



Balancing Private Property Rights and Conservation: Reconstructing Article 570 of The Indonesian Civil Code on Reservoir Riparian Buffer Land

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Abstract

Property rights over land in Article 570 of the Civil Code are doctrinally positioned as absolute rights, but their implementation is still limited by legal interests and the social function of the land. Problems arise when certified ownership land is designated as a reservoir boundary, because restrictions on use for conservation purposes can reduce the economic benefits of rights holders without adequate compensation arrangements. This study aims to analyze the synchronization of Article 570 of the Civil Code, Article 6 of the Civil Code, and the Minister of Public Works and Public Works Regulation No. 28/PRT/M/2015 and formulate a legal construction that is able to harmonize the certainty of property rights and ecological interests. The research uses normative legal methods with a statute approach and a conceptual approach through the analysis of primary and secondary legal materials, including the doctrine of Schoorsteen Arrest, Krul Arrest, and the concept of ecological easement. The results of the study show that the applicable regulations have not built a coherent mechanism to balance the *de jure* recognition of property rights with *de facto* restrictions on the use of reservoir boundary areas. These conditions have the potential to cause legal uncertainty and inequality of conservation burden for rights holders. As a normative contribution, the study proposes the reconstruction of Article 570 of the Civil Code through the integration of the principle of ecological easement, while maintaining the existence of property rights, limiting its use proportionally for the sake of conservation, and providing compensation instruments in the form of fiscal incentives and payment for ecosystem services. The findings of the study emphasize the need to harmonize regulations and proportionate compensation mechanisms, while the recommendation is to revise reservoir boundary regulations or establish special legal instruments so that the protection of property rights and conservation interests can be realized in a balanced manner.

Keywords: Property Rights, Environmental Justice, Indonesian Agrarian Law, Article 570 Civil Code.

Abstrak

Hak milik atas tanah dalam Pasal 570 KUHPerdara secara doktrinal diposisikan sebagai hak yang bersifat absolut, tetapi pelaksanaannya tetap dibatasi oleh kepentingan hukum dan fungsi sosial tanah. Persoalan muncul ketika tanah hak milik yang telah bersertifikat ditetapkan sebagai sempadan waduk, karena pembatasan pemanfaatan untuk kepentingan konservasi dapat mengurangi manfaat ekonomis pemegang hak tanpa diikuti pengaturan kompensasi yang memadai. Penelitian ini bertujuan menganalisis sinkronisasi Pasal 570 KUHPerdara, Pasal 6 UUPA, dan Permen PUPR No. 28/PRT/M/2015 serta merumuskan konstruksi hukum yang mampu mengharmonisasikan kepastian hak milik dan kepentingan ekologis. Penelitian menggunakan metode hukum normatif dengan pendekatan perundang-undangan (statute



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approach) dan pendekatan konseptual (conceptual approach) melalui analisis bahan hukum primer dan sekunder, termasuk doktrin Schoorsteen Arrest, Krul Arrest, dan konsep ecological easement. Hasil penelitian menunjukkan bahwa pengaturan yang berlaku belum membangun mekanisme yang koheren untuk menyeimbangkan pengakuan hak milik secara de jure dengan pembatasan pemanfaatan secara de facto pada kawasan sempadan waduk. Kondisi tersebut berpotensi menimbulkan ketidakpastian hukum dan ketimpangan beban konservasi bagi pemegang hak. Sebagai kontribusi normatif, penelitian mengusulkan rekonstruksi Pasal 570 KUHPerdata melalui integrasi prinsip ecological easement, dengan tetap mempertahankan eksistensi hak milik, membatasi pemanfaatannya secara proporsional demi konservasi, dan menyediakan instrumen kompensasi berupa insentif fiskal serta payment for ecosystem services. Temuan penelitian menegaskan perlunya harmonisasi regulasi dan mekanisme kompensasi yang proporsional, sedangkan rekomendasinya adalah merevisi regulasi sempadan waduk atau membentuk instrumen hukum khusus agar perlindungan hak milik dan kepentingan konservasi dapat diwujudkan secara seimbang.

Kata Kunci: Hak Milik, Keadilan Lingkungan, Hukum Agraria Indonesia, Pasal 570 Kuhperdata.

INTRODUCTION

Material law in Indonesia has experienced quite fundamental philosophical dynamics from the colonial period to the current era of sustainable development.¹ Article 570 of the Civil Code (KUHPerdata), which is the legal heritage of the Dutch East Indies through the principle of concordance, initially defined property rights (*eigendom*) as the right to enjoy a property freely and to act freely over it with the fullest power, as long as it does not conflict with general laws or regulations.² The formulation was historically born from the individualism-liberalism typical of 19th-century Continental European law, which placed property rights as absolute rights, inviolable, and centered entirely on the individual interests of the owner.³ This absolute character then raises fundamental problems when faced with the context of Indonesian agrarian affairs which is communal and oriented towards the common good. A significant paradigmatic shift also occurred with the birth of Law Number 5 of 1960 concerning the Basic Regulations on Agrarian Principles (UUPA), especially through Article 6 which affirms that "all land rights have a social function".⁴ This provision expressly reduces the absolute nature of ownership as stipulated in Article 570 of the Civil Code, by placing the interests of individual rights holders so that they are always in harmony and must not conflict with the interests of the community and the state. Thus, land ownership in Indonesia can no longer be interpreted as unlimited personal power, but has been transformed into a right that is inherently attached to social and ecological responsibility, a shift that is an important philosophical foundation in responding to the problem of land use bordering reservoirs in the midst of the current demands of *the green economy*.⁵

¹ Sitta Saraya et al., *Legal Dynamics in Indonesia: Development & Challenges* (Pt. Star Digital Publishing, Yogyakarta-Indonesia, 2025).

² Christina Bagenda et al., *Civil Law* (Widina Publisher, 2023).

³ Iwan Rasiwan, "The Criminal Justice System According to the New Criminal Code: Unraveling the Paradigm and Principle of Balance," *Amu Press*, July 3, 2026, 1–292.

⁴ I. Putu Agus Santia Wibawa and I. Gede Perdana Yoga, "The Legal Implications of Land of Individual Property on the Radius of Temple Sanctity After the Decision of the Temple Sanctity Bhisama," *Journal of Academic Media (JMA)* 3, No. 12 (December 2025), <https://doi.org/10.62281/awdqp87>.

⁵ Westi Utami, Novita Dian Lestari, and Rohmat Junarto, "Optimizing the Utilization of Mataram Sewer Boundaries as Green Open Spaces," *Innovation* 21, No. 1 (May 2024): 15–25, <https://doi.org/10.33626/inovasi.v21i1.784>.

Previous studies have discussed the issue of land rights restrictions, the social function of property rights, and the regulation of reservoir boundary areas separately, but the three have not met adequately to answer the issue of compensation. Studies on land use restrictions generally stop at the administrative-technical aspects of the implementation of boundary lines without examining the civil implications of certified property rights. Studies on the social function of land rights, on the other hand, tend to stop at the level of the philosophical principles of Article 6 of the UUPA without formulating operational parameters regarding when such restrictions must be compensated. Meanwhile, studies on reservoir border areas, including implementation studies in the Lake Limboto area, mostly capture problems at the empirical-causistic level without offering a doctrinal reconstruction of Article 570 of the Civil Code itself. The absence of a common point between these three streams of study leaves a research gap: there is no normative framework that explicitly bridges the restriction of property rights due to the determination of boundaries with a clear compensation mechanism, a gap that this study tries to answer through a reconstruction of the meaning of Article 570 of the Civil Code.

Entering the second half of the 2020s, the *green economy paradigm* is increasingly crystallizing as the mainstream of economic policy, both at the global and national levels, as the urgency of mitigating the climate crisis and cross-border environmental degradation increases.⁶ At the national level, this commitment is reflected in Presidential Regulation Number 12 of 2025 concerning the 2025-2029 RPJMN, which aims at three main development goals, namely poverty reduction, improving the quality of human resources, and high and sustainable economic growth, with these goals also strengthened by the environmental dimension as one of the supporting pillars. As a further operationalization instrument, the government through Bappenas has also launched the *Green Economy Index* (GEI) which measures the effectiveness of economic transformation towards sustainable development through three main economic, social, and environmental pillars that include indicators such as land cover, emission reduction, and new renewable energy.⁷ Environmental conservation in this policy framework is no longer seen as an obstacle to economic growth, but rather as a prerequisite for its sustainability. This convergence between the economic development agenda and the ecological agenda in turn demands a reorientation of the perspective on the use of space, including strategic areas of vital ecological function such as reservoir boundaries, so that it is no longer interpreted solely as an object of individual property as conceived in Article 570 of the Civil Code, but placed within the framework of social and ecological functions as mandated by Article 6 of the Civil Code.⁸

The significance of reservoir boundaries as ecosystem buffer zones cannot be separated from their hydrological function for national water security. Normatively, Regulation of the Minister of PUPR Number 28/PRT/M/2015 emphasizes that boundaries function as water quality restoration, flood channel, and main generator of the surrounding flora and fauna ecosystem, namely as a riparian zone between aquatic and terrestrial ecosystems that reflect healthy land use and become important biodiversity

⁶ Loso Judijanto et al., *Green Economy* (Pt. Green Pustaka Indonesia, 2025).

⁷ Meidiana Mulya Ningsih, "Environmentally Friendly Financing for New and Renewable Energy Sub-Sectors in Indonesia," *Journal of New and Renewable Energy* 5, No. 2 (July 2024): 12–29.

⁸ Firman Haris Ginting And Resi Pranacitra, "Legal Protection For Owners Of Unconverted Eigendom Verponding Rights Pursuant To Uu Nomor 5 Tahun 1960 Whose Physical Land Is Controlled By Another Party," *Focus* 7, No. 1 (February 2026): 29–38, <https://doi.org/10.37010/fcs.v7i1.2197>.

assets for the sustainability of life.⁹ This buffer function is increasingly crucial considering that the degradation of upstream areas also triggers reservoir sedimentation and watershed damage which reduces water holding capacity and increases the risk of floods and droughts.¹⁰ Thus, reservoir boundaries are not just a technical-administrative issue, but an ecological prerequisite for water security as a pillar of sustainable development, as well as a meeting point between the social function of land rights and the urgency of environmental conservation in the *green economy paradigm*.¹¹

The logical consequence of the determination of the boundary line as a prohibited area for free use is the emergence of a real conflict with the private rights of individuals to land that they already legally own. As shown in the study of the implementation of the Minister of Public Works and Housing Regulation Number 28/PRT/M/2015 in the border area of Lake Limboto, the determination of the boundary line as an effort to protect the aquatic ecosystem often clashes with the interests of land owners who have obtained a certificate of ownership, where even though the certificate issued before the determination of the boundary line is still legally recognized, the land owner still experiences restrictions on use, the prohibition of issuing new certificates, and the uncertainty of the compensation mechanism.¹² This condition shows a fundamental tension between the principle of legal certainty attached to the certificate as proof of ownership as guaranteed in the national land registration system and the principle of social function that limits the freedom of rights holders for the sake of environmental conservation.¹³ It is this kind of clash that in turn places the reservoir boundary as the most concrete test space (*locus*) for the validity of the shift in the paradigm of material law in Indonesia, from the individualistic-absolute nature of the inheritance of Article 570 of the Civil Code to the conception of rights that are inherently limited in their social and ecological functions as mandated by Article 6 of the Civil Code.¹⁴

The urgency of this study is even more evident considering that the climate crisis faced by Indonesia is no longer a potential threat, but an ongoing reality. The Indonesia Environmental Outlook (IEO) 2026 report compiled by the KEHATI Foundation shows that environmental damage in Indonesia is the result of development policies that run separately and mutually destructive, where deforestation weakens the hydrological function of watersheds while water crises continue to increase due to the destruction of upstream ecosystems.¹⁵ This condition is exacerbated by the projection of extreme climate phenomena, considering that in 2026 Indonesia is expected to face the "Godzilla El Niño" phenomenon which will have an impact on long droughts, accelerate water and food crises, and increase the risk of forest and land fires. On the other hand, the pressure

⁹ Regulation of the Minister of Public Works and Public Works No. 28/Prt/M/2015 of 2015

¹⁰ Nugroho Tri Waskitho, *Watershed Management in Indonesia* (Ummmpress, 2024).

¹¹ Dr. Onny Medaline M.Kn S. H., *Land Registration Law Reform: An Epistemic Narrative of Land Registration in the Order of Enforcement of the Job Creation Law* (Umsu Press, 2024).

¹² Salman Farishi, Nirwan Junus, and Dolot Alhasni Bakung, "Uncovering Legal Conflicts: Property Rights Regulation with Border Land Tenure in the Limboto Lake Area," *Al-Zayn : Journal of Social & Legal Sciences* 3, no. 5 (November 2025): 7251–68, <https://doi.org/10.61104/alz.v3i5.2364>.

¹³ Samun Ismaya, "A Theoretical Study of the Dualism of Interests and Social Functions of Land Rights," *Wijaya Putra Law Review* 4, no. 2 (October 2025): 243–70, <https://doi.org/10.38156/wplr.v4i2.318>.

¹⁴ Dwi Viky Fernandes, Suyatno Suyatno, and Fajar Rachmad Dwi Miarsa, "Juridical Analysis of the Position of Social Functions of Land Rights for Closed Yards," *Journal of Legal Reform: Cogito Ergo Sum* 5, No. 1 (October 2022): 9–17, <https://doi.org/10.51804/jrhces.v5i1.1913>.

¹⁵ "Kehati," Accessed August 20, 2026, <https://kehati.or.id/artikel/detail/ieo-2026-indonesia-terjebak-lingkaran-krisis-ekologis-perlu-perubahan-tata-kelola-terpadu>.

of exploitation on sensitive areas shows no signs of abating, as it is noted that Indonesia is still burdened with around 12.3 million hectares of critical land that needs serious management in order for its ecological function to recover, with the rehabilitation of upstream areas, springs, and reservoirs being one of the priorities for management. These empirical facts confirm that the protection of sensitive areas such as reservoir boundaries from excessive private exploitation is no longer just a policy option, but an urgent legal necessity to be studied in depth, in order to formulate a protection format that is able to balance respect for the private rights of individuals with the imperative of environmental conservation for the sustainability of future generations of water security.¹⁶

The previous description shows a fundamental gap between legal norms and the reality of their enforcement. Property certificates are still recognized even though they were issued before the demarcation of the boundary line, but their owners are still subject to restrictions on use, prohibitions on the issuance of new certificates, and uncertainties of compensation mechanisms, while existing regulations have not provided a clear mechanism to resolve these conflicts, whether in the form of compensation, transfer of rights, or limited use schemes.¹⁷ As a result, regulatory inequality arises, land owners are trapped in legal uncertainty, while reservoir conservation efforts run without a solid enough foundation to ensure compliance. It is at this point that the core of the problem to be studied lies: how to formulate a material legal regulation of reservoir boundary land that is able to bridge legal certainty for landowners with environmental conservation imperatives, without sacrificing one of them.

Doctrinally, the absolute character of Article 570 of the Civil Code is actually not a doctrine that has stood indefinitely from the beginning. The provision has contained a restrictive clause in the form of the phrase "as long as it does not conflict with the law or general regulations" and "does not reduce the possibility of revocation of rights in the public interest by the payment of appropriate compensation", which shows that the seeds of social restriction on property rights have actually been immanent in the formulation of this article since the beginning, long before the birth of the UUPA. Sri Soedewi Masjchoen Sofwan emphasized that property rights must have a social function, as shown through the doctrines of Arrest 1855 (Schoorsteen Arrest) and Krul Arrest, which in the realm of Dutch law itself had corrected the liberal interpretation of ownership long before the concordance to the Dutch East Indies. The problem is that the evaluation of the current reservoir boundary policy shows that the restrictions imposed tend to be *restrictive-administrative* as an absolute prohibition without clear compensation without a conceptual reconstruction of the meaning of ownership itself, so that the landowner views the restriction as a unilateral grab, not as a natural consequence of a right that is inherently restricted.

On that basis, this study offers a reconstruction of the meaning of Article 570 of the Civil Code from the perspective of *the green economy* through three fundamental shifts. First, the shift from "full sovereignty" (*volledig heerschappij*) to "ecological limited sovereignty", where the owner's power over border land is not interpreted as lost, but transformed into authority limited by environmental carrying capacity as part of the

¹⁶ Ahmad Sholikin, *Ecological Politics: Power, Policy, and Natural Resource Conflict* (Ahmad Sholikin, 2026).

¹⁷ Muhammad Dzaki Alfathur, Putu Samawati Saleh, and Helena Primadiani Sulistyaningrum, "Forms of Protection and Compensation Mechanisms for Unilateral Termination of Contracts by Curators," *Hakim: Journal of Legal and Social Sciences* 4, no. 2 (June 2026): 1–17, <https://doi.org/10.51903/db85kd65>.

"general regulation" that has been explicitly mentioned in the article itself. Second, the shift from a *no-compensation taking* model to an *ecological easement* scheme or the imposition of limited use rights, where the government sets reservoir boundaries as areas with property rights that remain attached to the holder but accompanied by *use restrictions* that are balanced by economic incentives such as compensation for *ecosystem services* or tax breaks so that social functions are no longer interpreted as unilateral sacrifices but as economic value contributions for the owners. Third, a shift from a sectoral approach towards integration across legal regimes, by harmonizing Article 570 of the Civil Code, Article 6 of the Civil Code, and Permen PUPR 28/2015 into one coherent policy framework, so that the certificate of ownership of border land is no longer a source of dispute, but an instrument that built-in contains conservation obligations as an integral part of its ownership. With such a reconstruction, ownership rights over reservoir border land can be interpreted not as power taken away by the state, but as ownership that has been transformed following the logic of the green economy: private property with ecological responsibility built in.

Based on the description above, this study aims to formulate a reconstruction of the meaning of Article 570 of the Civil Code that is more contextual with the principles of social and ecological functions, as well as offering a format for material legal regulation of reservoir boundary land that bridges legal certainty for land owners with environmental conservation imperatives.

Theoretically, this research is expected to enrich the study of national material and agrarian law in bridging the tension between private rights and environmental conservation. Practically, this research is expected to be a reference for policymakers in formulating more equitable reservoir boundary regulations through compensation schemes, the imposition of limited use rights, or economic incentives while supporting the agenda of water security and sustainable development in line with the ideals of the *green economy* in Indonesia.

RESEARCH METHODS

This research is a normative legal research oriented to the study of norms, principles, doctrines, and legal constructions regarding the restriction of property rights over land in the reservoir border area. The approaches used include the statute approach, conceptual approach, and comparative law approach. The statute approach is used to examine the relationship and synchronization between Article 570 of the Civil Code, Article 6 of the Basic Agrarian Law (UUPA), Permen PUPR No. 28/PRT/M/2015, as well as other laws and regulations relevant to water resource management, environmental protection, and conservation. The conceptual approach is used to analyze the concept of property rights, social functions of land, *misbruik van recht*, rights restrictions, taking, and ecological easement. Meanwhile, the comparative law approach is used to examine the development of conservation easement in the common law tradition, especially the United States, then compare it with the characteristics of the Indonesian material law system based on civil law, the closed system, and the land registration system. In this context, *Schoorsteen Arrest* and *Krul Arrest* are used as secondary legal material that has historical-doctrinal value to explain the development of the meaning of property rights in the continental legal tradition, and not as a binding precedent in the Indonesian legal system.

Research legal materials are classified into primary, secondary, and tertiary legal materials. Primary legal materials include Article 570 of the Civil Code, Article 6 of the Civil Code, Permen of PUPR No. 28/PRT/M/2015, as well as other laws and regulations

related to land rights, water resources, spatial planning, and environmental protection. Secondary legal materials include court decisions and relevant judicial documents, especially Schoorsteen Arrest and Krul Arrest, books and scientific articles on property law, agrarian law, property rights, ecological easement, conservation easement, *misbruik van recht*, taking, green economy, as well as relevant research results and policy documents. Tertiary legal materials consist of legal dictionaries, encyclopedias, and other reference sources used to clarify terminology and concepts used in the analysis. The collection of legal materials is carried out through library research and document search in credible regulatory databases and scientific publications. All legal materials are then inventoried, classified, and mapped based on the legal issues studied to identify suitability, voids, conflicts, and norm inconsistencies between the recognition of property rights and restrictions on land use for conservation purposes.

The analysis of legal materials is carried out qualitative-prescriptive using deductive legal reasoning and several interpretation techniques, namely systematic, teleological, and conceptual interpretation. Systematic interpretation is used to place Article 570 of the Civil Code in its relation to Article 6 of the UUPA and the Ministerial Regulation of PUPR No. 28/PRT/M/2015 as a unit of legal systems; teleological interpretation is used to assess the legal purpose of land use restrictions in the perspective of ecological function protection and the development of the green economy paradigm; while conceptual interpretation is used to formulate the construction of ecological easements that are in accordance with the characteristics of Indonesian material law. A comparative approach is then used to identify principles that can be adapted from conservation easement without carrying out a full legal transplant, especially with regard to use restrictions, sustainability of property rights, and incentive or compensation mechanisms. The final stage of analysis is carried out by confronting the applicable norms (*ius constitutum*) with the need for an ideal regulation (*ius constituendum*) in order to formulate a proportionate legal reconstruction. Thus, the analysis produces prescriptive arguments regarding the harmonization of property rights, the social function of land, conservation interests, and compensation designs that can provide legal certainty and justice for land rights holders in the reservoir border area.

RESULTS AND DISCUSSION

Points of Reference and Inconsistency of Norms of Article 570 of the Civil Code, Article 6 of the Civil Code, and Ministerial Regulation of PUPR No. 28/2015

Article 570 of the Civil Code defines property (*eigendom*) as the right to enjoy the use of a property freely and to act freely over it according to one's own will, as long as it does not conflict with the laws or general regulations set by the competent authority, and does not interfere with the rights of others. This formulation has historically been born out of the doctrine of *liberal individualism* that dominated Continental European material law thought in the 19th century, where property rights were seen as *absolute*, *exclusive*, and total rights, a conception known in classical doctrine as *droit absolu*, *droit exclusivisif*, *et droit perpétuel*.¹⁸ Such absolute nature is reflected in the owner's authority to control, enjoy, and transfer his property without the interference of other parties, including the state, except within the limits explicitly defined by law. This conception of individual sovereignty over property rights places the legal subject as the holder of supreme power over his material objects, so that any restriction on such rights including those that derive from environmental conservation interests such as the establishment of reservoir

¹⁸ Insan Budi Maulana., *The Shift in Legal Thought from the Greek Era to Post-Modernism* (Citra Aditya Bakti, 2020).

boundary lines is essentially positioned as *an exception* to a general principle, rather than as an inherent part of the property structure itself.¹⁹

The conception of absolute property rights as embraced by Article 570 of the Civil Code undergoes a fundamental shift when confronted with Article 6 of the Civil Code, which affirms that "all rights to land have a social function." In contrast to Article 570 of the Civil Code, which places the restriction of property rights as *an external exception*, namely restrictions that come from outside the structure of the rights itself in the form of laws or general regulations, Article 6 of the Civil Code actually embeds social functions as internal limitations that are inherent in every right to land since the birth of the right.²⁰ The juridical consequences are significant: if in the regime of Article 570 of the Civil Code, land owners are basically free to use their land as long as there is no strict prohibition, then in the regime of Article 6 of the UUPA, the interests of individual owners from the beginning have been balanced and limited by the interests of the community, so that the use of land must be adjusted to the circumstances and nature of its rights in order to benefit both the welfare of the owner and the community and the state.²¹ This principle of social function then becomes the normative basis for the state to establish various restrictions on land use for the public interest, including the determination of the boundary line of reservoirs as conservation areas without having to be interpreted as a violation of property rights, but as *an actualization* of the boundaries that have been philosophically attached to the right since the beginning.²²

If Article 6 of the UUPA lays down social functions as a philosophical limitation that is still abstract, the Minister of Public Works and Public Works Regulation No. 28/PRT/M/2015 operationalizes it into a concrete form in the form of a boundary line of the reservoir boundary area determined based on technical criteria to protect the function of the reservoir and the preservation of the surrounding environment.²³ In contrast to the social function inherent in the structure of rights, this boundary line operates as an external barrier: it does not change the ownership status of certified land, but attaches a restriction regime in the form of a prohibition on building construction and the obligation to maintain the ecological function of the area. As a result, there is a superimposition of two different legal regimes on one piece of land, a civil regime that protects property rights and an administrative-technical regime that freezes the authority to use it without a firm mechanism regarding legal status and compensation for affected rights holders.

The superimposition of the two previous legal regimes raises the most crucial normative inconsistency problem in this study, namely the legal status of land that has been certified as a property but then "*trapped*" in the reservoir boundary line due to *post-factum*²⁴ zoning. Formally-juridically, the certificate of ownership issued under Article

¹⁹ Anita Dewi Anggraeni Kolopaking., *Legal Smuggling of Land Ownership in Indonesia* (Alumni Publisher, 2021).

²⁰ Ruth Felyta Worang, "The Application of the Principle of Social Function in Above-Ground Spaces," *Notary Law Journal* 3, No. 2 (June 2024): 115–25, <https://doi.org/10.32801/nolaj.v3i2.91>.

²¹ Dr. Setyo Utomo Cim S. H. ., M. Hum, *Land Ownership in the Perspective of Agrarian Reform* (Cv. Nusantara Press Indonesia, 2026).

²² Febryana Maharani and Asmarani Ramli, "Sociolegal Analysis of Policy Implementation and Dispute Resolution for Land Rights Legal Protection and Agrarian Conflict Resolution in Rawa Pening," *Bookchapter Law and Environment* 1 (November 2025): 572–600.

²³ Wawa Sungkawa, "Law Enforcement of Illegal Buildings on the Border Line Along the Cianjur Regency Irrigation Canal," *Proceeding Justicia Conference* 1 (February 2022): 130–39.

²⁴ Amran As Wahidin, Sutaryono Sutaryono, and Rakhmat Riyadi, "Technical Considerations of Land as an Instrument for Controlling Space Utilization at the Mamuju Regency Land Office," *Tunas Agraria* 2, no. 2 (May 2019): 100–116, <https://doi.org/10.31292/jta.v2i2.31>.

20 of the UUPA remains valid and binding as proof of legal ownership, so that *de jure* the owner still holds full rights to his land plot.²⁵ However, *de facto*, the determination of the boundary line through the Ministerial Regulation of PUPR No. 28/PRT/M/2015 freezes almost all the utilization authority (*ius utendi* and *ius fruendi*) attached to the property rights, without any clarity on the final status of the right itself, whether the property rights are maintained with permanent restrictions, or whether at a certain point they must be revoked through the land acquisition mechanism as stipulated by Law No. 2/2012.²⁶ This void of norms creates a *legal gray zone*: the owner does not formally lose his rights so that he is not entitled to compensation for the revocation of rights, but at the same time can no longer enjoy the economic benefits of his land as is customary for property holders. Neither Article 570 of the Civil Code nor Article 6 of the Civil Code provide an answer to this kind of *intermediate condition*, while the Minister of Public Works and Public Works Regulation No. 28/PRT/M/2015 as a technical regulation is also not designed to regulate the civil consequences of restrictions that create a legal vacuum that ultimately becomes the starting point for the need to reconstruct the meaning of Article 570 of the Civil Code as proposed in this study.

The issue of the legal status of "trapped" land is not just a theoretical potential, but has been concretely manifested in the practice of implementing the PUPR Regulation No. 28/PRT/M/2015 in the Lake Limboto border area. As shown in the implementation study in the area, title certificates issued before the determination of the boundary line are still legally recognized, but the owners face restrictions on use, prohibitions on the issuance of new certificates, and the uncertainty of the compensation mechanism, a pattern that precisely confirms the three elements of the norm vacuum that have been identified, the superimposition of civil and administrative-technical regimes, the absence of compensation parameters, and the unclear final status of rights.²⁷ The Limboto Lake case thus serves a dual function: as empirical evidence that the normative inconsistency between Article 570 of the Civil Code, Article 6 of the Civil Code, and the Minister of Public Works and Public Works Regulation No. 28/2015 is not just a textual gap on paper, as well as a justification for the urgency that the reconstruction of the meaning offered by this study answers the problems that land owners really face in the field, not just speculative academic problems.

Thus, it can be synthesized that the legal vacuum that occurs is not just an overlap of authority, but the absence of a protection and compensation mechanism for the transitional situation between private property rights and the border conservation regime. Article 570 of the Civil Code does require compensation for the revocation of property rights, but it is only relevant for formal revocation schemes (*onteigening*), while restrictions due to the boundary line actually leave "*empty ownership*" of ownership that remains juridically attached but loses its economic substance. Article 6 of the UUPA only formulates social functions as a limiting principle without parameters when restrictions

²⁵ Kadek Yogi Arya Agustama, Komang Febrinayanti Dantes, and Ni Luh Wayan Yasmianti, "Juridical Analysis of the Evidentiary Power of Property Rights Certificates as Evidence in Land Rights Ownership Disputes: A Study of Decision Number 82/Pdt.G/2024/Pn.Sgr," *Al-Zayn : Journal of Social & Legal Sciences* 4, No. 2 (March 2026): 2566–73, <https://doi.org/10.61104/alz.v4i2.4683>.

²⁶ Ian Edward Hamonangan Butar Butar et al., "The Process of Land Acquisition for the Public Interest According to Law No. 2 of 2012," *Journal of Scientific and Student Works* 1, no. 3 (June 2023): 236–59, <https://doi.org/10.54066/jikma.v1i3.348>.

²⁷ Hadi Arnowo, "Preserving Small Lakes, Lakes, Public Ponds, And Reservoirs As State Property Through Land Registration," *Monas: Jurnal Inovasi Aparatur* 2, No. 2 (November 2020): 203–16, <https://doi.org/10.54849/monas.v2i2.45>.

must be compensated, while the Minister of PUPR No. 28/PRT/M/2015 does not contain a compensation clause at all because it is not designed to regulate civil relations. The absence of this common ground confirms that the Indonesian legal system does not have adequate instruments to accommodate *quasi-taking restrictions on property rights*, so that the affected landowners are in a vulnerable position without definite legal protection, this gap is the argumentative basis for the proposal for the reconstruction of Article 570 of the Civil Code in the next section.²⁸

Guarantee of Private Property Title vs Ecological Conservation Obligations on Border Lands

The clash of interests between private property rights and ecological conservation obligations at reservoir boundaries is rooted in the theoretical contradiction between the individualistic paradigm in Article 570 of the Civil Code and the ecological-collective paradigm that animates the interests of water resource conservation. The exclusive nature of property rights places the owner as the only subject authorized to determine the use of his property, including *ius utendi*, *ius fruendi*, and even *ius abutendi* as long as it does not violate general provisions. This conception is directly confronted by the ecological imperative of reservoir boundaries, which require certain parcels of land to maintain their hydrological and ecological functions for the sake of collective interests, such as controlling water damage and ecosystem sustainability. This tension reflects a paradigmatic shift in the philosophy of property law: from land as the object of individual absolute power, to land as *res communis* that concerns the interests of present and future generations, so that the exclusivity of property rights in Article 570 of the Civil Code has the potential to be a normative barrier to the conservation function of the state, and requires a reinterpretation of the limits of its applicability.²⁹

This theoretical contradiction is manifested in the uncertainty of the factual status experienced by the owner of land with a certificate of ownership whose land then falls within the boundary line of the reservoir. *De jure*, the legal position of the owner is unwavering: the certificate of ownership issued under Article 19 and Article 32 of the UUPA remains valid as strong evidence, and there is not a single provision in the Minister of Public Works and Public Works Regulation No. 28/PRT/M/2015 that explicitly revokes or cancels the ownership rights. Behind the integrity of this juridical status, however, lies a very different reality: *de facto*, all the substantive authority that should be attached to the right to erect buildings, the right to change the landscape, the right to carry out productive activities on it is paralyzed by the prohibitions and restrictions imposed in the interest of the conservation of the border area. This condition gives rise to what can be called a dissociation between formal ownership and substantive control (*separation of title from control*): the owner retains the status of the subject of rights, but loses almost all capacity to actualize these rights economically and physically. Ironically, this uncertainty is exacerbated by the lack of procedural clarity in which there is no standard mechanism governing whether this "frozen" status is temporary (pending further land acquisition processes) or permanent (valid forever without compensation), leaving land

²⁸ Ariadi Abil, "Control of the Utilization of Residential Space at the Border of the Alliritengae River, Turikale District, Maros Regency," *Urban And Regional Studies Journal* 6, no. 1 (December 2023): 138–42, <https://doi.org/10.35965/ursj.v6i1.3798>.

²⁹ Merry Roseline Pasaribu And Roswita Sitompul, "Contemporary Civil Law," *Unpri Press* 1, No. 1 (July 2026), <https://jurnal.unprimdn.ac.id/index.php/isbn/article/view/8610>.

owners in a floating legal position, with no certainty about the final fate of their property.³⁰

Although the substantive authority to erect buildings, alter landscapes, and carry out productive activities on border land is frozen as described above, not all of the authority attached to property rights is paralyzed. Doctrinally, landowners retain at least four residual authority. *First*, *ius possidendi*, which is the right to remain registered as a rightholder and control the land area juridically, including the right to maintain the validity of its certificate from third-party claims. *Second*, the authority to use passive use that is in line with the conservation function (*compatible passive use*), such as agriculture without permanent buildings, reforestation, or maintenance of riparian vegetation, as long as it does not damage the hydrological function of the area. *Third*, the right to transfer ownership through sale and purchase, grants, or inheritance, even though the ecological restrictions attached to the land parcel also pass to the next right holder (*running with the land*). *Fourth*, the right to charge the right of dependency as debt collateral, even if the collateral value is corrected due to depreciation in economic value. This identification of residual authority confirms that what happens is not a substantial revocation of property rights (*de facto expropriation*), but a partial reduction of authority (*partial taking*) in the *bundle of rights* that still leaves the core of ownership for the owner.

The dissociation between formal ownership and substantive control as described earlier carries serious economic implications, especially related to the absence of appropriate compensation mechanisms and incentives for affected landowners. Within the framework of conventional land law, compensation for the restriction of rights is only known through the scheme of land acquisition in the public interest as stipulated by Law No. 2/2012, which requires a formal transfer of rights from the owner to the state. However, the restriction due to the determination of the boundary line of the reservoir does not meet this qualification because there is no transfer of the right of the owner to still hold the certificate, so that formally no object is "taken" by the state, even though substantively the economic value of the land has declined significantly, even in many cases close to zero because it cannot be used or transferred reasonably in the market. The absence of this compensation mechanism creates a *disproportionate burden* borne by individual landowners, even though the benefits of reservoir boundary conservation in the form of water resource sustainability, disaster mitigation, and ecosystem preservation are enjoyed collectively by the wider community. This condition is clearly contrary to one of the fundamental principles in the *green economy* paradigm, namely the principle of *environmental justice* which requires that the costs and benefits of conservation policies be distributed fairly, rather than unilaterally imposed on individuals who happen to own land in ecologically strategic locations. Without compensation schemes, fiscal incentives, or at least payment *for ecosystem services* for owners whose land supports conservation functions, the *green economy agenda* risks losing its legitimacy in the eyes of the public, because it is carried out on the sacrifice of civil rights that are not adequately compensated.

The vacancy of the compensation mechanism described earlier does not in itself mean that any restriction on the use of border land automatically gives rise to the right to compensation. The doctrine of comparative material law, particularly the *framework of regulatory takings* in the United States tradition and the principle of proportionality (*Verhältnismäßigkeitsprinzip*) in Continental European administrative law, consistently

³⁰ Muhammad Ilham Arisaputra., *Agrarian Reform in Indonesia* (Sinar Grafika (Bumi Aksara), 2021).

distinguishes between the restriction of the category *of background principles/police power* that is inherent in public order and does not require compensation, with restrictions that have exceeded the threshold of reasonableness so as to substantially negate the *functional equivalent of a taking*. Adapting this framework, this study proposes three cumulative indicators as legal *thresholds*: (1) *economic severity*, the proportion of loss of economic value of land compared to before the determination of the boundaries; (2) *the character of the restriction*, whether it is merely *a mere use regulation* or has eliminated all substantive authority of property rights (*denial of all economically beneficial use*); and (3) *reasonable investment-backed expectations*, whether the owner used his land based on reasonable expectations before the boundary line was enacted. Restrictions that only marginally touch one indicator are classified as reasonable restrictions that do not require compensation, while restrictions that meet all three significantly, as is common in land "trapped" within the boundary, can only be qualified as *the functional equivalent of a taking* and therefore justify the right to compensation.

The tension between individual economic interests and the imperative of ecological conservation can be explained through the doctrine of *Schoorsteen Arrest* (*Hoge Raad*, 1917), which laid the foundation of the doctrine of *misbruik van recht* (abuse of rights) in the material law of Continental Europe. This doctrine was born out of the case of a landowner who erected a false chimney solely to block light to neighboring property without benefit to himself an act that was declared to exceed the limits of the reasonableness of the use of property rights even if it did not formally violate the law. In essence: property rights, however exclusive, remain subject to the principle that their use must not cause disproportionate harm to other parties. Projected into the context of reservoir boundaries, land use that undermines the ecological function of the area can be categorized as an abuse of rights if the benefits to the owners are much less than the collective losses caused. This analogy is normatively strengthened by Article 6 of the UUPA, which places social functions as the inherent limits of any land right. Thus, both *the misbruik van recht* and the social functions of the UUPA confirm that the legitimacy of property rights does not only come from formal ownership, but also from the responsibility of its use to the interests of the environment and society.

In addition to the doctrine *of misbruik van recht* in *Schoorsteen Arrest*, the strengthening of the argument can also be traced through the doctrine of *Krul Arrest*, which in the Dutch material law tradition expands the meaning of unlawful acts (*onrechtmatige daad*) no longer limited to violations of written provisions, but also includes violations of propriety and prudence that apply in public relations (*zorgvuldigheidsnorm*). If *Schoorsteen Arrest* focuses on the abuse of rights in terms of motives and proportionality of the benefits of its use, *Krul Arrest* contributes a complementary dimension: that the formal legality of an act (including the use of legal property rights by certificate) does not in itself absolve the owner of responsibility for the consequences caused to the interests of others, as long as the act is contrary to the norms of propriety that live in society. Projected into the context of reservoir boundaries, this doctrine reinforces the argument that land use that undermines the hydrological function of a conservation area even if carried out on a legally certified plot of land can still be considered materially unlawful if it conflicts with the socio-ecological propriety that develops with the *green economy* paradigm, thus further reinforcing the doctrinal basis that the validity of a certificate alone is not synonymous with unlimited freedom in its use.

It is important to emphasize that the projection of the doctrines of *Schoorsteen Arrest* and *Krul Arrest* into the context of the Indonesian reservoir boundary above is a *limited doctrinal analogy*, not a direct application of the two decisions as binding legal authorities. The two Hoge Raad decisions were born from the Dutch legal system in the early 20th century and have no binding force in the Indonesian legal system after independence, so they cannot be cited as jurisprudence that directly regulates reservoir boundary land disputes in Indonesia. The value taken from the two doctrines is limited to the *general principle*, that property rights, however exclusive, are subject to the limits of the fairness of use, not to the facts or the concrete rulings, and their function in this study is solely as a reinforcement of historical-comparative arguments on the principle that has applied independently in Indonesian positive law through Article 6 of the UUPA.

Starting from the theoretical contradictions, uncertainties of factual status, unequal economic implications, and the support of the doctrinal interpretations that have been described, it can be synthesized that the clash between private property rights and ecological conservation obligations at reservoir boundaries cannot be resolved through a purely causistic approach. As long as property rights are still interpreted through Article 570 of the Civil Code, which has an individualistic-exclusive paradigm without redefinition that integrates ecological boundaries into its internal structure, such conflicts will continue to recur as structural consequences, not case-by-case anomalies. The doctrine of *misbruik van recht* and the social functions of Article 6 of the UUPA do provide a philosophical foundation, but both stop at a general principle without an operational formulation to answer the legal status of the affected land or the restoration of economic justice to the owners. This emptiness emphasizes the urgency of formulating a new legal interpretation of Article 570 of the Civil Code that positions ecological functions not as an external exception, but an inherent limit from the beginning, while providing a fair compensation framework. This formulation is the focus of discussion in the next sub-chapter.

Integration of the Ecological Easement Doctrine and the Green Economy Paradigm

The conventional economic paradigm that has been underlying land valuation is implicitly in the spirit of Article 570 of the Civil Code, which tends to place private *market value* as the only parameter, which is the value determined by the potential of land to be transferred, built, or exploited economically by its owners. The *green economy* paradigm, on the other hand, introduces a fundamentally different perspective through the concept of *ecosystem services valuation*, which calculates the value of a plot of land not solely from its usefulness to individual owners, but from its contribution to ecological functions that are enjoyed collectively such as the hydrological function in absorbing and storing water, the mitigation function in controlling the risk of flooding and sedimentation, the function of biodiversity as a habitat, to the function of *carbon sequestration* which is relevant in the context of global climate change. With this framework, reservoir boundary land can no longer be seen as an "unproductive" asset simply because it does not produce commercial value for its owners directly, but instead is an asset with a high *total economic value* including direct use value, indirect use value, to existence and *bequest value* for future generations. This shift in perspective is the argumentative foundation for the reconstruction of Article 570 of the Civil Code: that the concept of "use" (*genot*) which is the core of property rights in the article should no longer be interpreted narrowly as purely economic-commercial use, but expanded to

accommodate ecological uses which are actually the main source of value of conservation functions such as reservoir boundaries.³¹

The next reconstructive step is to adopt the concept of ecological easement to internalize the environmental burden into the internal structure of property rights. In the Anglo-American tradition of tangible law, an *easement* is a limited property right that encumbers a piece of land for the benefit of another party without losing its ownership status; *ecological easement* is a contemporary variant that imposes a conservation obligation on landowners to maintain a specific ecological function.³² In contrast to external administrative restrictions, the strength of this doctrine lies in its inherent and inherent nature (*running with the land*) that conservation obligations are not burdens that are "attached" from the outside, but an integral part of the property structure from the beginning. Projected onto the land bordering the reservoir, the adoption of this doctrine means that land owners are not only passively limited by the Minister of Public Works and Housing Regulation No. 28/PRT/M/2015, but *bear an affirmative duty* to maintain the hydrological function of the reservoir as an inherent consequence of their ownership. The relationship between the owner and the land has also shifted from a unilateral power relationship to a *stewardship* relationship that balances the right to enjoy with the obligation to preserve.

In order for the concept of *ecological easement* not to stop as an abstract doctrinal idea, this study formulates eight institutional and material legal elements for its operation. *Beneficiary*: the state through the Ministry of PUPR together with local governments, not private parties, considering that the ecological function of the boundary is a *public interest easement*. *Registration*: the inclusion of ecological *encumbrance notation* in land books and certificates, is a *constructive notice* for third parties in good faith. *Enforceability*: supervision by technical agencies with tiered administrative sanctions (warnings, fines, revocation of incentives), without revoking property rights. *Succession*: following *running with the land*, automatically switching to the heirs without re-registration. *Transferability*: attached *in rem* to the land object, switching to the new owner with the obligation of a notary/PPAT to include it in the deed. *Duration*: permanent as long as the determination of the boundary line is valid based on the PUPR technical study. *Termination*: only through changes in the determination of the boundary line based on a new technical study, or land acquisition for the public interest. *Dispute-resolution*: tiered mechanisms, administrative objections, mediation of land dispute resolution institutions, to PTUN lawsuits (administrative aspects) or district courts (civil/compensation aspects).

The internalized concept of *ecological easement* gains a stronger doctrinal footing when the Schoorsteen Arrest is synchronized with Article 6 of the UUPA in order to abort the claim of the absolute nature of Article 570 of the Civil Code in an ecological context. Although born from the different traditions of *misbruik van recht* from Continental European jurisprudence and the social function of national agrarian law politics, both rest on a convergent premise: property rights are never truly absolute, but are subject to the

³¹ Eva Farikhatus Saa'diyah, "The Issuance of Land Certificates Reviewed from the Juridical Aspect at the Border of the Serinjing River, Jambu Village, Kediri Regency," *Al Qodiri: Journal of Education, Social and Religious* 18, no. 3 (January 2021): 690–708.

³² Faris Makarim Pranotoputera, Nasrullah, and Deni Kamaludin Yusuf, "Regulation of River Boundary Land Management According to Civil Law and Islamic Law," *Journal of Multidisciplinary Scientific Research* 1, no. 03 (July 2025), <https://ojs.ruangpublikasi.com/index.php/jpim/article/view/661>.

limits of fair use.³³ If *the Schoorsteen Arrest* affirms the limit through the test of proportionality of benefits, Article 6 of the UUPA affirms it through a test of conformity with the interests of the community. This synchronization results in mutually reinforcing arguments: the use of boundary land that neglects hydrological functions and causes collective losses beyond its private benefits can be qualified as both an abuse of rights and a denial of social function. Thus, the claim of absolute freedom in Article 570 of the Civil Code cannot be defended in the context of land with ecological boundaries that are lost not because of external restrictions alone, but because they are internal-doctrinally contrary to the limits of the fair use of rights recognized by the two legal traditions.³⁴

Referring to the dissolution of the claim of the absolute nature of Article 570 of the Civil Code in an ecological context, this study offers a reconstructive formulation that applies specifically to land with a conservation function such as reservoir boundaries, as an offer of progressive interpretation for judges, policymakers, and land law practitioners. The proposed formulation: "*Property rights are the right to enjoy the use of a property freely, as long as it does not conflict with the laws and ecological functions attached to it; specifically for land within the conservation boundary line, its use is automatically limited (ipso jure) to the extent necessary to maintain the conservation function, without prejudice to the owner's right to appropriate compensation if the restriction removes the substantial economic value of the property.*" This formulation contains three key elements: first, the restriction takes effect automatically (*ipso jure*) once the land is categorized as a border area, eliminating the void of the norm on the status of "trapped" land; second, the title *remains intact* the owner does not lose his legal status, limited only to the dimensions of *ius utendi* and *ius fruendi*; third, this automatic restriction is juxtaposed with the right to proper compensation, answering the void of the compensation mechanism while fulfilling the principle of environmental justice in *the green economy*. With this formulation, Article 570 of the Civil Code is no longer static-individualistic, but ecologically elastic recognizing property rights while simultaneously instilling the responsibility of conservation and ensuring economic justice.

It should be emphasized from the outset that the above reconstructive formulation, including the recognition of the right to compensation attached to it, is an *offer of ius constituendum* law that is aspired to apply in the future and not a norm that has been applied as an *ius constitutum* in the current Indonesian legal system. Neither Article 570 of the Civil Code, Article 6 of the Civil Code, nor the Ministerial Regulation of PUPR No. 28/PRT/M/2015 contain a positive legal basis that explicitly provides the right to compensation for affected landowners. Therefore, the proposed right to compensation should not be understood as a right that can be claimed based on the applicable positive law, but rather as a normative recommendation that requires further formalization through legislation.

Before elaborating on its concrete form, it is important to conceptually distinguish three terms that are often loosely interchangeable. *Compensation* is a right that arises as a legal result of restrictions that meet the *threshold of taking*, are mandatory and *justiciable*, the amount of which is determined by real losses. *Fiscal incentives* are tax policy instruments that are *discretionary*, not the fulfillment of legal rights to losses, so

³³ Pedro Sutanto, "Legal consequences for holders of ex-eigendom verponding rights in land ownership disputes," *Journal of Legal Dialectics* 4 (2022).

³⁴ Charlotte Decock, Maryline Vandendorpe, and Gérard Debouche, *Let's go green: Le notariat au coeur des enjeux climatiques - the notariat as the linchpin of the climate challenge* (Primento Digital sprl, 2024).

they cannot be claimed as civil rights. *Payment for Ecosystem Services* (PES) is a contractual/programmatic scheme that is prospective, a reward for future ecological contributions, not the recovery of losses that have occurred, so that the payment depends on the actual conservation performance. The three are not mutually replaceable: compensation is relevant for restrictions that meet the *taking* threshold, while fiscal incentives and PES are more appropriately positioned as *complementary instruments* for restrictions that do not meet those thresholds.

The reconstruction of Article 570 of the Civil Code, especially the element of "the right to adequate compensation," requires further elaboration of the concrete form of the compensation mechanism, given that the conventional compensation scheme in Law No. 2/2012 on Land Acquisition cannot be applied directly to restrictions that are *ipso jure* and do not involve the transfer of rights. Therefore, this study proposes a non-conventional compensation mechanism that is more in line with the characteristics of the restriction, which can be pursued through at least two main schemes³⁵. First, the *fiscal incentive scheme* in the form of a reduction or exemption from the Land and Building Tax (PBB) proportionally to the area of land parcels affected by border line restrictions, as a form of state recognition that the economic value of the land has shrunk due to the conservation obligations attached to it, this scheme is relatively easy to implement because it can utilize existing regional taxation instruments without the need for the formation of new institutions. Second, the environmental remuneration scheme or *payment for ecosystem services* (PES), which is the provision of periodic financial compensation to landowners in return for their land's contribution in maintaining the hydrological and ecological function of reservoirs, whose funding sources can come from the allocation of the state/regional budget, the contribution of parties who receive direct benefits from the conservation function (*beneficiary-pays principle*) such as drinking water supply companies or hydroelectric power plants as well as green financing instruments such as environmental bonds (*green bonds*) or carbon trading (*carbon trading*) which are increasingly developing in the *global green economy ecosystem*. These two schemes are not exclusive to each other, but can be combined according to the fiscal conditions of the region and the characteristics of the border area concerned. With the availability of this non-conventional compensation mechanism, the reconstruction of Article 570 of the Civil Code no longer stops at a purely normative-philosophical level, but rather acquires concrete operational practicality bridging the recognition of individual property rights, ecological conservation obligations, and economic justice for landowners simultaneously, while addressing the legal gap that is the starting point of this entire study.

Although this reconstructive formulation promises a more equitable solution, its application cannot be separated from a number of limitations that need to be anticipated. First, the phrase "appropriate compensation if the restriction removes substantial economic value" has the potential to create new interpretive disputes regarding these "substantial" parameters and thresholds, so that further technical criteria are needed, for example through the ecosystem service valuation method discussed earlier so as not to become a new legal loophole that actually prolongs uncertainty. Second, the *payment for ecosystem services* scheme risks causing *moral hazard* if it is not accompanied by an independent verification mechanism for land owners' compliance with the conservation

³⁵ Aga Prasdhana and Miftakhul Huda, "The Implementation of Land Acquisition Compensation According to Law Number 2 of 2012," *Unes Law Review* 6, No. 3 (March 2024): 8203–11, <https://doi.org/10.31933/unesrev.v6i3.1710>.

obligations attached to it, considering that periodic payments without adequate supervision have the potential to be received without a commensurate ecological contribution. Third, the imposition of an *affirmative duty* on landowners to maintain the hydrological function of reservoirs requires further clarity on the limits of responsibility, particularly in distinguishing ecological damage caused by the owner's negligence from damage caused by external factors beyond their control, such as pollution from upstream rivers. These limitations do not negate the validity of the reconstruction offered, but it does confirm that its implementation requires advanced technical regulatory tools and credible supervisory institutions, so this normative formulation should ideally be followed up through a more operational policy review.

In essence, it represents a new *equilibrium* between two interests that have been seen as diametrically opposed, namely the protection of private property rights on the one hand and the sustainability of water resources on the other. This balance is not achieved by sacrificing one interest for the sake of another, but through structural reconciliation, property rights are still recognized as legitimate and protected civil rights, so that the private interests of the owners are not negated, but are simultaneously reinterpreted so that they inherently contain ecological responsibilities and are equipped with guarantees of fair compensation, so that the interests of conservation and economic justice are accommodated.³⁶

Thus, this reconstruction confirms that the relationship between individual property rights and collective environmental interests is not a zero-sum relationship in which the strengthening of one party inevitably weakens the other but a relationship that can be designed in a symbiotic manner, where the protection of the sustainability of water resources actually preserves the long-term value of property rights itself, and the recognition of justly compensated property rights strengthens the social legitimacy and sustainability of conservation policies. Ultimately, the theoretical contribution of this research lies in the shift in the perspective of property rights over boundary lands: from the classical conception of individual power that is limited from the outside, to the contemporary conception of collective management that is inherently limited and protected from within a paradigm that is not only relevant to answer the issue of reservoir boundaries specifically, but has the potential to be a frame of reference for the reconstruction of Indonesia's material law more broadly in responding to future environmental sustainability challenges.

Implementation Challenges and Future Regulatory Prospects (Ius Constituendum) Ecological Reconstruction Model

The phrase "removes substantial economic value" in the proposed formulation, while philosophically addressing the normative vacuum regarding the right to compensation, at the operational level has the potential to give rise to new interpretive disputes if it is not accompanied by clear and measurable limitations. Without a clear parameter, the determination of whether a restriction has "eliminated substantial economic value" will depend entirely on the kasuistic interpretations of both landowners who tend to maximize claims for losses, and governments who tend to minimize compensation obligations, so that instead of resolving the legal vacuum identified at the beginning of this study, the formulation risks creating a new legal loophole that prolongs uncertainty, not ends it. To overcome this risk, this study emphasizes that the determination of the threshold of substantial losses cannot be left to subjective

³⁶ Didik Suhariyanto et al., *Environmental Protection Law: Upholding Ecological Justice* (Pt. Nawala Gama Education, 2025).

interpretation alone, but must be anchored in the *ecosystem services valuation* method that has been discussed in the previous sub-chapter by quantitatively calculating the difference between the *total economic value* of land before and after the determination of the boundary line, including both the lost direct use value and the indirect use value that the owner still enjoys as a contributor to ecological services. With this kind of quantitative approach, the determination of "substantial loss" shifts from the realm of contentious normative interpretation to verifiable technical-objective measurements, so that both landowners and governments have an equal basis of argument in assessing the feasibility of compensation, while reducing the space for far-fetched claims and arbitrary denials of compensation.

The next implementation challenge is the risk of moral hazard in the *payment for ecosystem services* (PES) scheme and the unclear boundaries of land owners' active responsibilities. Without adequate supervision, PES has the potential to be misused as a source of passive income without real compliance with the conservation obligations of opportunistic behavior which in the institutional economic literature is known as *moral hazard*³⁷. To overcome this, a periodic independent verification mechanism is needed through field monitoring, satellite imagery, or ecological audits by conflict-of-interest institutions so that PES payments are tied to actual conservation performance (*performance-based payment*), not just formal ownership status. Another crucial issue is the clarity of the boundaries of active liability: a formulation that imposes the obligation to maintain the hydrological function of reservoirs is potentially unfair if applied absolutely without distinguishing damage due to the owner's negligence from damage due to external factors, such as pollution from the upstream area of the watershed beyond his control. Without this clear distinction, the application of *affirmative duty* risks imposing responsibilities that are causally beyond the control of the landowner, contrary to the principle of justice that is the spirit of the reconstruction of Article 570 of the Civil Code. Therefore, derivative regulations need to formulate clear causality criteria, for example through the principle of *qualified reverse burden of proof* so that conservation obligations are commensurate with the actual control of land owners.

So far, the land registration system organized by the Ministry of ATR/BPN and the boundary line determination system managed by the Ministry of PUPR run as two separate and unintegrated administrative regimes, so that land owners and third parties who want to transact on the land either through sale and purchase, dependent rights, or other transfer of rights do not get adequate information about the status of ecological restrictions attached to the land in question, until the problem is revealed only after the transaction takes place³⁸. This condition emphasizes the urgency of cross-institutional integration between the two agencies, which can technically be realized through the inclusion of *ecological encumbrance notation* in land books and electronic certificates, as well as the recording of dependent rights or confiscation of collateral that has been prevalent in current land practices. The momentum of digital transformation of national land through the electronic certificate system being developed by the Ministry of

³⁷ Andi Setyo Pambudi, "Analysis Of The Implementation Of Water Environmental Services Payment Scheme In The Cimanuk Watershed," *Jurnal Kebijakan Pemerintahan*, October 30, 2025, 53–66, <https://doi.org/10.33701/jkp.v8i1.5475>.

³⁸ Heriyanti Heriyanti et al., "Legal Review of the Regulation of the Minister of Agrarian and Spatial Planning/Head of the National Defense Agency (Permen Atr/BPN) Number 1 of 2021 and Article 19 paragraph 2 of the Uupa," *Journal of Law, Politics and Social Sciences* 2, no. 4 (July 2023): 15–33, <https://doi.org/10.55606/jhps.v2i4.2299>.

ATR/BPN opens up strategic opportunities for this integration, where the spatial database of boundary lines managed by the Ministry of PUPR can be *interoperably* linked with the national land information system, so that every plot of land included in the conservation area automatically gets digital *flagging* without the need for manual administrative processes that are prone to delays or forgetfulness of recording. With the realization of this kind of institutional and administrative integration, *the ipso jure principle* that is at the core of the reconstruction of Article 570 of the Civil Code no longer just stops at the normative-philosophical level, but obtains real and traceable administrative binding, so that both land owners, prospective buyers, and financial institutions that provide land guarantee-based financing can obtain complete legal certainty from the beginning of the transaction.

The administrative integration should ideally be accompanied by an affirmation of the division of institutional authority among four different functions. *Who determines the limits*: The Ministry of PUPR together with local governments, through the determination of boundary lines based on technical-hydrological studies, are recorded by ATR/BPN. *Who assesses losses*: a certified independent *appraisal* team, with an ecosystem service valuation methodology, in order to maintain objectivity. *Who pays compensation*: the budget of the state/region managing the conservation area concerned, with the option of additional contributions from the direct beneficiary (*beneficiary-pays principle*). *Who oversees ecological compliance*: collaboration of PUPR technical agencies and regional environmental agencies, with the involvement of independent agencies for periodic audits to prevent *moral* hazards.

In the end, it boils down to one fundamental conclusion: the reconstruction of the meaning of Article 570 of the Civil Code offered by this study, even though it has been doctrinally tested through the synchronization of *misbruik van recht*, Krul Arrest, and the principle of social function of Article 6 of the Civil Code, is still interpretative (*ius interpretatum*) and does not yet have a formal-legislative binding legal force. As an offer of progressive interpretation, this formulation can only serve as a guideline for judges in deciding cases in a case-by-case manner or as an academic reference for policymakers, but it has not been able to provide legal certainty that is *erga omnes* and binds all stakeholders uniformly, considering that legal interpretations, no matter how strong the doctrinal basis, remains open to different alternative interpretations from different judges or administrative officials. On this basis, this study emphasizes that the inevitable next step is the formalization of this reconstruction into the framework of *the ius constituendum* through two legislative paths that can be taken alternatively or cumulatively.

The first path is a limited revision of the Regulation of the Minister of PUPR Number 28/PRT/M/2015, by inserting explicit provisions regarding the legal status of certified land that is included in the boundary line, compensation parameters based on ecosystem service valuation, and a mechanism for verifying conservation compliance, so that technical regulations that have so far only regulated physical-administrative aspects also contain strict civil consequences. The second path, which is structurally more comprehensive, is the establishment of *sui generis* regulations at the level of laws or government regulations that specifically regulate the conservation of border areas based on *green economy principles*, considering the complexity of issues involving the intersection of material law, agrarian law, environmental law, and state financial law (for fiscal incentive schemes and PES) in practice difficult to adequately accommodate only through ministerial regulations whose position is hierarchically limited. These two paths

ideally begin with the preparation of an academic manuscript that systematically pours the results of the doctrinal reconstruction of this research into the formulation of concrete articles, as well as containing a *regulatory impact assessment* to ensure that the new norms produced are truly implementive and do not cause new problems as identified in the previous explanations.³⁹ With this kind of legislative formalization step, the reconstruction of the meaning of Article 570 of the Civil Code, which was initially born as an interpretive offer of normative research, has the potential to transform into a binding positive legal norm, so that the ideal of balancing privatization and conservation in the framework of *the green economy* no longer stops at the level of academic discourse, but is truly embodied in the Indonesian land law system.

CONCLUSION

This study shows that the legal construction regarding the status and use of land in the reservoir border area within the framework of *ius constitutum* still shows disharmony between Article 570 of the Civil Code (KUHPerduta), Article 6 of the Basic Agrarian Law (UUPA), and Permen PUPR No. 28/PRT/M/2015. This inconsistency gives birth to juridical problems in the form of disparities between the existence of property rights that are still recognized *de jure* and the limitations of control and use in a *de facto* manner due to conservation interests. At the same time, positive law has not provided an adequate construction of the juridical consequences and compensation mechanisms for the restriction of land use. Thus, the existing regulatory regime has not been fully able to establish a normative balance between the protection of civil rights over land and the state's obligation to ensure the sustainability of the ecological function of the reservoir boundary area.

This study constructs a model of legal reconstruction in the perspective of *ius constituendum* through the reinterpretation of Article 570 of the Civil Code by integrating the doctrine of ecological easement, the principle of *misbruik van recht*, and the social function of land rights as affirmed in Article 6 of the UUPA. The reconstruction offered is not directed at the abolition of property rights, but rather at the affirmation that the existence of title is maintained, while its use and utilization are subject to legal restrictions based on the ecological function of the land. To ensure proportionality between conservation interests and protection of rights holders, this study proposes differential compensation mechanisms, namely fiscal incentives and payment for ecosystem services (PES) for restrictions that have not reached the level of taking, as well as the provision of compensation for restrictions that have caused a substantial reduction in the benefits or economic value of rights. The model places property rights and conservation interests not as two antagonistic interests, but as two legal interests that must be harmonized based on the principles of proportionality, the social function of land, and ecological justice.

Normatively, the entire construction produced by this research is an *ius constituendum* and does not yet have a position as a positive law (*lex lata*) in the Indonesian legal system. Therefore, the operationalization of the model requires regulatory intervention through the revision of the Minister of Public Works and Housing Regulation No. 28/PRT/M/2015 or the establishment of a *sui generis* legal instrument that specifically regulates the restriction of land rights, taking criteria, compensation forms and schemes, and the institution of its management. The main contribution of this research lies in the formulation of a harmonized model between the certainty and protection of

³⁹ Otom Mustomi And Endang Sutrisno, *Reference Book of Local Government Law in the Perspective of Environmental Law and Spatial Planning* (Medan City: Pt. Media Publisher Indonesia, 2025), <https://mediapenerbi.tindonesia.com>.

land rights and conservation interests through proportional limitation and compensation instruments. Further research is needed to conduct empirical testing of the feasibility of the model, including through a case study in the Lake Limboto area, the preparation of parameters to determine the taking threshold, the development of an institutional design and independent verification mechanism for the PES scheme, as well as a comparative study of the implementation of conservation easement in other countries. The results of the follow-up research are expected to be an academic basis for the formation of regulations that are more coherent, operational, and oriented towards legal certainty, justice for rights holders, and environmental sustainability.

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