



## Effectiveness of Digitalization of Electronic Certificates as an Effort to Prevent Land Mafia

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### Abstract

The development of technology is rapidly changing government policies, particularly in the field of land management. This encompasses aspects such as information data management and the digitalization of electronic manufacturing certificates. This research aims to understand and analyze the effectiveness of digitalizing electronic certificates in the effort to prevent land mafia activities. The research method employed is an empirical legal study, utilizing legislative, conceptual, and sociological approaches. The results indicate that the government is transitioning from a manual land registration system to a digital one to enhance efficiency, transparency, and legal certainty in the land sector. The digital system streamlines the land registration process, reducing both costs and time, while ensuring data security through electronic storage and digital signatures. With applications like "Touch My Land," the public can easily and transparently access land information.

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### 1. Introduction

The main task of the Land Office is to carry out the registration and maintenance of rights data on land, issue Land Title Certificates as proof of legitimate rights, and supervise and control the implementation of these rights. As a result, the issuance of land certificates provides a concrete guarantee of legal certainty regarding land ownership for the community. Since September 2016, land registration services throughout Indonesia have undergone significant changes due to a policy mandating digital plotting. This policy requires that every certificate processed at the Land Office must be accompanied by digital mapping. This policy cannot be ignored, as the integrated online land service system does not allow data input unless the plotting status has been completed. <sup>[1]</sup>

This effort is aimed at ensuring the security and protection of the rights of communities who have legitimate claims to land, so that the public does not have to worry about outside parties interfering with their land. This step reflects the government's real commitment to providing legal guarantees for every citizen's land ownership rights. A land certificate is the result of the land registration process and serves as an authentic proof of ownership. Its strong evidential nature means that no other parties can successfully contest the claim. Therefore, the land certificate becomes the main basis for providing legal certainty and protecting the rights of its holder. <sup>[2]</sup>

To strengthen the implementation of Agrarian Reform, the government will introduce an electronic land rights certification system (digital certificate). Agrarian Reform essentially aims to update the structure of land ownership, control, and usage, particularly for the benefit of smallholders who seek access to land. Through this digital system, the government is making

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<sup>1</sup> Mashita Amalia Razak, Farida Patittingi & Maskun, Mapping Certificate Digitally (Plotting) in Give Legal Certainty Regarding Land Rights, Vol 8, No 2, October, 2020, p. 145

<sup>2</sup> Raden Ayu Rani Mutiara Dewi & Catherine Susantio, Use Electronic Certificate for Increase Efficiency Land Registration in an Effort to Prevent Land Mafia, Syntax Admiration, Vol. 5, Number 9, September 2024, p.3833.

efforts to organize land data comprehensively, making it more orderly, transparent, and accessible. This initiative is part of a broader update of agrarian law, which aligns with the overall reform of national legislation. Giving certainty law on rights owner land started with product law in the form of certificate ownership land issued by the National Land Agency.

The national laws have been updated in a systematic and structured way to ensure legal certainty and protect citizens' rights. With the advancement of information technology, the government is leveraging these tools to create a more modern and efficient land management system. A key innovation being implemented is the electronic publication of land certificates. This change not only streamlines the public service process but also strengthens the land management system, making it more transparent and resilient against abuses, such as those perpetrated by land mafias.

This policy is implemented through the Regulation of the Minister of Agrarian Affairs and Spatial Planning/National Land Agency Number 1 of 2021, which has since been revised to become Regulation Number 3 of 2023 concerning Electronic Certificates. The objective of this regulation is to increase the efficiency of services, transparency, and the accuracy of land ownership data. It not only protects the rights of individual owners but also helps maintain the integrity of the overall land registration system. This regulation aims to improve the outdated systems that may no longer align with the current digital development era. Additionally, it seeks to modernize the land management system to enhance public service by maximizing the use of information and communication technology based on electronic systems.<sup>[3]</sup>

The development of technology facilitates rapid changes in government policies, including those related to land. This encompasses the management of information data and documents in electronic format. Documents generated electronically are recognized as legal proof. This is reinforced by Article 84 of Government Regulation Number 18 of 2021 concerning Management Rights, Land Rights, Apartment Units, and Land Registration, which states that the organization and implementation of land registration can be conducted electronically. Furthermore, electronic data and information can serve as valid legal evidence.

Government Regulation Number 24 of 1997 concerning Amended Land Registration, along with Government Regulation Number 18 of 2021 regarding Management Rights, Land Rights, Apartment Units, and Land Registration, outlines the obligations of the government to conduct activities related to sustainable and regular management. These activities include the collection, management, recording, presentation, and maintenance of legal data (such as the identity of landowners and the type of land rights) as well as information related to displacement or loading. Additionally, the regulation covers physical data, including field maps, measurement letters, and floor plans of stacked housing units. This also encompasses the issuance of letters as proof of ownership for specified land parcels.

When land is requested for a published certificate for the first

time, it is necessary to have map registration of the land to prevent the occurrence of double certificates. If the land to be published is located on the Registration Map but is found to be in an area where there is already a field that has been issued a certificate, then the land cannot be published for a certificate again. However, if the land to be published is mapped on the Registration Map and is found to be in an empty location with no existing registered field, there are two possibilities: either the field has not yet had a certificate published, or the field has been published before but is not yet mapped on the Registration Map. This situation can lead to conflicts within the community. Disputes may arise not only because of the size of the land but also due to issues regarding the legality of ownership, which can be related to documentation associated with the property.<sup>[4]</sup>

Land disputes in Indonesia are still common, primarily due to the rise of land mafia practices. The term "land mafia" refers to groups or individuals who engage in land-related crimes, exploiting gaps in administration, weaknesses in the legal system, and inadequate oversight to manipulate land documentation. Their methods vary widely, including forgery of certificates, duplication of documents, overlapping rights, and collusion with certain officials. These practices not only harm society but also undermine public trust in land institutions and disrupt the investment climate in Indonesia. The land mafia frequently employs organized crime methods, with forgery of land documents being one of the most common tactics. They often engage in "lawsuit engineering" to gain rights to land, manipulating legal processes while involving corrupt officials. The methods used by the mafia are rooted in criminal behavior in the real estate sector, which encompasses both *actus reus* (the act of committing the crime) and *mens rea* (the intention behind it). This means that there are both subjective and objective elements present in the actions undertaken by the land mafia.<sup>[5]</sup>

One of the root problems contributing to the rise of land mafia is the still-dominant administrative system, which relies on infrequently encountered forms of documentation that create issues around dual ownership of land. This dependence on physical documents makes land data susceptible to loss, damage, or forgery. Furthermore, a long and inefficient bureaucracy lacks transparency, creating opportunities for bribes and extortion. This situation necessitates a fundamental change in the national land system to make it more efficient and to prevent criminal activities related to land management.

In response to the need for improvement, the government, through the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN), has launched a policy for digital land certification, also known as electronic certificates. This transformation is not merely a modernization of public services but is part of a broader agrarian legal reform aimed at strengthening the protection of society's rights. The goal of digitalization is to create a more transparent, efficient, and accountable land system while simultaneously establishing mechanisms to combat land mafia activities.<sup>[6]</sup>

The importance of change can be seen from various

<sup>3</sup> Bayu Aji PPermana, Abdul Halim & Ali Uraidi, *Legal Power of Evidence Electronic Certificate in Cases Civil According to the Regulation of the Minister of ATR/BPN No. 3 of 2023*, *Calm Publishing Electronic Certificates in Activities Registration Land*, Journal Scientific Access, 2024, p. 64

<sup>4</sup> Yusuf Slamet, *The Cause The emergence Land Disputes*, *Journal Of Comprehensive*, Vol 2, No. 6, 2023, p. 1523.

<sup>5</sup> Romli Atmasmita, *Reconstruction of the Principle of Criminal Acts Without Fault: Green Straft Zonder Schuld*, 1st Edition, Jakarta, Gramedia Pustaka Utama, 2017, p. 100

<sup>6</sup> Muhammad Syahril Batubara & Mhd. Hafidz Affandi, *Digital Transformation of Land Law in an Effort to Prevent Land Mafia*,

perspectives. From the standpoint of legal certainty, the digitalization of land certificates provides stronger protection, as ownership data is recorded electronically in a way that is difficult to manipulate. This reduces the risk of forgery or duplication of documents, which often occurs with physical certificates. In terms of public service efficiency, the administrative processes related to land can be completed more quickly, simply, and transparently, thereby reducing costs, time, and potential opportunities for extortion. From the perspective of societal protection, digitalization ensures that landowners' rights are safer, as the data is stored in a durable electronic database that is resistant to physical damage or loss.

Although general interests tend to confirm individual interests, this does not mean that the country dismisses individual interests as essential to personal humanity. In fact, the general interest often imposes restrictions on individual interests. Individual interests do not rely on the principle of "ius suum" when faced with ignorance of the law. However, individual interests, along with general interests and societal interests, should be based on social justice for all Indonesian people.

Furthermore, in the effort to prevent land mafia activities, digitalization is a strategic step. An integrated and transparent system will limit the usual loopholes that land mafias exploit. Every transfer of rights, data change, or land transaction can be recorded clearly and traced digitally. This strengthens supervision and reduces the opportunity for data manipulation. Additionally, the introduction of electronic certificates aligns with the demands of the digital era, necessitating a modern legal and administrative system that can adapt to ongoing developments, including those in the digital world.

Despite the implementation of the digital land certification system, challenges remain. Issues such as inadequate technological infrastructure throughout Indonesia, cybersecurity concerns, the digital literacy gap among the population, and uncertainties in regulations governing electronic data protection must be addressed. Without strengthening these aspects, the goals of digitalization may be hindered, preventing the realization of legal certainty and the prevention of land mafia activities.

This study aims to evaluate the extent to which digitalization truly provides greater benefits compared to the traditional system and to identify the necessary adaptations to align with current developments. Additionally, it seeks to assess the obstacles that must be overcome to achieve major land reforms in Indonesia. With the introduction of digital land certification, Indonesia is expected to build a modern, fair, and just land system while simultaneously closing the door on long-standing land mafia practices that have harmed both society and the state.

The objective of this research is to examine whether the Regulation of the Minister of Agrarian Affairs and Spatial Planning/National Land Agency Number 3 of 2023 has been effectively implemented, or if it requires improvements from either the National Land Agency or the regulation itself. The findings of this study aim to assess the harmony between "das sein" (what is) and "das sollen" (what should be) regarding the Regulation concerning Electronic Certificate

Registration.

Based on the background mentioned above, several key questions can be formulated: Why did the government decide to change the land registration system from a manual process to a digital one? Additionally, how does the arrangement of digital land certificates influence efforts to prevent land mafia activities?

## 2. Research Method

In this research, the writer focuses on empirical legal studies, conceptualizing law as a real behavior that reflects social phenomena. This approach recognizes that law is experienced by everyone in society.

The object of this study is sociological juridical legal research, which examines the effectiveness of law in practice within the public sphere.<sup>[7]</sup>

In research law, there are several approaches that can be used to gather information about current issues being studied. One of the approaches is the Statutory Approach, which involves examining all laws and regulations related to the current legal problems under investigation. Another approach is the Conceptual Approach. This method focuses on examining the views, doctrines, and opinions that have developed within legal science. The Conceptual Approach is often understood as studying the concepts, opinions, and views of experts (doctrines) related to the specific legal problem being researched.<sup>[8]</sup> Researchers in study This do approach with method study concepts, expert views, as well principle principle related laws with the problem being studied in study this. Approach Sociological Law, Approach sociology law is analytical approach How reactions and interactions that occur when the normative system working inside public.

In analyzing the data, the author employs an analytical method, specifically a qualitative approach using both primary and secondary data. The qualitative approach is a research analysis method that produces descriptive data, which includes information provided by respondents in written or verbal form, as well as actual behavioral observations. This type of research is comprehensive and aims to provide a thorough understanding of the subject matter. In qualitative analysis, the quality of the data is crucial. Researchers focus on the quality of the material being analyzed. Therefore, it is essential to recognize that the goal of qualitative analysis is not solely to uncover the truth, but also to understand it in depth.

## 3. Discussion

### 3.1. System Change Policy Land Registration from Manual System to System Digitalization

#### 3.1.1. Background Digitalization System Land Registration

In the process of implementing public services in a country, the primary beneficiaries are the public, which includes both internal elements (government) and external elements (society). Public service can be understood as a process of fulfilling the general needs of the community, addressing both internal and external public interests through government bureaucracy. This is particularly important for meeting the evolving needs of society.

Land registration involves a series of activities carried out by

the government continuously and regularly. This includes the collection of information and specific data about land in certain areas, as well as its management, storage, and presentation. The aim is to serve the interests of the people by providing legal certainty in land ownership, which includes issuing proof of ownership documents.

The advancement of technology has undeniably brought many benefits to communities around the world in our daily lives. As we enter this digital era, the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency, referred to as ATR/BPN, has launched an electronic land service. This service facilitates land registration and is governed by the 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.

Registration land is one of the government programs in the orderly administration of land. As Article 1, paragraph 9 of Government Regulation of the Republic of Indonesia Number 18 of 2021 concerning Management Rights, Land Rights, Apartment Units, and Land Registration states:

" registration land is series activities carried out by the government in a way Keep going continuous, ongoing and regular covering collection, processing, bookkeeping and presentation as well as maintenance of physical data and legal data, in form maps and lists, regarding fields land, space on land, space lower land and units House stack, including giving letter sign proof his rights for fields land, space on land, space lower land that has been There is his rights and rights owned by on unit House arrange as well as rights certain things that burden him."

In 2021, policies established by the Minister of Agrarian Affairs and Spatial Planning, who is also the Head of the National Land Agency, aimed to provide an electronic land ownership certificate. This policy was created to implement the regulations outlined in the Job Creation Law (Law Number 11 of 2020). Specifically, it is formalized in the Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency Number 3 of 2023 regarding Electronic Certificates.

The primary goal of the Job Creation Law is to accelerate economic growth, streamline policies between the central and regional governments, ease the business climate, and resolve issues related to overlapping regulations. The implementation of Electronic Certificates is designed to enhance land registration, contributing to the Ease of Doing Business (EODB) in Indonesia, which is currently ranked 73 out of 190 countries. This indicates that Indonesia still has room for improvement in its land registration system. Furthermore, with the Grand Design of the Land Service Modernization Roadmap for 2021-2022, the focus is on establishing a One-Stop Electronic Service, which includes the issuance of electronic certificates to facilitate business operations in Indonesia.<sup>[9]</sup>

Enforcement of land registration using electronic methods in Indonesia is being implemented gradually to ensure readiness of infrastructure and human resources from the Land Office as mandated by the Minister. Enforcement of land registration using electronic methods in Indonesia is being implemented gradually to ensure readiness of infrastructure and human

resources from the Land Office as mandated by the Minister. Enforcement of land registration using electronic methods in Indonesia is being implemented gradually to ensure readiness of infrastructure and human resources from the Land Office as mandated by the Minister.<sup>[10]</sup> The electronic procurement registration of land is conducted through a verified electronic certificate or an electronically signed document, which serves as valid proof of land ownership. Additionally, the role of the electronic certificate in relation to the Job Creation Law is to ensure legal certainty. It is essential to conduct tests on the system and the data information it contains, particularly regarding the security of both data and information components from the electronic certificates. This will help the public trust that the electronic certificate serves as valid proof of rights and can ensure legal certainty for everyone.

### 3.1.2. Policy Digitalization Land in West Lombok Regency

Orderly administration in land affairs is part of organizing government activities related to land. This includes managing, determining, and regulating land rights to provide legal protection and certainty.

In this context, the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency has modernized its administrative services by implementing electronic processes. This initiative is outlined in Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia Number 3 of 2023, which pertains to the issuance of electronic documents for land registration activities. This regulation is referred to as Minister of ATR/KBPN No. 3 of 2023.

In the provisions of the Regulation of the Minister of Agrarian Affairs and Spatial Planning / Head of the National Land Agency Number 3 of 2023, four provisions become active in publishing electronic documents in land, stated in Article 3, paragraphs 1 and 2, read:

1. The Ministry organizes an electronic system as intended in Article 2 paragraph (3) in particular, reliable and safe, as well as a responsible answer to the operation system electronic as should be
2. System electronic, as referred to in paragraph (1), shall be applied for the activity:
  1. Registration of land for the first time;
  2. Registration data maintenance land;
  3. Recording changes in data and information; and
  4. Media transfer

Before the implementation of electronic land registration, Indonesia utilized a conventional method of land registration regulated by Government Regulation No. 24 of 1997, which serves as the framework for implementing Law Number 5 of 1960 concerning Basic Agrarian Principles. The initial implementation of land registration occurred in two ways: systematically and sporadically. Systematic registration was conducted based on the initiative, costs, and locations determined by the National Land Agency (BPN), while sporadic registration was initiated by landowners, with costs

<sup>9</sup> Qonita Rizkiana & Widhi Handoko, *Existence Electronic Certificates Against the Job Creation Law in Ensuring Legal Certainty*, Journal Notarius, Vol 16, No 2, 2023, Pg 902

<sup>10</sup> Hashfi Sanjaya Maulana, Nicholas Rangga Ardhi Nugraha, Raden Mas Agra Arindah, et al, *Urgency Electronic Certificate with Monitoring AI - based for Efficiency Land Registration and Mitigation of Land Mafia in Indonesia*, Customary Law Journal, Vol 2, No 1, 2024, Pg 3

and locations also determined by them.

In terms of completion time and announcement, systematic land registration is generally faster compared to sporadic registration. Additionally, while sporadic registration does not require a committee, systematic registration is conducted through a formal committee.

In the conventional land registration system, all documents and certificates that prove ownership are physically created, and the entire process requires a direct visit to the National Land Agency (BPN) office. From the perspectives of efficiency, accountability, and accessibility, this traditional method is time-consuming and costly since all transactions occur offline. Furthermore, conventional land registration does not adequately support convenience and transparency because all information related to land use is not readily available and requires a direct visit to the BPN office.

In comparison to the conventional system, the electronic land registration system utilizes digital media to improve the process. Previously, all tasks—such as information retrieval, submission, administration, and result collection—had to be performed at the BPN office using physical or paper files. However, with the implementation of electronic systems, many processes have become simpler. One example is the "Touch My Land" application launched by BPN, which facilitates easier access to land registration services.

### 3.1.3. Implementation Digitalization Land in West Lombok Regency

The digital era marks a significant transition from offline to online processes. With advancements in knowledge and technology, electronic administration enables land registration to be conducted electronically. This results in data and information being stored in digital form, as opposed to conventional methods.<sup>[11]</sup>

The Ministry of ATR/BPN is implementing electronic certificates in this digital era as a positive step towards improving services and modernization. In today's digital age, public access to services has become more practical and efficient. The advancement of technology empowers the previous conventional registration methods, allowing for a transition to an electronic archiving system, which is planned to serve as substantial evidence.

This initiative aligns with the efforts for data integration outlined by the Ministry of ATR/BPN in Regulation No. 3 of 2023. However, there are still numerous obstacles faced by both the public and the officers responsible for organizing these services. Though most activities are now conducted digitally, the results of the electronic certificate implementation represent significant progress. Nevertheless, it is essential to reassess the urgency and relevance of implementing electronic certificates.

Since its initial introduction, the land certificate has served as the final document in the land registration process, usually issued in print format (analog). These analog land certificates are printed on paper, equipped with a hologram featuring the BPN logo, and include a copy of the land book and measurement deeds sewn together as a single document.

However, following the provisions of Article 5 of Law Number 11 of 2008 concerning Electronic Transactions and Information (ITE Law), there is a possibility to transition to

an electronic format that retains legal validity. Additionally, the issuance of Government Regulation Number 18 of 2021, which addresses Management Rights, Land Rights, Apartment Units, and Land Registration, stipulates that land registration can be conducted electronically, resulting in data, electronic information, and/or electronic documents.

In accordance with the Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency (ATR/BPN) Number 3 of 2023, legal and physical data previously stored in an analog system must be transitioned to an electronic system. Article 34 of this regulation outlines that the transfer of data from analog to electronic formats should involve methods of verification and validation. This pertains to physical data found in measurement letters and legal data documented in land books, which will then be saved in an electronic system. The issuance of electronic certificates includes data that represents legal information, forming part of the unified Electronic Land Book (BT-el). In addition to BT-el, there is also a term for electronic measurement letters (SU-el), representing physical data that will be consolidated into the electronic system.

The development of this electronic land-based system was initiated by the Ministry of ATR/BPN in 1997, starting with the Land Office Computerization (LOC) program. This was later evolved into the Computerized Land Activity Desktop (KKP-Desktop), eventually simplifying to just KKP. The KKP underwent a name change to Geo-KKP and ultimately became a web-based application known as KKP-Web. This application has been in use for a considerable time; it has recently been renamed to enhance accessibility and ensure data security, featuring a login system that employs One Time Password (OTP) authentication.

The electronic service for land-based systems is now supported by the Ministry of ATR/BPN through its Application Portal, which facilitates the electronic publishing of certificates. The process of publishing electronic certificates requires preparation activities such as the validation of Pre-SU-el and Pre-BT-el, which then lead to the issuance of an Electronic Pre-Certificate (Pra Sertel). These activities are designed to expedite the transfer process for publishing electronic certificates and are managed by the Land Office (Kantah) under the Ministry of ATR/BPN.

However, the implementation of electronic certificate publishing by land offices is not as straightforward as outlined in the Regulation of the Minister of ATR/BPN No. 3/2023, along with the Verification Work Procedures (TCK) for the Land Book (BT) and Measurement Letter (SU). This is evident with BT and SU data from earlier years, specifically between 1970 and 1990, which has not yet been entered into the ATR/BPN Application Portal. Consequently, there are specific challenges related to the verification of BT and SU data, presenting difficulties for land offices prioritized for electronic document publishing.

To achieve the welfare of the people, it is essential to address the various land issues that remain unresolved in the community. The government is urged to develop policies that effectively resolve these problems. Based on interviews with sources, researchers have identified two main factors affecting the readiness of the West Lombok Regency Land

<sup>11</sup> Galuh Dwi Anugrahany *et al*, *Urgency Electronic Land Certificate As Transformation System Magelang Land Registration* " Journal of Law and Citizenship, Vol 2, No 8, 2024, pp. 91-100

Office to issue electronic certificates: legal factors and non-legal factors.

### Legal Factors

The first factor that becomes reject measuring evaluation effectiveness or whether or not it is see to factor law. That alone, there are several matter the following is what becomes a barrier from effectiveness of the is: <sup>[12]</sup>

- a. Not followed the principles of the enactment of the Law
- b. Not yet available, regulation is much needed for implementing the law
- c. The ambiguity of the meaning of words in the law results in confusion within interpretation as well as its implementation.

Several factors can inhibit the effectiveness of laws pertaining to various products. In fact, laws are established to promote a better life, with security and order guaranteed by the government, as well as certainty provided by codified legal provisions. When all parties involved in the enforcement of the law conduct themselves appropriately, it naturally facilitates the achievement of security and order in society.

One significant implementation within the realm of land management is the enactment of Law Number 5 of 1960, which addresses the Basic Agrarian Regulations. Additionally, the government has introduced a policy through the Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency, Number 3 of 2023, concerning Electronic Certificates. This regulation ensures the fulfillment of legal rights related to land in an efficient, simple, fast, secure, and fair manner, ultimately contributing to the welfare of the public.

### Non-Legal Factors

The next factor that can influence sustainability in the publishing of electronic certificates is non-legal factors that affect society's perception of the effectiveness of legal measures. Society often tends to reject evaluations of laws when they believe the law alone should serve the public good. Individuals have a responsibility to understand the law, which significantly impacts its enforcement. According to legal fiction, the presumption of knowledge states that individuals are expected to be aware of the law.

In an interview with Mrs. Wiwin Wynarti, the Coordinator Head of Land, Space, and Development Rights Maintenance Sub for PPAT Region II, she mentioned that the process of publishing electronic certificates should be made easier for society. For example, in the event of a flood, if a physical certificate is damaged by water, it is usually difficult to reissue it because it requires the submission of a lost property letter. However, with electronic certificates, they can be easily reissued since they are verified through the "Touch My Land" system.

One of the challenges is that many members of society are hesitant to transition from analog to electronic certificates, citing a lack of understanding of the application process. Therefore, improving legal awareness among the public is essential; for the welfare of the community, there must be obedience to and comprehension of the law.

Regarding the condition of Human Resources (HR) at the

Land Office of West Lombok Regency, they are quite qualified. In an interview with Mr. Abdul Rasyid, the Head of the General Administration Sub-Section, he stated that the Head of the Office continually encourages employees to participate in education and training programs provided by the government to enhance service quality. However, he acknowledged that there are challenges, such as occasionally being overwhelmed by workloads due to a limited number of human resources. Nonetheless, despite these limitations, good cooperation among employees can help overcome these issues.

Additionally, the absence of necessary means or facilities can hinder the effective enforcement of the law. Essential resources include educated and skilled personnel, well-organized structures, adequate equipment, and sufficient financing. If these conditions are not met, achieving legal enforcement goals becomes unfeasible.

Adequate facilities and infrastructure are also crucial for delivering good service. The Land Office of West Lombok Regency has established a service counter where the public can register their land. Based on my observations, the service counter is organized, clean, and comfortable, with plenty of instructions available, making it very helpful for individuals visiting the Land Office of West Lombok Regency.

This matter, in accordance with what is explained by Soejono Soekanto in his book entitled *Factors That Influence Law Enforcement*, that for problem means or facilities, should be followed road thought as follows:

1. Who does not? There must be a new one.
2. The damaged one or the wrong one must be fixed or corrected;
3. What is lacking, then must be added;
4. The stuck one, so must be launched;
5. The one who retreated or declined so must be advanced or upgraded.

Based on the views of Soejono Soekanto, it can be concluded that optimal service provided by an agency depends on several factors. Optimal service is not solely reliant on human resources; it also includes the infrastructure available. The goal is to create a sense of security and comfort for the community, ensuring that they are not affected by a lack of facilities. When services are optimized with the right tools and skilled workers, they can greatly benefit the community and leave a positive impression of the agency.

## 3.2. Influence Arrangement Digitalization in Publishing Electronic Certificates in an Effort to Prevent Land Mafia

### 3.2.1. Land Mafia Prevention After Publishing Electronic Certificate.

One of the main issues in land administration is the forgery of land certificates, duplication of records, and overlapping disputes, often exacerbated by the practices of land mafias. These problems contribute to various land disputes and pose a threat to society. Therefore, the government must implement innovative legal measures to address these challenges and ensure legal certainty. As society becomes increasingly diverse and complex, the law must also evolve, including the principles of substantive law and the establishment of adaptive institutional frameworks. The

<sup>12</sup> Soejono Soekanto, *Factors That Influence Law Enforcement*, Rara Grafindo Persada, Jakarta, 2007, pp. 17-18

implementation of electronic certificates in land administration plays a crucial role in achieving efficiency, security, and certainty, thereby reducing the possibility of land disputes.<sup>[13]</sup>

The Ministry of Agrarian Affairs and Spatial Planning/National Land Agency is currently taking progressive steps to enhance services and embrace modernization. In this digital era, these changes provide convenience for society, making various activities more practical and efficient. Innovative technology has enabled a transition from conventional registration methods to electronic archiving, which is planned to become a more substantial proof method. This initiative also aims to integrate the data managed by the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency.

Electronic archiving is the process of converting analog media into digital formats. The purpose of electronic archiving is to preserve records and maintain accessibility, allowing the community to access information as widely as possible. Electronic archiving can be utilized for publishing activities, documentation, and research. Digitizing records is expected to serve as an alternative method for preserving archives over the long term.

The advantages of electronic archiving include the ability to support a larger volume of historical data, the capacity for archivists to quickly provide proof of transactions, reduced processing time, operational cost savings, a conducive working environment, easy maintenance of archives, straightforward job status tracking, and a more flexible procedural system.

The urgency of electronic archiving stems from the vulnerability of physical documents to damage. This damage can be caused by biological factors, such as insects and fungi, particularly in tropical regions. Additionally, physical factors like heat, moisture, and light can also lead to deterioration.

The electronic archiving model for land certificates can begin with land registration stages. This aligns with Article 1, Paragraph (1) of the Republic of Indonesia Government Regulation Number 24 of 1997 concerning Land Registration, which states that land registration consists of a series of activities carried out by the government continually and regularly. These activities include the collection, management, bookkeeping, presentation, and maintenance of both physical and legal data, in the form of maps and lists pertaining to land plots and housing units, including the issuance of certificates as proof of ownership.

This initiative aims not only to increase efficiency and transparency in land administration management but also to provide strong legal certainty for land rights holders. The digitalization of land administration simplifies the registration process, validation, and monitoring of land ownership status within an integrated and secure system.<sup>[14]</sup>

However, certificate electronics also pose threats if not implemented properly. The most crucial threat is the existence of hacked accounts in applications supporting electronic activities.<sup>[15]</sup> In addition to the existence of hacking account, other existing threats in certificate electronic is existence error at the time data entry or moment media transfer as well as existence fear at the time Notary

Public or PPAT or people who want to use application the rather an error occurred and did not can accessed.

Based on an interview with Mr. Rasyid, the Head of the General Administration Sub-Section, he stated that "the electronic certificate significantly reduces the risk of document forgery because data is stored electronically in a secure land database. This makes it difficult for unauthorized individuals to access the information, thereby mitigating the risk of document forgery."

The analysis suggests that one effective way to minimize practices associated with land mafias is by implementing electronic signatures used by authorized officials. This electronic signature system helps to reduce the likelihood of signature forgery. As a result, when members of society wish to engage in buying or selling land, the process becomes simpler and more efficient. They can easily verify the authenticity of the electronic land certificate provided by the seller using a barcode scanning method with the "Touch My Land" application. This allows them to match the data on the physical electronic certificate with the information stored in the application.

Legal disputes concerning land often arise from complaints made by a party (whether an individual or a legal entity) that includes objections and claims regarding land status, priority, and ownership. The aim is to reach a resolution through administrative means in accordance with applicable regulations.

### 3.2.2. Influence Arrangement Digitalization in Publishing Electronic Certificate

The electronic land certificate is an important final step in the land registration process. However, there are challenges associated with it, particularly concerning the electronic processing from the initial application to the issuance of the certificate. Key issues include data security to protect the rights of holders and the validity of the e-certificate in legal contexts.

The electronic certificate represents an innovative advancement developed by the Ministry of Agrarian Affairs and Spatial Planning (ATR/BPN) to streamline the land registration process, making it more efficient and accessible online. This is in response to the demands of the digital era.

To regulate this process, the Ministry of ATR/BPN initially issued the Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency Number 1 of 2021, which outlined the framework for Electronic Certificates. However, this regulation has been revoked and replaced by the Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency Number 3 of 2023. This new regulation aims to enhance the efficiency of land registration activities, provide legal certainty and protection to certificate holders, reduce disputes and conflicts related to land, and increase the number of registered properties, ultimately improving Indonesia's ease of doing business ranking.

Land Office West Lombok Regency at the moment This apply service new in the form of certificate electronics. Success in implementation certificate media transfer electronic need support from various aspect in one of the

<sup>13</sup> Silviana A, *Urgency Electronic Land Certificates in the Land Registration Legal System in Indonesia*, Administrative Law & Governance Journal, Vol 4, No 1, 2021, p. 61

<sup>14</sup> Siti Annisa, "Legal Analysis of the Publication of Dual Certificates and Mechanisms The solution", Journal of Law Lex Generalis, Vol 5, No 5, 2025, p. 15

<sup>15</sup> Laura Helena Wiryana, Op cit, p. 4408

organizations qualified employees as driving force aspect others. However in implementation that occurs influence changes in the flow work, structure organization in accordance with authority new, and changes other. The existence of proof of land ownership is crucial to achieving certainty in land law. All information regarding existing laws and the physical characteristics of land, whether in physical or electronic form, is considered accurate and essential for daily legal needs and court proceedings.

The implementation of electronic certificates within the Indonesian land system is an important step in providing legal certainty and protection of land rights. The Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency has stated that electronic land certificates issued by the government are guaranteed to be secure, due to the robust security systems in place and the multi-layered data center supporting them. As a result, electronic certificates are safer compared to conventional certificates, which are susceptible to being lost or damaged.

The transition from analog to electronic certificates has both positive and negative impacts. The use of electronic certificates offers numerous benefits, including improved accessibility, more efficient certificate issuance and verification processes, and enhanced security through encryption technology. This shift also supports environmental sustainability by reducing paper usage.

There are several challenges that need to be addressed, including the digital divide among users, cybersecurity threats, and difficulties in adapting to new technology. By implementing effective mitigation strategies, we can minimize potential negative impacts and gain a comprehensive understanding of the dynamics involved in this transition. We hope that the shift from analog certification to electronic certification will be completed and will benefit everyone involved.

#### 4. Conclusion

The government is transitioning the land registration system from a manual to a digital format to enhance efficiency, transparency, and legal certainty in the land sector. This digital system simplifies the land registration process, reduces costs and time, and ensures data security through electronic storage and digital signatures. With applications like "Touch My Land," the public can easily and transparently access land information. Overall, the digitalization of land registration demonstrates the government's commitment to providing modern, fast, and secure land services that ensure legal certainty for the public. The introduction of electronic certificates has proven effective in preventing land mafia activities, increasing efficiency, transparency, and data security through encryption and digital signature systems.

Since the implementation of electronic certificates in June 2024, no disputes related to overlapping claims or administrative defects have been reported. This initiative at the National Land Agency (BPN) is a strategic innovation that strengthens legal certainty, improves service efficiency, and combats land mafia activities. However, successful implementation requires supporting regulations, readiness of human resources, and active community participation.

#### 5. References

1. Sutedi A. Land rights certificate. Jakarta: Sinar Grafika; 2011.
2. Amirudin, Asikin Z. Introduction to legal research methods. 10th ed. Jakarta: Rajawali Pers; 2012.
3. Arba. Spatial planning and land use law. 2nd ed. Jakarta: Sinar Grafika; 2018.
4. Rahman A. Politics agrarian. Jambi: Salim Media Indonesia; 2019.
5. Permana BAP, Halim A, Uraidi A. Legal power of evidence electronic certificate in civil cases according to Regulation of the Minister of ATR/BPN No. 3 of 2023 concerning electronic certificates in land registration activities. *Jurnal Ilmiah Access*.
6. Anugrahany GD, et al. Urgency of electronic land certificates as transformation of the Magelang land registration system. *Journal of Law and Citizenship*. 2024;2(8).
7. Maulana HS, Nugraha NR, Arindah RMA, et al. Urgency of electronic certificates with AI-based monitoring for efficiency of land registration and mitigation of land mafia in Indonesia. *Customary Law Journal*. 2024;2(1).
8. Adnyani IKDS, Windari RA, Setianto MJ. The importance of electronic land certificates in the digital era as proof of land ownership rights. *Journal of Communication Yustisia*. 2024 Aug;7(2).
9. Razak MA, Patittingi F, Maskun. Digital certificate mapping (plotting) in providing legal certainty regarding land rights. 2020 Oct;8(2).
10. Ardani MN. Orderly land administration to support implementation of the authority, duties, and functions of the National Land Agency. *Administrative and Governance Journal*. 2019 Aug;2(3).
11. Muhaimin. Legal research methods. Mataram: Mataram University Press; 2020 Jun.
12. Batubara MS, Affandi MH. Digital transformation of land law in an effort to prevent land mafia. *SANCTIONS (National Seminar on Law, Social and Economics)*. 2025;4(1).
13. Rizkiana Q, Handoko W. Existence of electronic certificates against the Job Creation Law in ensuring legal certainty. *Journal Notarius*. 2023;16(2).
14. Dewi RARM, Susantio C. Use of electronic certificates to increase efficiency of land registration in an effort to prevent land mafia. *Syntax Administration*. 2024 Sep;5(9).
15. Mukadar R, Laturette AI, Larupono B. Legal certainty of electronic certificates as proof of land ownership. *Pattimura Law Study Review*. 2023;1(1).
16. Putra RA, Winanti A. Urgency of publishing electronic land certificate documents following Regulation of the Minister of ATR/BPN Number 3 of 2023. *USM Law Review Journal*. 2024;7(2).
17. Atmasasmita R. Reconstruction of the principle of criminal acts without fault: geen straf zonder schuld. 1st ed. Jakarta: Gramedia Pustaka Utama; 2017.
18. Sahnun, Fathoni MY, Salat M. Implementation of the principle of justice in land acquisition for development in the public interest. *Ius Journal of Legal and Justice Studies*. 2015 Dec;3(9).
19. Silviana A. Urgency of electronic land certificates in the land registration legal system in Indonesia. *Administrative Law & Governance Journal*. 2021;4(1).
20. Annisa S. Legal analysis of the publication of dual certificates and solution mechanisms. *Journal of Law Lex Generalis*. 2025;5(5):15.

21. Soekanto S. Factors that influence law enforcement. Jakarta: Rara Grafindo Persada; 2007.
22. Lukman W. National agrarian law part 1 (history, conception & regulation). Pancor: Guepedia; 2020 Dec.
23. Slamet Y. Causes of the emergence of land disputes. Journal of Comprehensive. 2023;2(6).

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