitted a report on the electronic certificate program to Commission II of the Indonesian House of Representatives, in order to focus on the 4 (Four) digital land services that are already running, including checking land certificates and making Land Registration Certificates (SKPT), electronic mortgages

¹²Harsono, B. (2007). Indonesian Agrarian Law, History of the Formation of the Basic Agrarian Law, Its Content and Implementation. Bridge

¹³Ahmad, A. (2012). The Development of Communication and Information Technology: The Roots of the Revolution and Its Various Standards. Tabligh Dakwah Journal, 13(1).

(HT-el), Land Value Zone Information (ZNT) which have not achieved maximum results. Many people misinterpret Article 16 of Permen ATR/BPN No.1/2021 which states that the national land agency office will take conventional certificates to be combined with land books stored at the land office so that the public will get a replacement in the form of an electronic certificate without holding physical evidence of an analog certificate. Therefore, Commission II of the Indonesian House of Representatives and the Minister of ATR/BPN agreed to postpone the implementation of the Regulation of the Minister of ATR/BPN Number 1 of 2021 concerning electronic certificates to conduct an evaluation and revision of legal norms to avoid misperceptions that have the potential to cause problems that can harm the entire community.

4. Conclusion

Legal Power of Electronic Certificates (E-Certificates) Issued by the National Land Agency (BPN) namely electronic certificates with analog certificates have the same position as valid evidence and provide legal certainty for land rights holders in land registration in Indonesia. The implementation of this electronic certificate has not been implemented in the meeting of Commission II of the Indonesian House of Representatives and the Minister of ATR/BPN on the grounds of delaying the security of data listed on the electronic certificate and the regulation of the Minister of ATR/BPN has not regulated data security on digital land certificates as a form of weakness in the regulation, because the government is not yet perfect in handling personal data leaks so that it is very concerned about data security in this digital era. The process of securing data and information uses encryption technology such as cryptography by the National Cyber and Crypto Agency and this electronic certificate includes electronic signatures and uses Hash Code and QR Code. Preventive Protection (Prevention) and Repressive Protection (imposition of sanctions) are two methods of legal protection that can be used to maintain the security of digital land certificate holder data. Sanctions can be applied in accordance with the provisions of Law Number 27 of 2022 concerning Personal Data Protection in the event of a data leak in digital land certificate data.

5. References

- Ahmad, A. (2012). The Development of Communication and Information Technology: The Roots of the Revolution and Its Various Standards. Tabligh Dakwah Journal, 13(1).
- Aniscasary, S., and DR Ramasari. 2022. "Legal Review of the Legal Force of Electronic Land Certificates Based on the Regulation of the Minister of Agrarian Affairs and Spatial Planning Number 1 of 2021." Journal of Health Law and Ethics 2(1).

Bambang Sunggono, 2006, Legal Research Methods, Rajawali Press, Jakarta,

- Dian Dewi Khasanah, 2021, Legal Analysis of the Legal Force of Electronic Land Certificates in Proving Civil Procedure Law, vol 1, no 1, p 18
- Harsono, B. (2007). Indonesian Agrarian Law, History of the Formation of the Basic Agrarian Law, Its Content and Implementation. Bridge
- Jatmika, DES, and EC Ayuningtyas. 2019. Utilization of Yard Land to Improve Family Nutrition. Yogyakarta: KMedia
- Lubis, Mhd. Yamin., & Lubis, Abd. Rahim. (2012). Land Registration Law Revised Edition (III). Bandung: CV. Mandar Maju
- Murni, CS, Kelen, BB, & Sulaiman, S. (2022). the Legal Certainty of Land Ownership Rights in Registration'S Context. International Journal of Law Reconstruction, 6(1), 13.
- NOTARIUS Scientific Journal, Volume 16 Number 2 (2023) E-ISSN: 2686-2425 ISSN: 2086-1702 Qonita Rizkiana, Widhi Handoko the Existence of Electronic Certificates Against the Job Creation Law in Guaranteeing Legal Certainty Faculty of Law, Diponegoro University
- Parlindungan, A. (1994). Land Registration in Indonesia. Bandung: CV. Mandar Maju.
- Sapardiyono, Sapardiyono, and Sukmo Pinuji. 2022. "Consistency of Legal Protection of Ownership and Land Rights Through Electronic Land Certificates." Widya Bhumi 2(1):54–64. doi: 10.31292/wb.2i1.19.
- Silviana, A. (2021). The Urgency of Electronic Land Certificates in the Land Registration Legal System in Indonesia. Administrative Law & Governance Journal, Vol.4 (No.1),
- Sumanto, L. (2020). Land Disputes Due to Two Certificate Titles on the Same Land in Indonesia. Proceedings on International Conference of Science Management Art Research Technology (IC-SMART), 1(1),
- Utama, HK & IWKJ (2021). Agrarian Law Land Rights (Certificates in the Perspective of Legal Certainty in the Digital Era). Indomedia Library