

Examination of the Validity of Land Title Certificates Electronics at the Pekanbaru City Land Office

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Abstract. *Electronic certificates represent a digital transformation of land services in Indonesia, based on the Regulation of the Minister of ATR/BPN Number 3 of 2023 concerning the Issuance of Electronic Documents in Land Registration Activities. The Pekanbaru City Land Office officially implemented this service on May 31, 2024. This study aims to analyze the validity of electronic land title certificates and resolve data discrepancies between physical and electronic certificates. This study uses an empirical legal method with analytical descriptive specifications. Data were obtained through interviews with officials and staff of the Pekanbaru City Land Office, supplemented by secondary data in the form of primary, secondary, and tertiary legal materials. Data were analyzed qualitatively using the Theory of Legal Certainty, Theory of Legal Protection, and Theory of Legal Certainty from an Islamic Perspective. The results show that the validity of electronic certificates is carried out in an integrated manner through the SITATA (Land Information and Validation System/Our Land Validation) application, with a layered verification mechanism between the Survey and Mapping Section (physical data) and the Rights Determination and Registration Section (legal data), where electronic certificates are only issued with a validity score of 100%. This mechanism provides strong legal certainty, but is not optimal in terms of certainty of the settlement period, due to internet network constraints, application disruptions, and limited human resources. Efforts to resolve data discrepancies are implemented through a combination of preventive legal protection (security features, written approval) and repressive (boundary demarcation, data correction, coordination with the Data and Information Center), but have not been formalized in a specific written standard operating procedure. The results of the validity check have direct relevance to notarial practice, particularly as a basis for the preparation of Deeds of Sale and Purchase and other land deeds by Land Deed Making Officials.*

Keywords: Certificate; Electronic Legal; Protection; Validity.

1. Introduction

Land is a natural resource with strategic and fundamental value for human life. In Indonesia, land serves not only as a place to live and a source of livelihood, but also has crucial social, economic, cultural, and legal dimensions, as reflected in the philosophy of the eternal relationship between Indonesians and their homeland. Land's strategic position makes regulating land rights, how to acquire them, and how to prove ownership a crucial part of the national agrarian legal system.¹

One form of legal recognition and protection of land ownership is through the issuance of land title certificates. Article 19 of Law Number 5 of 1960 concerning Basic Agrarian Regulations (UUPA) mandates that land registration be carried out throughout Indonesia to ensure legal certainty regarding land rights.² This mandate is further elaborated in Government Regulation Number 24 of 1997 concerning Land Registration, which affirms that a certificate is a valid proof of title and serves as strong evidence regarding the physical and legal data contained therein. This evidentiary power is only meaningful if the validity of the certificate, both in terms of the validity of its issuance and the suitability of its data, can be confirmed at any time when needed.

In the face of technological developments and the digital era, Indonesia's land registration system has undergone significant transformation. Indonesia's modern land registration system, first established in 1960, is now required to adapt to global technological advances, shifting from a paper-based system to an electronic system. The digital transformation of land registration is not unique to Indonesia; it has become a global trend. Several countries adopting the Torrens land registration system, such as Australia and New Zealand, have already implemented electronic title systems with a centralized, inter-agency database. Similarly, Singapore, through its e-Title system, and Malaysia, through its e-Tanah system, have developed electronic land registration and ownership verification mechanisms to improve service efficiency and minimize land disputes. This global trend has prompted the Indonesian government to adopt a similar system tailored to the characteristics of national land law.

This digital transformation was realized with the issuance of Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency Number 1 of 2021 concerning Electronic Certificates, which was later revoked and replaced by Regulation of the Minister of ATR/BPN Number 3 of 2023 concerning the Issuance of Electronic Documents in Land Registration Activities. This latest regulation provides more comprehensive provisions

¹ Boedi Harsono, *Indonesian Agrarian Law: History of the Formation of the Basic Agrarian Law, Contents and Implementation*, Djambatan, Jakarta, 2005, p. 23.

² Law Number 5 of 1960 concerning Basic Agrarian Regulations (State Gazette of the Republic of Indonesia 1960 Number 104).

regarding the issuance of electronic certificates, which aims to increase efficiency and security in land registration, as well as ensure that the public can more easily access information, including information regarding the validity of their certificates.³.

This land services digitalization policy also aims to address various issues that have plagued land management in Indonesia, particularly those related to land mafia practices. Land mafia in Indonesia has long been a problem that threatens the certainty of agrarian law, causing land disputes that harm both the community and the state. This practice often involves the manipulation and falsification of land documents, complicating the resolution of land ownership issues.⁴. The *modus operandi* of land mafias generally exploits weaknesses in paper-based administrative systems, such as forging official signatures, issuing overlapping certificates for a single plot of land, and manipulating land documents and books physically stored at the land office. In this context, electronic certificates present a potential solution to increase legal protection and reduce illegal practices in the agrarian sector. Advanced security features such as QR codes, hash codes, and electronic signatures on electronic certificates make them more difficult to counterfeit than conventional certificates that still use manual signatures and are prone to forgery. Therefore, checking the validity of these security features is key to ensuring the certificate's authenticity.

Specifically, at the Pekanbaru City Land Office, the implementation of electronic certificate services is unique. Pekanbaru City, as the capital of Riau Province, is one of the areas with high land activity, both due to economic growth, property investment, and the social dynamics of its community. On May 31, 2024, the Minister of ATR/BPN Agus Harimurti Yudhoyono officially launched the implementation of electronic certificate services at the Pekanbaru City Land Office, making it the second land office to offer this service in Riau Province. The presence of this electronic service is expected to minimize the occurrence of crimes in the land sector, particularly land mafia practices that are still common in Indonesia. However, as a region that has only recently implemented electronic services, the Pekanbaru City Land Office is still in the transition and adaptation phase, so checking certificate validity and potential data discrepancies between physical certificates and electronic data are issues that require in-depth study.

Furthermore, the Regulation of the Minister of ATR/BPN Number 5 of 2017 regulates the procedures for checking certificates electronically.⁵. Based on these

³ I Kadek Dewi Sasih Adnyani, Ratna Artha Windari, and Muhamad Jodi Setianto, 2024, "The Importance of Electronic Land Certificates in the Digital Era as Proof of Land Ownership Rights," *eJournal of Yustisia Communication*, Ganesha University of Education, Vol. 7 (No. 2), P. 1

⁴ Vinsencia Clara Adwina Laksono, 2025, "Land Mafia and Agrarian Disputes: The Role of Electronic Land Title Certificates in Legal Protection," *Sebelas Maret University Journal*, p. 1.

⁵ Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency Number 5 of 2017 concerning Electronic Land Information Services.

provisions, if there is a discrepancy between the results of the electronic check and the data on the certificate, the applicant can confirm directly with the local Land Office by bringing proof of registration, the original certificate, and the results of the check service. However, the mechanism for resolving this data discrepancy has not been regulated in detail and comprehensively, resulting in procedural uncertainty, complicating proof of certificate validity, and potentially causing losses to rights holders.

the gap between *das sollen* (the laws and regulations that guarantee legal certainty through electronic certificates) and *das sein* (the reality of implementation that still faces various obstacles, including the potential for data differences that affect the validity of the certificate). Therefore, this study aims to examine in depth how to check the validity of land title certificates electronically at the Pekanbaru City Land Office, as well as how to resolve any discrepancies between the data on the certificate and the electronic data.

2. Research Methods

The research method used in this study is an empirical legal approach, with the legal approach viewing law as a norm (*das sollen*), and an empirical approach viewing law as a social and cultural reality (*das sein*). The research specification used is empirical (sociological) legal research. The data collection method in this study consists of primary and secondary data obtained through interviews, observations, and document studies. Furthermore, the data obtained was analyzed using interactive analysis methods.

3. Results and Discussion

The results of the research obtained from primary data in the form of interviews and observations at the Pekanbaru City Land Office, which handles electronic certificate services, which are then linked and analyzed using legal theories, namely the Theory of Legal Certainty (*Rechtssicherheit*), the Theory of Legal Protection (*Rechtsbescherming*), and the Theory of Legal Certainty in an Islamic Perspective. Electronic Validity Examination of Land Title Certificates at the Pekanbaru City Land Office, and the Significance of the results of validity examinations and resolution of data differences in the practice of making authentic deeds by Land Deed Making Officials (PPAT), especially Sale and Purchase Deeds (AJB) for land whose certificates have been converted into electronic certificates as a concrete form of validity examination of electronic certificates in notarial practice.

3.1 Electronic Land Title Certificate Validity Check at the Pekanbaru City Land Office

Electronically verifying the validity of land title certificates at the Pekanbaru City Land Office is a crucial step in ensuring that issued electronic documents match the physical and legal data. Institutionally, the authority to verify validity is divided based on the type of data being verified: the Head of the Survey and Mapping Section (Kasi 1) is authorized to validate the physical data, and the Head of the Rights Determination and Registration Section (Kasi 2) is authorized to validate the legal data.⁶

Based on the interview results, the electronic certificate validity mechanism at the Pekanbaru City Land Office begins with the submission of an application by the rights holder to convert the analog certificate media to an electronic certificate through the service counter. After the application is received, the document is processed in the Survey and Mapping Section to validate the electronic measurement letter, including checking the conformity of the land plot location, boundaries, and land area with the data contained in the registration map. After the measurement letter media transfer process is declared appropriate, the process continues in the Rights Determination and Registration Section to transfer the land book media, which includes validation of the rights subject, the history of data maintenance records from the first certificate issuance to the last registration record, including the status of mortgage rights and roya. If all data in both sections has been declared valid, Section 2 prints the final output in the form of an electronic certificate.⁷

In this process, the Pekanbaru City Land Office uses an internal application system called SITATA (Land Information and Validation System/Our Land Validation), which displays the validity score of a certificate before it is transferred. The validity score is calculated based on the completeness and accuracy of the data entered into the system, compared to the historical data recorded in the Land Data and Information Center (Pusdatin). Applicable regulations stipulate that a certificate can only be transferred to an electronic certificate if its validity score reaches 100%. If the score does not reach 100%, it indicates that there are records that have not been fully entered into the system.

The advantage of electronic certificates emphasized by the speakers is the ease of verification, which can be carried out independently by the public or interested third parties, without having to visit the Land Office in person. Verification is carried out by scanning the QR code listed on the electronic certificate through the Sentuh Tanahku application, which will display information regarding the validity of the certificate in question. Furthermore, the validity of the electronic signature affixed to the certificate can be verified

⁶ Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency Number 8 of 2023 concerning the Organization and Work Procedures of Regional Offices and Land Offices.

⁷ Results of interviews with sources from the Pekanbaru City Land Office, 2026

through the Electronic Certification Center (BSrE), which is the official institution authorized to issue and verify electronic certificates in Indonesia under the coordination of the National Cyber and Crypto Agency (BSSN).⁸.

This multi-layered verification mechanism provides additional security not available with analog certificates, where verification of the validity of analog certificates can generally only be done by visiting the Land Office directly and matching the certificate data with the data in the physical land book. However, the resource person also conveyed certain limitations, namely that the digital system security mechanism and data blocks are entirely under the authority of the Data Center at the central level, so that the Pekanbaru City Land Office at the regional level does not have the authority or in-depth technical knowledge regarding how the security system works internally, which indicates a centralization of system security authority at the central level.⁹.

The difference between checking electronic certificates and analog certificates lies in the storage media and the method of tracking data history. With analog certificates, all registration records, from initial issuance to subsequent changes, are physically recorded in registration books kept at the Land Office. This recording model has the advantage of easily reading the complete chronological data history in a single physical document, but it has a significant disadvantage in the risk of damage or loss of the document, which, if it occurs, will also erase all recorded data history.¹⁰.

In electronic certificates, all records are stored in a system called a data block, which can be searched through specific menus within the system, such as features to view or scan specific documents. This digital storage model offers the advantage of data resistance to physical damage, as data is stored encrypted on a centrally managed server, significantly minimizing the risk of data loss due to disasters or document damage. To obtain a more detailed history of land activity recording on a plot of land, the public or Land Deed Officials (PPAT) can submit a request for a Land Registration Certificate (SKPT) to the Land Office, which will display the history of land activity recording on the relevant plot.¹¹.

The transformation from analog certificates to electronic certificates is not just a change in the physical form of the document, but rather a fundamental change in the philosophy of land data management, from a decentralized and vulnerable storage model to a centralized and encrypted storage model, which theoretically

⁸ Results of interviews with sources from the Pekanbaru City Land Office, 2026

⁹Ibid

¹⁰ Results of interviews with sources from the Pekanbaru City Land Office, 2026

¹¹Ibid

provides a higher level of data security and resilience, as long as the central management system is run properly and does not experience systemic failures.¹².

According to a source, approximately 37,991 certificates registered at the Pekanbaru City Land Office have been successfully converted into electronic certificates. The total volume of land services handled by the Pekanbaru City Land Office reaches approximately 4,000 to 5,000 per month, with approximately 1,300 applications for certificate name changes alone. This large volume of services demands efficiency and accuracy in the validity checking process, considering that any delay or error in a single file can impact the queue and the overall workload of officers.¹³.

The average time required for services that have produced electronic certificates (not the first media transfer process) is around 2 to 3 business days, with the standard operating procedure for priority services setting a target of 5 business days for data maintenance services in general. However, for the process of obtaining an electronic certificate for the first time (media transfer from an analog certificate), the time required is much longer, namely 10 business days, even up to 2 business weeks in certain cases, if data is found to be inconsistencies and requires a process of boundary arrangement, the creation of an official report, or reporting to the Data Center at the central level. Counter officers generally provide information to applicants from the start about the potential extension of this time, especially for certificates that still have analog status (with a green cover), so that applicants can understand and not demand completion according to the standard 5 days that apply to services whose certificates are already electronic.¹⁴.

Several supporting factors for the implementation of electronic certificate validity checks at the Pekanbaru City Land Office: first, the availability of the SITATA application system that provides an automatic validity score, thereby minimizing officer subjectivity in determining the eligibility of a certificate media transfer; second, there is a clear division of authority between Section 1 and Section 2 which complement each other in verifying physical data and legal data; third, intensive technical guidance (bimtek) has been carried out by Pusdatin for Pekanbaru City Land Office employees from February to April 2024, before the electronic certificate service was officially launched, so that employees have a technical understanding of how to operate the system before the service runs; and fourth, there is intensive coordination between counter officers, Section 1, and Section 2 in resolving any obstacles that arise during the service process.¹⁵.

¹² *Ibid*

¹³ Results of interviews with sources from the Pekanbaru City Land Office, 2026

¹⁴ *Ibid*

¹⁵ Results of interviews with sources from the Pekanbaru City Land Office, 2026

The factors that hamper the implementation of electronic certificate validity checks include: first, technical disruptions in the SITATA application, either in the form of system errors or maintenance activities that cause service delays; second, the unstable internet network in the Pekanbaru City area, which according to the source sometimes only functions optimally in the middle of the night; third, the existence of old records that have not been completely entered in the Pusdatin system, so that the validity score of a certificate cannot reach 100% and requires manual data searches, including reopening old physical certificate archives; fourth, the discovery of differences in physical data between the real conditions in the field and the data on the old certificate, which requires a boundary arrangement process before the electronic certificate can be issued; and fifth, the limited number of human resources handling this service, which according to the source is "not yet adequate" and needs to be increased, considering the high workload and the interrelated nature of the work (a single unit) between document search, data verification, and the issuance of electronic certificates¹⁶.

Similar problems were also found in previous research, particularly research by Bakti, Setyawati, and Laksana at the Pekanbaru Regency Land Office, which identified obstacles in the form of limited public understanding, incomplete application files, limited human resources, internet network problems, and uneven land mapping. The constraints of limited human resources and internet network problems indicate that these two obstacles are systemic and not only experienced by one particular land office, but are a common challenge in the implementation of electronic certificates in various regions in Indonesia.¹⁷

Based on Soerjono Soekanto's Theory of Legal Effectiveness¹⁸, it can be concluded that the implementation of electronic certificate validity checks at the Pekanbaru City Land Office has been supported by legal factors and law enforcement factors which are quite good, but still faces challenges in terms of facilities and infrastructure factors, human resource quantity factors, and cultural factors.

Gustav Radbruch emphasized that the law must provide certainty for everyone regarding what is regulated and what the legal consequences of an action are, and must be applied firmly and consistently without being able to be changed arbitrarily.¹⁹ The mechanism for checking the validity of electronic certificates at the Pekanbaru City Land Office shows a real effort to realize legal certainty, both

¹⁶ *Ibid*

¹⁷Bakti, Agung Setya, Retno Saraswati Setyawati, and Kukuh Tejomurti Laksana. "Problems of Implementing Electronic Land Registration at the Pekanbaru Regency Land Office." *Tabelius Journal*, Faculty of Law, Sultan Agung Islamic University, 2026.

¹⁸Soekanto, Soerjono. *Factors Influencing Law Enforcement*. Jakarta: Rajawali Pers, 2014.

¹⁹Radbruch, Gustav. *Legal Philosophy*. Translated by Kurt Wilk as *Legal Philosophy*. Cambridge, Mass.: Harvard University Press, 1950.

in formal and material dimensions, in the Islamic Perspective of Legal Certainty Theory, the principle of justice and firmness in upholding the truth is reflected in the firm stance of the Pekanbaru City Land Office which does not issue electronic certificates if the data validity has not reached 100%, even if this means delaying the applicant's interests.

Based on the description and analysis of the legal certainty theory above, the results obtained show that the validity examination of electronic land title certificates at the Pekanbaru City Land Office has been carried out systematically and integratedly through the SITATA application, with a layered verification mechanism between physical data and legal data, which substantially provides legal certainty because electronic certificates can only be issued if the validity score is 100%. This legal certainty is also strengthened by the certificate security feature in the form of special paper from the Republic of Indonesia Money Printing Company (Peruri) which is equipped with a secret code, data encryption in data blocks, and verification of the validity of electronic signatures through the Electronic Certification Center (BSrE) and the Sentuh Tanahku application.²⁰.

However, this legal certainty has not been optimal in terms of completion time, considering that the initial media transfer process is still heavily influenced by technical factors beyond the applicant's control, such as application disruptions, limited internet network, and limited human resources. The results of this study also indicate that the issue of legal certainty in checking the validity of electronic certificates does not solely depend on the completeness of legal norms, but is more influenced by the readiness of technical infrastructure and human resources implementing in the field. Therefore, it is necessary to strengthen technical facilities and add implementing personnel so that legal certainty, especially in terms of certainty of service time, can be realized more consistently for all applicants.

3.2 Efforts to Resolve Data Discrepancies Between Certificates and Electronic Data at the Pekanbaru City Land Office

Interview results revealed several data discrepancies that the Pekanbaru City Land Office has actually encountered in verifying the validity of electronic certificates. The first is a discrepancy in the academic degrees of title holders, which occurs because the electronic certificate system is directly integrated with population data (Population and Civil Registration Data/Dukcapil) based on the Population Identification Number (NIK).

The second form is a change in the area of the land plot, which is known when a re-measurement is carried out to be different from the area stated on the old certificate, this kind of difference is generally caused by changes in physical

²⁰ Results of interviews with sources from the Pekanbaru City Land Office, 2026

conditions in the field since the first measurement was carried out, for example shifting boundary markers that have disappeared since the initial measurement (in some cases carried out since the 1990s), changes in the width of roads/alleys around the land plot, or changes in infrastructure such as road paving that shifts the physical boundaries that were originally used as a reference.²¹ The third form is a technical problem in the form of an unreadable QR (Quick Response) code, which is generally caused by printing problems, such as suboptimal printer ink, so that the QR code cannot be scanned properly by the verification application.

The Pekanbaru City Land Office resolves discrepancies based on the type of discrepancy. Discrepancies in identity data are resolved by providing an explanation to the applicant and directing the applicant to update the data through the Civil Registration Agency (Dukcapil). Changes to the land area are made through a boundary delimitation process (*limited herb*) by involving adjacent landowners. Unreadable QR codes are resolved by reprinting the electronic certificate.

As part of its efforts to maintain validity and prevent future data discrepancies, the Pekanbaru City Land Office implements multi-layered data security. Document archives and physical files received through the counter are stored in an archive warehouse, while electronic documents resulting from electronic certificates are stored in encrypted data blocks, preventing them from being easily accessed or altered by unauthorized parties. This data can be verified at any time through the *Sentuh Tanahku* application, making it easier to trace the data maintenance history of a land plot compared to analog certificates, where all records are stored in physical form and are at risk of loss or damage.²²

In terms of physical security, electronic certificates are printed on special paper issued by Peruri, equipped with a secret code that can only be verified using a special tool (laser). The security of the digital system and data blocks is entirely the responsibility of the Data and Information Center (Pusdatin) at the central level, so the Pekanbaru City Land Office at the regional level does not have access to or authority to alter the system's security mechanisms.

However, for cases requiring intervention from the Data Center (Pusdatin) at the central level, coordination becomes more complex because it involves agencies with different authorities and locations. The Pekanbaru City Land Office does not have the authority to change data at the central system level, so it must report problems through a specific communication channel (chat room) and wait for follow-up from Pusdatin, which in practice is one of the main factors extending the resolution time to up to two weeks for certain cases. This condition indicates the limited autonomy of the Land Office at the regional level in resolving data

²¹ Results of interviews with sources from the Pekanbaru City Land Office, 2026

²² *Ibid*

validity issues independently, which in turn has implications for the length of the resolution time for applicants.²³.

The theory of legal protection put forward by Philipus M. Hadjon demonstrates the existence of preventive legal protection (preventing violations or disputes) and repressive legal protection (resolving disputes or restoring violated rights). The Pekanbaru City Land Office has clearly reflected both forms of legal protection in handling data discrepancies.²⁴.

Preventive legal protection is reflected in the security features of electronic certificates (secret codes, data block encryption, QR Codes, and BSR verification) which minimize the potential for forgery or data disputes in the future, so that every interested party can verify the validity of the certificate independently through the Sentuh Tanahku application without having to visit the Land Office in person, the obligation to request written approval from the rights holder before changes to physical data are determined and a new certificate is issued, so that rights holders are aware of and consciously agree to any changes that occur to their data, while preventing the emergence of objections or lawsuits in the future regarding changes to data that they have approved themselves, and a tiered validation system that filters out problems from the counter, for example when a plot of land is found to be in a forest area or a certain concession area, the file cannot be processed immediately and must go through special stages first²⁵. Repressive legal protection is reflected in the correction mechanisms taken when data differences are found, namely through the process of delimitation in the field for significant physical data changes, correction and reprinting of erroneous data due to technical problems, and reporting to the Data and Information Center (Pusdatin) through certain communication channels if the problem cannot be resolved at the land office level.

Although both forms of legal protection have been implemented in fact, the resolution of data discrepancies in practice is still case-by-case and relies on the experience of officers in the field, because the Regulation of the Minister of ATR/BPN Number 5 of 2017 concerning Electronic Land Information Services only generally regulates that applicants can confirm with the Land Office if data discrepancies are found, without regulating in detail the stages, timeframes, or legal consequences of the resolution process. This lack of more detailed regulations creates procedural uncertainty for the public and has the potential to reduce the effectiveness of the legal protection that should be provided, because the public and PPAT do not have standard guidelines that can be accessed openly

²³ Results of interviews with sources from the Pekanbaru City Land Office, 2026

²⁴ Hadjon, Philipus M. *Legal Protection for the Indonesian People*. Surabaya: Bina Ilmu, 1987

²⁵ Hadjon, Philipus M. *Legal Protection for the Indonesian People*. Surabaya: Bina Ilmu, 1987

regarding how long the resolution process will take and what documents must be prepared for each type of data discrepancy that may be found.²⁶.

From an Islamic perspective, the principle of asset protection (*hifz al-mal*) is relevant to assessing efforts to resolve this data discrepancy, as land and its certificates are part of the assets whose validity must be protected. The Pekanbaru City Land Office's efforts to refrain from issuing electronic certificates before the data is declared valid and approved in writing by the rights holder align with the principle of prudence (*ihtiyath*) in safeguarding one's assets from being transferred or changed without the owner's valid consent.

The resolution of data discrepancies between physical certificates and electronic data at the Pekanbaru City Land Office has been implemented through a combination of preventive and repressive legal protection, but its implementation is still technically administrative and has not been explicitly stated in a written standard operating procedure specifically regulating the resolution of data discrepancies. This condition causes legal protection for land rights holders, although in substance it has been fulfilled through corrective steps taken by officers, not yet fully providing procedural certainty that can be easily accessed and understood by the public or by Notaries and Land Deed Officials who use the results of the examination as a basis for making deeds.

The significance of validating and resolving data discrepancies is evident in the practice of creating authentic deeds by Land Deed Officials (PPAT), particularly Sale and Purchase Deeds (AJB) for land that uses electronic certificates. Before creating a deed, the PPAT is required to verify the certificate through the PPAT partner service or through a land information request (SKPT) to ensure the physical and legal data match the Land Office system and to ensure there are no obstacles to the transfer of rights, such as mortgages or disputes. If discrepancies are found, the deed creation is postponed until the Land Office corrects the data. Thus, the validity of electronic certificates directly impacts the validity of PPAT deeds and provides legal certainty and protection in community land legal actions.

4. Conclusion

Based on the research results, it can be concluded that the verification of the validity of electronic land title certificates at the Pekanbaru City Land Office has been implemented through the SITATA system with a multi-layered verification mechanism for physical and legal data, thus providing legal certainty regarding the validity of electronic certificates. However, the implementation of this legal certainty has not been fully optimized due to technical obstacles, such as system

²⁶ Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency Number 5 of 2017 concerning Electronic Land Information Services.

disruptions, internet network disruptions, and limited human resources that affect the service period. In addition, the resolution of differences between physical certificate data and electronic data has been carried out through preventive and repressive legal protection efforts, but the implementation is still casuistic because it is not supported by specific standard operating procedures that regulate the resolution mechanism in detail. Therefore, strengthening regulations, infrastructure, and implementing resources is needed so that the implementation of electronic certification can provide legal certainty and more optimal legal protection for land title holders.

Based on the above conclusions, several suggestions can be made, namely the Pekanbaru City Land Office needs to strengthen information technology infrastructure, improve network quality, maintain the SITATA system, and add human resources to support the optimization of electronic certificate services. The Ministry of Agrarian Affairs and Spatial Planning/National Land Agency also needs to formulate more detailed regulations regarding the mechanisms, timeframes, and legal consequences of resolving data differences between physical certificates and electronic data in order to create procedural certainty for the public, Notaries, and Land Deed Officials. In addition, Notaries and Land Deed Officials are expected to continue to apply the principle of prudence by checking and documenting the validity of electronic certificates before making land deeds. The Land Office also needs to increase public outreach regarding the electronic certificate mechanism and the linkage of land data with the population administration system in order to reduce misunderstandings in the service process. For further research, further studies are needed regarding the effectiveness of regional-level coordination with the Land Data and Information Center (Pusdatin) in resolving complex data problems to support increasing legal certainty in the implementation of electronic certificates, considering that this aspect is also one of the factors that influences the length of time required to complete the validity check of electronic certificates as found in this study.

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