

SUBMERGED OR DESTROYED? RECONSTRUCTING AGRARIAN JUSTICE FOR COASTAL COMMUNITIES AFFECTED BY TIDAL FLOODING IN INDONESIA

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Abstract

Tidal flooding increasingly threatens coastal land tenure in Indonesia by altering the physical condition, legal status, and socio-economic function of land. The central problem is the absence of clear legal parameters distinguishing temporarily submerged land from permanently destroyed land, despite the different consequences for land rights, certificates, registration records, and state responsibility. This study examines and reconstructs the legal protection of tidal-flood-affected land through Ronald Dworkin's theory of justice as integrity. It employs doctrinal legal research using philosophical-hermeneutic, statutory, and conceptual approaches, focusing on the Basic Agrarian Law, Article 28H(4) of the 1945 Constitution of the Republic of Indonesia, and Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency No. 17 of 2021. The study finds that the existing framework remains predominantly administrative, lacks firm criteria for transitional land conditions, and provides inadequate remedies for affected rights holders. Land should be classified as submerged where its boundaries remain identifiable, its legal relationship with the rights holder continues, and its physical or socio-economic function can still be restored. In such cases, land rights, certificates, and registration records must remain protected, supported by rehabilitation and administrative safeguards. Land may be classified as destroyed only where it has permanently lost its physical existence, identifiability, and socio-economic function. Although this classification may terminate land rights, it does not extinguish the state's obligations toward former rights holders. Applying justice as integrity, this study reconstructs land-status determination by placing constitutional rights, equal concern and respect, socio-economic continuity, and proportional state responsibility at its core. Accordingly, the legal framework should require transparent procedures, meaningful participation, objections and remedies, fair compensation, appropriate relocation, and long-term socio-economic recovery. Indonesian agrarian law therefore requires reformulation to integrate administrative legal certainty with substantive justice and progressive climate-responsive protection for coastal communities affected by tidal flooding.

Keywords: *Tidal Flooding; Submerged Land; Agrarian Justice; Justice as Integrity; Coastal Communities.*

A. Introduction

The phenomenon of tidal flooding on Indonesia's coastline has become an increasingly serious concern, particularly in the context of global climate change and rising sea level.¹ This condition has caused significant damage to coastal land, giving rise to complex legal issues regarding the status of the affected land.² The central legal question is whether land affected by tidal flooding should be classified as temporarily inundated land or as destroyed land (*tanah musnah*). This legal determination is particularly significant because the legal status assigned to affected land may determine the continuity or extinguishment of land rights and may shape the regulatory options available for coastal adaptation.³ It also has broader implications for tenure security, the constitutional rights of coastal communities, and the fair distribution of the benefits and burdens arising from adaptation policies.⁴ To date, Indonesian law has yet to establish a clear and comprehensive framework for classifying land affected by tidal flooding, particularly under the Basic Agrarian Law and disaster-management legislation. This regulatory ambiguity creates legal uncertainty for affected communities and may result in injustice concerning the protection of land rights, access to legal remedies, and the provision of adequate compensation.⁵

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- ¹ Wan Shiao Dong et al., 'The Impact of Climate Change on Coastal Erosion in Southeast Asia and the Compelling Need to Establish Robust Adaptation Strategies', *Heliyon* 10, no. 4 (2024), <https://doi.org/10.1016/j.heliyon.2024.e25609>; Anjar Dimara Sakti et al., 'Coastal Flood Mitigation Under Dynamic Shoreline Change: Integrated Modeling Approach', *Environmental Technology & Innovation* 41 (March 2026): 104726, <https://doi.org/10.1016/j.eti.2025.104726>; Iwan Rudiarto et al., 'A Regional Perspective on Urbanization and Climate-Related Disasters in the Northern Coastal Region of Central Java, Indonesia', *Land* 7, no. 1 (2018): 34, <https://doi.org/10.3390/land7010034>; Muhammad Zikra et al., 'Climate Change Impacts on Indonesian Coastal Areas', *The 2nd International Seminar on Ocean and Coastal Engineering, Environment and Natural Disaster Management*, 2014 14 (January 2015): 57–63, <https://doi.org/10.1016/j.proeps.2015.07.085>.
- ² Anna K. Schwab et al., *An Introduction to Coastal Zone Management* (Princeton University Press, 2002); Millary Agung Widiawaty et al., 'Climate Change Impacts on Indonesian Coastal Communities: A Study of Shoreline Changes, Sea-Level Rise and Social Adaptation', *Journal of Maps* 22, no. 1 (2026): 2658875, <https://doi.org/10.1080/17445647.2026.2658875>; Derek J. McGlashan et al., 'Unstable Boundaries on a Cluffed Coast: Geomorphology and British Laws', *Journal of Coastal Research* 24, no. sp1 (2008): 181–88, <https://doi.org/10.2112/04-0333.1>; Justine Bell-James et al., 'Land Tenure, Ownership and Use as Barriers to Coastal Wetland Restoration Projects in Australia: Recommendations and Solutions', *Environmental Management* 72, no. 1 (2023): 179–89, <https://doi.org/10.1007/s00267-023-01817-w>.
- ³ Jonathan Verschuuren and Jan McDonald, 'Towards a Legal Framework for Coastal Adaptation: Assessing the First Steps in Europe and Australia', *Transnational Environmental Law* 1, no. 2 (2012): 355–79, <https://doi.org/10.1017/S204710251200009X>; Tayanah O'Donnell, 'Interrogating Private Property Rights and Path Dependencies for Coastal Retreat', *Ocean & Coastal Management* 231 (2023): 106379, <https://doi.org/10.1016/j.ocecoaman.2022.106379>.
- ⁴ Joseph Wenta et al., 'Enhancing Resilience and Justice in Climate Adaptation Laws', *Transnational Environmental Law* 8, no. 1 (2019): 89–118, <https://doi.org/10.1017/S2047102518000286>; Siobhan McDonnell, 'The Importance of Attention to Customary Tenure Solutions: Slow Onset Risks and the Limits of Vanuatu's Climate Change and Resettlement Policy', *Current Opinion in Environmental Sustainability* 50 (2021): 281–88, <https://doi.org/10.1016/j.cosust.2021.06.008>.
- ⁵ Laely Nurhidayah and Alistair McIlgorm, 'Coastal Adaptation Laws and the Social Justice of Policies to Address Sea Level Rise: An Indonesian Insight', *Ocean & Coastal Management* 171 (April 2019): 11–18,

Within the agrarian law and disaster law literature, discussions concerning land affected by floods remain fragmented across technical, administrative, and social protection perspectives. Most previous research has focused on physical disaster mitigation, community relocation, or land administrative arrangements, without comprehensively examining the legal status of flood-affected land in light of substantive justice and constitutional rights of coastal communities.⁶ Kusuma, et al.,⁷ for example, examine the social impacts of tidal flooding and the resulting changes in the condition of coastal communities, but do not consider how changes in land status affect the sustainability of community ownership rights. The approach remains primarily oriented towards regional rehabilitation and relocation, without discussing the philosophical basis of justice in providing legal protection.

Similarly, Hanifah's⁸ research examines tidal flooding as a factor contributing to changes in the social structure of coastal communities, while Zuardin⁹ emphasised disaster mitigation and environmental risk management aspects. Both studies reflect a predominantly technocratic approach in handling tidal flooding, with limited attention given to land rights and the pursuit of justice for affected communities. Meanwhile, Amrin, et al.,¹⁰ have begun to discuss the legal status of land rights due to natural disasters; however, their analysis remains general in scope and does not specifically distinguish between land affected by flooding that should be classified as submerged land and land that should be regarded as destroyed land, despite the distinct legal implications of each classification. Hasrul¹¹ further found that coastal community relocation

<https://doi.org/10.1016/j.ocecoaman.2019.01.011>; Dedy Suwandi et al., 'Legal Vacuum Regarding State Responsibility for Flood Disasters in Indonesia', *Proceedings of the 2nd International Conference on Social Environment Diversity (ICOSEND 2025)*, 30 April 2026, 261–65, https://doi.org/10.2991/978-2-38476-565-2_33; Nurrohman Wijaya et al., 'Spatial Planning, Disaster Risk Reduction, and Climate Change Adaptation Integration in Indonesia: Progress, Challenges, and Approach', in *Disaster Risk Reduction in Indonesia: Progress, Challenges, and Issues*, ed. Riyanti Djalante et al. (Springer International Publishing, 2017), https://doi.org/10.1007/978-3-319-54466-3_9.

⁶ Boedi Harsono, *Hukum Agraria Indonesia, Sejarah Pembentukan UUPA, Isi, Dan Pelaksanaan*, (Djambatan, 1999).

⁷ Marza Aditya Kusuma et al., 'Dampak Rob Terhadap Perubahan Sosial Masyarakat Di Kawasan Rob Desa Bedono Kecamatan Sayung Kabupaten Demak', *Journal of Educational Social Studies* 5, no. 2 (2016): 121–27. <https://journal.unnes.ac.id/sju/jess/article/view/14076>

⁸ M. Haryo Hanifah and Alief Noor Anna, 'Analisis Dampak Banjir Rob Terhadap Perubahan Struktur Sosial Dan Ekonomi Masyarakat Pesisir (Studi Kasus Kecamatan Sayung, Kabupaten Demak)' (Universitas Muhammadiyah Surakarta, 2022).

⁹ Zuardin Zuardin, 'Banjir Rob: Potensi Kerentanan Lingkungan Serta Penanggulangannya', *Al-Ard: Jurnal Teknik Lingkungan* 1, no. 2 (2016): 58–66, <https://doi.org/10.29080/alard.v1i2.116>.

¹⁰ Reza Nur Amrin et al., 'Status Hukum Hak Atas Tanah Yang Terkena Bencana Alam', *Tunas Agraria* 5, no. 1 (2022): 65–76, <https://doi.org/10.31292/jta.v5i1.168>.

¹¹ Hasrul Hadi, 'Strategi Adaptasi Dan Relokasi Permukiman Warga Akibat Bencana Banjir Pasang Air Laut', *Jurnal Geodika* 1, no. 1 (2017): 10–23, <https://doi.org/10.29408/geodika.v1i1.3009>.

policies are often not accompanied by adequate compensation mechanisms, leaving affected communities deprived of their livelihoods without a guarantee of fair socio-economic recovery.

Within the framework of agrarian law, research conducted by Saputri et al.¹² on the government's policy response to land subsidence in Tambakrejo indicates that the legal protection provided by the state remains largely administrative and has yet to address substantive justice for affected communities. Meanwhile, Ali et al.¹³ examine conflicts among the various legal regulations governing coastal area management, which create legal uncertainty and may undermine the constitutional rights of coastal communities. These rights particularly concern access to coastal land and natural resources that have been submerged or lost as a result of natural disasters or development activities. However, their study does not provide an in-depth analysis of justice from the perspective of Ronald Dworkin's legal theory.

In contrast to previous research, which predominantly treat tidal flooding as a technical problem of disaster or land administration, this article reconstructs the meaning of legal status of land affected by tidal flooding through Ronald Dworkin's substantive justice approach. The proposed reconstruction involves a fundamental change in the assessment of land status, moving from an administrative-formal approach to an approach based on the protection of the constitutional rights of coastal communities. This reconstruction was carried out through three analytical indicators. First, it reinterprets the categories of submerged and destroyed land based on the sustainability of their socio-economic functions for the community. Second, it conceptualises land rights as individual rights that must continue to receive legal protection despite physical change to the land resulting from tidal flooding. Third, it formulates a legal protection mechanism that distinguishes between land that remains capable of recovery and land that has permanently lost its physical and socio-economic function, thereby requiring different legal responses.

Through a philosophical and hermeneutic approach, this study argues that the determination of the legal status of land affected by tidal flooding should not be based on physical changes to the land. Rather, it must also consider aspects of substantive justice, the sustainability of coastal communities' lives, and the State's obligation to provide legal protection and proportionate

¹² A. D. Saputri and A. M. Linda, 'Kebijakan Pemerintah Dalam Menangani Dinamika Subsistensi Tanah Di Tambakrejo Semarang', *Jurnal Hukum Lex Generalis* 4, no. 3 (2023): 234–50, <https://doi.org/10.56370/jhlg.v4i3.356>.

¹³ Mohammad Mahrus Ali et al., 'Coastal Communities Protection of Constitutional Rights: The Urgency of Harmonization of Integrated Coastal Management Regulations', *Jurnal Konstitusi* 17, no. 4 (2020): 799–827, <https://doi.org/10.31078/jk1745>.

compensation. Thus, the proposed reconstruction offered is intended not only to enhance legal certainty, but also to ensure that justice is afforded to people affected by the tidal flooding.

This research seeks to develop a justice-based legal framework capable of providing greater legal certainty on the status of land affected by the tidal flooding while strengthening the protection of the rights of the affected coastal communities. It is expected to make a significant scientific contribution by recommending the reformulation of Indonesia's agrarian law and disaster management policies so that they extend beyond physical mitigation to incorporate substantive justice and constitutional protection for people whose lands are threatened with destruction.¹⁴

Addressing this issue is crucial because it concerns the constitutional rights of coastal communities directly affected by the tidal flooding. The ambiguity of the legal status of their land threatens not only their property rights, but also the right to substantive justice. By integrating philosophical, constitutional, and agrarian perspectives, this study offers a more comprehensive framework for legal reform and provides a normative foundation for the development of more equitable and sustainable policy change.

B. Research Method

The legal research method employs doctrinal legal research by combining a philosophical approach with a hermeneutic meaning, a legislative approach, and a conceptual approach to provide a comprehensive analysis of the legal status of land affected tidal flooding. Philosophical approach with a hermeneutic meaning is used to explore and understand the law meaning in depth through the interpretation of legal texts and their social context.¹⁵ This approach aims to reconstruct Ronald Dworkin's principle of justice in the context of land affected by the storm by assessing how the principles of justice and constitutional rights can be applied to provide just solutions.

In addition, the legislative approach examines relevant regulations, including the Basic Agrarian Law and regulations related to disaster management and to analyse how current law governs the status of land affected by tidal flooding and identify deficiencies in those regulations. A conceptual approach was utilised to explore relevant legal theories and concepts in understanding the impact of tidal flooding on land tenure rights and to find solutions that are in

¹⁴ Komnas HAM RI, *Upaya Negara Menjamin Hak-Hak Kelompok Minoritas Di Indonesia* (Jakarta, 2016).

¹⁵ Paul Ricoeur and John B. Thompson, *Hermeneutics and the Human Sciences: Essays on Language, Action and Interpretation* (Cambridge University Press, 2016), <https://doi.org/10.1017/CBO9781316534984>.

accordance with Dworkin's principle of justice.¹⁶ The combination of these three approaches is expected to produce policy recommendations that are more equitable and effective in addressing legal problems faced by coastal communities.

C. Individual Rights and State Obligations in the Classification of Submerged and Destroyed Land

The legal problem of land affected by tidal flooding cannot be addressed only through the land administrative approach, because they are intrinsically related to the protection of the land rights of coastal communities.¹⁷ From Dworkin's perspective, law must be understood as an instrument that guarantees "justice as integrity",¹⁸ requiring the consistent application of the law to the principles of morality, equality, and the protection of individual rights.¹⁹ This concept places rights as something that cannot be sacrificed just for the sake of administrative or public policy.²⁰ Therefore, the determination of the legal status of land affected by the storm must consider the sustainability of the community's land rights, rather than relying on the physical changes of the area due to coastal disasters.²¹

In the context of Indonesian agrarian law, the principle of legal integrity can be measured through the consistency between the protection of land rights in the Basic Agrarian Law and the practice of handling land affected by tidal flooding.²² Article 19 of the Basic Agrarian Law affirms the State's obligation to provide legal certainty for land rights, while Article 28H paragraph (4) of the 1945 Constitution of the Republic of Indonesia guarantees the protection of citizens' property rights. However, in practice, there are no sufficiently clear parameters for distinguishing between the category of submerged land and destroyed land. This regulatory ambiguity creates legal

¹⁶ Ronald Dworkin, *Taking Rights Seriously* (Bloomsbury Publishing Inc., 1997).

¹⁷ W. Neil Adger and Cecilia Luttrell, 'Property Rights and the Utilisation of Wetlands', *Ecological Economics* 35, no. 1 (2000): 75–89, [https://doi.org/10.1016/S0921-8009\(00\)00169-5](https://doi.org/10.1016/S0921-8009(00)00169-5); J. Peter Byrne, 'The Cathedral Engulfed: Sea-Level Rise, Property Rights, and Time', *Louisiana Law Review* 73, no. 1 (2012): 69–118, <https://scholarship.law.georgetown.edu/facpub/1126/>; Tayanah O'Donnell, 'Contrasting Land Use Policies for Climate Change Adaptation: A Case Study of Political and Geo-Legal Realities for Australian Coastal Locations', *Land Use Policy* 88 (November 2019): 104145, <https://doi.org/10.1016/j.landusepol.2019.104145>.

¹⁸ Lon L. Fuller, *The Morality of Law* (Yale University Press, 1969).

¹⁹ Ronald Dworkin, 'Philosophy, Morality, and Law. Observations Prompted by Professor Fuller's Novel Claim', *University of Pennsylvania Law Review* 113, no. 5 (1965): 668–690, <https://doi.org/10.2307/3310807>.

²⁰ Ronald Dworkin, 'Lord Devlin and the Enforcement of Morals', *The Yale Law Journal* 75, no. 6 (1966): 986–1005, <https://doi.org/10.2307/794893>.

²¹ Ronald Dworkin, Wasserstrom: The Judicial Decision, *Ethics*, vol. 75, no. 1 (1964): 47–56, <https://doi.org/10.1086/291520>.

²² Ronald Dworkin, 'Does Law Have a Function? A Comment on the Two-Level Theory of Decision', *The Yale Law Journal* 74, no. 4 (1965): 640–651, <https://doi.org/10.2307/794614>.

uncertainty and may result in the loss of community land rights without adequate protection mechanisms.

Based on Dworkin's approach, the measure of legal integrity lies in the State's ability to implement agrarian regulations consistently with the principle of protecting of individual rights. Meanwhile, equality measures are reflected in the provision of equal legal protection for coastal communities affected by the tidal flooding, including access to recognition of rights, remediation, and compensation. The measure of rights protection is determined through the existence of a legal mechanism that is able to ensure that the community does not unilaterally lose land rights due to natural environmental changes.²³

The concept of "justice as integrity" in Dworkin's thinking is relevant to assess the weaknesses of agrarian law in dealing with land affected by tidal flooding. This approach emphasises that the status of land should not be determined based on the physical damage of the territory, but it should also consider the sustainability of the socio-economic function of the land and the protection of the constitutional rights of coastal communities. Therefore, the interpretation of the categories of submerged land and destroyed land needs to be carried out substantively so that agrarian law not only provides administrative certainty, but also justice for the people affected by the storm.²⁴

The role of individual rights in the context of legal integrity is crucial because these rights are a fundamental part of the principle of justice as integrity in Ronald Dworkin's thought. Dworkin asserted that individual rights should not be sacrificed for the sake of administrative interests or State's collective goals. In the context of land affected by flooding, the land rights of coastal communities must still be viewed as individual rights that receive legal protection, even if there are physical changes in the area due to coastal disasters. Therefore, the determination of the status of land as submerged or destroyed land cannot be done based on environmental technical considerations, but must also consider the sustainability of people's rights to the land as the source of their livelihood and livelihood.²⁵

²³ Ronald Dworkin, 'The Case for Law-A Critique', *Valparaiso University Law Review* 1, no. 2 (1966): 215–217. <https://openyls.law.yale.edu/entities/publication/3e0a9814-7519-4210-9686-00f24026e9ff>

²⁴ Ronald Dworkin, 'The Model of Rules', *The University of Chicago Law Review* 35, no. 1 (1967): 45–77. <https://doi.org/10.2307/1598947>.

²⁵ Ronald Dworkin, 'On Not Prosecuting Civil Disobedience', *The New York Review*, 1968. <https://www.nybooks.com/articles/1968/06/06/on-not-prosecuting-civil-disobedience/>

In the framework of “justice as integrity”, every land policy and disaster management must ensure the protection of people's rights fairly and proportionately.²⁶ This means that the State is not only obliged to maintain legal certainty on the status of land, but also to ensure the protection of property rights, access to land use, and a proper compensation mechanism if land loses its permanent function.²⁷ Thus, the integrity of the law in handling land affected by tidal flooding is reflected in the State's consistency in placing the land rights of coastal communities as rights that must be respected and protected in every agrarian and disaster policy.²⁸

Within this framework, the substantive commitments of *justice as integrity* are translated into concrete legal obligations through Dworkin's interpretive approach of law. Legal obligations arise not merely from the existence of legal rules but from an interpretive assessment of the legal reasons that justify and sustain the legal system as a coherent whole. From this perspective, constitutional rights, principles of justice, legal certainty, and the protection of individual rights constitute decisive legal reasons that generate corresponding obligations for public authorities.²⁹ Applied to land affected by tidal flooding, these legal reasons generate four principal State obligations. First, the State must recognise and protect the land rights of coastal communities by ensuring legal certainty regarding land status and maintaining the legal recognition of their property rights. Second, it must establish a clear and principled legal framework for distinguishing submerged land from destroyed land, thereby preventing arbitrary determinations and legal uncertainty. Third, where land remains identifiable and capable of functional restoration, the State is obliged to preserve the continuity of legal rights through land administration protection, environmental rehabilitation, and temporary relocation measures that do not extinguish ownership rights. Finally, where land has permanently lost its physical and socio-economic function, the State's legal obligations do not cease but instead shift toward ensuring substantive justice through fair compensation, socio-economic recovery, and other appropriate remedies for affected communities.

²⁶ Ronald Dworkin, ‘Social Rules and Legal Theory’, *The Yale Law Journal* 81, no. 5 (1972): 855–890, <https://doi.org/10.2307/795153>.

²⁷ Ronald Dworkin, *Justice in Robes*, in *Harvard University Press* (Harvard University Press, 2006), <https://doi.org/10.1353/book.146>.

²⁸ Ronald Dworkin, ‘What Is the Rule of Law?’, *The Antioch Review* 30, no. 2 (1970): 151–155, <https://doi.org/10.2307/4637281>.

²⁹ Christopher Essert, ‘A Theory of Legal Obligation’, in *The Legacy of Ronald Dworkin*, ed. Wil Waluchow and Stefan Sciaraffa, preprint, Oxford University Press, 1 May 2016, <https://doi.org/10.1093/acprof:oso/9780190466411.003.0011>.

For Dworkin's perspective, the State's legal obligations extend beyond the passive recognition of rights and require the adoption concrete policies and actions that ensure the protection of the land rights of coastal communities in a fair, consistent, and sustainable manner. The relationship between individual rights and State obligations is therefore reciprocal, with each reinforcing the substantive protection of rights. The State is under a continuing obligation to respect, protect, and fulfil people's rights to land, especially where physical changes to land have resulted from tidal flooding. Within the framework of "justice as integrity", the State is not only the administrator of formal legal rules, but also an institution responsible for ensuring that every land policy remains consistent with the constitutional rights of coastal communities.³⁰

The scope of State's obligations in the context of land affected by tidal flooding depends on the physical condition and sustainability of the socio-economic function. Where land is only temporarily inundated or remains capable of restoration, the State must continue to recognise and protect existing land rights through legal certainty of land administration, protection of ownership rights, and policies for the restoration of affected areas. By contrast, where a parcel has been permanently transformed into open water or has lost its physical and socio-economic function, such that it can no longer constitute the object of land rights, the State's obligation shifts from preserving ownership to restoring justice through fair compensation, relocation, and socio-economic recovery of affected communities³¹. Dworkin's perspective reveals that the State cannot relinquish its responsibilities simply because the land has physically disappeared or turned into water. The loss of the physical objects of a land right does not necessarily remove the State's obligations to rights holders, as the principle of substantive justice still demands fair, proportionate, and humane protection for people who have lost their land and livelihoods due to tidal flooding.

According to Ronald Dworkin, the difference between procedural justice and substantive justice lies in the orientation of the rights' protection in a legal decision. Procedural justice emphasises the suitability of legal procedures and mechanisms, such as the fulfilment of administrative stages in determining the status of land affected by tidal flooding. In the practice of agrarian law, this approach is reflected in the determination of the land status based on administrative procedures and physical changes of the territory. However, this approach is often

³⁰ Ronald Dworkin, 'The Original Position', *University of Chicago Law Review* 40, no. 3 (1973): 500-533. <https://doi.org/10.2307/1599246>

³¹ Ronald Dworkin, 'Seven Critics', *Georgia Law Review* 11 (1977): 1201-68.

unable to answer the problem of protecting the rights of coastal communities who have lost their land and livelihoods due to the tidal flooding.

Rather, substantive justice in Dworkin's perspective emphasises that legal decisions must be judged by the extent to which they actually protect individual rights and reflect social justice. In the context of land affected by flooding, a substantive approach requires the State to establish the status of land as submerged or administratively destroyed land, and consider its impact on the sustainability of land rights, the socio-economic life of coastal communities, and the fulfilment of citizens' constitutional rights.³²

Through this framework, this study places the concept of substantive justice as an analytical tool to assess agrarian regulations and policies in handling tidal flooding in a fair protection for affected communities.³³ If the determination of land status is only oriented to formal procedures without adequate rights protection, restoration, or compensation mechanisms, then the policy does not reflect the substantive justice as Dworkin intended. Therefore, the determination of the status of land affected by the storm must consider not only the legal-formal aspects, but also the protection of the rights and sustainability of coastal communities as a whole.

An example of the problem of substantive justice in land affected by flooding can be found in the case of Demak Regency and Pekalongan City, Central Java, where a numerous parcels of coastal communities have been permanently inundated and have effectively become part of the surrounding waters. In some areas, such as Bedono Village in Sayung District, tidal flooding has resulted in the loss of settlements and productive land as a consequence of coastal erosion and rising sea levels. These conditions have given rise to significant legal issues because, although many affected parcels remain registered as a privately owned land, they are no longer capable of being occupied or used for their intended purposes. As a result, affected communities face considerable uncertainty regarding the sustainability of their land rights, encounter difficulties in obtaining legal protection, and, in many cases, do not receive adequate compensation mechanisms.³⁴

From the perspective of Dworkin's theory, disputes concerning land affected by tidal flooding cannot be resolved solely on the institutional determination of land status through

³² Ronald Dworkin, 'Social Sciences and Constitutional Rights', *Educational Forum* 41, no. 3 (1977): 271–80, <https://doi.org/10.1080/00131727709336251>.

³³ Laurence BonJour, 'The Philosophy of Law', *Teaching Philosophy* 2, no. 3/4 (1977): 325–28, <https://doi.org/10.5840/teachphil197723/427>.

³⁴ Ronald Dworkin, 'The Concept of a Moral Position', in *Philosophy Then and Now: An Introductory Text with Readings*, ed. N. Scott Arnold et al. (Wiley-Blackwell, 1998).

administrative procedures. Although such procedures provide institutional rights and legal certainty, they do not, in themselves, ensure that affected communities receive the rights they to which they are entitled under the principles of justice. Accordingly, the legal classification of land as submerged or destroyed must be interpreted in light of broader principles of equal concern, fairness, and the protection of individual rights, rather than treated as a purely administrative exercise.

Where land has permanently lost its physical socio-economic function as a consequence of tidal flooding, legal protection must be realised through fair restoration policies. These include the sustainability of land rights where recovery remains possible, together with the provision of fair compensation, relocation, and socio-economic recovery for people who have lost land both their livelihoods. Accordingly, substantive justice requires more than procedural compliance with land administration rules. It demands that legal institutions interpret and apply those rules in a manner that genuinely protects the rights and dignity of affected coastal communities. Consequently, the legitimacy of State action should be assessed not only by the formal validity of administrative procedures but also by whether those procedures provide effective protection, meaningful remedies, and equitable treatment for individuals whose land and livelihoods have been permanently affected by tidal flooding.³⁵

Ronald Dworkin's interpretive method provides the analytical framework through which study examines agrarian law by reference not only to the text of the relevant legislation, but also to the underlying principle of justice. In the context of land affected by tidal flooding, this perspective approach is applied to the Basic Agrarian Law and the provisions regarding destroyed land in the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency No. 17 of 2021. Through this approach, the termination of land rights is understood not solely as an administrative consequence, but as a legal issue that must be evaluated in terms of the rights' protection of coastal communities affected by permanent environmental changes.³⁶

Under the Basic Agrarian Law, land rights are founded upon both the social function of land and the principle of legal certainty for rights holders. Therefore, the interpretation of the loss of land objects due to tidal flooding must consider whether the physical loss of land automatically

³⁵ Ronald Dworkin, 'No Right Answer', *Business Communication Quarterly* 62, no. 4 (1999): 7–8, <https://doi.org/10.1177/108056999906200402>; David Dyzenhaus, 'Dworkin and Unjust Law', in *The Legacy of Ronald Dworkin*, ed. Wil Waluchow and Stefan Sciaraffa, preprint, Oxford University Press, 1 May 2016, <https://doi.org/10.1093/acprof:oso/9780190466411.003.0007>.

³⁶ Ronald Dworkin, 'Why Efficiency? A Response to Professors Calabresi and Posner', *Hofstra Law Review* 8, no. 3 (1979): 563–90.

erases the legal relationship between the rights' holder and their land. Dworkin's interpretive approach is therefore employed to assess whether the elimination of land rights due to the category of "destroyed land" is in line with the principles of substantive justice and the protection of citizens' constitutional rights.

A similar interpretive approach is applied to Ministry of Agrarian Affairs and Spatial Planning/National Land Agency Regulation No. 17 of 2021, particularly in relation to the criteria governing the classification of destroyed land. In practice, these provisions continue to present legal difficulties where land affected by tidal flooding has not completely disappeared but can no longer be used or occupied in any meaningful way. Through Dworkin's approach, such conditions cannot be directly interpreted as the basis for the abolition of rights, but must be interpreted by considering the sustainability of coastal communities' lives, the protection of property rights, and the State's obligation to provide fair remedies, including appropriate compensation where necessary. In this respect, Dworkin's interpretive method serves as a framework to assess the consistency between positive agrarian norms and the principle of substantive justice, ensuring that the interpretation of submerged land and destroyed land extends beyond the text of the regulation, but also considers the protection of the rights of communities affected by the tidal flooding.

This method involves understanding that laws should be interpreted as part of a larger legal system that reflects the principles of justice and integrity. Dworkin further emphasised the importance of finding meanings that best correspond to the moral values underlying law and policy, as well as ensuring that legal decisions are consistent with the text and broader moral and ethical principles.

The implementation of Ronald Dworkin's interpretive method in this study was carried out through several stages of analysis. The first stage begins with the identification of legal norms that govern land rights, especially the provisions in the Basic Agrarian Law and the Ministry of Agrarian Affairs as well as Spatial Planning/National Land Agency Regulation No. 17 of 2021 concerning destroyed land. At this stage, the study examines how the regulation regulates the certainty of land rights, the elimination of rights, and the status of land that has changed due to natural disasters or environmental changes.³⁷

The second stage aims to understand the factual context of tidal flooding as a phenomenon that causes physical changes in coastal areas gradually or permanently. In this context, the study

³⁷ Ronald Dworkin, 'Political Judges and the Rule of Law', *Maccabaeen Lecture in Jurisprudence*, 1979.

assesses that tidal flooding does not always result in the complete loss of land, because in some areas land is still recorded as an object of rights but has lost its socio-economic function. Such condition raises legal issues regarding whether land should be categorised as submerged land or destroyed land and its legal implications for rights holders.³⁸

The third stage involves applying Ronald Dworkin's principle of justice, especially the concept of “justice as integrity”, to interpret agrarian norms from a substantive perspective. Through this approach, the interpretation of destroyed land is not only based on the physical loss of the land, but also considers the protection of individual rights, the sustainability of coastal communities' lives, and the State's obligation to provide fair legal protection. The principle serves as the basis for assessing whether the abolition of land rights due to tidal flooding has reflected respect for the constitutional rights of the community or has actually caused substantive injustice.

The last stage is to determine the legal consequences arising from this interpretation. Where land remains capable of restoration or continues to perform a socio-economic function, existing land rights should continue to be recognised and protected by the State. On the other hand, if the land permanently lost both its physical characteristics and its socio-economic function and has effectively become part of the surrounding waters, then the State is obliged to provide a mechanism for compensation, relocation, and socio-economic recovery for the affected communities. Through these stages of interpretation, the Dworkin method ensures that the application of agrarian law to land affected by tidal flooding is not only legally valid, but also consistent with the requirements of substantive justice.

The implementation of “justice as integrity” principle in the context of land affected by tidal flooding requires an approach that extends beyond the assessment of physical changes in the territory, instead emphasises the consistent protection of land rights in the Indonesian agrarian legal system. From Ronald Dworkin's perspective, legal decisions must reflect moral integrity and substantive protection of individual rights. Therefore, the determination of the legal status of land affected by tidal flooding should not be based on administrative procedures or technical approach of the disaster impacts. Rather, it must also take full account of the constitutional rights of coastal communities, including their rights to the land and sustainability of their livelihood resources.³⁹

³⁸ Ronald Dworkin, ‘Law as Interpretation’, *Critical Inquiry* 9, no. 1 (1982): 179–200. <https://doi.org/10.1086/448194>

³⁹ Ronald Dworkin, ‘We Do Not Have a Right to Liberty’, in *Readings in Social and Political Philosophy*, ed. Robert M. Stewart (Oxford University Press, 1986).

D. Legal Parameters and Rights Restoration for Submerged and Destroyed Land

Normatively, the Basic Agrarian Law through Article 19 affirms the State's obligation to provide legal certainty for land rights, while Article 28H paragraph (4) of the 1945 Constitution of the Republic of Indonesia guarantees the protection of citizens' property rights.⁴⁰ However, in practice, the regulation regarding destroyed land in the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency Regulation No. 17 of 2021 still raises some interpretation issues, especially related to the determination of when a land is considered to have completely lost its permanent function due to tidal flooding. Such provision has not explicitly distinguished between land that can still be restored and land that has been transformed into permanent waters. As a result, it has the potential to lead to the elimination of community rights without adequate protection mechanisms.

In the framework of "justice as integrity", this condition indicates that there is a discrepancy between the purpose of protecting rights in the Basic Agrarian Law and the practice of determining destroyed land. If the State directly designates the land affected by tidal flooding as destroyed land only based on physical conditions without considering the sustainability of the socio-economic function of the community, then the implementation of the law tends to only meet the procedural aspect and does not reflect substantive justice. Therefore, the Dworkin principle demands that the interpretation of the rules governing destroyed land be undertaken with careful regard for the protection of the rights of coastal communities, the sustainability of their lives, and the State's obligation to provide equitable redress or compensation.

An evaluation of individual rights to land in the context of a tidal flooding disaster must be carried out through clear parameters to determine whether the land falls under the category of temporary submerged or permanently destroyed. The first parameter is the physical condition of the soil, *i.e.* whether the soil can still recognise its boundaries and potentially restore its function after the inundation recedes. The second parameter is the sustainability of the socio-economic function of the land –whether the land can still be used as a place to live, business land, or a source of livelihood for coastal communities. The third parameter is the duration and nature of inundation,

⁴⁰ Daryono, 'The Transformation of Land Law in Indonesia: The Persistence of Pluralism', *Asian Journal of Comparative Law* 5 (2010): 1–32, Cambridge Core, <https://doi.org/10.1017/S2194607800000259>; Trias Aditya et al., 'Title Validation and Collaborative Mapping to Accelerate Quality Assurance of Land Registration', *Land Use Policy* 109 (October 2021): 105689, <https://doi.org/10.1016/j.landusepol.2021.105689>; Lilis Mulyani, 'Gambling with the State: Land Titles and Personhood Rights among the Urban Poor in Indonesia', *Asian Journal of Law and Society* 2, no. 2 (2015): 285–300, Cambridge Core, <https://doi.org/10.1017/als.2015.11>; Christian Lund, 'An Air of Legality – Legalization Under Conditions of Rightlessness in Indonesia', *The Journal of Peasant Studies* 50, no. 4 (2023): 1295–316, <https://doi.org/10.1080/03066150.2022.2096448>.

since it is temporary legally different from the permanent change of territory into water. The last parameter is the existence of a legal relationship between the right holder and the land, including the existence of control, utilisation, or recognition of the land administration of the land plot.

Based on these parameters, land that only experiences temporary inundation and still has the possibility of restoration, must be categorised as submerged land, so that land rights remain inherent and the State is obliged to provide legal protection, territorial restoration, and administrative protection of community land rights. On the other hand, land that has lost its physical and socio-economic function permanently and turned into water can be categorised as destroyed land. In such conditions, the State's obligations are no longer limited to property protection, but also include the provision of compensation, relocation, and socio-economic recovery of the affected communities. The implementation of the principle of “justice as integrity” in Ronald Dworkin’s perspective thus requires that the determination of the status of land affected by the storm is not carried out unilaterally based on physical changes alone. Legal evaluations must consider the sustainability of people's rights and the real impact on their socio-economic lives, so that the legal protection provided truly reflects substantive justice for coastal communities affected by the storm.

This implementation involves an in-depth assessment of the disasters’ impact on the rights of individuals and communities, as well as ensuring that legal decisions reflect justice substantially.⁴¹ Substantive justice focuses on the outcome of a legal decision, not just on the formal process followed. In the context of flood-affected land, the implementation of substantive justice means assessing how changes in land conditions affect the rights of individuals and communities, as well as ensuring that the legal status of affected land is recognised in a justice and adequate manner. This involves an in-depth analysis of how the land, whether submerged or destroyed, affects the rights of landowners and land use, as well as determining legal solutions that meet procedural requirements and provide substantive protection for landowners.

To ensure that the rights of coastal communities are fairly protected in the handling of land destroyed by tidal flooding, an approach is required towards administrative protection and restoring the rights and socio-economic lives of the affected communities. In this context, it is necessary to make a firm distinction between compensation, social assistance, and fraternity funds because each has a different legal basis and purpose.

⁴¹ Ronald Dworkin, ‘Equality, Democracy, and Constitution: We the People in Court’, *Alberta Law Review* XXVIII, no. 2 (1989): 13–36, <https://doi.org/10.29173/alr1605>.

Compensation in the context of destroyed land defines as a form of recovery for the loss of land rights and community livelihoods due to permanent land changes. Compensation is given as a consequence of the loss of the community's legal relationship with land previously owned or utilised. Meanwhile, compensation is more related to the economic replacement of lost rights objects, either in the form of land, buildings, or other economic losses that can be materially assessed. In the context of land affected by tidal flooding, compensation must consider land value, loss of livelihood, and socio-economic impact experienced by coastal communities.

In contrast to the two, social assistance is a form of State assistance that is temporary social protection for people affected by disasters, such as basic needs assistance, temporary housing, or post-disaster recovery support. Social assistance does not remove the State's obligation to protect land rights or compensation for the loss of community rights. In this occasion, the Kerohiman fund is a form of voluntary assistance or government discretionary policy given on humanitarian grounds, not as a recognition of the existence of the legal rights of the community over lost land. Therefore, the Kerohiman fund cannot be equated with compensation because it does not reflect the full restoration of rights.

In Ronald Dworkin's perspective of "justice as integrity", the protection of coastal communities affected by the storm must be based on the recognition of substantive rights and justice, so that it is not sufficient for the State merely to provide social assistance or humanitarian funds. The State is also obliged to provide proportionate compensation mechanism for people who have lost their land and livelihoods due to permanent destruction. Thus, the legal protection provided should not be limited to administrative and temporary measures, but should also ensures the restoration of rights and the sustainability of coastal communities' lives in a fair and sustainable manner.

Ronald Dworkin's interpretive method provides a very useful framework for interpreting existing regulations related to land affected by tidal flooding with a more in-depth approach and based on principles of justice.⁴² This method views regulation not only as a legal text that must be applied literally, but as part of a broader legal system that must be consistent with the values of justice and integrity. In the context of flood-affected land, the Dworkin's interpretive method means assessing how existing regulations, such as agrarian laws or disaster management policies, reflect and protect individual rights and substantive justice principles. Legal interpretations based

⁴² Ronald Dworkin, 'Confronting the End of the Socialist Era', *Economy and Society* 20, no. 4 (1991): 341–49, <https://doi.org/10.1080/03085149100000017>.

on this approach considers the social and economic context that affects land rights and seek meanings that best correspond to the principles of justice, rather than relying on the literal textual provisions.

Currently, the weakness of regulations related to land affected by tidal flooding can be seen from the lack of synchronisation between the protection of land rights in the Basic Agrarian Law and the provisions regarding destroyed land in the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency Regulation No. 17 of 2021. Article 27 of the Basic Agrarian Law does stipulate that property rights are deleted if the land is destroyed, but the Basic Agrarian Law does not provide clear parameters regarding the condition of “destroyed land” due to environmental changes such as tidal flooding.⁴³ On the other hand, the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency Regulation No. 17 of 2021 defines destroyed land as land that has changed from its original form due to natural events so that it cannot be identified, used, or no longer be utilised. These problems arise because the provision has not provided detail the boundary between land that is still temporarily submerged and has completely lost its permanent function due to tidal flooding.⁴⁴

These normative weaknesses contribute to legal uncertainty for coastal communities. In practice, there are plots of land that remain registered as privately owned under the land administration systems but physically have been subject to prolonged inundation, rendering them unsuitable for their intended use. Existing regulations do not provide a clear mechanism for the status of land rights in transitional conditions, including the period for determining destroyed land, the mechanism for community objections, and the forms of restoration of rights that can be granted by the State. As a result, communities have the potential to lose their land rights without certainty of legal protection and firm compensation standards. In addition, the weakness of regulations is the absence of explicit regulations regarding the State’s obligation to carry out socio-economic recovery of people whose land was destroyed due to the storm. The Ministry of Agrarian Affairs and Spatial Planning/National Land Agency Regulation No. 17 of 2021 focuses more on the administrative procedures for determining destroyed land, but has not comprehensively regulated the community’s rights to compensation, relocation, or restoration of livelihood sources. In fact, Article 28H paragraph (4) of the 1945 Constitution of the Republic of Indonesia guarantees the

⁴³ Sukmo Pinuji et al., ‘Is Obliterated Land Still Land? Tenure Security and Climate Change in Indonesia’, *Land* 12, no. 2 (2023): 478, <https://doi.org/10.3390/land12020478>.

⁴⁴ Ronald Dworkin, ‘Justice in the Distribution of Health Care’, *McGill Law Journal* 38, no. 4 (1993): 883–898. <https://lawjournal.mcgill.ca/article/justice-in-the-distribution-of-health-care/>

protection of citizens' property rights and demands fair legal protection for the affected communities.

Based on Ronald Dworkin's principle of "justice as integrity", these weaknesses reveal that the current agrarian regulations still tend to place the issue of tidal flooding as a purely land administrative issue – not as a matter of protecting the constitutional rights of coastal communities. Therefore, it is necessary to interpret and update more sensitive regulations related to the context of coastal disasters, by emphasising the parameters of submerged and destroyed land, rights protection mechanisms, and the State's obligation to provide fair compensation and recovery for communities affected by flooding.

In the context of flood-affected land, the protection evaluation of coastal communities' property rights requires an approach considering the complexity of situations in which land can suffer temporary or permanent damage. The protection of coastal communities' property rights must ensure that those rights are recognised and protected, whether the land is temporarily submerged or classified as destroyed.⁴⁵ Where land situation is temporarily submerged, legal protection should include mechanisms that preserve the continuity of property rights, prevent their extinguishment or neglect, as well as provide legal certainty for the continued recognition of those rights until the land use is capable of being restored to its normal condition. In contrast, in the case of land that is considered permanently destroyed, rights protection should include fair compensation and adequate remedies, ensuring that people do not lose their rights without obtaining appropriate compensation.⁴⁶

E. Justice as Integrity in Practice: Legal Consequences and Remedies for Tidal-Flood-Affected Land

From the perspective of Dworkin's Justice as Integrity, disaster recovery policies should not be regarded as discretionary governmental responses, but as institutional expressions of the State's legal obligations to protect individual rights. Accordingly, recovery policies for land affected by tidal flooding must preserve the coherence between constitutional guarantees of property rights,

⁴⁵ Mick Strack, 'The Order Is Rapidly Fadin': Responding to the Impact of Climate Change on Property with Reference to the Aotearoa New Zealand Context', *Journal of Property Planning, and Environmental Law* 12, no. 1 (2019): 19–34, <https://doi.org/10.1108/JPEL-03-2019-0007>; Nick Harvey, 'Protecting Private Properties from the Sea: Australian Policies and Practice', *Marine Policy* 107 (September 2019): 103566, <https://doi.org/10.1016/j.marpol.2019.103566>.

⁴⁶ Ronald Dworkin, *Freedom's Law: The Moral Reading of the American Constitution* (Harvard University Press, 1996).

legal certainty, and substantive justice with more than transparent compensation mechanisms. It requires an integrated legal framework that recognises the continuing rights of affected communities, distinguishes clearly between submerged and destroyed land through principled legal standards, and provides remedies proportionate to the actual loss suffered. Where restoration of land rights remains possible, State policies should prioritise rehabilitation and the continuity of legal protection. Conversely, where land has permanently lost its physical and socio-economic function, the State's obligation shifts toward ensuring substantive justice through fair compensation, long-term socio-economic recovery, and meaningful participation of affected coastal communities in determining appropriate remedies. In such way, recovery policies reflect as procedural legality and the integrity of the legal system in treating citizens with equal concern and respect.

A concrete case study of land affected by the storm can be seen in Bedono Village, Sayung District, Demak Regency, Central Java. This area has experienced continuous coastal erosion and abrasion since the early 2000s, causing some settlements and community land to turn into waters. Many people lost their homes, ponds, and productive land, while administratively part of the land was still recorded as property. This condition raises significant legal problems because affected community are no longer able to use their land, yet the status of the elimination of land rights is not accompanied by a clear compensation mechanism. Government policies generally focus more on relocation and social assistance, while the restoration of land rights and the certainty of compensation remain inadequately regulated.

Similar cases also occurred in Pekalongan City, especially in the coastal area of North Pekalongan District. The prolonged occurrence of tidal flooding causes residential areas to be permanently submerged and reduces the socio-economic function of the land. In practice, the community is still charged with land administration obligations, even though the land can no longer be used normally. The local government has made various mitigation efforts, such as the construction of embankments and limited relocation. However, there is no firm legal mechanism regarding the land status that has been transformed into permanent waters or the form of compensation for affected communities.

In Ronald Dworkin's perspective, both cases show that the legal approach used still emphasises administrative aspects rather than the protection of the substantive rights of coastal communities. The State is indeed present through mitigation policies and social assistance, but it has not fully provided protection for land rights and the sustainability of the livelihood of the affected communities. As a result, the community becomes an uncertain position because the rights

to land have not been fully recognised, while the mechanism for the elimination of rights and recovery of losses also does not have a clear basis. Such condition shows that the implementation of the principle of “justice as integrity” has not been optimal, because legal protection has not consistently guaranteed substantive justice for people who have lost land due to permanent tidal flooding.

The handling of land analysis affected by the storm shows that the application of such principle has not been optimal, causing legal uncertainty for coastal communities. In the case of Bedono Village in Demak Regency and the coastal area of Pekalongan City, the community is still registered as the holder of land rights administratively, but factually can no longer use or enjoy the economic benefits of the land as it has turned into a permanent inundation area. This condition indicates that there is a discrepancy between formal legal recognition and substantive protection of rights. As a result, the community does not obtain certainty regarding the sustainability of land rights, the mechanism for the elimination of rights, or the right to adequate compensation.⁴⁷

If Ronald Dworkin's principle of “justice as integrity” can be applied, then the State is obliged to interpret the status of land affected by tidal flooding by considering the protection of people's rights as a whole. Where land remains capable of restoration, the legal consequence is that the State is obliged to continue recognising and protecting people's land rights through land administration protection, regional rehabilitation, and restoration of access to land use. On the other hand, if the land has been transformed into permanent waters and has lost its socio-economic function, then the legal consequence is that the State must establish a legal framework for the elimination of rights accompanied by compensation, relocation, and socio-economic recovery of the affected communities.

Conversely, if the Dworkin principle is ignored and the legal approach is only oriented to administrative procedures, then communities have the potential to lose their land rights without adequate protection. In practice, social assistance or relocation is often provided without certainty of rights status or a proportionate compensation mechanism. As a result, people lose land, livelihoods, economic access, and legal certainty for their rights. This indicates that the neglect of the principle of substantive justice has implications for the occurrence of legal and social injustice for coastal communities affected by the flood.

⁴⁷ Ronald Dworkin, ‘In Praise of Theory’, *Arizona State Law Journal* 29 (1997): 353–376. https://archives.yale.edu/repositories/12/archival_objects/2979179

In Indonesian agrarian law, the distinction between submerged land and destroyed land is important because it determines the sustainability of the land rights of the people affected by the storm. Normatively, the Basic Agrarian Law does not explicitly regulate the category of submerged land, but the principle of protection of land rights in Article 19 of the Basic Agrarian Law shows that the right to land must still be guaranteed as long as the land object can still be identified and reused.⁴⁸ Therefore, submerged land can be understood as land that has experienced inundation due to flooding or the temporary entry of seawater, but has not lost its physical existence or legal function permanently. In such conditions, the right to land remains attached to the right holder and the State is obliged to provide land administration protection and regional restoration.⁴⁹

In contrast to submerged land, destroyed land has a stricter legal basis in Article 27 letter b of the Basic Agrarian Law, which states that property rights are removed if the land is destroyed. This provision is then described in the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency Regulation No. 17 of 2021 states that destroyed land defines as the land that has changed from its original form due to natural events, abrasion, reclamation, or other circumstances so that it cannot be identified, functioned, and no longer be used. Based on these provisions, the status of destroyed land is determined through the permanent loss of land objects, both physically and socio-economically.

The fundamental difference between both categories lies in the sustainability of the legal relationship between the right-holders and their land. In submerged land, the legal relationship still exists because the land can still be restored or reused, so the right to land must still be protected. On the other hand, in destroyed land, the legal relationship to the land object can be removed because the land has lost its existence or permanent function.⁵⁰ The legal consequence is that the State is obliged to established a clear legal mechanism for the elimination of land rights, accompanied by protection for affected communities, including through compensation, relocation, or socio-economic recovery. Thus, the distinction between submerged land and destroyed land is

⁴⁸ Bunga Desyana Pratami et al., 'Status Hukum Tanah Musnah Berdasarkan Permen ATR/BPN No. 17 Tahun 2021', *Jurnal Officium Notarium* 1, no. 2 (2021): 218–29, <https://doi.org/10.20885/jon.vol1.iss2.art2>.

⁴⁹ Satriya Parama Putra Wibawa et al., 'Kelayakan Nilai Ganti Kerugian Tanah Musnah Sebagai Penanganan Dampak Sosial Pada Pengadaan Tanah', *Widya Bhumi* 3, no. 2 (2023): 152–72, <https://doi.org/10.31292/wb.v3i2.63>.

⁵⁰ E. Utrecht, 'Land Reform in Indonesia', *Bulletin of Indonesian Economic Studies* 5, no. 3 (1969): 71–88, <https://doi.org/10.1080/00074916912331331482>; Harsono, *Hukum Agraria Indonesia, Sejarah Pembentukan UUPA, Isi, Dan Pelaksanaan*.

not only based on the physical condition of the territory, but also on the legal basis and its legal consequences on the sustainability of land rights of coastal communities.⁵¹

The difference between submerged land and destroyed land gives rise to different legal consequences for land certificates, rights status, land registration, and the position of rights holders. In submerged soil, land rights have not been basically removed because land objects can still be identified and have the potential to restore their function. In such conditions, the land rights certificate still has legal force as proof of ownership and land registration data remains recorded in the land administration. The position of the right-holders is also legally recognised, even though the physical use of the land is temporarily disrupted due to the storm. Therefore, the State is obliged to provide legal protection through the maintenance of land registration data, protection of rights administration, and policies for the recovery of affected areas.⁵²

On the other hand, in the case of destroyed land, the consequences of the law are more permanent. Based on Article 27 letter b of the Basic Agrarian Law, property rights are deleted if the land is destroyed. This provision is related to the permanent loss of the object of rights as stipulated in the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency Regulation No. 17 of 2021 concerning Procedures for the Determination of Destroyed Land. If a plot of land has been declared destroyed because it has turned into permanent waters or can no longer be identified and functioned, then the land right certificate loses its legal object and can be the basis for the deletion of land registration data. As a result, the legal relationship between the right holder and his land also ends because the object of the right no longer exists both legally or physically.

However, the abolition of land rights due to land destruction does not mean the removal of all State obligations to rights holders. The State remains obliged to provide legal protection through a mechanism of compensation, or socio-economic recovery for people who have lost land due to permanent tidal flooding. Thus, the difference in status between submerged land and destroyed land not only determines the sustainability of land rights, but also determines the validity of the certificate, land registration status, and the form of legal protection that must be provided to rights holders affected by tidal flooding.

⁵¹ Nur Amrin et al., 'Status Hukum Hak Atas Tanah Yang Terkena Bencana Alam'.

⁵² Indri Laras Sundari, 'Status Penguasaan Tanah Sempadan Pantai Oleh Masyarakat Di Pesisir Pantai Ujong Blang Lhokseumawe', *Locus Journal of Academic Literature Review* 2, no. 2 (2023): 97–116, <https://doi.org/10.56128/ljoalr.v2i2.130>.

The legal implications for the status of land ownership affected by the tidal flooding depend heavily on the category of land—whether it includes submerged land or destroyed land—as each has different legal consequences for the sustainability of land rights. In the case of submerged land, the right to the land in principle remains attached to the right-holder because the land object is still identifiable and has not lost its legal function permanently. The legal basis can be traced from Article 19 of the Basic Agrarian Law, which guarantees legal certainty of land rights and the absence of provisions in the Basic Agrarian Law that State the removal of rights due to temporary inundation. Therefore, the status of land rights does not end in submerged soil conditions, but that is temporarily disrupted due to storms.⁵³

In practice, land rights under these conditions can be understood as legally recognised, but their implementation is limited or temporary and cannot be used optimally. Land registration data and land rights certificates remain valid because the legal relationship between the right holder and the land object still exists. The State in this case is obliged to provide legal protection through the maintenance of land data, protection of rights administration, rehabilitation of areas, and temporary relocation without removing the status of community ownership.

Unlike submerged land, destroyed land has legal consequences in the form of the abolition of land rights. The legal basis is contained in Article 27 letter b of the Basic Agrarian Law, which states that property rights are deleted if the land is destroyed. This provision is emphasised in the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency Regulation No. 17 of 2021, which regulates the procedure for determining destroyed land if the land can no longer be identified, functioned, and has been permanently changed due to natural events, such as abrasion or tidal flooding. In such condition, the right to the land is no longer retained, but rather ends because the object of the right has been permanently lost. Consequently, land registration data can be deleted, and the certificate loses its legal object.

Even where land rights are extinguished because the land has legally been classified as destroyed, the State's legal obligations do not cease. Rather, they shift from protecting continuing property rights toward ensuring substantive justice for former right holders through fair compensation, appropriate relocation, socio-economic restoration, and other effective remedies. Accordingly, the legal distinction between submerged land and destroyed land extends beyond a

⁵³ Mirza Megananda and Akhmad Safik, 'Case of Land Ownership Encroachment Reviewed from Agrarian Law Aspects: A Case Study of Verdict No: 255 K/TUN/2021', *Daengku: Journal of Humanities and Social Sciences Innovation* 4, no. 4 (2024): 656–66, <https://doi.org/10.35877/454ri.daengku2733>.

purely administrative classification, as it determines whether land rights remain legally protected, are subject only to temporary restrictions on use, or are extinguished due to the permanent loss of the object of the right caused by tidal flooding.⁵⁴

Conversely, in the case of land that is considered to be permanently destroyed due to tidal flooding, the legal implications for land ownership rights require a stricter determination mechanism as it relates to the removal of land rights. The legal basis is contained in Article 27 letter b of the Basic Agrarian Law which states that property rights are removed if the land is destroyed, and is further regulated in the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency Regulation No. 17 of 2021 concerning Procedures for Determining Destroyed Land. Based on this regulation, the determination of destroyed land is carried out when the land can no longer be identified or used due to natural changes such as abrasion or permanent erosion.

The procedure for determining the destroyed land begins with identification and research by the Land Office on the physical condition of the affected land. The results of the research are then announced to the community and rights holders to provide an opportunity to file objections if there is still evidence that the land can be restored or can still be used. After going through the stages of research and announcement, the Head of the Land Office determined the status of destroyed land based on the results of field verification and land administration data. The determination is based on the deletion of land registration data and the expiration of land rights because the object of rights is considered to have been permanently lost.⁵⁵

In the event that the right-holder does not accept the designation, an objection may be raised during the announcement and verification process by showing evidence of ownership, utilisation, or possible restoration of land functions. This objection mechanism is important to prevent the unilateral elimination of rights without adequate legal protection for coastal communities affected by the storm. Therefore, the determination of destroyed land should not only be based on physical changes in the area, but must also consider the sustainability of the community's legal relationship with its land.

The legal consequence of the destroyed land determination is the abolition of land rights and the deletion of land registration data because the object of rights no longer exists permanently.

⁵⁴ Tsabita Latifaturrohman and Rochmat Junarto, 'Perlindungan, Penegakan Dan Pemenuhan Hak Atas Tanah Korban Lumpur Lapindo', *Tunas Agraria* 6, no. 1 (2023): 56–70, <https://doi.org/10.31292/jta.v6i1.204>.

⁵⁵ Wibawa et al., 'Kelayakan Nilai Ganti Kerugian Tanah Musnah Sebagai Penanganan Dampak Sosial Pada Pengadaan Tanah'.

However, in Ronald Dworkin's substantive justice perspective, the expiration of land rights does not remove the State's obligations to affected communities. The State remains obliged to provide mechanisms for compensation, relocation, and socio-economic recovery so that the community does not bear disproportionate losses due to permanent tidal flooding.⁵⁶

Legal protection and recognition of land rights affected by the storm require clear administrative procedures so that the status of land and the rights of coastal communities can be determined appropriately. The procedure starts from the initial identification by the Land Office of the land parcel affected by the tidal flooding, especially to assess whether the land can still be identified, utilised, or has lost its permanent function. At this stage, physical and juridical data was collected, including an examination of land plot maps, land rights certificates, field conditions, and the level of damage due to tidal flooding.⁵⁷

The next stage is field research and verification conducted by the Land Office together with related agencies to determine the category of land, whether it includes temporarily submerged land or destroyed land. In this process, an assessment is carried out on the physical condition of the soil and on the sustainability of the socio-economic function of the soil for the community. The results of the research are then stated as the basis for determining the status of the land.

After the research is conducted, the identification results are announced to the public and rights holders as stipulated in the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency Regulation No. 17 of 2021. This announcement stage aims to provide an opportunity for rights holders to file objections if the land can still be restored, in use, or has a legal relationship with the rights holder. Objections are then submitted to the Land Office by attaching evidence of ownership, utilisation, or relevant land administration data.

If there are no objections are declared unacceptable after the verification process, the Head of the Land Office determines the status of the land as destroyed land. Such a determination becomes the administrative basis for the deletion of land registration data and the expiration of land rights on the ground that the land constituting the object of those rights has been permanently lost. On the other hand, if the land is considered to be recoverable or still has a certain function, then the right to the land is still recognised, and the land registration data can be maintained.

⁵⁶ Nur Salsabila Koswara et al., 'Perlindungan Hukum Terhadap Hak Milik Atas Tanah Yang Hilang Akibat Abrasi', *Jurnal JURISTIC* 6, no. 01 (2025): 9, <https://doi.org/10.56444/jrs.v6i01.5991>.

⁵⁷ Ervan Hari Sudana et al., 'Asas Keadilan Dalam Pengadaan Tanah Bagi Pembangunan Untuk Kepentingan Umum', *Notary Law Journal* 1, no. 1 (2022): 49–62, <https://doi.org/10.32801/nolaj.v1i1.3>; Koswara et al., 'Perlindungan Hukum Terhadap Hak Milik Atas Tanah Yang Hilang Akibat Abrasi'.

Through these administrative procedures, legal protection for communities affected by the storm should not only be oriented towards the certainty of land administration, but also ensure the existence of an objection mechanism, protection of rights, and a fair recovery for coastal communities affected by regional changes.

F. Reconstructing Coastal Land Rights Protection through Dworkin's Justice as Integrity

The implementation of Ronald Dworkin's principle of justice in the case of land affected by tidal flooding was reconstructed through a change in the perspective of land, from what was originally only understood as a physical object of land to part of the protection of the constitutional rights of coastal communities. In an administrative approach to agrarian law, the determination of land status tends to focus on the physical existence of land objects, so that when land is considered lost or turned into waters, the main attention is directed to the elimination of land rights objects and administration. This approach causes legal protection to focus more on the physical status of land than on the sustainability of the rights of communities affected by tidal flooding.⁵⁸

Through the concept of "justice as integrity", Ronald Dworkin placed individual rights as the centre of legal protection. Based on this approach, the reconstruction offered in this study lies in the change of the handling of land affected by tidal flooding, that the main problem is not only the loss of land objects, but also the sustainability of legal relations, socio-economic life, and the constitutional rights of coastal communities. Thus, the status of submerged or destroyed land should not be determined solely based on physical changes in the territory, but should consider whether the community still has socio-economic relations and legal interests that need to be protected by the State.

The form of reconstruction appears in three aspects. First, reconstruction of submerged land meaning, namely land that is physically inundated but whose land rights are still recognised and protected as long as its socio-economic function can still be restored. Under these conditions, the State is obliged to maintain the status of rights, protect land registration data, and provide a mechanism for regional rehabilitation. Second, reconstruction of destroyed land, that is, the removal of land objects, does not necessarily remove the State's responsibility to rights holders. The State is still obliged to provide compensation, relocation, and socio-economic recovery as a

⁵⁸ Randy D. Gordon, *Rehumanizing Law: A Theory of Law and Democracy* (University of Toronto Press, 2011); Wayne D. Moore, 'Sovereign Virtue: The Theory and Practice of Equality', *Political Science Quarterly* 116, no. 1 (2001): 158–60, <https://doi.org/10.2307/2657842>.

form of substantive protection of rights. Third, this study reconstructs the orientation of agrarian law, from the original focus on administrative certainty to the protection of the rights of the affected communities as a whole. The application of Dworkin's principle in this study does not stop at the theoretical concept of justice, but is used to reconstruct the way agrarian law views land affected by the storm. This reconstruction places the protection of the rights of coastal communities as the core of determining the legal status of land, so that the law not only provides administrative certainty, but also guarantees substantive justice for people who have lost their land and livelihoods due to tidal flooding.

The proposed reconstruction also redefines the relationship between individual rights and State obligations within Dworkin's framework of justice as integrity. Rather than treating land rights merely as institutional rights established through administrative procedures, this approach interprets those rights in light of the legal principles that best justify the legal system as a whole. Accordingly, the protection of coastal communities' land rights cannot depend solely on the formal classification of land status, but must also reflect the State's continuing obligation to treat rights-holders with equal concern and respect. This interpretive approach is particularly relevant where land remains classified as submerged land. As long as the land has not permanently lost its physical and socio-economic function, the legal reasons supporting the continuity of property rights remain intact. Consequently, the State remains under a continuing legal obligation to preserve those rights by ensuring the integrity of land administration, the maintenance of land registration records, area rehabilitation, and measures that ensure the continued exercise of land rights. In this way, the recognition of coastal communities' land rights is not merely an administrative consequence of land registration but an expression of the integrity of the legal system in giving practical effect to constitutional rights and substantive justice.

On the other hand, if the land has been determined as destroyed land based on Article 27 letter b of the Basic Agrarian Law and the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency Regulation No. 17 of 2021, then the right to the land can indeed end because the object of the right has been permanently lost. However, the expiration of land rights does not remove the State's obligations to former rights holders. In Dworkin's perspective, the loss of land objects actually gives rise to new obligations for the State in the form of providing compensation, relocation, and socio-economic recovery for the affected communities. Therefore, the relationship between rights and obligations does not stop when land rights end, but shifts to the State's obligation to ensure that people do not lose their legal protection and sources of livelihood unjustly. Dworkin's principle places the relationship between the rights of society and

the obligations of the State as an inseparable relationship. The land rights of coastal communities become the basis for the birth of the State's obligation to provide protection, while the State's failure to fulfil these obligations indicate a violation of substantive justice in the handling of land affected by the storm.

Before entering into the formulation of legal solutions, it is necessary to understand that the main problem in handling land affected by tidal flooding lies in the unclear legal status of land and the lack of synchronisation of the mechanism for protecting the rights of coastal communities in agrarian regulations. Previous analysis indicates that positive law has not provided strict parameters to distinguish submerged land and destroyed land, even though these differences determine the sustainability of land rights, certificate status, deletion of land data, and the form of state responsibility for affected communities. As a result, coastal communities are often in a State of legal uncertainty because land rights are still administratively recorded, but factually the land can no longer be used due to permanent erosion.

In addition, existing regulations are still more oriented towards the administrative procedure for determining destroyed land rather than protecting the rights of the affected communities. The Ministry of Agrarian Affairs and Spatial Planning/National Land Agency Regulation No. 17 of 2021 does regulate the mechanism for determining destroyed land. However, it has not comprehensively regulated the form of restoration of rights, compensation standards, and socio-economic protection for people who have lost land due to tidal flooding. In practice, Government's response has largely been confined to the provision of social assistance or temporary relocation, while legal certainty regarding the sustainability of land rights and compensation remains without a clear mechanism. This condition shows that the current agrarian law approach still places tidal flooding as a land administrative issue, not as a problem of protecting the constitutional rights of coastal communities.

Based on this analysis, the main requirement in handling land affected by tidal flooding is not only the formal determination of land status, but also the reconstruction of legal protection that places community rights as the centre of regulation. Therefore, the legal solutions formulated must be directed at strengthening the certainty of land status, its protection of coastal communities, as well as mechanisms of restoration and fair compensation in accordance with the principles of substantive justice of Ronald Dworkin.

In the face of legal challenges related to land affected by the tide, it is important to formulate legal solutions that are fair to the affected coastal communities. One of the key aspects of this solution is the development of a land title protection policy that effectively handles cases of

submerged and destroyed land.⁵⁹ This protection policy should include mechanisms that provide legal guarantees for land ownership rights during and after the occurrence of tidal flooding. For submerged land, the policy should ensure that the rights of landowners are not neglected during periods of damage, with adequate legal support as well as a clear process for the restoration of their rights once conditions return to normal. In the case of destroyed land, policies should provide more permanent protection and appropriate compensation to compensate for the total loss of land rights – including administrative arrangements that ensure landowners' rights to be recognised and protected.

In addition, fair legal solutions also involve the development of compensation mechanisms and recovery strategies that are consistent with Dworkin's principles of justice. Compensation mechanisms should be designed to provide fair compensation to communities whose land has been destroyed or severely damaged, considering the economic value of the lost land as well as the socio-economic impact on the owners. Recovery strategies should include a thorough evaluation of recovery needs, including support for the social and economic recovery of affected communities. This involves drafting policies that facilitate relocation if needed, providing financial or material assistance, and engaging communities in the recovery process to ensure that every step is taken with substantive justice and the protection of individual rights in mind. Therefore, legal solutions are expected to accommodate the needs of society fairly and sustainably, in line with Dworkin's principle of justice which prioritises equal treatment and legal integrity.

A juridical review of the rights of coastal communities in the face of tidal waves requires an in-depth evaluation of the constitutional rights and legal protections. The constitutional rights of coastal communities related to land affected by the storm include the right to ownership and use of land regulated by the Constitution and agrarian law.⁶⁰ In this context, legal protection must ensure that those rights are not only recognised but also effectively protected, even if the land is damaged or altered due to tidal flooding. Existing legal protections should include mechanisms to maintain ownership rights during periods of damage as well as appropriate compensation or support if land is deemed permanently destroyed. Such evaluation involves an analysis of the

⁵⁹ Rizky Syahputra Sutikno, 'Hukum Agraria Dan Kebijakan Agraria Di Indonesia', *Court Review: Jurnal Penelitian Hukum* 3, no. 03 (2023): 22–27, <https://doi.org/10.69957/cr.v3i03.702>.

⁶⁰ Angella H. et al., 'Problematisasi Perlindungan dan Pemenuhan Hak Konstitusional Masyarakat Adat', *NUSANTARA: Jurnal Ilmu Pengetahuan Sosial* 10, no. 6 (2023): 2885–95, <https://doi.org/10.31604/jips.v10i6.2023.2885-2895>.

extent to which the current law meets the constitutional obligation to protect landowners' rights and whether there are gaps in protections that need to be corrected.

The social and economic impact of the status of land affected by the storm can be seen clearly in the coastal areas of Demak Regency and Pekalongan City, Central Java. In Bedono Village, Sayung District, erosion and abrasion that lasted for many years caused the loss of settlements, ponds and productive land for the community. Several residents were forced to leave their homes because the residential area turned into permanent waters. This condition causes the loss of land assets and eliminates the source of livelihood of the community that previously depended on the fisheries, ponds, and coastal economic sectors. Meanwhile, in the coastal area of North Pekalongan, prolonged inundation caused a decline in the function of residential houses and community businesses, so that many residents suffered economic losses due to damage to buildings, decreased business productivity, and increased environmental adaptation costs.

Based on a juridical perspective, this condition indicates that the problem of land affected by tidal flooding is not only related to the legal status of land, but also related to the protection of the socio-economic rights of the community. In practice, government policies are still more realised through social assistance and the development of robber control infrastructure, while the mechanism for protecting land rights and restoring the community's economy does not have a comprehensive arrangement. As a result, communities whose land has turned unproductive or even destroyed often continue to bear the economic burden without certainty about the status of rights and the form of compensation that can be obtained.

The legal handling of land affected by tidal flooding must be carried out more substantively by linking the protection of land rights with the restoration of the lives of coastal communities. In Ronald Dworkin's perspective of justice, the State is not only providing temporary assistance, but also obliged to ensure the protection of rights, socio-economic recovery, and proportionate compensation mechanisms for people who have lost their land and livelihoods due to permanent tidal flooding.

Justice-based legal policy recommendations for the protection of coastal communities affected by tidal flooding require a more comprehensive and responsive reformulation of agrarian law and disaster management policies. This reformulation should focus on adjusting regulations that can ensure better protection of land tenure rights in the context of climate change and natural disasters. This includes clearer arrangements regarding the status of submerged and destroyed land, as well as procedures that support landowners' rights during and after disasters. In addition, disaster management policies need to be updated to accommodate the specific needs of coastal

communities, including more effective protection mechanisms and fair compensation policies. This reformulation must be based on the principle of substantive justice that ensures every individual is treated fairly and the constitutional rights of communities remain protected in a variety of catastrophic conditions.⁶¹

Disaster mitigation and adaptation programs are also crucial in the context of protecting coastal communities. These recommendations include the development of programs that involve the active participation of communities in the planning and implementation of mitigation and adaptation measures. The program should focus on strengthening the capacity of communities to deal with disasters – including training, technical support, and resources for risk mitigation. Policies should support the restoration and protection of individual rights on an ongoing basis by providing timely and adequate assistance and ensuring community involvement in the decision-making process. This will ensure that public policies are not only responsive to urgent needs but also sustainable and fair in the long run. It further promotes the integration of the principle of justice in every aspect of disaster management, thereby ensuring the effective protection of the rights and welfare of coastal communities.

G. Conclusion

The phenomenon of tidal flooding in Indonesia's coastal areas raises agrarian law issues related to the unclear status of affected land – particularly in distinguishing submerged and destroyed land. The results show that submerged land defines as the land that can still be identified and restored its function so that the right to land remains attached to the right holder and must be protected through land administration protection and area restoration. On the other hand, destroyed land refers to the land that has permanently lost its physical and socio-economic function as referred to in Article 27 letter b of the Basic Agrarian Law and the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency Regulation No. 17 of 2021, so that land rights may coincide with the deletion of land registration data. The difference between the two categories has direct implications for the sustainability of land rights, the validity of certificates, the status of land registration, and the form of state responsibility for coastal communities affected by the storm. This study also found that the current agrarian regulations are still more oriented to an

⁶¹ Wibawa et al., 'Kelayakan Nilai Ganti Kerugian Tanah Musnah Sebagai Penanganan Dampak Sosial Pada Pengadaan Tanah'.

administrative approach and have not provided firm parameters regarding the status of land affected by rob or comprehensive mechanisms for protecting people's rights.

Through Ronald Dworkin's "justice as integrity" approach, this study reconstructs the meaning of land affected by flooding from what originally focused on the physical object of land to the protection of the constitutional rights of coastal communities. The reconstruction is carried out by placing the sustainability of community rights, the socio-economic function of the land, and the obligations of the State as the basis for determining the land legal status affected by the storm. In submerged soil conditions, the State is obliged to maintain and protect people's land rights through regional rehabilitation and land administration protection. Meanwhile, for destroyed land, the State is obliged to provide a mechanism for the elimination of rights accompanied by compensation, relocation, and socio-economic recovery in a fair and proportionate manner. As a result, the reform of agrarian law and the policy of handling tidal flooding needs to be directed at administrative certainty and at the protection of substantive rights and justice for coastal communities affected by tidal flooding.

REFERENCES

- Adger, W. Neil, and Cecilia Luttrell. 'Property Rights and the Utilisation of Wetlands'. *Ecological Economics* 35, no. 1 (2000): 75–89. [https://doi.org/10.1016/S0921-8009\(00\)00169-5](https://doi.org/10.1016/S0921-8009(00)00169-5).
- Aditya, Trias, Purnama Budi Santosa, Yulaikhah Yulaikhah, Nurrohmat Widjajanti, Dedi Atunggal, and Miranty Sulistyawati. 'Title Validation and Collaborative Mapping to Accelerate Quality Assurance of Land Registration'. *Land Use Policy* 109 (October 2021): 105689. <https://doi.org/10.1016/j.landusepol.2021.105689>.
- Ali, Mohammad Mahrus, Zaka Firma Aditya, and Abdul Basid Fuadi. 'Coastal Communities Protection of Constitutional Rights: The Urgency of Harmonization of Integrated Coastal Management Regulations'. *Jurnal Konstitusi* 17, no. 4 (2020): 799–827. <https://doi.org/10.31078/jk1745>.
- Amrin, Reza Nur, Anan Haji Imantaka, Enny Tatagelo Narince Yanengga, and Gita Cahyani Maulida. 'Status Hukum Hak Atas Tanah Yang Terkena Bencana Alam'. *Tunas Agraria* 5, no. 1 (2022): 65–76. <https://doi.org/10.31292/jta.v5i1.168>.
- Angella H., Cherry, Felicia Vanesa Japri, Henna Kurniasih, Maureen Linus, and Yosia Clementino Moningka. 'Problematisasi Perlindungan dan Pemenuhan Hak Konstitusional Masyarakat Adat'. *NUSANTARA: Jurnal Ilmu Pengetahuan Sosial* 10, no. 6 (2023): 2885–95. <https://doi.org/10.31604/jips.v10i6.2023.2885-2895>.
- Bell-James, Justine, James A. Fitzsimons, and Catherine E. Lovelock. 'Land Tenure, Ownership and Use as Barriers to Coastal Wetland Restoration Projects in Australia: Recommendations and Solutions'. *Environmental Management* 72, no. 1 (2023): 179–89. <https://doi.org/10.1007/s00267-023-01817-w>.

- BonJour, Laurence. 'The Philosophy of Law'. *Teaching Philosophy* 2, no. 3/4 (1977): 325–28. <https://doi.org/10.5840/teachphil197723/427>.
- Byrne, J. Peter. 'The Cathedral Engulfed: Sea-Level Rise, Property Rights, and Time'. *Louisiana Law Review* 73, no. 1 (2012): 69–118. <https://scholarship.law.georgetown.edu/facpub/1126/>.
- Daryono. 'The Transformation of Land Law in Indonesia: The Persistence of Pluralism'. *Asian Journal of Comparative Law* 5 (2010): 1–32. Cambridge Core. <https://doi.org/10.1017/S2194607800000259>.
- Dong, Wan Shiao, Aminah Ismailluddin, Lee Shin Yun, et al. 'The Impact of Climate Change on Coastal Erosion in Southeast Asia and the Compelling Need to Establish Robust Adaptation Strategies'. *Heliyon* 10, no. 4 (2024). <https://doi.org/10.1016/j.heliyon.2024.e25609>.
- Dworkin, Ronald. 'Confronting the End of the Socialist Era'. *Economy and Society* 20, no. 4 (1991): 341–49. <https://doi.org/10.1080/03085149100000017>.
- Dworkin, Ronald. 'Does Law Have a Function? A Comment on the Two-Level Theory of Decision'. *The Yale Law Journal* 74, no. 4 (1965): 640–651. <https://doi.org/10.2307/794614>.
- Dworkin, Ronald. 'Equality, Democracy, and Constitution: We the People in Court'. *Alberta Law Review* XXVIII, no. 2 (1989): 13–36. <https://doi.org/10.29173/alr1605>.
- Dworkin, Ronald. *Freedom's Law: The Moral Reading of the American Constitution*. Harvard University Press, 1996.
- Dworkin, Ronald. 'In Praise of Theory'. *Arizona State Law Journal* 29 (1997): 353–376. https://archives.yale.edu/repositories/12/archival_objects/2979179
- Dworkin, Ronald. *Justice in Robes*. Harvard University Press, 2006. <https://doi.org/10.1353/book.146>.
- Dworkin, Ronald. 'Justice in the Distribution of Health Care'. *McGill Law Journal* 38, no. 4 (1993): 883–898. <https://lawjournal.mcgill.ca/article/justice-in-the-distribution-of-health-care/>
- Dworkin, Ronald. 'Law as Interpretation'. *Critical Inquiry* 9, no. 1 (1982): 179–200. <https://doi.org/10.1086/448194>
- Dworkin, Ronald. 'Lord Devlin and the Enforcement of Morals'. *The Yale Law Journal* 75, no. 6 (1966): 986–1005. <https://doi.org/10.2307/794893>.
- Dworkin, Ronald. 'No Right Answer'. *Business Communication Quarterly* 62, no. 4 (1999): 7–8. <https://doi.org/10.1177/108056999906200402>.
- Dworkin, Ronald. 'On Not Prosecuting Civil Disobedience'. *The New York Review*. 1968. <https://www.nybooks.com/articles/1968/06/06/on-not-prosecuting-civil-disobedience/>
- Dworkin, Ronald. 'Philosophy, Morality, and Law. Observations Prompted by Professor Fuller's Novel Claim'. *University of Pennsylvania Law Review* 113, no. 5 (1965): 668–690. <https://doi.org/10.2307/3310807>.
- Dworkin, Ronald. 'Political Judges and the Rule of Law'. *Maccabaeian Lecture in Jurisprudence*, 1979.
- Dworkin, Ronald. 'Seven Critics'. *Georgia Law Review* 11 (1977): 1201–68.
- Dworkin, Ronald. 'Social Rules and Legal Theory'. *The Yale Law Journal* 81, no. 5 (1972): 855–890. <https://doi.org/10.2307/795153>.

- Dworkin, Ronald. 'Social Sciences and Constitutional Rights'. *Educational Forum* 41, no. 3 (1977): 271–80. <https://doi.org/10.1080/00131727709336251>.
- Dworkin, Ronald. *Taking Rights Seriously*. Bloomsbury Publishing Inc., 1997.
- Dworkin, Ronald. 'The Case for Law-A Critique'. *Valparaiso University Law Review* 1, no. 2 (1966): 215–217. <https://openyls.law.yale.edu/entities/publication/3e0a9814-7519-4210-9686-00f24026e9ff>
- Dworkin, Ronald. 'The Concept of a Moral Position'. In *Philosophy Then and Now: An Introductory Text with Readings*, edited by N. Scott Arnold, Theodore M. Benditt, and George Graham. Wiley-Blackwell, 1998.
- Dworkin, Ronald. 'The Model of Rules'. *The University of Chicago Law Review* 35, no. 1 (1967): 45–77. <https://doi.org/10.2307/1598947>.
- Dworkin, Ronald. 'The Original Position'. *University of Chicago Law Review* 40, no. 3 (1973): 500–533. <https://doi.org/10.2307/1599246>.
- Dworkin, Ronald. Wasserstrom: The Judicial Decision. *Ethics*, vol. 75. no. 1 (1964): 47–56. <https://doi.org/10.1086/291520>.
- Dworkin, Ronald. 'We Do Not Have a Right to Liberty'. In *Readings in Social and Political Philosophy*, edited by Robert M. Stewart. Oxford University Press, 1986.
- Dworkin, Ronald. 'What Is the Rule of Law?' *The Antioch Review* 30, no. 2 (1970): 151–155. <https://doi.org/10.2307/4637281>.
- Dworkin, Ronald. 'Why Efficiency? A Response to Professors Calabresi and Posner'. *Hofstra Law Review* 8, no. 3 (1979): 563–90.
- Dyzenhaus, David. 'Dworkin and Unjust Law'. In *The Legacy of Ronald Dworkin*, edited by Wil Waluchow and Stefan Sciaraffa. Oxford University Press, 1 May 2016. <https://doi.org/10.1093/acprof:oso/9780190466411.003.0007>.
- Essert, Christopher. 'A Theory of Legal Obligation'. In *The Legacy of Ronald Dworkin*, edited by Wil Waluchow and Stefan Sciaraffa. Preprint, Oxford University Press, 1 May 2016. <https://doi.org/10.1093/acprof:oso/9780190466411.003.0011>.
- Fuller, Lon L. *The Morality of Law*. Yale University Press, 1969.
- Gordon, Randy D. *Rehumanizing Law: A Theory of Law and Democracy*. University of Toronto Press, 2011.
- Hadi, Hasrul. 'Strategi Adaptasi Dan Relokasi Permukiman Warga Akibat Bencana Banjir Pasang Air Laut'. *Jurnal Geodika* 1, no. 1 (2017): 10–23. <https://doi.org/10.29408/geodika.v1i1.3009>.
- Hanifah, M. Haryo, and Alief Noor Anna. 'Analisis Dampak Banjir Rob Terhadap Perubahan Struktur Sosial Dan Ekonomi Masyarakat Pesisir (Studi Kasus Kecamatan Sayung, Kabupaten Demak)'. Universitas Muhammadiyah Surakarta, 2022.
- Harsono, Boedi. *Hukum Agraria Indonesia, Sejarah Pembentukan UUPA, Isi, Dan Pelaksanaan*. Djambatan, 1999.
- Harvey, Nick. 'Protecting Private Properties from the Sea: Australian Policies and Practice'. *Marine Policy* 107 (September 2019): 103566. <https://doi.org/10.1016/j.marpol.2019.103566>.

- Komnas HAM RI. *Upaya Negara Menjamin Hak-Hak Kelompok Minoritas Di Indonesia*. Jakarta, 2016.
- Koswara, Nur Salsabila, Benny Djaja, and M. Sudirman. 'Perlindungan Hukum Terhadap Hak Milik Atas Tanah Yang Hilang Akibat Abrasi'. *Jurnal JURISTIC* 6, no. 01 (2025): 9. <https://doi.org/10.56444/jrs.v6i01.5991>.
- Kusuma, Marza Aditya, Liesnoor Dewi Setyowati, and Purwadi Suhandini. 'Dampak Rob Terhadap Perubahan Sosial Masyarakat Di Kawasan Rob Desa Bedono Kecamatan Sayung Kabupaten Demak'. *Journal of Educational Social Studies* 5, no. 2 (2016): 121–27. <https://journal.unnes.ac.id/sju/jess/article/view/14076>
- Latifaturrohman, Tsabita, and Rochmat Junarto. 'Perlindungan, Penegakan Dan Pemenuhan Hak Atas Tanah Korban Lumpur Lapindo'. *Tunas Agraria* 6, no. 1 (2023): 56–70. <https://doi.org/10.31292/jta.v6i1.204>.
- Lund, Christian. 'An Air of Legality – Legalization Under Conditions of Rightlessness in Indonesia'. *The Journal of Peasant Studies* 50, no. 4 (2023): 1295–316. <https://doi.org/10.1080/03066150.2022.2096448>.
- McDonnell, Siobhan. 'The Importance of Attention to Customary Tenure Solutions: Slow Onset Risks and the Limits of Vanuatu's Climate Change and Resettlement Policy'. *Current Opinion in Environmental Sustainability* 50 (2021): 281–88. <https://doi.org/10.1016/j.cosust.2021.06.008>.
- McGlashan, Derek J., Robert W. Duck, and Colin T. Reid. 'Unstable Boundaries on a Clifed Coast: Geomorphology and British Laws'. *Journal of Coastal Research* 24, no. sp1 (2008): 181–88. <https://doi.org/10.2112/04-0333.1>.
- Megananda, Mirza, and Akhmad Safik. 'Case of Land Ownership Encroachment Reviewed from Agrarian Law Aspects: A Case Study of Verdict No: 255 K/TUN/2021'. *Daengku: Journal of Humanities and Social Sciences Innovation* 4, no. 4 (2024): 656–66. <https://doi.org/10.35877/454ri.daengku2733>.
- Moore, Wayne D. 'Sovereign Virtue: The Theory and Practice of Equality'. *Political Science Quarterly* 116, no. 1 (2001): 158–60. <https://doi.org/10.2307/2657842>.
- Mulyani, Lilis. 'Gambling with the State: Land Titles and Personhood Rights among the Urban Poor in Indonesia'. *Asian Journal of Law and Society* 2, no. 2 (2015): 285–300. Cambridge Core. <https://doi.org/10.1017/als.2015.11>.
- Nurhidayah, Laely, and Alistair McIlgorm. 'Coastal Adaptation Laws and the Social Justice of Policies to Address Sea Level Rise: An Indonesian Insight'. *Ocean & Coastal Management* 171 (April 2019): 11–18. <https://doi.org/10.1016/j.ocecoaman.2019.01.011>.
- O'Donnell, Tayanah. 'Contrasting Land Use Policies for Climate Change Adaptation: A Case Study of Political and Geo-Legal Realities for Australian Coastal Locations'. *Land Use Policy* 88 (November 2019): 104145. <https://doi.org/10.1016/j.landusepol.2019.104145>.
- O'Donnell, Tayanah. 'Interrogating Private Property Rights and Path Dependencies for Coastal Retreat'. *Ocean & Coastal Management* 231 (2023): 106379. <https://doi.org/10.1016/j.ocecoaman.2022.106379>.
- Pinuji, Sukmo, Walter T. de Vries, Trisnanti W. Rineksi, and Wahyuni Wahyuni. 'Is Obliterated Land Still Land? Tenure Security and Climate Change in Indonesia'. *Land* 12, no. 2 (2023): 478. <https://doi.org/10.3390/land12020478>.

- Pratami, Bunga Desyana, Rindiana Larasati, Sri Ratu Ratna Intan, and Iqbal Kamalludin. 'Status Hukum Tanah Musnah Berdasarkan Permen ATR/BPN No. 17 Tahun 2021'. *Jurnal Officium Notarium* 1, no. 2 (2021): 218–29. <https://doi.org/10.20885/jon.vol1.iss2.art2>.
- Ricoeur, Paul, and John B. Thompson. *Hermeneutics and the Human Sciences: Essays on Language, Action and Interpretation*. Cambridge University Press, 2016. <https://doi.org/10.1017/CBO9781316534984>.
- Rudiarto, Iwan, Wiwandari Handayani, and Jawoto Sih Setyono. 'A Regional Perspective on Urbanization and Climate-Related Disasters in the Northern Coastal Region of Central Java, Indonesia'. *Land* 7, no. 1 (2018): 34. <https://doi.org/10.3390/land7010034>.
- Sakti, Anjar Dimara, Yusa Inderapermana, Akiyuki Kawasaki, et al. 'Coastal Flood Mitigation Under Dynamic Shoreline Change: Integrated Modeling Approach'. *Environmental Technology & Innovation* 41 (March 2026): 104726. <https://doi.org/10.1016/j.eti.2025.104726>.
- Saputri, A. D., and A. M. Linda. 'Kebijakan Pemerintah Dalam Menangani Dinamika Subsistensi Tanah Di Tambakrejo Semarang'. *Jurnal Hukum Lex Generalis* 4, no. 3 (2023): 234–50. <https://doi.org/10.56370/jhlg.v4i3.356>.
- Schwab, Anna K., David Brower, and Timothy Beatley. *An Introduction to Coastal Zone Management*. Princeton University Press, 2002.
- Strack, Mick. 'The Order Is Rapidly Fadin': Responding to the Impact of Climate Change on Property with Reference to the Aotearoa New Zealand Context'. *Journal of Property Planning, and Environmental Law* 12, no. 1 (2019): 19–34. <https://doi.org/10.1108/JPPLEL-03-2019-0007>.
- Sudana, Ervan Hari, Djoni S. Gozali, and Akhmadi Yusran. 'Asas Keadilan Dalam Pengadaan Tanah Bagi Pembangunan Untuk Kepentingan Umum'. *Notary Law Journal* 1, no. 1 (2022): 49–62. <https://doi.org/10.32801/nolaj.v1i1.3>.
- Sundari, Indri Laras. 'Status Penguasaan Tanah Sempadan Pantai Oleh Masyarakat Di Pesisir Pantai Ujong Blang Lhokseumawe'. *Locus Journal of Academic Literature Review* 2, no. 2 (2023): 97–116. <https://doi.org/10.56128/ljoalr.v2i2.130>.
- Sutikno, Rizky Syahputra. 'Hukum Agraria Dan Kebijakan Agraria Di Indonesia'. *Court Review: Jurnal Penelitian Hukum* 3, no. 03 (2023): 22–27. <https://doi.org/10.69957/cr.v3i03.702>.
- Suwandi, Dedy, A. Heru Nuswanto, and Acel Novrikar. 'Legal Vacuum Regarding State Responsibility for Flood Disasters in Indonesia'. *Proceedings of the 2nd International Conference on Social Environment Diversity (ICOSEND 2025)*, 30 April 2026, 261–65. https://doi.org/10.2991/978-2-38476-565-2_33.
- Utrecht, E. 'Land Reform in Indonesia'. *Bulletin of Indonesian Economic Studies* 5, no. 3 (1969): 71–88. <https://doi.org/10.1080/00074916912331331482>.
- Verschuuren, Jonathan, and Jan McDonald. 'Towards a Legal Framework for Coastal Adaptation: Assessing the First Steps in Europe and Australia'. *Transnational Environmental Law* 1, no. 2 (2012): 355–79. <https://doi.org/10.1017/S204710251200009X>.
- Wenta, Joseph, Jan McDonald, and Jeffrey S. McGee. 'Enhancing Resilience and Justice in Climate Adaptation Laws'. *Transnational Environmental Law* 8, no. 1 (2019): 89–118. <https://doi.org/10.1017/S2047102518000286>.

- Wibawa, Satriya Parama Putra, Priyo Katon Prasetyo, and Sudibyanung Sudibyanung. 'Kelayakan Nilai Ganti Kerugian Tanah Musnah Sebagai Penanganan Dampak Sosial Pada Pengadaan Tanah'. *Widya Bhumi* 3, no. 2 (2023): 152–72. <https://doi.org/10.31292/wb.v3i2.63>.
- Widiawaty, Millary Agung, Sunardi Sunardi, Moh. Dede, and Nana Nur Afriana. 'Climate Change Impacts on Indonesian Coastal Communities: A Study of Shoreline Changes, Sea-Level Rise and Social Adaptation'. *Journal of Maps* 22, no. 1 (2026): 2658875. <https://doi.org/10.1080/17445647.2026.2658875>.
- Wijaya, Nurrohman, Mizan Bustanul Fuady Bisri, Adiwani Fahlan Aritenang, and Aria Mariany. 'Spatial Planning, Disaster Risk Reduction, and Climate Change Adaptation Integration in Indonesia: Progress, Challenges, and Approach'. In *Disaster Risk Reduction in Indonesia: Progress, Challenges, and Issues*, edited by Riyanti Djalante, Matthias Garschagen, Frank Thomalla, and Rajib Shaw. Springer International Publishing, 2017. https://doi.org/10.1007/978-3-319-54466-3_9.
- Zikra, Muhammad, Suntoyo, and Lukijanto. 'Climate Change Impacts on Indonesian Coastal Areas'. *The 2nd International Seminar on Ocean and Coastal Engineering, Environment and Natural Disaster Management, 2014* 14 (January 2015): 57–63. <https://doi.org/10.1016/j.proeps.2015.07.085>.
- Zuardin, Zuardin. 'Banjir Rob: Potensi Kerentanan Lingkungan Serta Penanggulangannya'. *Al-Ard: Jurnal Teknik Lingkungan* 1, no. 2 (2016): 58–66. <https://doi.org/10.29080/alard.v1i2.116>.