

DIGITAL TRANSFORMATION OF LAND TITLE CERTIFICATES**Azizah Alvisahrin Putri Kadi**Legal Studies Program, Faculty of Law, Universitas Muhammadiyah Surakarta
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e-mail: sugengwibowo@gmail.com**ABSTRACT**

This paper discusses the implementation of digital transformation to land certificate issuance in Sragen Regency, focusing on efficiency, transparency, and cultural inclusion. The transition from physical to digital certificates has become a global trend, driven by advances in information technology. The research methodology involved a comprehensive literature review, analysis of existing regulations, and interviews with stakeholders to understand the current landscape and challenges around land certificate digitization in Sragen Regency. In contrast to previous research, this study specifically examines the implications of digital transformation on land certificate issuance in Sragen Regency, taking into account the unique cultural context and challenges faced by the local community. By focusing on efficiency, transparency, and cultural inclusion, this paper contributes new insights to the ongoing discourse of digitization in the field of land administration. The findings highlight the significant impact of digital transformation on administrative efficiency, information transparency, and access to land ownership data in Sragen Regency. While there is widespread support for the modernization of the land administration system, challenges related to the regulatory framework, cultural perceptions, and digital literacy need to be addressed to ensure the successful implementation of digital land certificates. The digital transformation of land certificates in Sragen Regency provides many benefits in terms of efficiency and transparency. However, to fully realize these benefits, it is important to address regulatory challenges, encourage digital literacy, and integrate local cultural values into the implementation process.

Keywords: Digital transformation; land certificate; efficiency; transparency; cultural inclusion; Sragen Regency.

INTRODUCTION

Digital transformation has become a global phenomenon that sweeps across various aspects of human life, including in legal administration and property ownership. One aspect that has undergone significant changes is the land title certificate system. Land title certificates are traditionally represented by physical paper documents that contain information about the ownership and details of the property. With the rapid development of information and communication technology, more and more countries are moving to digital land title certificate systems. This is driven by various factors, including administrative efficiency, data security and information accessibility. This transformation not only affects the way we store and manage legal documents, but also creates the potential to improve efficiency, transparency and fairness in the property ownership system. It is important to understand more about these changes, both from a technological standpoint and the implications for the legal system and society as a whole.

In the context of the digital transformation of land title certificates, a number of factors are identified as the main drivers of this change. First and foremost, the advent of information technology has facilitated the development of a robust and reliable database system. A digital database system that can store information about land ownership accurately and securely facilitates more efficient and transparent processes of land ownership management and information exchange. Potentially reducing the risk of loss or forgery of physical documents and increasing legal certainty regarding land ownership. Digital land title certificates also provide benefits in terms of information accessibility. With digitally stored documents, interested parties can easily access information about land ownership online, whenever needed ¹.

Landowners, authorities, and even the general public who want to verify information about land ownership. This greater accessibility can also help speed up the property transaction process, minimize bureaucracy, and improve the overall efficiency of the property market. Furthermore, the shift towards digital land title certificates is also driven by the need for higher data security. Physical documents are vulnerable to damage, loss or forgery, which can result in

¹ Maslan, M. (2023). Prospek Sertipikat Tanah Elektronik Sebagai Upaya Perlindungan Hukum Bagi Pemegang Hak Atas Tanah Guna Terwujudnya E-Government Di Era 4.0. *Jurnal Hukum Kenotariatan Otentik's*,[2]

legal uncertainty and land ownership conflicts. A digital land title system equipped with advanced security features, such as data encryption and digital signatures, minimizes the risk of information manipulation or theft. Creating a safer environment for property transactions and increasing public confidence in the integrity of the land tenure system.²

The regulation governing the digital transformation of land rights in Indonesia is Regulation of the Minister of Agrarian and Spatial Planning/Head of the National Land Agency (ATR/BPN) Number 3 of 2023 on Electronic Land Registration. This regulation is an effort to encourage the use of information and communication technology in land administration, with the aim of improving efficiency, transparency and security in land rights registration. This regulation mandates the use of Electronic Land Book as a single reference for all Agrarian and Spatial Planning/National Land Agency partners. The Electronic Land Book is expected to become a database that cannot be falsified, facilitate access to information, and accelerate the process of transactions and records related to land rights.³

In addition, the Regulation of the Minister of Agrarian and Spatial Planning/Head of the National Land Agency also provides a mandate regarding the implementation of Electronic Systems in land registration activities. The implementation of this Electronic System includes land registration for the first time, maintenance of land registration data, recording changes in data and information, and media transfer. The use of this Electronic System aims to improve reliability, security and efficiency in the land administration process.⁴

Consequently, Regulation Number 3 of 2023, issued by the Minister of Agrarian and Spatial Planning/Head of the National Land Agency (ATR/BPN), represents a significant legal foundation for the digital transformation of land rights in Indonesia. This regulation provides direction and guidance for relevant institutions on the effective and efficient implementation of information technology in land administration.

² Masri, E. (2023). Kebijakan penerbitan sertipikat elektronik pada sistem pendaftaran tanah di Indonesia untuk mewujudkan kepastian hukum. *Krtha Bhayangkara*, 17(1), 157-174.[3]

³ Afif, Y., & Mahfud, M. A. (2023). Kepastian Hukum Terhadap Sertifikat Elektronik Hak Milik Atas Tanah. *UNES Law Review*, 6(2), 7605[4]

⁴ Afif, Y., & Mahfud, M. A. (2023). Kepastian Hukum Terhadap Sertifikat Elektronik Hak Milik Atas Tanah. *UNES Law Review*, 6(2), 7611[4]

From a technological perspective, the digital transformation of land title certificates also has a significant impact in the legal and regulatory context. The implementation of digital land title certificates requires the preparation of adequate regulations to govern the use, storage and exchange of property data electronically.⁵ This regulation needs to pay attention to aspects of data security, privacy, and legal validity of the digital land title certificate. The implementation of digital land title certificates also requires a clear legal framework related to the recognition and enforcement of the validity of electronic documents in the context of property law. This transformation also presents new challenges and opportunities in terms of digital inclusion. While the use of technology can improve the accessibility of information and the efficiency of administrative processes, not all individuals or communities have equal access to technology.

While the digital transformation of land title certificates offers a range of significant benefits, it is also necessary to be mindful of the challenges and risks associated with the implementation and use of this technology. One key risk is data security, where electronic documents are vulnerable to cyber-attacks and manipulation by irresponsible parties. It is imperative to exercise caution with regard to the potential risks associated with the protection of privacy and intellectual property rights, particularly with respect to the storage and exchange of sensitive property information. It is of the utmost importance to guarantee that the technological infrastructure underpinning the digital land title system has been meticulously designed and implemented in accordance with the highest security standards. Furthermore, it is essential to ensure that all stakeholders possess the requisite knowledge and expertise to utilize this technology in a secure and effective manner. A robust and transparent legal framework exists to safeguard data security and privacy, while also upholding the legal validity of digital land title certificates.⁶

Based on the context of digital transformation of land title certificates in Sragen Regency, this research aims to answer two main problem formulations as follows: (1) How is the implementation of information technology in the digital transformation of land rights certificates

⁵ Santosa, I., & Purwaningsih, E. (2022). Analisis Pelaksanaan Transformasi Digital Sertipikat Tanah Di Era 4.0. *Jurnal Surya Kencana Dua: Dinamika Masalah Hukum Dan Keadilan*, 9(1).[1]

⁶ Maslan, M. (2023). Prospek Sertipikat Tanah Elektronik Sebagai Upaya Perlindungan Hukum Bagi Pemegang Hak Atas Tanah Guna Terwujudnya E-Government Di Era 4.0. *Jurnal Hukum Kenotariatan Otentik's*, 5(1), 103-130[2]

in Sragen Regency, and what are the obstacles and challenges faced in the process? (2) What are the perceptions and responses of the people of Sragen Regency to the digital transformation of land title certificates, and to what extent does this transformation take into account local cultural values and the needs of digital inclusion in the region?

METHOD

The research method proposed to explore digital transformation in the context of land title certificates will use the legal context, this research can be classified as sociological normative legal research. Sociological research aims to analyze and interpret norms, applicable legal norms and identify matches or gaps between existing norms and the situation under study. In this case, the research will examine the regulations governing land title certificates and the impact of digital transformation on the existing legal framework. This research will also provide recommendations related to improvements or adjustments to regulations needed to support the implementation of digital land title certification at the Sragen Regency Land Office.

The qualitative approach of this research will involve extensive data collection from various sources, including policy documents, scholarly literature, as well as interviews with key stakeholders in the field of information technology and property law.⁷ This study employs a descriptive approach to examine the transformation process in depth, with a particular focus on the underlying drivers, challenges, and impacts on the legal system and society. A thematic approach will be employed for the qualitative data analysis, with the objective of identifying patterns, themes, and relationships that emerge from the interview data and document analysis.⁸

⁷ Creswell, J. W. (2013). *Qualitative Inquiry & Research Design: Choosing Among Five Approaches*. Sage Publications.[5]

⁸ Patton, M. Q. (2015). *Qualitative Research & Evaluation Methods: Integrating Theory And Practice*. Sage Publications.[6]

RESULTS AND DISCUSSION

1. Information Technology Implementation

The introduction of information technology in the digital transformation of land title certificates in Sragen Regency represents a significant undertaking aimed at modernizing the land administration system. This is evidenced by the implementation of Minister of Agrarian and Spatial Planning/National Land Agency Regulation No. 3 of 2023, which requires the utilization of the Electronic Land Book as the sole reference point for all Agrarian and Spatial Planning/National Land Agency stakeholders. This reflects the initiative to abandon the conventional paper-based system and transition to a system that is not susceptible to falsification and is more efficient.

However, this transformation process is not without challenges. One of the main obstacles is the readiness of infrastructure and human resources in each Land Office in Sragen Regency. The regulation emphasizes the need for the availability of reliable and secure infrastructure to support the operation of the electronic system. However, in practice, there may be constraints related to the availability of adequate hardware and software, as well as limited knowledge and skills in the use of such technology among Land Office employees. In addition, this transformation also requires serious attention to data security. Along with the implementation of electronic systems, it is important to ensure that the data stored in the Electronic Land Book remains safe from the threat of leakage or manipulation. Personal data protection and transaction security are important priorities that must be considered in the implementation of information technology in the land sector.⁹

In addition to technical constraints, the transformation process also requires the full support of various relevant parties, including communities, landowners and local governments. Awareness of the benefits and importance of this transformations needs to be widely socialized so that it can be accepted and supported by all parties involves. This can be a challenge in itself

⁹ Farahzita, N., & Arsin, F. X. (2022). Peran Pejabat Pembuat Akta Tanah Dalam Mendukung Implementasi Transformasi Digital Layanan Pertanahan Terkait Sertipikat Elektronik. *Jurnal Ilmu Hukum The Juris*, 6(1), 113-126.[7]

given the cultural changes and habits in the management of pre-existing property documents and transactions.

The implementation of the regulation on electronic certificates at the Sragen Regency Land Office has only been applied to use rights owned by the local and central government. This is due to several factors, including prioritization in the implementation process. In this context, local and central governments are regarded as direct rights holders with regard to the administration and management of the land in their possession. Consequently, the introduction of digital certificates to document their use rights represents the primary objective of the Sragen Regency Land Office's digital transformation initiatives.¹⁰

However, for community property certificates, implementation is still delayed for several reasons. One of them may be due to the complexity of the administrative process and ownership of land rights owned by citizens. The process of data verification, proof of ownership, and validation of information related to community land titles requires more time and intensive efforts. Furthermore, additional constraints may be identified with regard to the readiness of the technological infrastructure, the capacity building of human resources, and the social and cultural aspects. These factors must be taken into account in the implementation of electronic certificates for citizen property rights. Accordingly, the deployment of electronic certificates for citizens' property rights must be conducted in phases, with due consideration of the numerous associated factors, to guarantee the success and sustainability of the broader digital transformation in the land sector.

Based on data submitted by the Sragen Regency Land Office, the amount of land that has been registered is 648,130 parcels, while the number of digital certificates issued is only 184 parcels.¹¹ This evidence indicates that there are deficiencies in the digital transformation of land rights certificates, suggesting that this process has not been widely implemented. This is due to the presence of several challenges that must be addressed, including the quality of data and the

¹⁰ Handayani, A., & Anggriani, R. (2022, June). Transformasi Digital Sertifikat Tanah oleh PPAT di Kabupaten Kulon Progo. In Proceedings Universitas Muhammadiyah Yogyakarta Undergraduate Conference (Vol. 2, No. 1, pp. 194-206).[8]

¹¹ Interview by Bayu, I, S.SiT.,M. H. Kepala Saksi Penetapan Hak dan Pendaftaran Kantor Pertanahan Kabupaten Sragen, April 2, 2024.[9]

process of data verification. The proof of ownership and validation of information related to citizens' property rights certificates necessitates a significant investment of time and more rigorous efforts. Additionally, there is a need to enhance the management of land-related information, raise public awareness about the significance of land certificate ownership, facilitate increased accessibility and efficiency in the land registration process, and implement improvements. Overall, the implementation of information technology in the digital transformation of land title certificates in Sragen Regency promises better efficiency and security in land administration. However, to achieve these goals, a strong collaborative effort is needed, both in improving the readiness of infrastructure and human resources, as well as in building awareness and support from various relevant stakeholders. This not only saves time and costs in the administrative process, but also increases efficiency in services to the community and minimizes the risk of errors and data leakage.¹²

Furthermore, the digital transformation of land title certificates has enhanced the transparency of information pertaining to land ownership in Sragen Regency. The enhanced accessibility of information via digital platforms enables the general public to readily ascertain land ownership and to ascertain the status and history of property transactions in real time. This results in a more transparent and accountable environment in the land ownership system, thereby reducing the potential for conflicts and disputes that may arise from unclear or inaccurate ownership status. The digital transformation of land title certificates not only enhances administrative efficiency but also offers substantial advantages in terms of increased transparency and trust in the land system in Sragen Regency.¹³

2. Community Perceptions and Responses

The perception and response of the people of Sragen Regency to the digital transformation of land title certificates may vary, depending on how clearly informed and understood they are about this change. For some people who are already familiar with digital

¹² Adinegoro, K. R. R. (2023). Analisis Transformasi Digital Layanan Publik Pertanahan: Hak Tanggungan Elektronik Pada Kementerian Agraria Dan Tata Ruang. *Jurnal Administrasi Publik*, 19(1), 26-49[10]

¹³ Adinegoro, K. R. R. (2023). Analisis Transformasi Digital Layanan Publik Pertanahan: Hak Tanggungan Elektronik Pada Kementerian Agraria Dan Tata Ruang. 19(1), 26-49[10]

technology, this transformation may be perceived as a positive step towards efficiency and easy access to information related to land ownership. Such initiatives may be perceived as a governmental effort to enhance transparency and security in land administration, as well as facilitate an expedient and streamlined property transaction process.¹⁴

However, it is also possible that some communities still retain a preference for physical documents and local cultural values regarding land ownership. For them, a physical land title certificate may have important symbolic meaning and sentimental value, which is difficult to replace with a digital version. In addition, possible concerns regarding data security and privacy in the context of digital technology may also affect their perception of this transformation.¹⁵

In this context, it is important for those responsible for the digital transformation of land title certificates in Sragen Regency to take into account local cultural values and digital inclusion needs in the implementation process. This can be done through wider communication and socialization efforts, as well as actively involving the community in the technology development and implementation process. In addition, the provision of training and technical support for those in need is also important to ensure that no one is left behind in this transformation process. Thus, the digital transformation of land title certificates can be more inclusive and take into account the various perspectives and needs of local communities in Sragen Regency.

CLOSING

1. Conclusion

Based on the analysis of the proposed problem formulation, it can be concluded as follows:

- a) That the implementation of the Regulation of the Minister of Agrarian Affairs and Spatial Planning / National Land Agency Number 3 of 2023 concerning Electronic Land Registration has not been able to be implemented optimally. In its implementation in the Sragen Regency Land Office, it has only been implemented against the use rights of the local government and

¹⁴ Rizkia, N. D., & Fardiansyah, H. (2022). Peran Notaris Dalam Transformasi Digital Dalam Rangka Kesejahteraan Masyarakat Indonesia. *Jurnal Hukum Sasana*, 8(2), 310-323.[11]

¹⁵ Rizkia, N. D., & Fardiansyah, H. (2022). Peran Notaris Dalam Transformasi Digital Dalam Rangka Kesejahteraan Masyarakat Indonesia. *Jurnal Hukum Sasana*, 8(2), 310-323.[11]

the central government, for citizen land will be implemented in stages, because there are still several data quality constraints and the process of data verification, proof of ownership, and validation of information related to citizen property rights certificates requires time and more intensive efforts. The implementation of information technology in the digital transformation of land rights certificates in Sragen Regency has increased administrative efficiency and information transparency.

- b) For those who are familiar with digital technology, this transformation may be considered a positive step towards efficiency and ease of access to information related to land ownership and can reduce the risk of loss or forgery of physical documents, documents stored digitally interested parties can easily access information online whenever needed, while some people still maintain a preference for physical documents and local cultural values related to land ownership. For them, a physical land title certificate may have important symbolic meaning and sentimental value, which is difficult to replace with a digital version.

2. Suggestions

Suggestions for the implementation of digital transformation of land title certificates in Sragen Regency are as follows:

- a) Pay attention to digital inclusion: Measures should be taken to ensure that the entire community of Sragen Regency has access to and the ability to use the information technology required in the digital transformation of land title certificates, including adequate training and infrastructure.
- b) A broader and more intensive socialization and education program to the community on the benefits, process, and importance of digital transformation of land title certificates is needed, so as to increase community understanding and acceptance of these changes.
- c) Involving stakeholders: It is important to involve all relevant stakeholders, including local governments, the National Land Agency, non-governmental organizations, and the general public, in the process of policy formulation, implementation, and evaluation of this digital transformation.

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