



## Legal Issues of Land Rights in Post-Liquefaction Red Zones in Palu City

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### ARTICLE HISTORY

Received: 07.02.2026

Accepted: 05.03.2026

Published: 22.04.2026

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### ABSTRACT

*The designation of red zone areas after the 2018 liquefaction in Palu City has generated complex legal consequences for community land rights. This study examines how the red zone policy affects the legal status and protection of land rights holders and identifies the key normative and empirical problems that hinder the realization of legal certainty in the affected areas. A normative-empirical research design was employed, combining a statutory and conceptual approach with field data obtained from the Palu City Land Office and other relevant stakeholders. Data were analyzed qualitatively using deductive and interpretive legal reasoning. The findings indicate that the implementation of the red zone policy has not yet provided substantive legal certainty, as the government tends to prioritize relocation through permanent housing schemes while pressuring owners to relinquish their civil rights through grant-based mechanisms. The research also reveals juridical disharmony between spatial planning regulations and the guarantee of property rights under agrarian law, resulting in a “frozen” legal status of land and prolonged uncertainty. To restore legal protection, a land acquisition scheme with fair compensation is required as a more coherent and rights-based solution.*

**Keywords:** Land Rights; Legal Certainty; Liquefaction; Red Zone

## 1. Introduction

The 2018 earthquake and subsequent liquefaction in Palu City, Central Sulawesi, not only caused severe physical devastation but also disrupted the legal and administrative order of land tenure in the affected areas. The government responded by designating certain locations as disaster-prone red zones as part of its mitigation and spatial planning policy, which effectively prohibits settlement and construction activities on land that had previously been legally held by local residents. This policy places private land rights in direct tension with the state's obligation to protect citizens from future disaster risks.

Within Indonesia's agrarian framework, land has both economic and social dimensions and is protected as a fundamental right through the Basic Agrarian Law (UUPA), which recognizes ownership as the strongest and most complete right over land. However, the transformation of former residential areas into non-buildable red zones raises questions about whether the state has adequately balanced the social function of land with the constitutional guarantee of legal certainty and property rights. Residents who lost their homes and parcels due to liquefaction now face not only physical displacement but also uncertainty regarding the legal status and value of their land certificates.

Previous studies on post-disaster land issues in Palu have mostly focused on registration problems, loss of boundaries, and technical reconstruction of cadastral data, without thoroughly addressing the deeper normative conflict between spatial planning instruments and private land rights. This research seeks to fill that gap by examining the legal implications of red zone designation for land rights and by analyzing how existing regulations either reinforce or undermine legal certainty for affected communities.

Accordingly, this article addresses two main questions: first, how legal protection is currently afforded to land rights holders whose parcels are placed within red zones; and second, what normative and empirical obstacles emerge in the implementation of the red zone policy with respect to those rights. By focusing on the case of Palu

City, the study aims to offer a more integrated understanding of post-disaster land governance and to propose a more coherent framework for protecting land rights in future disaster scenarios.

In practice, the designation of red zones in Palu has also interrupted the social function of land as recognized in Indonesian agrarian law, where land is expected to support not only individual ownership but also the livelihood and social ties of the community. Former residential areas that are now classified as red zones remain largely vacant, characterized by damaged terrain, spontaneous vegetation, and scattered remnants of building foundations, so that the land no longer serves as a space for housing, economic activity, or community interaction. Some former right holders have attempted to return to the area for small-scale activities such as gardening, temporary shelters, or informal use of the remaining plots, but these efforts are constrained by formal prohibitions on construction and the absence of public facilities. At the same time, the local government has focused on relocation schemes, permanent housing sites, and the conversion of red zone areas into green open spaces and geological protection zones, which reinforces disaster mitigation objectives but further distances the land from its previous social and economic functions.

## **2. Method Research**

This study adopts a normative-empirical legal research design, which combines doctrinal analysis of legal norms with empirical observations of their implementation in practice. From the normative perspective, the research examines constitutional provisions, the Basic Agrarian Law, disaster management legislation, government regulations on land registration and spatial planning, and regional regulations related to zoning and red zone designation in Palu City. This analysis is supported by relevant legal theories, particularly the theory of property rights and the theory of legal certainty, to provide a conceptual framework for assessing the compatibility of state policies with the protection of individual land rights.

Empirically, the study utilizes primary data collected through interviews with officials at the Palu City Land Office (BPN), local government officers, and community members whose land is located within the red zone areas. These interviews are intended to reveal practical obstacles in land administration, such as difficulties in boundary reconstruction, service limitations in red zones, and the impact of relocation programs on citizens' civil rights. Secondary data, including official reports, maps, and documentation issued by government agencies, complement the field findings and help contextualize the policy environment.

Data analysis is conducted qualitatively, employing deductive and interpretive legal reasoning. Relevant legal norms are first identified and interpreted in light of doctrinal and theoretical perspectives, and then juxtaposed with empirical findings to evaluate whether the implementation of the red zone policy aligns with the principles of legal certainty and the constitutional mandate to protect property rights. This approach allows the study to move beyond a purely textual reading of regulations and to assess how those regulations operate in real-world situations faced by affected landowners.

## **3. Results and Discussion**

### **3.1 Results**

The research findings show that the designation of red zones in Palu City has produced several layers of legal and administrative consequences for land rights holders. At the most basic level, land parcels located in red zone areas are formally restricted from any residential or economic use, even though many of these parcels remain registered as private property in the land administration system. This creates a situation in which land certificates continue to exist and are recognized *de jure*, while their *de facto* usability is almost entirely eliminated.

From the perspective of land administration, the Palu Land Office reports significant technical challenges in reconstructing parcel boundaries in liquefaction-affected areas. Lateral spreading and drastic changes in topography have destroyed physical boundary markers and altered the original configuration of parcels, making accurate re-measurement and mapping extremely difficult. As a consequence, the land office has effectively suspended measurement and registration services in the most severely affected red zones, not only for technical reasons but also to comply with spatial planning rules that prohibit further development in these areas.

In terms of policy implementation, the government has prioritized relocation to permanent housing (Hunian Tetap or Huntap) as the main solution for residents who lost their homes in the red zones. Access to these relocation programs is often conditioned upon the signing of grant or release documents, through which landowners are

encouraged or subtly pressured to relinquish their rights to the original parcels. Although framed as a humanitarian effort, this practice raises serious concerns about the voluntariness and fairness of the transfer of rights, especially when owners depend on such programs to regain adequate housing.

The study also notes a clear mismatch between sectoral regulations. While spatial planning instruments and disaster management regulations empower the government to designate and enforce red zones, agrarian law and constitutional guarantees continue to protect land ownership as a fundamental civil right. In practice, no comprehensive regulatory mechanism exists to reconcile these two regimes, particularly with regard to compensation standards, procedures for extinguishing rights, and treatment of land used as collateral in banking institutions.

Field observations in several red zone locations show a stark transformation of the landscape: former housing blocks have turned into open tracts of uneven ground, interspersed with cracks, depressions, and pools that appear after heavy rain, while access roads are partially damaged or no longer maintained. In some pockets, residents intermittently return to cultivate small crops or to use the land for temporary storage and informal gatherings, but these activities are carried out in a legal grey area and are not supported by formal infrastructure. The absence of basic services and the continuing stigma of disaster risk mean that, in reality, the land's social and economic functions have largely been suspended, even though the underlying titles have not been formally extinguished.

### **3.2 Discussion**

The “frozen rights” condition observed in Palu’s red zones reflects a deeper inconsistency between spatial planning regulations and agrarian law. On the one hand, the Basic Agrarian Law (Law No. 5 of 1960) and Article 28H and Article 33 of the 1945 Constitution affirm land ownership as a fundamental right and recognize ownership as the strongest and most complete right to land, subject to its social function. On the other hand, disaster management and spatial planning instruments such as Law No. 24 of 2007 on Disaster Management, Government Regulation No. 21 of 2021 on Spatial Planning, the Governor’s Decree on Disaster-Prone Zones (ZRB), and Palu City Regional Regulation No. 4 of 2021 on the Spatial Plan allow the government to declare certain areas permanently unsuitable for settlement and to designate them as geological protection zones or green open spaces.

In theory, the social function doctrine should serve as a bridge between these two regimes, ensuring that measures taken in the public interest are accompanied by clear procedures and fair remedies for affected owners. In practice, however, the red zone policy has restricted all residential and economic uses of the land without simultaneously invoking formal land acquisition procedures under the land procurement framework and without providing a detailed mechanism to transform or extinguish rights with adequate compensation. This regulatory gap produces a situation in which spatial planning rules effectively override the enjoyment of property rights, while agrarian norms formally keep those rights alive, thereby undermining the legal certainty that both systems are supposed to safeguard.

A particularly acute manifestation of this uncertainty occurs in cases where red zone land has been used as collateral for bank loans. Prior to the disaster, many parcels in the affected areas underpinned mortgage agreements or other secured credit facilities, meaning that both debtors and creditors relied on the land’s market value and usability as a key element of their economic relationship. After the designation of red zones, the practical utility and market value of these properties declined sharply, yet the underlying debt obligations remained in force, creating a structural imbalance between the diminished collateral and the unchanged loan exposure. From the perspective of land rights, the combination of physical damage, zoning prohibitions, and the potential application of “destroyed land” status under agrarian regulations may gradually lead to the loss or transformation of rights, but without a parallel mechanism for restructuring credit, compensating owners, or reallocating risk between banks and borrowers. This situation not only undermines legal certainty for individual landowners but also raises broader concerns about financial stability in disaster-prone regions where land continues to serve as the primary form of collateral.

Normatively, the disharmony between spatial planning rules and agrarian law contributes to prolonged legal uncertainty. Spatial regulations define red zones as areas unsuitable for settlement, yet they do not automatically extinguish ownership or clarify the status of existing rights. At the same time, agrarian law does not provide a detailed mechanism for transforming privately held disaster-affected land into protected or non-buildable zones

without invoking expropriation or land acquisition procedures. The absence of a specific post-disaster land framework thus leaves landowners and implementing agencies in a grey area.

The policy has also generated social tension among former residents of the red zone areas. Some community members have questioned why their land must be vacated and reclassified as protected zones while, at the same time, they continue to bear the legal and economic burden associated with ownership, including unresolved collateral obligations and the absence of clear compensation. Local complaints have taken the form of informal protests, community meetings, and repeated requests for clarification from government agencies, indicating a sense of injustice and frustration with a policy that simultaneously restricts land use and delays the resolution of rights. Although these reactions have not escalated into large-scale conflict, they reveal a persistent gap between the expectations of affected landowners and the current regulatory response to post-disaster land governance.

Empirically, the difficulty of reconstructing parcel boundaries exacerbates this normative gap. When physical markers and topographical references are destroyed, the land administration system struggles to perform its basic functions of registration and measurement. Without a robust legal basis for classifying certain land as permanently destroyed and for determining appropriate remedies, technical constraints easily become justification for suspending services and postponing resolution of rights issues indefinitely.

Finally, the treatment of land used as collateral further illustrates the need for a more integrated regulatory response. Parcels located in red zones that are encumbered by security rights continue to underpin outstanding debts, even though their market value has effectively collapsed. Debtors remain bound by their obligations, while creditors hold collateral that is legally uncertain and practically unusable. This “deadlock” not only affects individual borrowers but also poses systemic risks for financial institutions operating in disaster-prone regions.

#### **4. Conclusion**

This study concludes that the designation of red zones after liquefaction in Palu City has not yet produced a coherent and rights-based framework for the protection of land rights holders. The combination of suspended land administration services, relocation programs tied to the release of rights, and the absence of clear compensation mechanisms has generated a condition of frozen rights, where ownership is recognized in form but denied in substance. Such a situation is incompatible with the principles of legal certainty and the constitutional guarantee of property rights.

To move toward a more just and sustainable solution, the red zone policy must be complemented by a specific post-disaster land regime that clearly regulates when and how land is classified as permanently uninhabitable, how rights are extinguished or transformed, and what forms of compensation are due to affected owners. Land acquisition mechanisms grounded in fair compensation and transparent procedures provide a more appropriate avenue for reconciling public safety objectives with the protection of private property. Without such reforms, the legal and social consequences of the disaster will continue to burden communities long after the physical impact of liquefaction has faded.

#### **5. Acknowledgment**

The author would like to express sincere gratitude to the supervisors, Dr. Nurul Miqat, SH., M.Kn. and Dr. Asri Lasatu, SH., M.H., for their guidance and constructive feedback throughout the research process. Appreciation is also extended to the officials of the Palu City Land Office and local government agencies who generously provided data and insights, as well as to the residents of liquefaction-affected areas who shared their experiences. Finally, the author is deeply indebted to family and colleagues in the Master of Law Study Program at Tadulako University for their continuous moral support and encouragement.

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