

ASERS

Journal of Environmental Management and Tourism

Quarterly

Volume XIV

Issue 7(71)

Winter 2023

ISSN 2068 – 7729

Journal DOI

<https://doi.org/10.14505/jemt>

ASERS
Publishing



Editor in Chief:

Ramona Pirvu,
University of Craiova, Romania

Co-Editor:

Cristina Mihaela Barbu,
Spiru Haret University, Romania

Editorial Advisory Board:

Omran Abdelnaser, University Sains
Malaysia, Malaysia

Huong Ha, Singapore University of Social
Sciences, Singapore

Harjeet Kaur, HELP University College,
Malaysia

Janusz Grabara, Czestochowa University of
Technology, Poland

Vicky Katsoni, Technological Educational
Institute of Athens, Greece

Sebastian Kot, Czestochowa University of
Technology, The Institute of Logistics and
International Management, Poland

Andreea Marin-Pantelescu, Academy of
Economic Studies Bucharest, Romania

Piotr Misztal, The Jan Kochanowski
University in Kielce, Faculty of Management
and Administration, Poland

Agnieszka Mroziak, Faculty of Biology and
Environmental Protection, University of
Silesia, Katowice, Poland

Chuen-Chee Pek, Nottingham University
Business School, Malaysia

Roberta De Santis, LUISS University, Italy

Fabio Gaetano Santeramo, University of
Foggia, Italy

Dan Selişteanu, University of Craiova,
Romania

Lesia Kucher, Lviv Polytechnic National
University, Ukraine

Lóránt Dénes Dávid, Eötvös Loránd
University, Hungary

Laura Ungureanu, Spiru Haret University,
Romania

Sergey Evgenievich Barykin, Peter the
Great St. Petersburg Polytechnic University,
Russian Federation

Omar Abedalla Alananzeh, Faculty of
Tourism and Hotel Management, Yarmouk
University, Jordan

Marco Martins, Polytechnic Institute of
Tomar, Portugal

Konstantinos Antoniadis, University of
Macedonia Thessaloniki, Greece

ASERS Publishing

<http://www.asers.eu/asers-publishing>

ISSN 2068 – 7729

Journal DOI: <https://doi.org/10.14505/ijemt>

Table of Contents:

	Promising Directions of Increasing Energy Efficiency and Development of Green Energy in the Household Sector of Ukraine	2821
1	Olha PROKOPENKO, Oleksandr TELIZHENKO, Yevhen KOVALENKO, Svitlana LYTVYENENKO, Tetiana NYCH, Andriy KOVALSKY	
	Implementation of Green Banking In the Largest Polish and Romanian Commercial Banks – An Analysis of Progress, Strengths and Weaknesses	2835
2	Błażej LEPCZYŃSKI, Małgorzata SIEMIONEK-RUSKAN, Mina FANEA-IVANOVICI	
	Innovative and Marketing Features of Agri-Food Supply Chain Development	2844
3	Ilona YASNOLOB, Nataliia DEMIANENKO, Oleg GORB, Yurii TIUTIUNNYK, Svitlana TIUTIUNNYK, Lyudmyla SHULGA, Tetiana DUGAR, Olena MAIBORODA, Svitlana PYSARENKO, Yuliia POMAZ	
	Impact of the Perceived Quality of Traditional Villages' Cultural Landscapes on Tourists' Loyalty	2853
4	Huaheng SHEN, Nor Fadzila AZIZ, Menglan HUANG, Lingyun YU	
	Influence of Digital Technologies on Transition to a Circular Economy in Tourism: Values and Barriers	2871
5	Samalgui NASSANBEKOVA, Gaukhar YESHENKULOVA, Nurkhat IBADILDIN	
	Quality of Environmental Impact Assessment Reports for Lodge Developments in Protected Areas: The Okavango Delta Case, Botswana	2880
6	Leungo Boikanyo L. LEEPILE, Claudine ROOS, Francois Pieter RETIEF, Hans Jurie MOOLMAN, Reece Cronje ALBERTS, Dirk Petrus CILLIERS	
	Mitigating Pollution at the Source and Textile Waste Minimization in Poland: Findings from In-House Research	2894
7	Dagmara SKURPEL	
	Assessment and Forecast of Atmospheric Air Quality at the Regional Level. Example of Central Kazakhstan	2904
8	Raikhan BEISENOVA, Bektemir ZHUMASHEV, Rumiya TAZITDINOVA, Zhanar RAKHYMZHAN, Symbat TULEGENOVA, Zhanat ZHAZNAYEVA	
	Sustainable Energy Systems and Green Hotel Practices in Hotels in Tamale Metropolis, Ghana	2915
9	Patricia Animah APPIAH, Raymond ADONGO, Abdul-Rafiw SAFO	
	The Legal Framework Governing the Offence of Environmental Pollution in Jordan and the Sultanate of Oman	2935
10	Ashraf Mohamad GHARIBEH, Mohammed Rashid Ahmed Al MAKHMARI, Radwan Ahmad Al HAF, Mohammad Njim Ibrahim ELAYAT, Ahmad Hussein ALSHARQAWI	
	Exploring Ecological Justice in the Regulatory Framework of Land Ownership, Utilization, Control, and Inventory in Indonesia	2944
11	Agung BASUKI, Lego KARJOKO, I Gusti Ayu Ketut Rahmi HANDAYANI	
	Cultural Aspects of Waste Management in Poland and China	2954
12	Kalina Maria TACZKOWSKA, Maciej BORKOWSKI	
	Task-Based Budgeting In Environmental Projects Planning: A Case Study of A Manufacturing Company In Poland	2968
13	Anna SIEMIONEK-LEPCZYŃSKA, Michał CHALASTRA	

Call for Papers Spring Issues 2024 Journal of Environmental Management and Tourism

Journal of Environmental Management and Tourism is an open access, peer-reviewed interdisciplinary research journal, aimed to publish articles and original research papers that contribute to the development of both experimental and theoretical nature in the field of Environmental Management and Tourism Sciences. The Journal publishes original research and seeks to cover a wide range of topics regarding environmental management and engineering, environmental management and health, environmental chemistry, environmental protection technologies (water, air, soil), pollution reduction at source and waste minimization, energy and environment, modelling, simulation and optimization for environmental protection; environmental biotechnology, environmental education and sustainable development, environmental strategies and policies.

Authors are encouraged to submit high quality, original works that discuss the latest developments in environmental management research and application with the certain scope to share experiences and research findings and to stimulate more ideas and useful insights regarding current best-practices and future directions in Environmental Management.

Also, this journal is committed to a broad range of topics regarding Tourism and Travel Management, leisure and recreation studies and the emerging field of event management. It contains both theoretical and applied research papers and encourages obtaining results through collaboration between researchers and those working in the tourism industry.

The journal takes an interdisciplinary approach and includes planning and policy aspects of international, national and regional tourism as well as specific management studies. Case studies are welcomed when the authors indicate the wider applications of their insights or techniques, emphasizing the global perspective of the problem they address.

Journal of Environmental Management and Tourism is indexed in SCOPUS, RePEc, CEEOL, ProQuest, EBSCO and Cabell Directory databases.

Details regarding the publication in this journal are here: <https://journals.aserspublishing.eu/jemt/about>

Deadline for submission: 15st February 2024

Expected publication date: March 2024

Website: <https://journals.aserspublishing.eu/jemt>

E-mail: jemt@aserspublishing.eu



DOI: [https://doi.org/10.14505/jemt.v14.7\(71\).11](https://doi.org/10.14505/jemt.v14.7(71).11)

Exploring Ecological Justice in the Regulatory Framework of Land Ownership, Utilization, Control, and Inventory in Indonesia

Agung BASUKI

Faculty of Law, Sebelas Maret University, Surakarta, Indonesia

ORCID: 0009-0001-6940-8835

agungbasuki@staff.uns.ac.id

Lego KARJOKO

Faculty of Law, Sebelas Maret University, Surakarta, Indonesia

ORCID: 0000-0003-3140-5476

legokarjo@staff.uns.ac.id

I Gusti Ayu Ketut Rahmi HANDAYANI

Faculty of Law, Sebelas Maret University, Surakarta, Indonesia

ORCID: 0000-0001-5041-9262

ayu_igk@yahoo.com

Article info: Received 18 September 2023; Received in revised form 10 October 2023; Accepted for publication 29 November 2023; Published 08 December 2023. Copyright© 2023 The Author(s). Published by ASERS Publishing 2023. This is an open access article distributed under the terms of CC-BY 4.0 license.

Abstract: The aim of this study is to provide a comprehensive analysis of environmental justice elements in land inventory, tenure, ownership, use and use (IP4T) management, as described in TAP MPR IX/2001 and Government Regulation No. 16. 2004 on land administration. This study uses a standard legal research method integrating both a legal and conceptual approach. The author's study indicates that environmental justice is included in the IP4T law, as stated in TAP MPR IX/2001, as well as in Government Law No. 16 on Spatial Planning. According to Article 23 of Government Regulation No. 16/2004, IP4T maps must be taken into account for all spatial and regional planning. These maps contain more than just information on land ownership, use, and use. In addition, the IP4T dataset includes assessments of land capacity and valuation, so environmental dimensions associated with land are examined. The definition of environmental justice can be derived from Section 3, Section 5 and Section 6, Paragraph (2) of TAP MPR IX/2001. However, in practice, many inconsistencies remain and undermine basic principles of environmental justice. These irregularities are particularly widespread in the context of the implementation of IP4T (Integration Policy for Transition) within the mining industry.

Keywords: ecological justice; land ownership; regulations; inventory; utilization.

JEL Classification: G31; Q15; Q57; R52.

Introduction

Efforts towards land law reform in Indonesia have been present since the inception of the UUPA. However, these efforts have yet to keep pace with the evolving needs of the dynamic community, resulting in a lack of tangible positive legal norms (*ius constitutum*). Nonetheless, land law reform persists through the issuance of legislative instruments pertaining to the UUPA (Minulyo 2007). Following the demise of the New Order regime, the People's Consultative Assembly Enacted Decree No. IX/2001, which pertained to the Agrarian Reform and Natural Resource Management reform, with a specific focus on the UUPA (Alting 2011). Several essential causes are associated with the issuance of this MPR directive. These reasons are as follows: agrarian resources and natural resources, encompassing the earth, water, space, and their contents, are considered a divine boon bestowed upon the Indonesian nation. These resources are seen as national assets that should be acknowledged with gratitude. Hence, it is imperative to effectively manage and utilize these resources to achieve equity and prosperity for current and future generations. Additionally, the Constitutional mandate of the MPR entails

establishing the trajectory and foundation for national development that can effectively address issues such as poverty, inequality, socio-economic injustice, and environmental degradation.

Furthermore, the existing management of agrarian and natural resources has deteriorated environmental quality, disparities in control, ownership, and utilization, and the emergence of numerous conflicts. The legislation on the governance of agrarian and natural resources exhibits instances of overlap and contradiction. Implementing equitable, sustainable, and ecologically responsible practices for managing agrarian and natural resources necessitates a cohesive and integrated approach. This approach should include the evolving nature of these resources, the goals of the community, and their active involvement. Additionally, it should address disputes that may arise in the process. In order to actualize the noble aspirations of the Indonesian nation, as articulated in the preamble of the 1945 Constitution of the Republic of Indonesia, it is imperative to establish a solid political dedication that serves as the foundation and guidance for the implementation of agrarian reform and the management of natural resources. This commitment should prioritize principles of fairness, sustainability, and environmental consciousness.

To ensure the actualization of these goals, agrarian reform and natural resource management must incorporate several concepts, including but not limited to: 1. Upholding and safeguarding the integrity of the Unitary State of the Republic of Indonesia. 2. It is imperative to demonstrate reverence for and safeguard human rights. 3. It is essential to exhibit deference for the rule of law by embracing the inclusion of many perspectives in legal harmonization. 4. Enhance the populace's well-being, particularly by enhancing the caliber of human capital in Indonesia. The objectives include the advancement of democratic principles, adherence to legal frameworks, promoting transparency, and enhancing community engagement. 6. Ensuring justice, specifically gender equality, in managing, possessing, utilizing, and maintaining agrarian and natural resources. 7. Upholding sustainability to achieve maximum advantages for current and future generations while considering the environmental and carrying capacity. The objective is to incorporate social, sustainability, and ecological functions in alignment with the specific socio-cultural characteristics of the local context. One potential area for enhancement involves facilitating integration and coordination among various development sectors and regions in the execution of agrarian resource reform and management. 10. It is imperative to acknowledge, uphold, and safeguard the rights of customary law communities and the nation's cultural religion about agrarian and natural resources. 11. Pursuing a harmonious equilibrium between the rights and responsibilities of the state, government entities (central, provincial, district/city, and village or equivalent), communities, and individuals is imperative. 12. The adoption of decentralization measures should involve the distribution of authority across various levels, namely national, provincial, district/city, and village or equivalent, about allocating and administering agrarian and natural resources.

Given the significant impact on numerous individuals, it is imperative to establish a comprehensive agrarian reform policy framework. This framework should encompass several vital aspects, including:

- It thoroughly examines existing legislation and regulations on agrarian affairs to ensure coherence and alignment across various sectors.
- Implementing a fair redistribution of land tenure, ownership, use, and utilization, with particular attention to providing land ownership opportunities for the general populace.
- Facilitating the systematic and comprehensive collection of land data through inventory and registration processes is essential for effective land reform initiatives.
- Resolving conflicts arising from agrarian resources and proactively anticipating potential conflicts.
- Enhancing the capacity and effectiveness of land institutions to ensure their robust functioning. The resolution of conflicts on agrarian resources, along with the anticipation of future conflicts, requires the strengthening of institutions and authorities involved in implementing agrarian reform.
- Additionally, there is a need to actively pursue financial resources to implement the agrarian reform program successfully.

The provisions above pertain to the legal aspects of agrarian reform, which have been regarded as national ideals since the inception of independence. Furthermore, these provisions serve as the legal foundation that obligates the government to conduct an inventory of land tenure, ownership, use, and utilization (from now on referred to as IP4T) activities. The inventory of tenure, ownership, use, and utilization of land (IP4T) is a requirement outlined in TAP MPR IX/2001 on Agrarian Reform and Natural Resource Management. This regulation, specifically Article 6 Paragraph 1c, emphasizes the need to conduct a comprehensive and systematic inventory and registration of land tenure, ownership, use, and utilization. The purpose of this inventory is to gather land data to formulate the Policy Direction of Agrarian Reform and facilitate the implementation of land reform (Atmanto 2022).

Furthermore, IP4T activities have been incorporated into the National Priority activities to support agrarian reform. The successful implementation of IP4T activities must be ensured to achieve this objective. The IP4T operations constitute a crucial component in pursuing Goal V outlined in the Nawa Cita Vision and Mission of the Jokowi-JK Government. This goal entails the successful implementation of agrarian reform spanning 9 million hectares, primarily benefiting peasants and farm workers (Bakri 1970).

1. Literature Review

The Land Structuring Division/Section executes the IP4T activities in the various regions (Chamdani 2021). The IP4T activity entails a comprehensive assessment of P4T within a specific village, employing a participatory mapping approach (Earlene and Djaja 2023). In this instance, participatory mapping refers to a mapping endeavor that engages the community in data collecting for IP4T (Ginting 2011). The outcomes of IP4T endeavors encompass valuable data for strategic land planning and the development of technological policies. In order to enhance comprehension and application, presented below are several definitions on IP4T activities, specifically (Handoko 2019):

- According to Government Regulation No. 24/1997, a land parcel refers to a distinct and finite portion of the Earth's surface.
- Land tenure refers to the legal association between an individual, a collective of individuals, or a legal body and a piece of land, as stipulated in Law No. 5 of 1960 (GR No. 16 of 2004).
- Land ownership refers to the legal association between persons, groups of individuals, or legal entities who possess evidence of ownership, which can be in the form of registered land rights certificates or unregistered documentation.
- Land use refers to the utilization and occupation of the Earth's surface, encompassing both naturally occurring and human-made formations, as Government Regulation No. 16/2004 defines.
- Land utilization refers to acquiring more value from land use without altering its physical shape, as stated in Government Regulation 16/2004.
- The Land Parcel Sketch refers to the physical representation of land parcels in the field, typically depicting their rough boundaries. It provides a minimum geographic reference of 1 TDT.

The execution of IP4T operations involves utilizing an Android-based application called Smart PTSL. The Smart PTSL application is a mobile Geographic Information System (GIS) application designed specifically for Android devices. It offers a range of capabilities that have been tailored to meet the requirements of IP4T and PTSL (Helmi 2019). The Smart PTSL application serves as a platform for disseminating measurement data from various sources such as meet bands, Aerial Photo Interpretation, and external GNSS connections. It is important to note that the application does not function as a measuring tool. The Smart PTSL program encompasses various features, including the distance correction of delineation data obtained from satellite images, UAVs, and drone photos. The convergence of physical and legal data: The study incorporates various forms of supporting data, including a Base Map obtained through UAV/Drone and CSRT technologies. Additionally, spatial data of land parcels is utilized as shapefiles (*.shp) to create a working map. Textual data on land parcels, such as subject, object, control, ownership, legal relationship, list of entries, and statement letter of physical control, is also included. Furthermore, external GNSS data and geotagged photos of subjects and objects are incorporated. Finally, the study involves exporting measuring images and maps of measurement results as shapefiles (Ismail *et al.* 2010).

Based on the provided description, it can be inferred that the implementation of IP4T (Indigenous Peoples' Rights to Territory) in the context of national agrarian law is primarily grounded in the provisions outlined in TAP MPR IX/2001 on Agrarian Reform and Natural Resource Management. This legislation comprises nine articles, with Article 6 specifically addressing the regulation of IP4T. The regulation on this matter can be found in Article 22 in conjunction with Article 23 of Government Regulation No. 16/2004 on Land Administration. The inquiry at hand pertains to the extent of comprehensiveness in regulating IP4T within TAP MPR IX/2001 on Agrarian Reform and Natural Resource Management, particularly when scrutinized through ecological justice. Additionally, it raises the question of whether the formation of TAP MPR IX/2001 on Agrarian Reform and Natural Resource Management has been grounded in ecological justice (N. Ismail *et al.* 2012).

The evidence demonstrates that there are issues in the execution of IP4T that neglect ecological sustainability, particularly in mining licensing. The situation observed in Kalimantan Island, renowned for its mining activities and the issuance of mining concession licenses on smaller islands gives rise to apprehensions over the long-term ecological viability. Based solely on the data collected for the mining industry, with the exclusion of plantations, the cumulative extent of mining licenses granted up until 2007 amounted to 228,556.25

hectares. In the meantime, the total extent of mining excavations expanded to 8,810.22 hectares, while the area that underwent reclamation efforts amounted to 6,239.57 hectares. However, it is worth noting that the environmental conditions in South Kalimantan have witnessed a notable deterioration in terms of ecological quality.

According to research by Puspitasari S, South Kalimantan (Kalsel) is ranked 26th out of 28 provinces in Indonesia, placing it third from the bottom. The evaluation focuses on the water quality in the presence of various substances, such as dissolved oxygen (DO), total suspended solids (TSS), and chemical oxygen demand (COD). In the context of South Kalimantan, it is seen that these parameters fail to fulfill the prescribed standards for water quality. Furthermore, it can be observed that the air quality indicators, specifically the levels of SO₂ and NO₂, fail to fulfill the established air pollution standard index. Furthermore, the woodland region has a substantial amount of land cover resulting from previous excavations. The cumulative valuation of water quality is 8.40, while the assessment for air quality stands at 97.11. The land cover also attained a value of 39.24 (Baxter and Greenlaw 2005).

Mining licenses contribute to the adverse ecological consequences associated with mining activities. As exemplified by Puspitasari S, the mining licensing on Sebuk Island conducted by PT BCS yields an annual production of 3,000,000 tons of coal readily available for internal consumption and exportation. According to the BCS Profile (2005), the nations of interest in migration include Japan, India, Thailand, the Philippines, China, and Malaysia. The exploitation license for BCS was acquired in 1993 through a second-generation Contract of Work (CCoW). During that period, there was a notable rise in the utilization of Coal Contracts of Work (CCoW) by mining firms. This increase was facilitated by introducing Generation II Coal Contracts, as Presidential Decree No. 21/1993 outlined. This decree involved five companies: PT BCS, Bantala CM, Antang Gunung Meratus, Jorong Barutama, and Borneo Indobara. In 1997, the BCS firm initiated its presence on Sebuk Island by commencing exploration activities under the aforementioned operational strategy. PT BCS is a domestically owned company involved in the mining sector, with operational management overseen by Straits Resources Limited. The shareholding distribution in this context is characterized by a 20% ownership stake held by Indonesia, while Singapore holds the remaining 80%. In the Mining sector, it is observed that of 19 firms operating in South Kalimantan, 12 are owned by foreign capital, while the remaining seven companies are domestically owned (PMDN).

Subsequently, in 2004, the forestry minister granted consent for using forest land PT BCS by issuing a letter with the reference number S.430/Menhut-VII/2004, dated 15 October 2004. Moreover, an additional Decree No.316/Menhut/II/2009 was promulgated in 2009 on the utilization of 744.68 hectares of forest land by borrowing. In the interim, the extraction of iron ore on Sebuk Island was conducted by PT SILO under the authority of a permit letter identified as S. 709/Menhut-VII/2006 and Decree No. 399/Menhut-II/2008. This correspondence announces the issuance of licenses for borrowing-to-use in permanent production forest areas and convertible production forest areas. Nevertheless, the commencement of exploitation by PT SILO occurred in 2004, resulting in a production output of 2.5 million metric tonnes. This production was achieved within an area with a borrow-to-use status of 1,731.61 hectares. According to the findings derived from comprehensive interviews with local inhabitants and available information, the converted forest area serves several purposes, encompassing productive forest, protected forest, and nature reserves.

Ecological justice is a recently emerged topic within the field of law, particularly in the domains of environmental law and administrative law. It posits that justice should not solely be extended to human beings as legal subjects but should also encompass the natural environment. In essence, ecological justice challenges the prevailing belief in human superiority over nature and the inclination to exert dominance over it. This concept forms the foundation of interspecies justice, a pivotal aspect of environmental ethics (Karjoko *et al.* 2022). Hence, this scholarly research, presented as a qualifying paper, aims to examine the issue of ecological justice within the context of the IP4T arrangement. This analysis will focus on various aspects of ecological justice, irrespective of its application, grounded in numerous empirical realities. It is worth noting that there are still numerous assertions regarding ecological justice that warrant further exploration. Given the contextual information provided on the issues above, the present study aims to explore and investigate how ecological justice is integrated into the IP4T framework in Indonesia.

2. Results and Discussion

The present study constitutes normative legal research, focusing on "positive legal norms within the legislative system" (Liliyani, Nugroho, and Andari 2020). This study has substantiated that the methodology employed in this legal research combines a statute approach and a conceptual approach (Mahfiana 2016b). The research

methodology employed in this study involves document analysis as the primary data collection tool. Document analysis is a research method employed to gather secondary data from various scholarly sources, such as legal statutes, regulations, international treaties, books, academic journals, articles, reports authored by previous researchers, and other pertinent documents pertaining to the subject matter under investigation.

2.1 Review of MPR Decree No. IX/MPR/2001 on Agrarian Reform and Natural Resource Management

From a normative standpoint, it is ideal that the control and utilization of agrarian resources adhere to a legal framework, specifically the legal system governing the control and management of such resources. The legislative framework governing the management and utilization of agrarian resources has been established by implementing the Basic Agrarian Law. Law No. 5/1960, titled "The Fundamental Regulation of Agrarian Principles," has been enacted to set the primary norms governing the management and utilization of agrarian resources. These resources encompass the land, water, space, and associated natural resources, such as forests, mines, biological resources, and others (Karjoko, Handayani, and Hanum 2022).

However, the agrarian politics that have prevailed, characterized by a spirit of exploitation, have led to the issuance of various sectoral laws since the New Order era. These laws have tended to operate independently and establish their legal frameworks. Examples of such laws include Law No. 5 of 1967, later replaced by Law No. 41 of 1999 in forestry. Similarly, the mining sector is governed by Law No. 11 of 1967, replaced by Law No. 4 of 2009 on Mineral and Coal Mining and Law No. 22 of 2001 on Oil and Natural Gas. The field of water resources is regulated by Law No. 7 of 2004, while plantations are governed by Law No. 18 of 2007. Lastly, coastal areas and small islands are subject to the provisions of Law No. 27 of 2007. Given the prevailing orientation or dominance of the spirit of exploitation inherent in these sectoral laws and regulations, it is justifiable to assert that the equilibrium, effectively regulated in the UUPA, has become imbalanced. Economic interests have taken precedence over other concerns, such as ecological interests and human rights.

This discrepancy or disharmony has been explicitly stated in MPR Decree No. IX/MPR/2001 concerning Agrarian Reform and Natural Resource Management. Vertical disharmony or inconsistency within the land sector is not an anomaly in the rule of law. Within the framework of TAP MPR No. IX/MPR/2001, there exist certain fundamental concepts that ought to serve as the foundation for the development of land legislation norms. This implies that the regulations and laws on the land sector should provide a detailed explanation of the legal principles outlined in the MPR Decree. Each standard within land legislation must be linked to one of the legal principles outlined in the MPR Decree. The principles encompassed in MPR Decree No. IX/MPR/2001 comprise:

- The principle of social and ecological functionality

The social and ecological functions of land rights pertain to land utilization in a manner that fosters a harmonious relationship between the interests of individual landowners and those of society, as well as a balance between the objectives of land productivity and land preservation (Nugroho 2020). According to the definition above, there are three distinct components or elements encompassed within it. Firstly, the definition highlights the significance of the social and ecological functions associated with land rights, explicitly emphasizing the process of land utilization that yields economic, social, and ecological benefits. Secondly, it underscores the importance of striking a balance between the interests of individual land rights holders and the interests of the community, which is considered a fundamental objective in any land rights utilization endeavor. Thirdly, it is crucial to balance the pursuit of optimal production outcomes and the preservation of land resources.

- The Principle of Integration and Coordination

These two concepts pertain to the performance of institutions that have authority in the land sector and the outcomes of their performance. In policy, law, and regulation, "integration" refers to merging or harmonizing the underlying principles and content of policies, laws, and regulations. This unification is driven by the need to establish a consistent and equitable approach towards considering the rationale for integration and the substance of these policies, laws, and regulations. Coordination is a procedural aspect of institutional functioning within harmonizing, merging, or aligning perspectives or ideas. Hence, the coordination process is executed by engaging multiple institutions, wherein their respective responsibilities and powers are interconnected (Betsill, Hochstetler, and Stevis 2014). Based on the explication above of integration and coordination, it becomes feasible to discern the constituent parts inherent in these two legal principles as the factual components that give rise to their existence. The notion of "integration" encompasses a series of facts or phenomena. Firstly, it involves shared reasoning in conjunction with other interconnected fields. Secondly, it entails the presence of a shared substance or spirit that aligns with other interconnected fields. The rules or laws governing associated domains must exhibit substantive and conceptual similarities. Additionally, a shared interest serves as the guiding principle.

Integration is commonly associated with constructing a system wherein a specific aspect of interest is the objective.

- The principle of balancing rights and obligations.

According to Article 5 letter k of MPR Decree IX/MPR/2001, the principles of agricultural reform encompass the pursuit of a harmonious equilibrium between the rights and responsibilities of many entities, including the State, government bodies at different levels (central, provincial, district/city, and village or equivalent), communities, and individuals. This principle encompasses a fundamental concept, precisely the equilibrium between rights and obligations. This equilibrium pertains to the rights and obligations of the State towards its citizens, as well as the rights and obligations of each individual as a constituent of the community towards the State (Rejekiningsih 2016). The rights and obligations mentioned are often delineated in various legal instruments that are valid within the respective jurisdiction. In essence, it is imperative to establish a harmonious equilibrium between individual rights and corresponding responsibilities. According to the British philosopher Jeremy Bentham, the ultimate objective of law and legislation is attaining happiness. The principle encompasses the elements of Rights and Obligations.

- The Principles of Justice and Gender Equality

Moreover, according to Article 5, letter f of MPR Tap IX/ MPR/2001, the principles of agricultural reform encompass the achievement of justice, including gender equality, to the control, ownership, usage, utilization, and maintenance of agrarian and natural resources. The notion outlined in the UUPA has been included in Article 9 (paragraph 2), which asserts that all Indonesian citizens, regardless of gender, are entitled to equal opportunities in acquiring land rights. This entitlement aims to facilitate personal and familial benefits and outcomes (Suratma and Azis 2017).

- The Principle of Decentralisation

Decentralization refers to transferring operational responsibilities to local governments, whereas decentralization signifies the delegation or devolution of decision-making powers to lower tiers of government. Thus, decentralization serves as a mechanism to empower regional and local communities. The characteristics or indicators of decentralization encompass two key aspects. Firstly, decentralization is primarily directed towards regions rather than people. Secondly, it involves devolving governmental responsibilities and decision-making processes to local or regional authorities. Thirdly, decentralizing government matters transfers authority and responsibility from central governing bodies to local government entities (Suhattanto *et al.* 2021).

- The Principle of Sustainability

The concept of sustainability, as defined in Article 3 of Law Number 23 of 1997 on Environmental Management, posits that individuals are obligated to assume responsibilities not only towards future generations but also towards their contemporaries. The principle of sustainability encompasses several vital elements. Firstly, economic welfare is a fundamental aspect, as the objective of any development is to achieve economic prosperity. Secondly, the effective management of human resources is crucial as it enables individuals to meet their needs. Lastly, the preservation and rejuvenation of the environment is essential, as the pursuit of economic and social welfare must be accompanied by a sense of responsibility towards the environment. Ensuring the equitable access and utilization of existing resources by future generations is paramount (Sukirno 2016).

- The principle of participation

The principle of participation is the active engagement of the community in the processes of formulating, implementing, overseeing, and/or regulating a legal framework. In this particular instance, given the normative nature of the study, its focus will be limited to examining the implementation, supervision, and/or control mechanisms of the regulations outlined in a legal framework. This phenomenon can be attributed to its connection with the philosophical underpinnings of democracy, wherein governance is derived from and executed by the populace, with the ultimate aim of serving their interests (Sulaiman 2021). According to the description above, there is a single component or element encompassed within it. Specifically, it pertains to a rule concerning the land rights of community members, wherein they are engaged in the execution, oversight, and/or regulation of an activity.

- The Principle of Pluralism in Legal Unification

This principle encompasses three core principles, precisely: Firstly, upholding and protecting the sovereignty of the Republic of Indonesia; Secondly, adhering to the rule of law by embracing the inclusion of diverse legal systems; and thirdly, acknowledging and honoring the rights of indigenous communities and the nation's cultural variety to natural resources (Swastika 2010).

- The Principle of Transparency

According to the interpretation of Article 2 of Government Regulation No. 24/1997, the principle of transparency or openness entails providing access to land registration data to the public. This access is facilitated through the availability of a general register, excluding name registers, at the Land Office. The definition above encompasses two distinct components or elements. Firstly, it entails the public's ability to access data on land rights at government offices, specifically the Land Office. Secondly, it encompasses the public's capacity to obtain information regarding government policies established on land rights (Yurista *et al.* 2019).

2.2 Review of IP4T Regulations in Government Regulation of the Republic of Indonesia No. 16 of 2004 on Land Stewardship

The regulation on IP4T in the Government Regulation of the Republic of Indonesia No. 16 of 2004 on Land Stewardship (from now on referred to as GR No. 16 of 2004) can be located in Article 22 Paragraph (1) in conjunction with Article 23 of the abovementioned regulation. These articles specifically address the execution of IP4T by the government. As an illustration, Article 22 of Government Regulation No. 16/2004 stipulates that the establishment of land stewardship, as mentioned in Article 23, involves the implementation of many actions, namely: a. The task involves conducting an inventory of land tenure, use, and utilization. b. It is necessary to determine the equilibrium between the availability and requirements of land tenure, use, and utilization based on regional functions. c. The objective is to ascertain the pattern of adjustment of land tenure, use, and utilization in alignment with the Regional Spatial Plan.

According to Article 23 of Government Regulation No. 16 Year 2004, there is a provision that affirms the execution of IP4T. This provision explicitly specifies that:

- The implementation of the inventory of land tenure, usage, and utilization, as mentioned in Article 22 paragraph (1) letter a, encompasses: a. The collection and processing of data on land tenure, usage, and utilization, as well as land capability, evaluation, and associated data. b. The presentation of data through maps and information regarding land tenure, usage, and utilization, as well as land capability, evaluation, and supporting data. c. Data services encompass maps and information on land tenure, usage, and utilization, as well as land capability, evaluation, and supporting data.
- The utilization of land sector data and information, as mentioned in paragraph (1) letter b, serves as essential input material for the development and modification of the Regional Spatial Plan.
- Activities aimed at assessing the equilibrium between the accessibility and requirements of control, utilization, and utilization of land by the designated function of the area as stipulated in Article 22, paragraph (1), letter b, encompass the following: a. demonstration of the equilibrium of alterations in the utilization and utilization of land in the Regional Spatial Plan; b. demonstration of the equilibrium of appropriateness in the utilization and utilization of land in the Regional Spatial Plan; c. demonstration and establishment of priorities for land availability in the Regional Spatial Plan.

Drawing upon the legal provisions outlined in Article 22 in conjunction with Article 23 of Presidential Regulation No. 16 of 2004, it becomes evident that the IP4T outcomes, encompassing maps and information on land ownership, usage and exploitation, land capacity, land assessment, and supplementary data, serve as a fundamental resource for conducting research in the development of a Regional Spatial Plan within a given area. Consequently, the authoritative IP4T findings assume a critical role in ensuring that the Regional Spatial Plan of a region consistently adheres to the principles of sustainable environmental regulations.

2.3 Aspects of Ecological Justice in IP4T Arrangements

The author has indicated in the introductory section of the text that the regulation of IP4T under the national land legislation is governed by TAP MPR IX/2001 in conjunction with Government Regulation Number 16 of 2004 on Land Administration. Upon conceptual examination, it becomes apparent that both legal products have incorporated elements of environmental justice and ecological justice. Various regulations within these legal frameworks can observe this. By the provisions outlined in Article 3 of TAP MPR IX/2001, it is explicitly stated that:

- The management of natural resources contained in land, sea, and space is carried out optimally, fairly, sustainably, and environmentally friendly.

The provision above can be located in Article 5, letter g of TAP MPR IX/2001. It stipulates that the execution of agrarian reform and natural resource management should adhere to sustainability principles, ensuring maximum benefits for current and future generations while considering the environmental capacity and carrying capacity. The presence of ecological justice in TAP MPR IX/2001 can also be observed in Article 6 Paragraph (2) letter c, wherein it is stipulated that: "The policy objectives in the realm of natural resource

management encompass the broadening of community access to information regarding the potential of natural resources within the region, as well as the promotion of social responsibility in adopting environmentally sustainable technologies, including traditional methods."

- What is quite fundamental in TAP MPR IX/2001, which discusses aspects of ecological justice, can also be found in the preamble of TAP MPR IX/2001, which states that:
 - o Letter e: that fair, sustainable, and environmentally friendly management of agrarian and natural resources must be carried out in a coordinated, integrated manner that accommodates the dynamics, aspirations, and participation of the community and resolves conflicts;
 - o Letter f: In order to realize the noble ideals of the Indonesian nation as set out in the preamble of the 1945 Constitution, a serious political commitment is needed to provide the basis and direction for agrarian reform and natural resource management that is just, sustainable and environmentally friendly.

According to the perspective put forth by I Gusti Ayu Ketut Rachmi Handayani, it is argued that ecological justice and sustainability are inherently interconnected and cannot be disentangled from the well-being of both current and future generations. Sustainable development also encompasses the pursuit of fair and impartial justice for both current and future generations. Hence, the TAP MPR IX/2001 incorporates an ecological justice framework in its regulatory provisions, wherein the environment and sustainability are established as fundamental principles within the legal framework.

In the context of W. Pedersen's perspective, three elements of Ecological justice are identified: the precautionary and preventative principles, the polluter pays principle, and the sustainable development principle. Hence, according to Pedersen, the norms outlined in TAP MPR IX/2001 have successfully addressed two key aspects. Firstly, they aim to prevent environmentally irresponsible exploitation. Secondly, they address exploitation in the context of sustainable development, emphasizing the importance of responsible practices and instilling a sense of moral responsibility in the exploitation process.

The second legal basis for the IP4T arrangement is Government Regulation No. 16 of 2004 on Land Administration. The IP4T arrangement is outlined explicitly in Article 22 in conjunction with Article 23 of this Government Regulation. Article 23 of Government Regulation No. 16 of 2004 confirms the implementation of IP4T. It states the following: (1) The implementation of the inventory of land tenure, use, and utilization, as mentioned in Article 22 paragraph (1) letter a, includes the following activities: a. collection and processing of data on land tenure, use, and utilization, land capability, land evaluation, and supporting data; b. presentation of data in the form of maps and information on land tenure, use, and utilization, land capability, land evaluation, and supporting data; c. provision and service of data in the form of maps and information on land tenure, use, and utilization, land capability, land evaluation, and supporting data. The utilization of land sector data and information, as mentioned in paragraph (1) letter b, serves as essential input material for the development and modification of the Regional Spatial Plan.

The IP4T law, as stipulated in Article 23 of Government Law No. 16/2004, mandates that all Spatial and Regional Plans must incorporate the IP4T map. This map encompasses more than just information on property title, utilization, and use. In addition, the IP4T dataset encompasses assessments on land evaluation and capabilities, hence encompassing the examination of ecological facets associated with the land. Hence, the Spatial and Regional Plan of a given area must consider the comprehensive dataset provided by IP4T. This dataset encompasses crucial information on land tenure, use, usage, evaluation, and capabilities.

According to Baxter (2005), the arguments advocating for ecological justice and addressing the problem of ecological extinction should serve as a wake-up call for individuals to consider the potential existence of a worldview that can rationalize these moral concerns. This perspective strives to offer a comprehensive moral doctrine beyond imposing limitations on ethical considerations and factors to be considered solely for specific categories within the realm of organic existence. One of the objectives of ecological justice theory should be to make a meaningful contribution towards preventing significant extinctions.

Conclusion

The authors' research indicates that the inclusion of ecological justice has been incorporated into the IP4T structure outlined in TAP MPR IX/2001, in conjunction with Government Regulation Number 16 of 2004, which pertains to Land Administration. The presence of ecological justice and sustainable development, as well as the prevention of ecological damage, can be observed in the rules outlined in the two legal documents. According to Article 23 of Government Regulation No. 16/2004, it is required that all Spatial and Regional Plans take into

account the IP4T map. This map encompasses more than just information on property ownership, utilization, and usage. In addition, the IP4T dataset encompasses assessments of land capability and evaluation, encompassing the examination of ecological factors on the land. Hence, the Spatial and Regional Plan of a specific region must exclude data provided by IP4T, which encompasses information on land tenure, utilization, usage, assessment, and capacity. The concept of ecological justice can be elucidated by referring to Article 3, Article 5, and Article 6 Paragraph (2) of the TAP MPR IX/2001. Nevertheless, within the realm of practical application, numerous inconsistencies persist that undermine the fundamental principles of ecological justice. These irregularities are particularly prevalent in implementing IP4T within the mining industry.

Credit Authorship Contribution Statement

The authors contributed equally to this study.

Declaration of Competing Interest

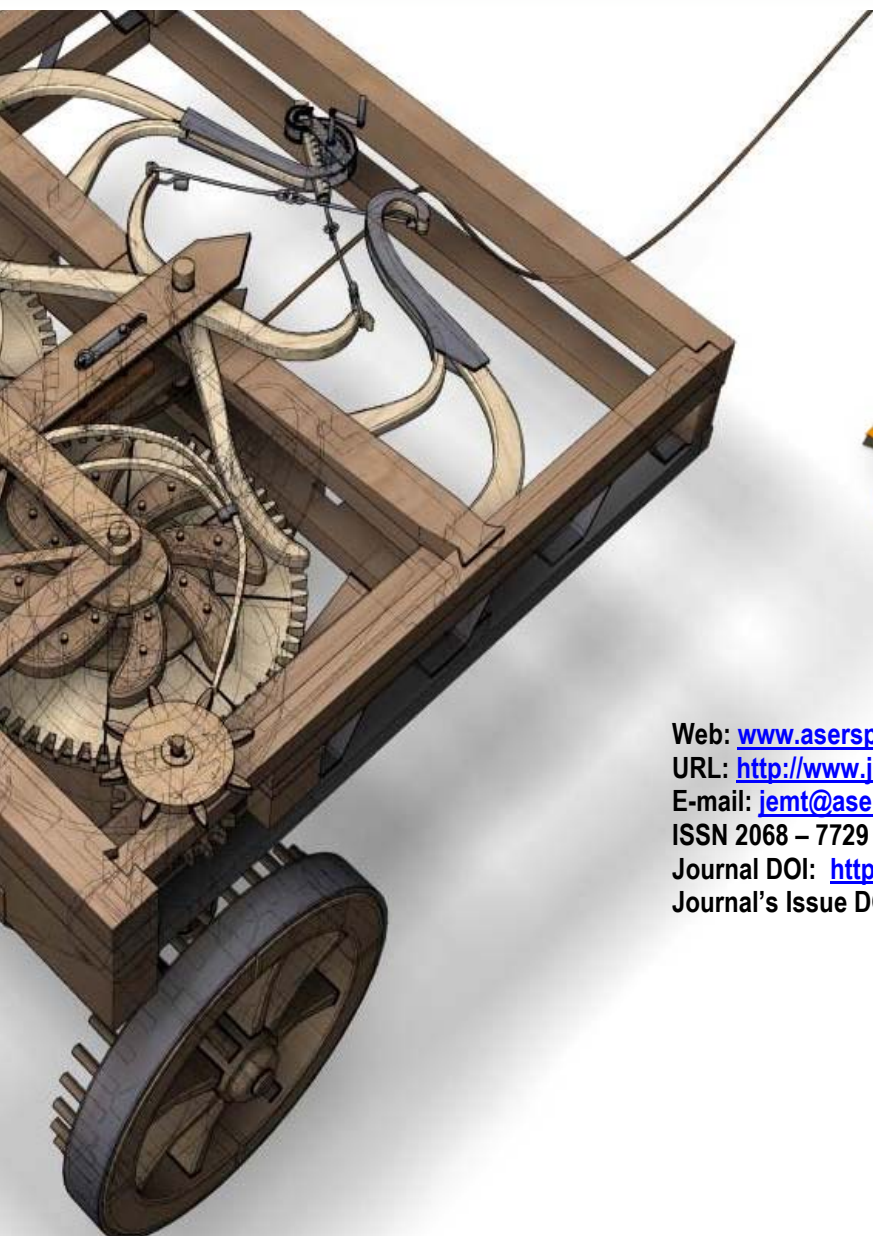
The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

- [1] Alting, H. 2011. Penguasaan tanah masyarakat hukum adat (suatu kajian terhadap masyarakat hukum adat ternate). *Journal of Dinamika Hukum*, 11(1). DOI: [10.20884/1.jdh.2011.11.1.75](https://doi.org/10.20884/1.jdh.2011.11.1.75) (in Indonesian)
- [2] Atmanto, P. D. 2022. The Role of Ecological Justice on the Buffer Zone Management in Indonesia: Mediating Role of Satisfied and Motivated People, *Croatian International Relation Review*, December 31. Available at: <https://cirj.org/menuscript/index.php/cirj/article/view/631>
- [3] Bakri, M. 1970. Unifikasi dalam pluralisme hukum tanah di indonesia (rekonstruksi konsep unifikasi dalam uupa). *Kertha Patrika*, January. DOI: [10.24843/kp.2008.v33.i01.p07](https://doi.org/10.24843/kp.2008.v33.i01.p07) (in Indonesian)
- [4] Baxter, J. and Greenlaw, K. 2005. Explaining Perceptions of a Technological Environmental Hazard Using Comparative Analysis. *Canadian Geographer/Le Géographe Canadien*, 49(1): 61–80. DOI: [10.1111/j.0008-3658.2005.00080.x](https://doi.org/10.1111/j.0008-3658.2005.00080.x)
- [5] Betsill, M. M., Hochstetler, K. and Stevis D. 2014. *Advances in International Environmental Politics*, Palgrave Macmillan UK eBooks. DOI: [10.1057/9781137338976](https://doi.org/10.1057/9781137338976)
- [6] Chamdani, M. C. 2021. Masa Depan Penyelesaian Penguasaan Tanah Di Dalam Kawasan Hutan Pasca-Pengaturan Kembali Luas Kawasan Hutan Yang Harus Dipertahankan Dalam UU Cipta Kerja, *Jurnal Hukum Lingkungan Indonesia*, 7(2): 221–53. DOI: [10.38011/jhli.v7i2.292](https://doi.org/10.38011/jhli.v7i2.292) (in Indonesian)
- [7] Earlene, F., and Benny, D. 2023. Implikasi Kebijakan Reforma Agraria Terhadap Ketidaksetaraan Kepemilikan Tanah Melalui Lensa Hak Asasi Manusia, *Tunas Agraria*, 6(2): 152–70. DOI: [10.31292/jta.v6i2.223](https://doi.org/10.31292/jta.v6i2.223) (in Indonesian)
- [8] Ginting, D. 2011. Reformasi hukum tanah dalam rangka perlindungan hak atas tanah perorangan dan penanam modal dalam bidang agrobisnis. *Jurnal Hukum Ius Quia Iustum*, 18(1): 63–82. DOI: [10.20885/iustum.vol18.iss1.art4](https://doi.org/10.20885/iustum.vol18.iss1.art4) (in Indonesian)
- [9] Handoko, W. 2019. Analisis Pengembangan Kebijakan Dan Manajemen Pertanahan Bpn/Kementerian Agraria RI. *Recital Review*, 1(2): 23–43. <https://online-journal.unja.ac.id/RR/article/download/7446/9686>
- [10] Helmi, H. H. 2019. Reformasi hukum pertanahan: pengaturan komersialisasi ruang tanah. *Jurnal Rechts Vinding: Media Pembinaan Hukum Nasional*, 8(3): 381. DOI: [10.33331/rechtsvinding.v8i3.354](https://doi.org/10.33331/rechtsvinding.v8i3.354) (in Indonesian)
- [11] Ismail, I., Abdurrahman A., M. Jafar, and Azhari A. 2010. Desentralisasi kewenangan bidang pertanahan berdasarkan undang-undang nomor 11 tahun 2006. *Jurnal Media Hukum*, 17(1). DOI: [10.18196/jmh.v17i1.367](https://doi.org/10.18196/jmh.v17i1.367) (in Indonesian)
- [12] Ismail, N. et al. 2012. Penjabaran Asas-Asas Pembaharuan Agraria Berdasarkan Tap MPR No. IX/MPR/2001 Dalam Perundang-Undangan Di Bidang Pertanahan, *Jurnal Mimbar Hukum*, 22(2): 360. DOI: [10.22146/jmh.16231](https://doi.org/10.22146/jmh.16231) (in Indonesian)
- [13] Karjoko, L., et al. 2022. Indonesia's Sustainable Development Goals Resolving Waste Problem: Informal to Formal Policy, *International Journal of Sustainable Development and Planning*, 17(2). [10.18280/ijstdp.170230](https://doi.org/10.18280/ijstdp.170230)

- [14] Karjoko, L., et al. 2022. Legal Policy of Old Wells Petroleum Mining Management Based on Social Justice in Realising Energy Sovereignty, *Sriwijaya Law Review*, 6(2): 286-303. DOI: [10.28946/slrev.vol6.iss2.174](https://doi.org/10.28946/slrev.vol6.iss2.174)
- [15] Liliyani, P., Tanjung N., and Dwi Wulan Titik Andari 2020. Inventarisasi Penguasaan, Pemilikan, Penggunaan Dan Pemanfaatan Tanah (IP4T) Partisipatif Di Kabupaten Madiun, *Tunas Agraria*, 3(2): 157–76. DOI: [10.31292/jta.v3i2.114](https://doi.org/10.31292/jta.v3i2.114) (in Indonesian)
- [16] Mahfiana, L. 2016. Konsepsi Kepemilikan Dan Pemanfaatan Hak Atas Tanah Harta Bersama Antara Suami Istri. *Buana Gender: Jurnal Studi Gender Dan Anak*, 1(1): 29–44. DOI: [10.22515/bq.v1i1.65](https://doi.org/10.22515/bq.v1i1.65) (in Indonesian)
- [17] Minulyo, A. Joni. 2007. Asas Asas Hukum Pembaharuan Agraria. *Neliti*. <https://www.neliti.com/publications/13102/asas-asas-hukum-pembaharuan-agraria#cite> (in Indonesian)
- [18] Nugroho, W. 2020. Persoalan Hukum Penyelesaian Hak Atas Tanah Dan Lingkungan Berdasarkan Perubahan Undang-Undang Minerba, *Jurnal Hukum Ius Quia Iustum*, September. DOI: [10.20885/iustum.vol27.iss3.art7](https://doi.org/10.20885/iustum.vol27.iss3.art7) (in Indonesian)
- [19] Rejekiingsih, T. 2016. Asas fungsi sosial hak atas tanah pada negara hukum (suatu tinjauan dari teori, yuridis dan penerapannya di indonesia), *Yustisia*, 5(2). DOI: [10.20961/yustisia.v5i2.8744](https://doi.org/10.20961/yustisia.v5i2.8744) (in Indonesian)
- [20] Suhattanto, M. A., Sarjita S., Sukayadi S., and Mujiburohman, D. A. 2021. Kualitas Data Pertanahan Menuju Pelayanan Sertifikat Tanah Elektronik. *Widya Bhumi*, 1(2): 100–114. DOI: [10.31292/wb.v1i2.11](https://doi.org/10.31292/wb.v1i2.11)
- [21] Sukirno, S. 2016. Tindak lanjut pengakuan hutan adat setelah putusan mahkamah konstitusi no.35/puu-x/2012, *Masalah-Masalah Hukum*, 45(4): 259. DOI: [10.14710/mmh.45.4.2016.259-267](https://doi.org/10.14710/mmh.45.4.2016.259-267) (in Indonesian)
- [22] Sulaiman, K. F. 2021. Polemik Fungsi Sosial Tanah Dan Hak Menguasai Negara Pasca UU Nomor 12 Tahun 2012 Dan Putusan Mahkamah Konstitusi Nomor 50/PUU-X/2012, *Jurnal Konstitusi*, 18(1): 091–111. DOI: [10.31078/jk1815](https://doi.org/10.31078/jk1815) (in Indonesian)
- [23] Suratma, A. G. P., and Azis A. 2017. Tanda tangan digital menggunakan qr code dengan metode advanced encryption standard, *Al-Ishlah: Jurnal Ilmiah Hukum*, 18(1): 59–68. DOI: [10.30595/techno.v18i1.1482](https://doi.org/10.30595/techno.v18i1.1482) (in Indonesian)
- [24] Swastika, I P. A. 2010. Rancang bangun sistem informasi geografis penguasaan pemilikan penggunaan dan pemanfaatan tanah (p4t) kabupaten jembrana berbasis web. <https://ojs.unud.ac.id/index.php/lontar/article/view/3685> (in Indonesian)
- [25] Yurista, A. P., Simarmata, R., Widowati, D. and Bosko, R. E. 2019. Hak penguasaan atas sumber daya alam dalam konsepsi dan penjabarannya dalam peraturan perundang-undangan, *Jurnal Legislasi Indonesia*, 16(2): 147–59. DOI: [10.54629/jli.v16i2.454](https://doi.org/10.54629/jli.v16i2.454) (in Indonesian)

ASERS



The logo for ASERS Publishing, featuring the word "ASERS" in a bold, orange, sans-serif font with a stylized fan-like graphic to the left, and the word "Publishing" in a smaller, orange, sans-serif font below it.

Web: www.aserspublishing.eu

URL: <http://www.journals.aserspublishing.eu/jemt>

E-mail: jemt@aserspublishing.eu

ISSN 2068 – 7729

Journal DOI: <https://doi.org/10.14505/jemt>

Journal's Issue DOI: [https://doi.org/10.14505/jemt.v14.7\(71\).00](https://doi.org/10.14505/jemt.v14.7(71).00)