
Analysis of the Implementation of Digitalization of Registration and Issuance of Land Certificates: Agrarian Law Perspectives in Indonesia

Dr. Hj. Elza Syarief*

*Lecturer at the Law Studies Program, Postgraduate S-2, Universitas Internasional Batam Jl. Gajah Mada,
Baloi – Sei Ladi, Batam – 29442, Kepulauan Riau, Indonesia
Email: humas@uib.ac.id*

Abstract

For the community, land has a multidimensional meaning from an economic, political, cultural and transcendental perspective. The purpose of this research is to understand the land certificate as proof of rights and proof of ownership of land rights, to analyze the application of digitalization of registration and issuance of electronic land certificates in the perspective of agrarian law in Indonesia. The method in this research is to use a normative juridical approach, an approach that refers to the prevailing laws and regulations. The results show that land is one of the main problems in Indonesia to provide protection and guarantee legal certainty where the government issues a new policy, the Regulation of the Minister of Agrarian and Spatial Planning / Head of the National Land Agency of the Republic of Indonesia regarding Electronic Certificates (*Peraturan Menteri or Permen ATR/BPN RI No.1 2021*) which aims to realize the modernization of land services in order to improve the indicators of ease of doing business and public services to the community based on the optimization of the use of information and communication technology (ICT). However, these regulations must be based on aspects such as ideology, politics, economy, social, culture, law and human rights in the context of their creation and the conditions that allow them to be made in accordance with the constitution, the 1945 Constitution.

Keywords: land; land certificate; Permen ATR / BPN RI No.1 year 2021; information and communication technology (ICT); the 1945 Constitution 1945; Indonesia.

* Corresponding author.

1. Introduction

Philosophically, land tends to be defined as land and not soil so that soil is seen in a multidimensional vision [1], land is considered one of the most valuable non-renewable resources on planet earth (Lal R. 2015 in [2]), and land for the community has a multidimensional meaning from various sides as follows: (a). Economically, land is a means of production that can bring prosperity; (b). Politically, land can determine a person's position in community decision making; (c) Culture, land can determine the level of social status of the owner, and (c). Transcendental, land has a sacred meaning because it deals with inheritance and transcendental problems [3]. Then, conceptually, agriculture consists of two different main aspects, namely (1). aspects of control and ownership, and (2). aspects of use and utilization [4]. This is clearly seen in the boundaries of agrarian reform contained in the Decree of the People's Consultative Assembly of the Republic of Indonesia Number IX / IX / 2001 concerning Agrarian Reform and Natural Resource Management (MPR RI Decree No. IX of 2001) Article 2 which states that agrarian reform includes a continuous process with regard to restructuring the control, ownership, use and utilization of agrarian resources, carried out in order to achieve legal certainty and protection as well as justice and prosperity for all Indonesian people [5]. In this context, it can be interpreted that the MPR RI Decree No. IX of 2001 is to regulate matters related to agrarian reform, a process that is carried out on an ongoing basis, including restructuring the control, ownership, use and utilization of agrarian resources in Indonesia. The tenure / ownership aspect is different from the use / utilization aspect because the first one deals with how the human law relates to land, while the second discusses how land (and other agrarian resources) is used and utilized. In general, property rights can be interpreted as rights that provide landowners with full rights to the land they own [4]. According to [6], the right to land is the land in the sense of a certain part of the earth's surface, however the authority to use that originates from this right is necessary to include the use of part of the earth's body that is underground and water and space. that is above it. The Republic of Indonesia which is based on the 1945 Constitution of the Republic of Indonesia provides guarantees and protection for the rights of citizens, including the right of citizens to obtain, own and enjoy property rights [7] . A certificate of ownership (SHM) is a legal title to a person's land and records the interests and rights affecting their land. (Use 10 point font, times new roman) Here introduce the paper. The paragraphs continue from here and are only separated by headings, subheadings, images and formulae. The section headings are arranged by numbers, bold and 10 pt. Here follows further instructions for authors. However, the problem of land titles in Indonesia often arises because of the existence of multiple land titles, in which a piece of land has two land titles by two different people. This problem is caused by several factors that arise as follows: (a). from the party that issues land certificates, such as the issuance of certificates which are not carried out in accordance with the provisions in Law Number 5 of 1960 concerning Agrarian Principles (UUPA No. 5 of 1960) and the implementing regulations as well as carelessness / inaccuracy of land registration officers; (b). factors from the party applying for land registration, such as the existence of proof or acknowledgment of rights which is proven to be untrue, falsified or no longer valid, and when a measurement or research is carried out in the field, the applicant intentionally or unintentionally shows the wrong location of the land and land boundaries [8]; and (c). Another factor is that the land registration map is not available for the area concerned [9]. The problem with the issuance of two land certificates for a plot of land can cause a legal problem because the land certificate has a function as evidence of land rights and security rights, and while the original owner of the land with the double certificate

also needs to be given legal guarantees and legal protection [10]. Therefore, Indonesia's national land certification program is problematic because it has savings of 60 million land certificates to issue, but has only managed to reach 44 percent of its total target in 35 years, so the President of the Republic of Indonesia Joko Widodo ordered to speed up the process so that 5 million certificates will be issued in 2017, and 7 million in the following years and 9 million thereafter to 2020 [11]. The rise of land cases indicates that the implementation of the land management system is not yet optimal and hampers ongoing development programs and an increase in the number of land cases is certainly an important concern to find solutions so that land can be managed and utilized as an asset that can provide the greatest prosperity for the Indonesian people. through a land management system as one of the keys in resolving land cases and disputes, it needs to be improved to reduce the number of land cases and support sustainable development [12]. Thus, in order to answer various problems related to land in Indonesia, the application of a land management system, especially digitizing registration and issuing land certificates based on information and communication technology (ICT), is a critical issue so that the Ministry of Agrarian Affairs and Spatial Planning / National Land Agency (ATR / BPN) The Republic of Indonesia issued a new policy, Regulation of the Minister of Agrarian Affairs and Spatial Planning / Head of the National Land Agency of the Republic of Indonesia regarding Electronic Certificates (Permen ATR / BPN RI No.1 of 2021). According to Sofyan Djalil (2021) in [13]., Certificate-el is one of the efforts of the ATR / BPN Ministry to encourage digital transformation or Digital Serving (Dilan) in providing services to the community minimizing land disputes, preventing land mafia practices, overlapping land certificates, and cutting bureaucratic lines Based on the point of view of various descriptions of the importance of land for the community both philosophically, multidimensional, conceptually, protection and ensuring legal certainty as well as various problems related to land certificates, researchers are interested in conducting a study entitled "Analysis of the Application of Digitalization of Registration and Issuance of Land Certificates: Perspective of Agrarian Law in Indonesia".

1.1. Statement of the problem

Digital transformation in land administration through the application of electronic certificates (*Sertipat - el*) will make land administration management more efficient and faster. The application of digitizing land registration and issuance of land certificates in the perspective of land law is a critical issue at this time in order to address various problems with land certificates in Indonesia because land certificates are a strong legal basis because people or legal entities as land owners have established a legal relationship in the form of rights to soil. However, the land administration system in Indonesia tends to be poor because digital transformation in land administration has not been running optimally, causing various problems related to land certificates such as: the practice of falsifying certificates, risk of losing certificates and disputes related to land acquisition, eviction, status of land rights and others so that it requires a serious attention for the government to answer the various issues related to land certificates.

1.2. General Objective

The objectives of the research are to:

- a. Understand the land certificate as proof of rights and proof of ownership of land rights.
- b. Analyze the application of digitalization of registration and issuance of e-certificates in Indonesia.
- c. Investigating the Perspectives of Agrarian Law in Indonesia related to the digitalization of registration and issuance of e-certificates in Indonesia

2. Methodology

The method in this research is to use a normative juridical approach, an approach that refers to the applicable laws and regulations [14]. Data collection in normative legal research is carried out by means of literature study in the form of secondary data as the basic material for research by conducting a search of regulations and other literature related to the problems studied [15] with analyzing existing laws and regulations and various literatures related to land title certificates. The data used in this study are public secondary data and secondary data in the legal sector. Secondary data are public in the form of: archival data, official data on government agencies, published data; and secondary data in the field of law in the form of primary legal materials, namely written rules enforced by the state, in the form of laws enacted by the parliament, the 1945 Constitution, MPR Decrees, Legislation, non-codified legal materials, jurisprudence, and materials secondary law (legal material that has no power, and only functions as an explanation for the primary legal material) in the form of legislative designs, scientific works of scholars, research results [16] .

3. Discussion and Results

3.1. Land Certificate

A certificate is a certificate of proof of right which is valid as a strong means of proof regarding the physical data and juridical data contained therein, as long as the physical data and juridical data are in accordance with the data contained in the measuring letter and the land book concerned [17]. According to According to the Regulation of the Minister of Agrarian Affairs and Spatial Planning / Head of the National Land Agency (Permen) RI No.1 of 2021 Permen ATR / BPN RI No.1 of 2021, a certificate is a certificate of proof of rights as referred to in Article 19 paragraph (2) letter c Basic Agrarian Law (*Undang-Undang Pokok Agraria /UUPA*) No.5 of 1960 for land rights, management rights, waqf land, ownership rights over units. apartment and mortgage rights, which have been recorded in the relevant land book. Meanwhile, the definition of a land title certificate is proof of someone's ownership of a land and its buildings. This can be seen in Permen ATR / BPN RI No.1 of 2021 article 4 paragraph (1) jo. Article 3 letter a Government Regulation No. 24 of 1997 concerning Land Registration (PP Land Registration) as follows:

- a. Article 4 paragraph (1) PP Land Registration aims to provide legal certainty and protection as referred to in Article 3 letter a to the right holder concerned is given a certificate of land rights, and
- b. Article 3 letter a of the PP on Land Registration affirms that land registration aims to provide legal certainty and legal protection to the holder of a land parcel, apartment unit and other registered rights so that they can easily prove themselves as the holder of the rights concerned.

Then, in Article 4 paragraph (1) and Article 3 letter a PP Land Registration reads as follows: "The land title

certificate becomes a proof of ownership of a land right for the holder of the land rights concerned, and the land certificate is issued in the interest of the holder. land rights (Article 31 paragraph [1] PP Land Registration) ”. Whereas Article 32 of the PP Land Registration confirms that the land title certificate is a certificate of proof of rights which is valid as a strong means of evidence regarding the physical data and juridical data contained therein, as long as the physical data and juridical data are in accordance with the data contained in the measurement letter. and the relevant land title book. The granting of land rights is carried out by the Land Office, Regional Office of the National Land Agency, and the Head of the National Land Agency of the Republic of Indonesia, depending on the type and area of land for which the request for land rights is proposed (Article 3 - Article 13 Regulation of the Head of the National Land Agency of the Republic of Indonesia No. 2/2013 concerning Delegation of Authority to Grant Land Rights and Land Registration Activities, Regulation of the Head of BPN No. 2/2013 and the one who signs the land book and land title certificate for the first time is the Head of the Land Office in sporadic land registration (Article 18 Regulation of the Head of BPN No. 2/2013) According to Law of the Republic of Indonesia Number 5 of 1960 concerning Basic Agrarian Principles [18] article 16 paragraph (1) relating to the rights of land as referred to in Article 4 paragraph (1) is as follows: (a). ownership right, (b). right to cultivate, (c). right to build, (d). right to use, (e) right rent, (f). right to open land, (g). right to collect forest products, (h). other rights which are not included in the aforementioned rights which will be stipulated by law as well as rights which are temporary as mentioned in article 53. Then, Basic Agrarian Law (Undang-Undang Poko Agraria/UUPA) No. 5 of 1960 article 16 aya (2) regulates related to The rights to water and space as meant in Article 4 paragraph (3) are: (a). rights to water, (b). rights to fish maintenance and fishing, and (c). space use rights. Furthermore, land rights as referred to in UUPA No. 5 of 1960 article 16 paragraph (1) and paragraph (2) are as follows:

Table 1: Land Rights in Indonesia based on Basic Agrarian Law No. 5 of 1960

No.	Land Rights in Indonesia based on Basic Agrarian Law No. 5 of 1960	The Clause in the law
1	Freehold Rights (Articles 20, 21, 22, 23, 24, 25, 26, and 27)	-Article 20. (1) Property rights are hereditary, strongest and full rights which can be owned by a person over land, taking into account the provisions in Article 6. (2) Property rights can be transferred and transferred to other parties. -Article 21. (1) Only Indonesian citizens can have property rights. (2) The government determines legal entities which can have property rights and the conditions thereof. (3) Foreigners who after the enactment of this law obtain property rights due to inheritance without a will or mixing of assets due to marriage, likewise Indonesian citizens who have property rights and after this law comes into effect lose their citizenship are obliged to relinquish this right. within a period of one year from the acquisition of said right or loss of citizenship. If after this period has passed, the right of ownership is released, then the right is canceled because the law and the land fall on the State, provided that the rights of the other party that impose it continue. (4) As long as a person apart from his Indonesian citizenship has foreign citizenship then he cannot own land with ownership rights and for him the provisions in paragraph (3) of this article apply. -Article 22. (1) The occurrence of ownership rights according to customary law shall be regulated by a Government Regulation. (2) Apart from the method referred to in paragraph (1) of this

		<p>article, ownership rights occur because: a. determination of the Government, according to the methods and conditions stipulated by a Government Regulation; b. provisions of the Law.</p> <p>-Article 23. (1) Property rights, as well as any transfer, abolition and imposition of other rights must be registered according to the provisions referred to in article 19. (2) The registration referred to in paragraph (1) is a strong means of proof. regarding the nullification of property rights and the validity of transfer and assignment of these rights.</p> <p>-Article 24. The use of land owned by non-owners is limited and regulated by statutory regulations.</p> <p>-Article 25. Property rights can be used as collateral for debt with a mortgage burden.</p> <p>-Article 26. (1) Buying and selling, exchanging, giving, giving with wills, giving according to custom and other actions. intended to transfer property rights and their supervision shall be regulated by a Government Regulation. (2) Every sale and purchase, exchange, gift, gift with will and other actions intended to directly or indirectly transfer property rights to a foreigner, to a citizen of which apart from Indonesian citizenship has foreign citizenship or to a legal entity, except those stipulated by the Government as meant in Article 21 paragraph (2), is null and void because the law and land fall to the State, provided that the rights of other parties that impose it continue and that all payments received by the owner cannot demanded back.</p> <p>-Article 27. Property rights are nullified if: a. the land fell to the state, 1. because of the revocation of rights under article 18; 2. because of voluntary surrender by the owner; 3. because of neglect; 4. because of the provisions of articles 21 paragraph (3) and 26 paragraph (2). b. the land was destroyed.</p>
2	Right to cultivate (Articles 28, 29, 30, 31, 32, and 33)	<p>-Article 28. (1) The right to cultivate is the right to exploit land which is directly controlled by the State, within the period referred to in article 29, for agricultural, fishery or livestock companies. (2) The right to cultivate is granted over land with an area of at least 5 hectares, provided that if the area is 25 hectares or more, it must use appropriate capital investment and good corporate techniques, in accordance with the times. (3) The right to cultivate can be transferred and transferred to another party.</p> <p>-Article 29. (1) The right to cultivate is granted for a maximum period of 25 years. (2) A company requiring a longer period of time can be granted a right to cultivate for a maximum period of 35 years. (3) At the request of the right holder and considering the condition of the company, the period referred to in paragraphs (1) and (2) of this article may be extended for a maximum period of 25 years.</p> <p>-Article 30. (1) Those that can have exploitation rights are. a. Indonesian citizens; b. a legal entity established under Indonesian law and domiciled in Indonesia, (2) A person or legal entity that has the right to cultivate and no longer meets the requirements referred to in paragraph (1) of this article is obliged to release or transfer those rights to other parties who meet the requirements. This provision also applies to the party who obtains the right to cultivate if he does not meet these requirements. If the right to cultivate, the person concerned is not released or transferred within that period of time, then the right is nullified by law, provided that the rights of other parties will be heeded, according to the provisions stipulated by a Government Regulation.</p> <p>-Article 31 The right to cultivate occurs because of the determination of the Government.</p> <p>-Article 32. (1) The right to cultivate, including the conditions for</p>

		<p>granting it, as well as any transfer and elimination of said right, must be registered according to the provisions referred to in article 19. (2) The registration referred to in paragraph (1) is a means of proof which is strong regarding the transfer and abolition of the right to cultivate, except in the case that the right is written off because the period has expired.</p> <p>-Article 33. The right to cultivate can be used as collateral for debt with a mortgage burden. Article 34. The right to cultivate is abolished because: a. the period ends; b. terminated before the period ends because some conditions are not fulfilled; c. released by the right holder before the term expires; d. revoked for public interest; e. abandoned; f. the land is destroyed; g. the provisions of Article 30 paragraph (2).</p>
3	Right to build (Articles 35, 36, 37, 38, 39, and 40)	<p>-Article 35. (1) The right to build is the right to construct and own a building on land that is not his own, with a maximum period of 30 years. (2) At the request of the right holder and taking into account the needs and condition of the buildings, the period as meant in paragraph (1) can be extended for a maximum period of 20 years. (3) The right to build can be transferred and transferred to another party.</p> <p>-Article 36. (1) Those who can have building use rights are a. Indonesian citizens; b. a legal entity established under Indonesian law and domiciled in Indonesia. (2) A person or legal entity that has rights to build and no longer fulfills the requirements mentioned in paragraph (1) of this article is obliged to relinquish or transfer said right to another party within a period of 1 year. This provision also applies to the party who gets the right to build, if he does not meet these requirements. If the rights to use the building in question are not released or transferred within that period, then the rights are nullified by law, provided that the rights of other parties will be heeded, according to the provisions stipulated in a Government Regulation.</p> <p>-Article 37. Right to build occurs: a. regarding land which is directly controlled by the State; because of the Government's determination; b. regarding owned land; because the agreement is in an authentic form between the owner of the land concerned and the party who will acquire the right to use the building, which intends to give rise to said right.</p> <p>-Article 38. (1) The right to build, including the conditions for granting it, as well as any transfer and annulment of said right must be registered according to the provisions referred to in article 19. (2) The registration referred to in paragraph (1) is a means of proof which strong regarding the abolition of the right to build and the validity of the transfer of the right, except in the case that the right is nullified because the period has expired.</p> <p>-Article 39. The right to build can be used as collateral for debt with a mortgage burden.</p> <p>-Article 40. Right to build is abolished because: a. the period ends; b. terminated before the period ends because some conditions are not fulfilled; c. released by the right holder before the term expires; d. revoked for public interest; e. abandoned; f. the land is destroyed; g. the provisions in Article 36 paragraph (2).</p>
4	Right to Use (Articles 42, 43 and 44)	<p>-Article 41. (1) Usufructuary rights are the right to use and / or collect proceeds from land which is directly controlled by the State or land owned by other people, which gives the authority and obligations determined in the decision to grant it by the official authorized to grant it or in an agreement with the owner of the land, who is not a lease agreement or land management agreement, everything as long as it does not conflict with the</p>

		<p>spirit and the provisions of this Law. (2) Usufructuary rights can be granted: a. for a certain period of time or as long as the land is used for certain purposes; b. free of charge, with payment or provision of services of any kind. (3) Granting usufructuary rights must not be accompanied by conditions that contain elements of extortion.</p> <p>-Article 42. Those that can have right to use are a. Indonesian citizens; b. foreigners who are domiciled in Indonesia; c. a legal entity established under Indonesian law and domiciled in Indonesia; d. foreign legal entities that have representatives in Indonesia.</p> <p>-Article 43. (1) Insofar as land is directly controlled by the State, the right to use can only be transferred to another party with the permission of the competent official. (2) The right to use land can only be transferred to another party, if this is possible in the agreement concerned.</p>
5	Lease rights for buildings (Article 44 and Article 45)	<p>-Article 44. (1) A person or legal entity has a right to lease land, if he has the right to use someone else's land for building purposes, by paying the owner a sum of money as rent. (2) Payment of rent can be made a. once or at any given time; b. before or after the land is used. (3) The land lease agreement referred to in this article may not be accompanied by conditions that contain elements of extortion.</p> <p>-Article 45. Those who may become holders of lease rights are: a. Indonesian citizens; b. foreigners who are domiciled in Indonesia; c. a legal entity established under Indonesian law and domiciled in Indonesia; d. foreign legal entities that have representatives in Indonesia</p>
6	The right to clear land and collect forest products (Article 46).	<p>Article 46 (1) The right to open land and collect forest products can only be owned by Indonesian citizens and is regulated by a Government Regulation; and (2) By legally exercising the right to collect forest products, ownership rights over the land are not automatically obtained</p>
7	Right to use water, maintenance and fishing (Article 47)	<p>Article 47 (1) The right to use water is the right to obtain water for certain purposes and / or to distribute said water over someone else's land; and (2) The right to use water as well as fish maintenance and capture shall be regulated by a Government Regulation</p>
8	Right to use space (Article 48)	<p>. Article 48 (1) The right to use space gives the authority to use energy and elements in space in order to maintain and develop the fertility of the earth, water and natural resources contained therein and other matters related to it; and t (2) The right to use space shall be regulated by a Government Regulation</p>
9	Land rights for sacred and social purposes (Article 49)	<p>Article 49 (1) Land ownership rights of religious and social bodies as long as it is used for business in the religious and social fields, shall be recognized and protected. These agencies are also guaranteed to acquire sufficient land for their buildings and business in the religious and social fields; (2) For the purposes of worship and other sacred purposes as meant in Article 14, land which is directly controlled by the State with right to use may be granted; and (3) The representation of owned land is protected and regulated by a Government Regulation</p>

Source: primary materials of the Basic Agrarian Law (UUPA) No. 5 of 1960

Based on table 1, it can be interpreted that the essence of earth, water and space, including the natural resources contained therein, is controlled by the state at the highest level, as an organization of power for all the people is the Right to Control the State as regulated in UUPA 5 years 1960 article 2 paragraph (1). The right to control of

the state gives the authority to regulate and administer the designation, use, supply and maintenance of the earth, water and space; determine and regulate the legal relationships between people and earth, water and space; determine and regulate legal relations between people and legal actions concerning the earth, water and space (UUPA No.5 of 1960 article 2 paragraph 2). Then, the basis of the right to control from the state is determined by the existence of various rights over the surface of the earth, which are called land, which can be given to and owned by people, either alone or together with other people and bodies. law (UUPA No.5 of 1960 Article 4 paragraph 1). Furthermore, individual land rights have two characteristics, namely (a) primary in nature, and (b) secondary in nature. According to. [19] states that land rights that are primary in nature are regulated in article 16 paragraph 1 UUPA No.5 of 1960 which consists of Ownership Rights, Business Use Rights (“HGU”); Building Use Rights (“HGB”); Use Rights; Lease Rights; Right to open land; The right to collect forest products; and other rights which are not included in the aforementioned rights which will be stipulated by law. Meanwhile, Individual Rights to Land that are Secondary in Nature are rights that are contrary to the law because they contain elements of extortion and oppression, so that they are attempted to be eliminated in a short time, for example, land liens, production sharing business rights, agricultural land lease rights, and The right to ride as regulated in Article 53 paragraph (1) UUPA No.5 of 1960. In this context, Irma Devita Purnamasari (2013) in [20] has a different opinion regarding the classification of primary and secondary land rights, and according to him that primary land rights are limited to rights granted directly by the state, such as property rights, HGU, HGB, and use rights as well as secondary land rights are rights that arise or are imposed on existing land rights, including HGU, HGB, management rights, lease rights, rights to open land and collect forest products, production sharing business rights, boarding rights, land liens and security rights. Thus, it can be interpreted that land rights in Indonesia as regulated in UUPA No. 5 of 1960 consist of the following two: first, land rights are primary, and second, land rights are secondary. Ownership of land certificates as basic evidence of ownership rights to land parcels, and title to land will be attached to the owner as long as the owner does not give up his rights or transfer of rights. Considering that land is one of the main problems in Indonesia in order to provide protection and guarantee legal certainty, the government shall register land rights as regulated by government regulations and issue land rights certificates as the final product of land registration which provides certainty regarding the conditions of the land.

3.2. Digitalization of Land Registration and Issuance of Land Certificates in Indonesia

In a global perspective, the fields of survey and land administration are basically about human, politics, human rights, and community involvement so that policies related to land governance and management which are cross-sectoral activities face all traditional land administration systems that are regulated in silos so that governance Good land governance is key to achieving sustainable development and to support the global agenda of the Millennium Development Goals / MDGs [21]. Therefore, [22] states that all countries at this time have to deal with land management related to land ownership, land value, land use, and land development through working activities within one supported conceptual framework. by a sophisticated ICT model with the aim of being able to support an efficient land market related to land administration as a natural resource in order to ensure sustainable development and promote the integration of the four functions as follows: (a). Land tenure: the processes and institutions involved with securing access to land and locating commodities on the land, and their allocation, recording and security; cadastral mapping and legal surveys to determine parcel boundaries;

create new properties or change existing properties; the transfer of property or use from one party to another through a sale, lease or credit guarantee; and management and resolution of doubts and disputes regarding land rights and parcel boundaries; (b). Land value: the processes and institutions involved in valuing land and property values; calculation and collection of income through taxation; and management and decision of land appraisal and tax disputes; (c). Land use: processes and institutions related to land use control through the adoption of planning policies and land use regulations at the national, regional and local levels; enforcement of land use regulations; and management and resolution of land use conflicts; and D). Land development: the processes and institutions associated with building new physical infrastructure and utilities; implementation of construction planning; public acquisition of land; appropriation; change in land use through the granting of planning permits, and building and land use permits; and distribution of development costs.

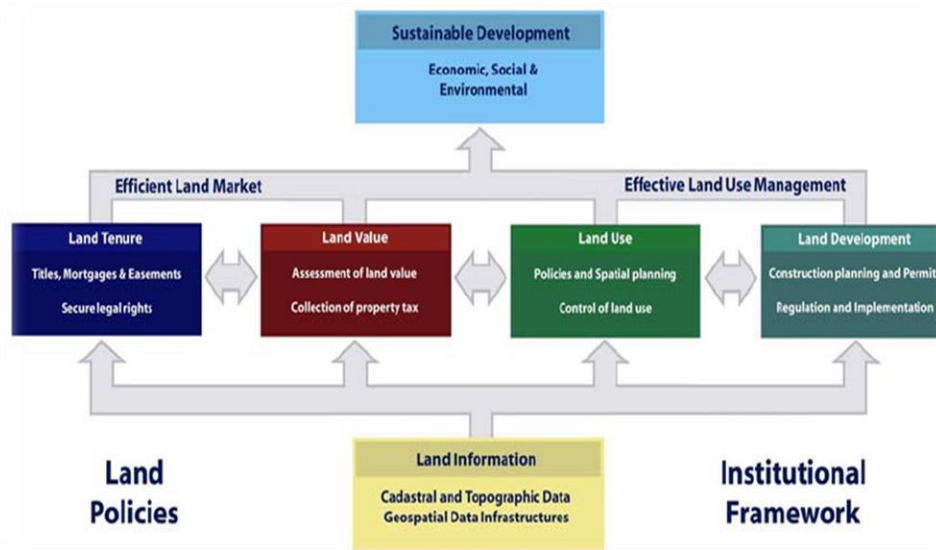


Figure 1: A global land administration perspective (Enemark 2009:2)

Based on Figure 1, it can be explained that a modern land administration perspective (LAS) is designed to encourage the integration of the four functions related to land administration as a natural resource to ensure sustainable development which includes land ownership, land value, land use, and land development. . The interrelationship of these four functions can be applied conceptually, economically and actually physically from land and property so that it will affect land value. Land values are also influenced by the likelihood of future land uses determined through zoning, land use planning regulations, and the permit awarding process. Then, land use planning and policies will of course determine and regulate future land development. Therefore, land information must be arranged to incorporate cadastral data, which is information in the form of a property data database organized systematically in a particular jurisdiction based on a comprehensive survey of property boundaries [23] and topography and to connect the built environment (including legal and social rights to land) with the natural environment (including topographic, environmental and natural resource issues). Thus, land information must be managed through spatial data infrastructures (SDI) at the national, regional, federal and local levels with the aim that the policies to be taken are relevant to valid data, easy to access data, data models, and cost standards. . Given the importance of the need for a land administration system that is modern based on ICT, the Indonesian government has begun to apply the process of registering and issuing land certificates,

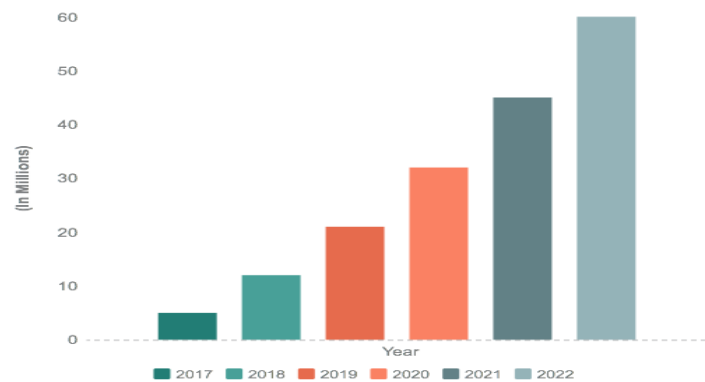
gradually shifting the form of physical certificates to electronic. According to Purnama in [24], the enforcement of the electronic land certificate or certificate-el is as follows: (a). Implemented in stages, BPN will begin the process of digitizing certificates from government agencies in a number of cities or regions that are ready in advance and implemented in the first semester of 2021, around April. Then the digitization of certificates belonging to legal entities is carried out, and finally the community will start from areas that are ready, or the land data validation process has been completed [25]. This is due to the large number of land parcels in Indonesia so that it must be adapted to the diverse geographical conditions and the diverse socio-economic conditions of society; (b). Electronic land certificate rules apply to first-time land registration for unregistered land; (c). Replacement of an analogue certificate to an electronic certificate for land that has been registered, such as voluntarily coming to the land office or buying and selling and so on; (d). An electronic land certificate or e-certificate is combined with the land book and stored as a document, and the document is scanned and stored in the database at the Land Office. According to the Regulation of the State Minister for Agrarian Affairs / Head of the National Land Agency Number 3 of 1997 concerning Provisions for the Implementation of Government Regulation Number 24 of 1997 concerning Land Registration [26], a letter is a document which is a means of proving physical data and juridical data on land parcels that have been used as the basis for registration. the plot of land. According to the Regulation of the Minister of Agrarian and Spatial Planning / Head of the National Land Agency of the Republic of Indonesia concerning Electronic Certificates [27], electronic certificates or e-certificates are certificates issued through an electronic system in the form of electronic documents. (Article 1), and the implementation of electronic land registration is implemented in stages as stipulated by the Minister (Article 2). This is regulated in several articles such as Permen ATR / BPN RI No.1 2021 article 16, article 17, article 18, article 19, and article 20 that the e-certificate aims to convert the registration and issuance of printed land certificates into digital form and a physical certificate held by the owner will be withdrawn. The digital transformation of the land system through electronic certificates in various countries that have implemented it has proven to provide enormous benefits, so that Indonesia needs to emulate it [11] as follows:

- a. The UK government land registry now handles 30 million transactions annually, having switched from a paper-based system to provide efficient and safe land administration services for every citizen. Among the services available, users can submit documents electronically, look up property prices, and information - including data on previous owners. The UK has turned to Blockchain to secure its land registration transactions. Blockchain is an immutable shared ledger that facilitates the process of recording transactions and tracking assets within the business network such as tangible assets (houses, cars, cash, land) or intangible assets (intellectual property, patents, copyrights, branding), and nearly all valuable assets can be tracked and traded on the blockchain network to reduce risk and cut costs for all involved [28].
- b. Australia is also undertaking a digitization program, shifting its land records online. Each state has a central register which records all land ownership. In New South Wales, "more than 32.5 million records have been digitized including plans dated from 1792 and aerial photographs dating back to 1947".
- c. Sweden has also turned to blockchain to secure its land registration transactions. Swedish land

registration allows all parties involved in land transactions to monitor progress of the agreement. “Digital documentation of property transfers and sound technology will enable confirmation for all parties to a real estate transaction [with] the highest level of security.

The program for digitizing land registration and issuing land certificates electronically was launched by the President of the Republic of Indonesia Joko Widodo in 2016 [11], and the government has targeted a national land certificate program until 2022 assuming exponential growth is as follows:

Table 2: Target of Land Certification in Indonesia Nationally Until 2022



Sumber: Chin,2016 <https://govinsider.asia/i> [Accessed on Feb. 11,2021]

Referring to the government's target related to the national electronic land certificate program (Seripikat-el), the biggest challenges faced are how the efforts that must be made by the Ministry of ATR / Head of BPN to be able to resolve various legal problems related to conflict resolution and land disputes that have not yet complete in Indonesia. According to [29], the various land conflicts that have occurred and have not been resolved legally are as follows: (a). Of the total 126 million land parcels in Indonesia, only 82 million lands have been registered until 2020, and land that has not been registered, i.e. 35 percent of the land registration has not been completed; (b). Until the end of 2020 there were a total of 241 cases, and this figure even skyrocketed 100 percent from 2019, which amounted to 20 cases related to land conflicts that occurred in 359 areas with 135,332 affected families (KK). The total area of land affected by agrarian conflicts is 624,272 hectares, and the highest agrarian conflicts occurred in the plantation sector with 122 cases (up 28 percent compared to 2019 with 87 cases), infrastructure sector as many as 30 cases, property 20 cases, mining 12 cases, military facilities 11 cases, coastal marine 3 cases and agribusiness 2 cases. Thus, the Ministry of ATR / Head of BPN is expected to be able to resolve these various legal problems and simultaneously continue the program of implementing electronic land certification (Seripikat-el) nationally through the application of the principles of good governance as an effort to implement democratic principles because democracy seeks to protect rights and freedoms of citizens from abuse [30]. These rights include the right to life, the right to own property and others. Good governance promotes human rights in a variety of ways because it encourages public participation in governance, inclusion in law-making and policy-making, and the accountability of elected and appointed officials which enable civil society to be actively involved in policy making and lead to broad representation from the public's interest in decision-making both in the field of law and policy so that it values cultural diversity more, contributes to the resolution

of social conflicts and tensions, and can overcome the challenges of inequality and poverty [30]. In this case, good governance contains basic principles or general principles of government which make it a guideline in carrying out the life of the nation and state, upholding aspects of the fulfillment of people's rights by the government, upholding the values of justice and social solidarity, and the enforcement of human rights by prioritizing the principles of the Rule of Law in various aspects of life to protect the rights and freedoms of citizens by ensuring that this protection is enshrined in the state constitution [30]. According to [31], in today's modern era, the main function of the bureaucracy in the state is to ensure the implementation of state life and become a tool of the people / society in achieving the ideal goals of a country, and the government bureaucracy has at least three main tasks. namely: first, routine public service functions to the community, such as providing licensing services, document preparation, protection, maintenance of public facilities, health care, and security guarantees for the population [32]. Thus the implementation of digitalization of registration and issuance of land certificates electronically (e-certificates) can be interpreted as a government effort to realize the modernization of land services in order to improve the indicators of ease of doing business and public services to the community based on optimizing the use of information and communication technology with the implementation of land services.

3.3. Application of Electronic Certificate Digitalization in the Perspective of Agrarian Law in Indonesia

According to The Law Dictionary, the definition of agrarian law is a law that divides large land holdings and distributes land to a number of people. also known as the Agrarian Reform Act [33]. Then, the Law of the Republic of Indonesia Number 5 of 1960 concerning Basic Agrarian Regulations. (UUPA No. 5 of 1960) Article 5 states, that: - Agrarian law which applies to earth, water and space is customary law, as long as it does not conflict with national and state interests, which are based on national unity, with Indonesian socialism and with regulations -regulations listed in statute [18]. Then, land in a juridical sense is the surface of the earth, while land rights are the rights to a certain part of the earth's surface, which is bounded, has two dimensions with length and width [6]. Furthermore, the politics of national land law which is found in the fourth paragraph of the Preamble of the 1945 Constitution of the Republic of Indonesia (UUD 1945) which reads as follows: "Then rather than that to form an Indonesian state government that protects the entire Indonesian nation and all the blood of Indonesia and for advancing public welfare, educating the intellectual life of the nation, and participating in implementing world order based on independence, eternal peace and social justice, then the national independence of Indonesia is compiled in the 1945 Constitution, which is formed in a state structure of the Republic of Indonesia which is sovereign of the people based on: The Almighty Godhead, just and civilized humanity, brotherhood the lord of Indonesia, and the people who are led by the wisdom of wisdom in deliberation / representation, and by realizing a social justice for all Indonesian people "[34]. All land in Indonesia is classified as state land and private land. Referring to the Indonesian land law, UUPA No. 5 of 1960 article 4, namely "On the basis of the right to control of the state as meant in Article 2 it is determined that there are various rights to the surface of the earth, called land, which can be given to and owned by people. -person, either alone or together with other people and legal entities ". According to [35], land in a juridical sense is the surface of the earth, while land rights are rights to a certain portion of the earth's surface, which is limited, with two dimensions in length and width. According to UUPA No. 5 of 1960, land rights can be divided into two categories: Primary (Hak Milik, Hak Guna Bangunan / HGB, Hak Pakai) and Secondary (Right to Rent) and

UUPA No. 5 of 1960 annulled laws, provisions and regulations. long time from an integrated system of land parcel rights throughout Indonesia. Regarding private land, Law of the Republic of Indonesia Number 5 of 1960 concerning Basic Agrarian Principles. (UUPA No. 5/1960) introduced a classification of land rights and a registration system. This in turn led to the creation and issuance of land certificates by the National Land Agency (BPN). The certificate serves as proof of legal rights to land. Among them are information about land rights, names of rights holders, land area, period of rights, date of issue, and security matters relating to the land. However, despite the existence of a land registration system, many private lands in Indonesia are still not certified. Many landowners in Indonesia are trying to use hak girik to back up their claims. However, hak girik is not official proof of land rights. This is simply a land tax receipt detailing the payment of taxes levied on the land purchased. However, in the absence of a land title certificate, the girik letter can be used as proof of ownership of uncertified land if it is supported by certain documents that provide sufficient proof of ownership [36]. The politics of national land law in Indonesia are manifested in the provisions of the 1945 Constitution of the Republic of Indonesia (UUD 1945) article 33 paragraph (3) that the land and water and natural resources contained therein are controlled by the State and used for the greatest prosperity of the people. Furthermore, the politics of land law in Indonesia are spelled out in various development policies and laws and regulations relating to control, ownership and utilization / use of land. On the basis of such a view, it is said that Indonesian legal politics should in fact be oriented to the ideals of a rule of law based on democratic principles and social justice in a united Indonesian society as stated in the Preamble to the 1945 Constitution of course which contains the values of the values of Pancasila [37]. According to [24] there are several reasons for the government to implement an electronic certificate policy, namely to: (a). Efficient land registration, legal certainty and legal protection, reduce the number of disputes, conflicts and court cases regarding land and increase the value of registering property in order to improve the Ease of Doing Business (EoDB) ranking; (b). Increase efficiency at both input, process and output nodes; (c). Reducing physical encounters between service users and service providers is also effective in reducing the impact of the Covid -19 pandemic, and (d). Minimizing land transaction costs. Then, Regulation of the Minister of ATR / Head of BPN Number 1 of 2021 concerning Electronic Certificates (Permen ATR / BPN RI No.1 of 2021) and Regulation of the State Minister for Agrarian Affairs / Head of the National Land Agency Number 3 of 1997 concerning Provisions for the Implementation of Government Regulation Number 24 of 1997 Regarding Land Registration (PMNA No. 3/1997), it will apply side-by-side in the implementation of land registration because the implementation of land registration in all parts of Indonesia has not yet been fully registered physical data, and juridical data for each land parcel is not yet fully available (Purnama in Santia, [https : //m.liputan6.com/4/2/2021](https://m.liputan6.com/4/2/2021)) [24]. Electronic documents as referred to in Permen ATR / BPN RI No.1 of 2021 article 4 paragraph (3) and / or their printouts are valid legal evidence and an extension of valid evidence in accordance with the applicable procedural law in Indonesia (article 5 paragraph 1). The definition of procedural law or formal law is a legal regulation that regulates how to maintain and implement material legal regulations [38]. In line with the implementation of digitalization of electronic certificates which is carried out gradually, in the context of the perspective of agrarian law in Indonesia, there are several things that are of particular concern regarding land issues in Indonesia as critical issues, which are as follows:

- a. The laws and regulations in Indonesia use various terms to refer to indigenous peoples. The Indonesian

Constitution (UUD 1945, particularly Article 18B paragraph (2)) uses the term Customary Law Community Unit. A number of other laws and regulations use the term “customary law community” such as Law no. 5/1960 concerning Basic Agrarian Principles, Law no. 41/1999 on Forestry. Then, the term indigenous people is also used in Law no. 27/2007 concerning Management of Coastal Areas and Small Islands as well as the term indigenous peoples used and used by the community to identify themselves after identifying themselves with local terms such as Orang Dayak, Urang Kanekes (Baduy Community), Dani Orang, Amungme Orang, Kaili and others [39,40].

- b. In general, the government treats indigenous peoples as objects, residents who are burdened with obligations. The government does not treat him as a citizen with all the rights fulfilled by the state. They have not been able to fully participate in the development policy-making process from planning to implementation, and have not enjoyed the results, because the constitutional rights that are a condition for their participation have not been fulfilled [41] .;
- c. After more than 60 years, the Basic Agrarian Law No. 5/1960 (UUPA No. 5/1960) was passed by the President of the Republic of Indonesia, Soekarno on September 24, 1960, that problems related to structural imbalances and land tenure continue to occur in Indonesia. Regarding the structure of land tenure, most of the household farmers (87.63 percent) only control less than 2 hectares of land. The total area of land controlled by this group is only 45.71 percent, with an average land control of 0.45 hectares, which has an impact on real farmers' imbalance, especially in rural areas. Ironically, until now there has been no effort to overhaul the land tenure system, for example: the concentration of land tenure must be seen in terms of the mechanism and process how it can occur. Forest Use Rights (HPH) are given just like that without considering future management so it is very necessary to reorganize space because in a number of areas it is increasingly difficult to collect data as a result of changes in land use and lots of changes in agricultural space, for example Kota Karawang as a result of spatial reorganization of land rice fields to industry [42].

Then, referring to data held by the Consortium for Agrarian Reform (KPA), it is stated that 71 percent of land across the land in Indonesia has been controlled by forestry corporations, and in addition, 23 percent of land is controlled by large-scale plantation corporations, conglomerates and the rest is owned by the community and is recorded, The average land ownership of farmers in rural areas is less than 0.5 hectares and has no land [43]. Thus, a critical analysis of government policies related to digital transformation of land systems through electronic certificates, the Regulation of the Minister of Agrarian and Spatial Planning / Head of the National Land Agency of the Republic of Indonesia regarding Electronic Certificates (Permen ATR / BPN RI No.1 of 2021) is very much needed, in addition to revealing about the special momentum in its making, which must be based on analysis related to ideological, political, economic, social, cultural, legal and human rights forces that drove its manufacture, and the conditions that enable it to be made in accordance with the constitution, UUD 1945.

4. Conclusions & Recommendations

a. Conclusions

- 1) Basic Agrarian Law Number 5 of 1960 (UUPA No.5 / 1960) mandates fundamental changes to the principles of colonial agrarian law, and aims at strengthening customary law, prohibiting monopoly control over land and other agrarian sources, eradicating feudal practices , as well as guaranteeing equal rights to land for men and women to achieve social justice.
- 2) Land rights in Indonesia as regulated in UUPA No. 5 of 1960 consist of the following two: first, land rights are primary in nature, and second, land rights are secondary. Ownership of land certificates as basic evidence of ownership rights to land parcels, and land titles will be attached to the owner as long as the owner does not give up his rights or transfer rights.
- 3) Given the importance of the need for a modern land administration system based on ICT, the Indonesian government must be able to implement the registration process and issue land certificates, transfer the form of physical certificates to electronic through a modern land administration perspective (LAS). LAS is designed to encourage the integration of the four functions related to land administration as a natural resource to ensure sustainable development which includes land ownership, land value, land use, and land development, and the linkages of these four functions can be applied conceptually, economically and physically. of land and property so that it will affect the value of the land.

b. Recommendations

- a. Land information is expected to be arranged to incorporate cadastral data, which is information in the form of a property data database organized systematically in certain jurisdictions based on a comprehensive survey of property boundaries and topography and to link the built environment (including legal and social rights to land) with the natural environment (including topographic, environmental and natural resource issues).
- b. Land information should be managed through spatial data infrastructures (SDI) both at the central and regional levels with the aim that the policies to be taken are relevant to valid data, easy to access data, and have standard costs.
- c. Modernization efforts related to e-certificates as regulated in the Regulation of the Minister of Agrarian Affairs and Spatial Planning / Head of the National Land Agency of the Republic of Indonesia Number 1 of 2021 concerning Electronic Certificates (Permen ATR / BPN RI No.1/2021). must be implemented by the government by optimizing the progress of ICT and regulations made must be based on ideology, politics, economy, social, culture, law and human rights as regulated by the constitution.

5. Conflict of Interest

The authors declare there is no conflicts of interest.

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