

# Development Of The Implementation Of The Principle Of Contradiction Delimitation In The Process Of Complete Systematic Land Registration (PTSL)

Dian Patarida Sitorus<sup>1\*</sup>, I Gusti Ayu Ketut Rachmi Handayani<sup>2</sup>, Lego Karjoko<sup>3</sup>

<sup>1,2,3</sup> Faculty of Law, Universitas Sebelas Maret, Indonesia.

\* Corresponding Author:

Email: [dianpsitorus@student.uns.ac.id](mailto:dianpsitorus@student.uns.ac.id)

---

## Abstract.

*Land registration since the enactment of the basic agrarian law has never produced significant results until the last few years. The Ministry of Agrarian Affairs and Spatial Planning / National Land Agency often looks for ways to speed up land registration with the registration program proposed since 2016, namely the complete systematic land registration (PTSL). One of the important stages in the systematic registration of land is the application of the principle of delimitation contradiction. This study discusses the implementation of the principle of contradiction delimitation that has changed since the systematic land registry was implemented. This study aims to show how the effect of changes in the mechanism of implementation of the STs, especially in the implementation of the principle of contradiction delimitation. The research methods used in this work are normative legal research methods with a focus on positive legal norms as the main material. The results of this research is a change of the mechanism of implementation of the new PTSL resulted in changes in the implementation of the principle of contradiction delimitation. With the new PTSL implementation scheme, land registration is expected to be implemented with a relatively shorter period of time so that it will be more efficient. However, this change reduces the legal certainty of the regulation regarding the application of the principle of delimitation contradiction. The government in making policies is expected to always prioritize the importance of the legal basis for new policies before they are made.*

**Keywords:** Land Registration, complete systematic land registration and principle of contradiction delimitation.

---

## I. INTRODUCTION

As the most important human need, land plays an important role in the survival of humanity. As the human population continues to grow and the demand for land increases due to development, land can no longer meet human needs. Given the importance of the availability of land for all people, laws are needed that regulate land as a whole to minimize the occurrence of land disputes and maintain a balance between demand and availability of land. To maintain the balance of socio-economic traffic, especially in the land sector, it is necessary to carry out land registration efforts to guarantee legal certainty for a parcel of land. The Constitution of the Republic of Indonesia (1945 Constitution), as the constitution of the Indonesian state, stipulates that land in the territory of Indonesia should only be used for the prosperity of the people. Article 33, paragraph (3) of the 1945 Constitution of the Republic of Indonesia states that: "Earth and water and the wealth contained therein are controlled by the state and used for the greatest prosperity of the people." In line with the mandate from the nation's foundation, the Government established a national policy line in the agricultural sector as an important component in developing the potential of natural resources throughout Indonesia. 1960 Law Number 5 of 1960 concerning Basic Agrarian Regulations (UUPA) was issued. This law provides the basis for implementing national land management policies to date. Article 19 of Law no. 5 of 1960 contained an order to hold land registration throughout Indonesia, which further provisions will be regulated in a Government Regulation.

One year later, the Government immediately issued a Government Regulation regulating land registration that supports this, namely Government Regulation Number 10 of 1961. More than 30 years since the issuance of PP No. 10 of 1961, new land registration of around 16.3 million hectares registered from around 55 million hectares of land was implemented. To improve land registration management, the Government replaced PP 10 of 1961 with PP 24 of 1997 concerning Land Registration (Dedy et al., 2020).

This Regulation was later updated with Government Regulation Number 24 of 1997, which has been in effect until now. To create an order in the provision of legal certainty, land registration activities are not only the responsibility of the Government alone but also the responsibility of the rights holders or owners of the land concerned. Land registration is a big job requiring many experts, equipment, and much money. If land registration is optional for the holder of the rights to the land in question, then the legal certainty expected from the land registration will be meaningless. Therefore, land registration requires cooperation from all parties to be successful. Based on data from the Center for Data and Information (Pusdatin) of the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (Ministry of ATR/BPN) in 2016, it is known that land registration that has been successfully carried out has only reached 41.8 million land parcels out of all land parcels in Indonesia that are estimated at more than 100 million parcels of land (Ikhlas, 2018). If there is no accelerated registration, it is impossible to complete the entire target of land registration. Land registration for the first time was carried out through sporadic and systematic land registration.

In sporadic land registration, the applicant for land registration (individually or in bulk) prepares the required documents, visits the local District/City Land Office to apply, and bears all fees charged to the applicant (Santoso, 2011). At the same time, Systematic Land Registration is carried out at the initiative of the National Land Agency of the Republic of Indonesia, which is based on an extended work plan and a continuous annual work plan. Land registration is systematically carried out in areas designated by the Minister (Harsono, 2008). Overcoming the delays in land registration activities carried out from 1960 to 2015, in 2016, land registration was accelerated through the Complete Systematic Land Registration (PTSL) program with a legal basis for the Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia Number 6 of 2018 (Permen ATR/Ka BPN 6/2018). Various initial obstacles in its implementation were overcome through Ministerial Regulation. The target for Complete Systematic Land Registration is the registration of 126 million land parcels by 2025 with products in the form of Land Plot Maps (PBT) and Land Title Certificates (SHAT) (Thea, 2022). Inland registration activities, the land measurement process is one of a series of important steps that must be taken. However, before the process is carried out, it must first be ensured that boundary marks have been attached to each corner of the land parcel to be measured. The landowner must install and maintain boundary markers. The obligation to install or maintain existing boundary signs is intended to avoid disputes or disputes regarding land boundaries with adjacent landowners. The boundary determination is carried out by landowners and landowners who border on a contradiction known as the Delimitation Contradictoire principle or Contradictoire Delimitatie (Anggono, 2019).

The delimitation contradiction principle also applies the principle of deliberation for consensus contained in the fourth precepts of Pancasila as the nation's view of life and the basis of the state. Delimitation Contradictory Principle is the installation of boundary markers and determination of boundary markers at the corner points of land parcels and has been approved by the directly adjacent parties (Anggarabumi & Jamilah, 2021). Thus fulfilling the Contradictoire Delimitatie principle is necessary for the continuation of the land registration process to be successful. Measurements cannot be carried out, and the making of land maps and books, especially the issuance of certificates of title proof, will certainly not be allowed. Even though the issue of land ownership has been regulated in such a way, problems still occur in the field, such as overlapping or overlapping land parcel boundaries due to unclear land parcel boundaries caused by land parcel owners needing to maintain their land parcel boundaries properly. In its development, the Ministry of Agrarian Affairs and Spatial Planning of the Republic of Indonesia continues to issue technical guidelines annually as a policy underlying the implementation of Complete Systematic Land Registration (PTSL). Changes to the technical guidelines are made due to an evaluation from year to year regarding the implementation of PTSL. This is a reference for the Ministry of Agrarian Affairs and Spatial Planning of the Republic of Indonesia to continue updating its strategy in carrying out its duties in the following year. In March 2023, the latest technical guidelines were issued regarding Complete Systematic Land Registration (PTSL) which put forward a new strategy from the Ministry of Agrarian Affairs and Spatial Planning of the Republic of Indonesia, namely the existence of an integrated PTSL 2023 physical data collection mechanism. This mechanism was raised to accelerate land registration and improve the

quality of previously mapped land parcels. With the emergence of a new mechanism this year, the implementation of the delimitation contradiction principle, which is also one of the steps in systematic land registration activities, has also changed. In this paper, the author will highlight the developments in implementing PTSL related to applying the delimitation contradiction principle.

## **II. METHODS**

The research used in this work is normative legal research focusing on positive legal norms as the main material, such as legislation (primary legal material), and as supporting material for books, expert opinion, mass media, and newspapers (secondary legal material). All received materials were fully collected and systematized for analysis. The method used in the analysis is descriptive and qualitative, with a deductive flow of thought, starting from the legal regulations and bringing to the problems that arise to support this writing.

## **III. RESULT AND DISCUSSION**

The Delimitation Contradictory Principle is a principle used in Land Registration that requires land rights holders to pay attention to the placement, determination, and maintenance of land boundaries based on the agreement and approval of equivalent parties or landowners. The definition in Article 18 PP No. 24 of 1997 reads as follows. First, the determination of boundaries of land parcels that are already owned with a right that has not been registered or has been registered but does not yet have a measurement letter or picture of the situation or the existing measurement letter or picture of the situation is no longer following the actual situation, is carried out by the Committee for Systematic Land Registration Complete the land registration, based on the designation of boundaries by the holders of the rights to the land concerned and as much as possible to be approved by the holders of the rights to the adjacent land. Second, determining the boundaries of land parcels be granted new rights shall be carried out per the provisions referred to in paragraph (1) or upon the appointment of an authorized agency. Third, in determining the boundaries of land parcels, the Committee for Complete Systematic Land Registration or the Head of the Land Office shall pay attention to the boundaries of the parcels or parcels of land registered and the measurement letter or pictures of the situation. Fourth, the approval referred to in paragraph (1) and paragraph (2) is outlined in an official report signed by those approving.

Fifth, the Minister determines the form of the minutes, as referred to in paragraph (4). So far, the installation of boundary signs is usually witnessed by officials or officials who know or have data on the owners of the adjacent land. The village or sub-district head usually knows information regarding land boundary signs. Therefore, the implementation of the delimitation contradiction principle is usually witnessed by village or sub-district officials. The implementation of the Delimitation Contradictory Principle has been proven by a statement signed by the landowner and other landowners who have borders and are known by the Village or Kelurahan Head. At the same time, a certain checklist was also signed, which was previously obtained from the local Land Office. The two pieces of written evidence are the requirements for applying measurement to the Land Office as an initial stage in the land registration process. Surveyors at the Land Office usually only accept requests for measurements after an agreement is reached between the land owner and the land owners bordering the upper boundaries of a plot of land. When an event occurs where the owners of the adjacent land do not agree on the actual location of a boundary even though mediation or deliberation has been carried out, the boundary determination can be determined from a court decision regarding the boundaries in question (Articles 17, 18, 19 PP No. 24 of 1997). Therefore, an agreement/approval and the presence of adjacent landowners before the measurement of land parcels play an important role in land registration. Before measuring a plot of land, the first time, the applicant or holder of land rights must place boundary signs at the corner points of the boundary, and a boundary must be determined beforehand.

Suppose the holder of the right to the adjacent land is absent at the determination of the boundary. In that case, the physical officer/measuring officer at the local Land Office will suggest that the land parcels must be marked beforehand. Suppose the applicant can only sometimes be present when the boundaries are to

be determined. In that case, the physical officer is accompanied by a Village Office official or village committee to set temporary limits and is recorded on the measuring drawings. Likewise, suppose the holder of the rights to the adjacent land is unwilling to show the boundary or is not present to determine the boundary. In that case, the temporary boundary determination is carried out by physical officers/measuring officers based on visible features such as fences, bunds, and others. The boundaries set are temporary because the right and bordering right holders are not in the location. However, it is very difficult to realize the application of the delimitation contradiction principle, so what happens, in general, is that this principle cannot be fully implemented. Several factors cause this principle not to be implemented, among others:

1. No agreement was found between the bordering parties.

Often what happens is that the land requested is usually still involved in a dispute, and the disputing parties have yet to find a middle ground. The boundaries of a land parcel can still be determined because there has yet to be an agreement on the boundaries of a land parcel.

2. The landowner concerned did not attend, or his whereabouts were not known when the boundaries were determined in the field.

Low public awareness of the importance of certainty over land rights in the form of land certificates can be one of the obstacles to implementing the delimitation contradiction principle. They assume that even if their field is certified, their economic life is fine. Regarding the absence of adjacent landowners in measuring and mapping land boundaries, Article 19 PP No. 24 of 1997 has explained that if the owner of the adjacent land cannot be present even though there has been prior notification that at the time of measurement, they must be present, then the approval of the owner of the adjacent land is not necessary, given the time efficiency of implementing the land registration. However, in practice, things like this can still lead to disputes in the future because there is a possibility that the owners of the adjacent land will not agree to the measurement results because they were not present or directly witnessed the measurement and mapping of the land boundaries (Qoyum, 2012).

3. The land owner cannot contact the bordering party, and village officials also need to know the exact boundaries of the land.

4. several land plot owners have not yet installed boundary markers at the corners of the land parcel to be measured (Purba, 2020);

5. land rights Holders do not maintain the boundaries of land parcels that have become their obligations.

This sometimes causes an overlap in the boundaries of land parcels due to unclear land parcels. Often the stakes that were previously installed are lost. Because the community needs more awareness to maintain boundary markers, they must take the initiative to care for them (Mujiburohman, 2018).

To implement PP No. 24 of 1997, issued Regulation of the State Minister for Agrarian Affairs/Head of the National Land Agency (PMNA) Number 3 of 1997 concerning Provisions for the Implementation of Government Regulation Number 24 of 1997 concerning Land Registration. In this Regulation, especially in Article 19 paragraph (3) in systematic land registration, it is possible for applicants or holders of land rights who cannot be present within the specified period to give written authorization to show the boundaries of their land parcels to other people. This Regulation was made so that it is possible for some landowners or landowners who have borders to be absent but can still participate in systematic land registration. The determination of boundaries that have been approved for placement by both the authorized person and the direct owner of the land is then outlined in a treatise on the delineation of boundaries or measurement minutes, which is also attached to the measured drawings of the land parcel for which land registration is applied. Measurement Drawings, in principle, contain data on the measurement results of land parcels in the form of distances, angles, coordinate values, and images of land parcels and their surroundings. A measuring drawing is a document that attaches a picture of a plot of land or more, the situation around it, and data on the results of measuring the plot of land. However, this does not seem to have resolved the problem of existing legal certainty because by signing the measuring drawings as an agreement, there are still landowners or neighboring landowners who have borders who have signed or do not pay attention to the essence of the land parcel boundary agreement so that this ministerial Regulation is amended to ensure better

that applicants and landowners alike pay more attention to and are responsible for their statements in documents containing the boundaries of the land parcels.

This Ministerial Regulation has also been amended three times. What is currently in effect is PMNA No. 16 of 2021 concerning the Third Amendment to the Regulation of the State Minister for Agrarian Affairs/Head of the National Land Agency Number 3 of 1997. Between Article 19 and Article 20, 4 (four) articles are inserted, namely Article 19A, Article 19B, Article 19C and Article 19D. Article 19A, paragraph (4) states that the activity of installing boundary markers must be stated in a Statement Letter for the Installation of Boundary Marks and the Boundary Owner's Approval. In the next paragraph, it is explained that this statement letter is one of the requirements for the completeness of the application file. So that before the measurement request is made this statement letter must be completed before the measurement is carried out. In this set of regulations, measurements will only be carried out if there is already a statement or agreement regarding the boundaries of land parcels from landowners who border each other. The measuring officer will only measure when there is certainty of the boundaries of the land parcel in question. This resulted in several land registration activities being hampered if they were not carried out. The legal consequences that can arise if the implementation of the delimitation contradiction principle is not carried out are that the measurement process cannot be continued or carried out. The application file cannot be carried to the next stage. Therefore, to resolve border conflicts, mediation is usually carried out between parties who disagree about boundaries and will proceed to court if the mediation carried out and facilitated by the local land office has not been successful. (Heri prihatin, 2022).

The achievement of land registration as of March 2023 in all regions of Indonesia is around 101.1 million land parcels, 85 million of which are certified. Judging from a total of 126 million land parcels which is the target in 2025, this achievement explains that land registration activities are equivalent to 80.23% of the total land parcels that need to be completed (*Rapat et al. ATR/BPN Tahun 2023*, 2023). However, the Government still has much workload in re-mapping land parcels that have been registered but have yet to be mapped or whose position is incorrect. Even though the availability of base maps for easy mapping of these land parcels still needs to be improved and still requires updating (Junarto & Djurjani, 2020). On the other hand, the Government still has to maintain land registration data. These problems and the limited government budget encourage the Government to change the mindset and policy direction in land registration activities. As an effort by the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN) to continue providing services to the community, land mapping has been accelerated, supporting the digitization of land services into electronic-based services. Land registration must be result oriented in the form of information on land parcels on a map. Then, land registration is no longer oriented to the field but at the boundary point of the land parcel. Finally, the quality of measurement and mapping results can be communicated to the public in the form of accuracy so that land data is up-to-date and reliable (Kharisudin Fahmi et al., 2023). The Director General of Agrarian Affairs at the Ministry of Agrarian Affairs/BPN wishes to accelerate the agrarian/land program in the future by implementing the Fit for Purpose Land Administration (FFP-LA) concept.

This concept is expected to create a good agrarian/land administration system and can be carried out relatively quickly but at an affordable cost. (Enemark et al., 2016). To support this activity, the Director General optimizes the use of data and technology in the spatial framework concept, one of which is using an Unmanned Aerial Vehicle (UAV). In making a base map in the technical guidelines that apply this time (Technical Instructions Number 3/Juknis-HK.02/III/2023), a measurement method is used with a technical approach in the form of the photogrammetric method. Photogrammetry is a technology for obtaining information on objects on the Earth's surface through aerial photographs. The aerial photography results can then be used to identify and determine the geometry of objects on the Earth's surface. The aerial surveys that used to exist usually used plane rides at a high cost. Along with the times, the need for photogrammetric surveys is increasing, but the costs incurred for surveys are expensive. Therefore, with the UAV breakthrough, photogrammetric surveys are possible to do in various aspects of the field and are considered more flexible. With new technology and survey methods, the Government issued PTSL Physical Data Collection with a new scheme, Integrated Physical Data Collection Activities. The stages of implementing

Integrated Physical Data Collection Activities are broad as follows (*Petunjuk et al. (PTSL) Tahun 2023, 2023*):

1. Making Photo Map using PUNA/UAV;
2. Checking Photo Map (Service Level Agreement: GSD Resolution <0.15m, Horizontal Accuracy/Accuracy <0.5m, Visualization seamless, not blur);
3. Upload Photo Map to <https://petadasar.atrbpn.go.id>;
4. Download Spatial and Textual Data of Registered Land Sector (KW1-KW6);
5. Collection of Registered Land Sector Data;
6. Collection of Physical Data:
  - a. Boundary Identification of all Land Plots
  - b. Additional suppletion measurements if land parcel boundaries are not identified on the Photo Map;
  - c. Inventory of Information on the Use and Utilization of Land.
7. Analysis, arrangement, and improvement of spatial data of registered land parcels and results of biological data collection resulting in:
  - a. Mapping, arrangement, and improvement of land parcels registered as mapped (KW1-KW3) and not yet mapped (KW4-KW6) according to the results of identification and measurement;
  - b. Mapping of unregistered land parcels;
  - c. List of KW4-KW6 (K4) that cannot be mapped;
  - d. List of overlapping land parcels.
8. Announcement of PBT Clarification;
9. Renewal of land parcels at KKP;
10. Physical Data Verification (Quality Control);
11. Printing, Issuance, and Approval of PBT;
12. Complete Village Registration Map.

The main method used in the measurement and mapping activities in the Integrated Physical Data Collection activity is the photogrammetric method involving community participation. So that there is a stage of outreach from the local land office to the community to appeal to the community involved in PTSL activities. After the counseling was carried out, a Joint Movement to Place Boundary Marks (GEMAPATAS). At this stage, all people in the location determined to take part in the PTSL must be included to show the boundaries and will set up land parcel boundary markers on GEMAPATAS together. Communities as claimants or applicants for land registration carry out:

- 1) Installation of boundary signs and boundary designation:
  - a. Boundary markings can be points/border markers, fences, or other fixed boundary markings that can be identified on a photo map.
  - b. In the acceleration framework, boundary markers can be installed with the Joint Movement for the Installation of Land Sector Boundary Marks.
  - c. The claimant shall carry out the installation and designation of boundary markings.
- 2) Activities of identification and delineation of land parcel boundaries.
- 3) Statement of boundary approval declaration and measurement results receipt is set forth on the Clarified Land Plot Map for all land parcels.
- 4) Submit a copy of KTP or NIK.

In this case, the community is asked to participate in identifying land parcels at the Village Hall, Community Hall, or other adequate places to know and show the boundaries of land parcels that are part of a sub-district area. After the land parcels have been identified, it is from this information that the physical officer unit will assess whether it is necessary to carry out additional measurements (supplementation) if there are land parcel boundaries that need to be visible on the photo map. After the biological data has been collected and analyzed, a map of the announced land parcels is made to be clarified directly by the community. In the stages of PTSL activities mentioned above, applying the delimitation contradiction principle lies in the Clarification Land Map Announcement Stage (PBT). PBT This Clarification will be

announced to the claimant within 14 (fourteen) calendar days. PBT This Clarification is announced via the official social media of the land office. If there is any objection or objection to the announcement, the spatial data will be corrected. Furthermore, the PBT Clarification that has been corrected will be printed, approved, and will be signed by the claimant with sufficient stamp duty. Furthermore, the Deputy Head of the Physical Sector and the Physical Data Collecting Team signed the Land Sector Map resulting from the Clarification. From the implementation stage of the application of the new delimitation contradiction principle, the Statement Letter of Installation of Boundary Marks and the Agreement of Border Owners, as referred to in Article 19 PMNA No. 16 of 2021 is no longer needed because the approval of these boundaries has been stated directly in the PBT Clarification which will eventually be ratified after being approved by the parties concerned.

With such a scheme, the implementation of PTSL is expected to be much shorter because the community or landowners no longer have to complete documents in the form of statements one by one for each plot of land, which is also relatively longer in implementation. This is because identifying land parcels and determining land parcel boundaries are now carried out directly and jointly by the community involved in PTSL in an area within GEMAPATAS. So, it is no longer necessary to designate boundaries in the field if the boundaries can be identified only through the map provided by the PTSL officer. In addition, the document for declaring boundaries is no longer needed, and the designation can be represented by the claimant or someone who knows and understands the boundaries of the land parcel to be measured. However, the change in the implementation of the Delimitation Contradictory Principle does not have a strong legal basis because its implementation has not been updated with the implementing regulations previously made, namely the Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia Number 16 of 2021 which was previously more first stipulates the application of the delimitation contradiction principle. In addition, because the implementation of the delimitation contradiction principle in this new scheme no longer requires all landowners from the northern, southern, eastern, and western boundaries of a plot of land to sign measuring drawings as mandated in the previous Regulation, there is an even greater possibility the majority of the map will be challenged at a later date even after the objection period (14 days) from the Land Plot Map by parties who were not at the location when a series of boundary determinations were carried out.

This is because, in the new PTSL implementation scheme, at least one claimant can already represent another land owner who may not be present when the PBT Clarification is announced. This change also still requires much work in terms of socialization and must be carried out more actively in the community because, in reality, many people have yet to become familiar with the stages of PTSL activities until now. The lack of community participation in identifying land boundaries or even during the setting up of boundaries also greatly influences the successful implementation of PTSL. In response, changes to schemes or concepts from applying the contradictory delimitation principle now cannot guarantee that they can speed up or shorten the time for implementing PTSL. In the end, community participation and awareness still play a major role in completing a systematic land registration and quality Land Map.

#### **IV. CONCLUSION**

Implementing the Delimitation Contradictory Principle is one of the important stages in land registration. To accelerate Complete Systematic Land Registration (PTSL), the Government often changes its strategy to catch up with achievements before 2025. The changing PTSL arrangements, especially in implementing the Delimitation Contradictory Principle, are intended to shorten the time for collecting data on land parcels. However, the Delimitation Contradictory implementation scheme in the latest PTSL technical guidelines does not yet have an adequate legal basis because there has been no adjustment to these changes from the relevant PTSL regulations previously issued by the Ministry of Agrarian Affairs and Spatial Planning of the Republic of Indonesia. The Government is always expected to consider a strong legal basis in making a policy so that its implementation is still guided by legal certainty.

**REFERENCES**

- [1] Anggarabumi, R., & Jamilah, L. (2021). *Penerapan Asas Kontradiktur Delimitasi Dalam Pendaftaran Tanah Hak Milik Di Kabupaten Bandung*. <https://doi.org/10.29313/V0i0.27336>
- [2] Anggono, S. (2019). Pelaksanaan Asas Kontradiktur Delimitasi Dalam Proses Pendaftaran Tanah Sistematis Lengkap (Studi Kasus Di Kantor Pertanahan Kabupaten Boyolali). *Dinamika Hukum*, 10(1), 203–217.
- [3] Dedy, S., Irawan, H., Wulansari, S., Tinggi, P., & Nasional, J. (2020). Pengukuran Pihak Ketiga Pasca Asas Contradictoire Delimitatie Di Kabupaten Sidoarjo Dan Pasuruan. In **Jurnal Tunas Agraria** (Vol. 3, Issue 2).
- [4] Enemark, S., McLaren, R., & Lemmen. (2016). *Fit-For-Purpose Land Administration: Guiding Principles For Country Implementation: E-Book*. Chj.
- [5] Harsono, B. (2008). *Hukum Agraria Indonesia "Sejarah Pembentukan Undang-Undang Pokok Agraria, Isi Dan Pelaksanaanya"*. Djambatan.
- [6] Heri Prihatin. (2022). Implementasi Asas Kontradiktur Delimitasi Dalam Proses Pendaftaran Tanah Di Kantor Pertanahan Kabupaten Lombok Timur. *Juridica : Jurnal Fakultas Hukum Universitas Gunung Rinjani*, 4(1), 52–69. <https://doi.org/10.46601/Juridica.V4i1.216>
- [7] Ikhlas, M. (2018). *Strategi Pelaksanaan Pendaftaran Tanah Sistematis Lengkap (Studi Di Desa Kampili, Kecamatan Pallanga, Kabupaten Gowa)*. Sekolah Tinggi Pertanahan Nasional.
- [8] Junarto, R., & Djurjani, D. (2020). Pemanfaatan Teknologi Unmanned Aerial Vehicle (Uav) Untuk Pemetaan Kadaster. *Bhumi: Jurnal Agraria Dan Pertanahan*, 6(1). <https://doi.org/10.31292/Jb.V6i1.428>
- [9] Kharisudin Fahmi, K., Kamal, M. R. S., & Suhattanto, Muh. A. (2023). Pengaturan Dan Pemanfaatan Ortomosaik Uav Pada Pengukuran Bidang Tanah Terintegrasi. *Widya Bhumi*, 3(1), 31.
- [10] Mujiburohman, D. A. (2018). Potensi Permasalahan Pendaftaran Tanah Sistematis Lengkap (Ptl). *Bhumi: Jurnal Agraria Dan Pertanahan*, 4(1). <https://doi.org/10.31292/Jb.V4i1.217>
- [11] *Petunjuk Teknis Pengumpulan Data Fisik Terintegrasi Pendaftaran Tanah Sistematis Lengkap (Ptl) Tahun 2023*. (2023).
- [12] Quorum. (2012). Penerapan Asas Kontradiktur Delimitasi Dalam Pendaftaran Tanah Sporadik Di Kecamatan Bodeh Kabupaten Pematang. *Unnes Law Journal*, 1(1).
- [13] *Rapat Kerja Nasional Kementerian Atr/Bpn Tahun 2023*. (2023).
- [14] Santoso, U. (2011). *Pendaftaran Dan Peralihan Hak Atas Tanah*. Kencana Prenada Media.
- [15] Thea, A. (2022, October). *Guru Besar Ugm Beberkan Persoalan Ptl Terkait Tanah Ulayat*. <https://www.hukumonline.com/>.