

## Normative Inconsistencies and Conceptual Challenges in Riparian/Buffer Zone Land Regulation: A Doctrinal Study on Legal Certainty in Indonesia

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### ABSTRACT

This study examines normative inconsistencies in the regulation of buffer zone land (tanah sempadan) and their implications for legal certainty in spatial and environmental governance in Indonesia. Using a doctrinal legal research approach, the study analyzes statutory regulations related to spatial planning, environmental protection, water resources, and agrarian law. The findings reveal that fragmented regulatory frameworks produce overlapping authority, differing legal classifications, and inconsistent land-use standards across regions. These inconsistencies weaken enforcement mechanisms and create uncertainty regarding land tenure legitimacy and spatial control policies. Strengthening regulatory harmonization and conceptual clarity is therefore essential to ensure effective spatial governance and sustainable environmental protection within buffer zone management in Indonesia.

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## **INTRODUCTION**

Spatial planning and environmental governance constitute essential components of sustainable national development. Within this framework, buffer zone land (*tanah sempadan*)—including riverbanks, coastal borders, lake margins, reservoir perimeters, and other protected boundary areas—plays a strategic role as an ecological safeguard, spatial control instrument, and disaster mitigation mechanism. These areas function as transitional protection zones intended to maintain environmental balance while accommodating controlled human activities. However, in practice, the regulation of buffer zone land in Indonesia continues to face significant challenges, particularly in the form of normative inconsistencies across statutory regulations governing spatial planning and environmental management.

Normatively, buffer zone land is regulated through multiple sectoral legal frameworks, including agrarian law, spatial planning law, water resources regulation, environmental protection legislation, and regional governance policies. While this multiplicity reflects the state's commitment to protecting environmentally sensitive areas, it simultaneously produces regulatory fragmentation that opens space for interpretative conflicts in implementation. Such inconsistencies are reflected in differences concerning legal status, permissible land use, institutional authority, and enforcement mechanisms related to buffer zone areas. As a result, the principle of legal certainty—one of the fundamental pillars of a rule-of-law system—becomes difficult to realize effectively in spatial and environmental governance practices.

In practical terms, inconsistencies among statutory regulations concerning buffer zone land frequently generate uncertainty regarding land tenure status, legitimacy of community land utilization, and governmental authority in controlling and enforcing spatial compliance within protected boundary areas. This condition not only weakens environmental protection efforts but also increases the potential for land-use conflicts between communities and government institutions, as well as among sectoral authorities. Furthermore, legal uncertainty in buffer zone regulation undermines the effectiveness of spatial planning as an instrument for sustainable development control.

The problem of normative inconsistency is also closely related to conceptual ambiguity regarding the legal position of buffer zone land within Indonesia's national land law system. In certain regulatory frameworks, buffer zone areas are strictly categorized as protected zones that must be preserved from development activities. In contrast, other regulations allow limited utilization under specific administrative or technical requirements. These differing conceptual approaches create uncertainty in determining the boundary between environmental protection imperatives and socio-economic land-use interests. Consequently, implementation practices across regions often become inconsistent and uneven.

Moreover, the lack of synchronization among statutory regulations governing buffer zone land contributes to institutional overlap in spatial planning and environmental management authorities. Divergent sectoral mandates frequently result in policy inconsistencies and weak coordination

among responsible agencies, thereby increasing the likelihood of spatial violations within buffer zone areas. This situation demonstrates that regulatory issues concerning buffer zone land extend beyond administrative technicalities and reflect deeper structural challenges in Indonesia's legal harmonization framework.

From a doctrinal legal perspective, legal certainty represents a fundamental prerequisite for effective governance and the protection of community rights in spatial and environmental management. Therefore, examining normative inconsistencies in the regulation of buffer zone land becomes essential in identifying weaknesses within the existing regulatory structure and in formulating a more coherent conceptual framework for buffer zone governance in Indonesia.

Based on these considerations, this study focuses on analyzing how inconsistencies among statutory regulations concerning buffer zone land contribute to legal uncertainty in the practice of spatial and environmental management in Indonesia. Through a doctrinal legal approach, this research seeks to provide a conceptual contribution toward strengthening regulatory harmonization and developing a more integrated legal framework capable of ensuring both legal certainty and environmental sustainability.

## **THEORETICAL REVIEW**

### ***Legal Certainty in the Regulatory Framework of Spatial and Environmental Governance***

Legal certainty constitutes one of the core principles of the rule of law and serves as a foundation for effective governance in spatial planning and environmental management. In the context of land regulation, legal certainty ensures clarity regarding land status, utilization rights, institutional authority, and enforcement mechanisms. Scholars in administrative and environmental law emphasize that coherent statutory structures are essential to prevent interpretative conflicts among implementing agencies and stakeholders. Without regulatory consistency, spatial planning instruments cannot function as effective tools for controlling land use and protecting ecological sustainability.

In Indonesia, the principle of legal certainty becomes particularly significant due to the coexistence of multiple sectoral regulatory regimes governing land, environment, and spatial planning. Overlapping provisions between agrarian law, environmental protection law, water resource regulation, and regional autonomy policies often produce conflicting interpretations concerning buffer zone land. As a result, uncertainty emerges not only in determining permissible land uses but also in defining the scope of governmental authority in enforcement actions. This condition weakens the effectiveness of spatial governance and undermines the protection of environmentally sensitive areas.

### ***Normative Inconsistency in Sectoral Regulations Governing Buffer Zone Land***

Normative inconsistency refers to discrepancies among legal provisions that regulate similar subject matters but provide different standards, interpretations, or implementation mechanisms. In buffer zone land regulation,

such inconsistencies often arise because statutory provisions are developed through sector-based approaches rather than integrated legal harmonization. Regulations related to river borders, coastal zones, lakeshores, and reservoir perimeters are frequently governed by separate institutional mandates, each with distinct policy priorities and technical criteria.

These fragmented regulatory arrangements create ambiguity regarding the legal classification of buffer zone land as protected areas, restricted-use zones, or conditionally utilizable land. In practice, differences in regulatory interpretation among central and regional authorities further complicate implementation. Consequently, enforcement actions such as relocation policies, land-use restrictions, or spatial control measures may be applied inconsistently across regions. This situation demonstrates that normative fragmentation significantly contributes to legal uncertainty in environmental governance practices.

### ***Conceptual Position of Buffer Zone Land in Indonesian Land Law***

From a doctrinal perspective, buffer zone land occupies a unique position within Indonesia's land law system because it intersects environmental protection objectives with socio-economic land utilization interests. Some regulatory frameworks emphasize its ecological protection function by categorizing it as part of protected spatial zones that must remain free from intensive development activities. Others allow conditional utilization provided that environmental safeguards are maintained. These differing conceptual approaches create uncertainty in determining the legal boundaries between protection and utilization.

The absence of a unified conceptual framework for buffer zone land regulation leads to interpretative disparities among policymakers, enforcement agencies, and local governments. As a result, implementation practices vary significantly across administrative regions, particularly in determining allowable activities within buffer zone areas. This conceptual ambiguity not only affects regulatory effectiveness but also increases the likelihood of disputes between communities and government authorities regarding land use legitimacy and spatial compliance obligations.

### ***Institutional Coordination and Regulatory Harmonization in Spatial Management***

Effective spatial governance requires strong institutional coordination among agencies responsible for land administration, environmental protection, and infrastructure development. Regulatory harmonization plays a crucial role in ensuring that sectoral policies operate within a coherent legal framework that supports sustainable development objectives. Without such coordination, overlapping authorities may generate conflicting policy directions that weaken enforcement capacity in environmentally sensitive areas.

In Indonesia, decentralization policies further complicate institutional coordination in buffer zone management because regional governments possess significant authority in spatial planning implementation. While decentralization aims to increase administrative efficiency and local participation, it may also lead

to variations in regulatory interpretation across jurisdictions. Therefore, strengthening harmonization mechanisms between national and regional regulatory frameworks becomes essential for ensuring consistency in buffer zone land governance and enhancing legal certainty in spatial planning practices.

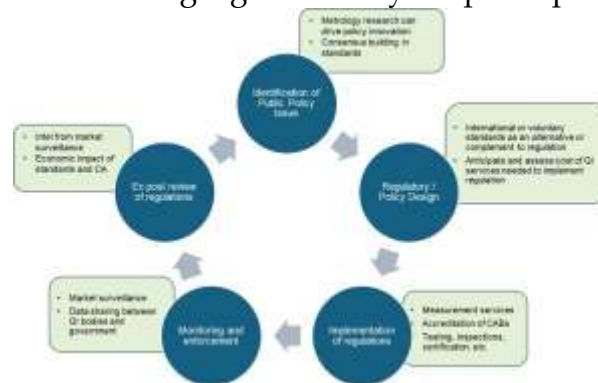


Figure. 1 Theoretical Framework

## METHODOLOGY

### *Type of Research*

This study employs **doctrinal legal research** (normative juridical research), which focuses on the analysis of legal norms governing buffer zone land within Indonesia's regulatory framework. Doctrinal legal research examines statutory provisions, legal principles, and conceptual interpretations to evaluate the coherence and consistency of legal regulations. In this study, the doctrinal approach is used to identify normative inconsistencies among sectoral laws regulating buffer zone areas and to assess their implications for legal certainty in spatial and environmental governance.

Through this approach, the research systematically reviews hierarchical relationships among statutory regulations related to agrarian law, spatial planning law, environmental protection law, water resource management, and regional governance policies. The objective is to determine whether these regulations operate harmoniously or produce conflicting interpretations that affect implementation practices in buffer zone land management.

### *Approaches to the Study*

This research applies several legal research approaches commonly used in doctrinal studies, namely the **statutory approach**, the **conceptual approach**, and the **analytical approach**.

The statutory approach is used to examine relevant legislation governing buffer zone land regulation, including spatial planning regulations, environmental protection statutes, water resource management provisions, and agrarian legal frameworks. This approach allows the identification of overlapping norms and inconsistencies within the regulatory hierarchy. Meanwhile, the conceptual approach is employed to analyze legal doctrines related to legal certainty, regulatory harmonization, and environmental protection principles. The analytical approach is then applied to evaluate the implications of normative inconsistencies on the implementation of spatial and environmental governance in Indonesia.

### ***Sources of Legal Materials***

This study relies on three categories of legal materials: **primary legal materials**, **secondary legal materials**, and **tertiary legal materials**.

Primary legal materials consist of statutory regulations governing buffer zone land, including legislation related to agrarian affairs, spatial planning, environmental protection, water resources, and regional autonomy. These materials serve as the principal basis for identifying normative inconsistencies in buffer zone regulation. Secondary legal materials include academic literature such as legal textbooks, journal articles, research reports, and expert opinions discussing legal certainty, spatial governance, and environmental regulation. Tertiary legal materials, including legal dictionaries and encyclopedias, are used to clarify terminology and support conceptual interpretation within the study.

### ***Techniques for Collecting Legal Materials***

Legal materials in this research are collected through **library-based legal research** (documentary study). This technique involves systematic identification, classification, and examination of statutory provisions and scholarly works relevant to buffer zone land regulation and legal certainty in spatial governance.

The collected materials are then organized according to thematic relevance, particularly those related to regulatory hierarchy, institutional authority, land-use control mechanisms, and environmental protection obligations. This structured classification enables a comprehensive assessment of normative inconsistencies across sectoral regulatory frameworks governing buffer zone areas.

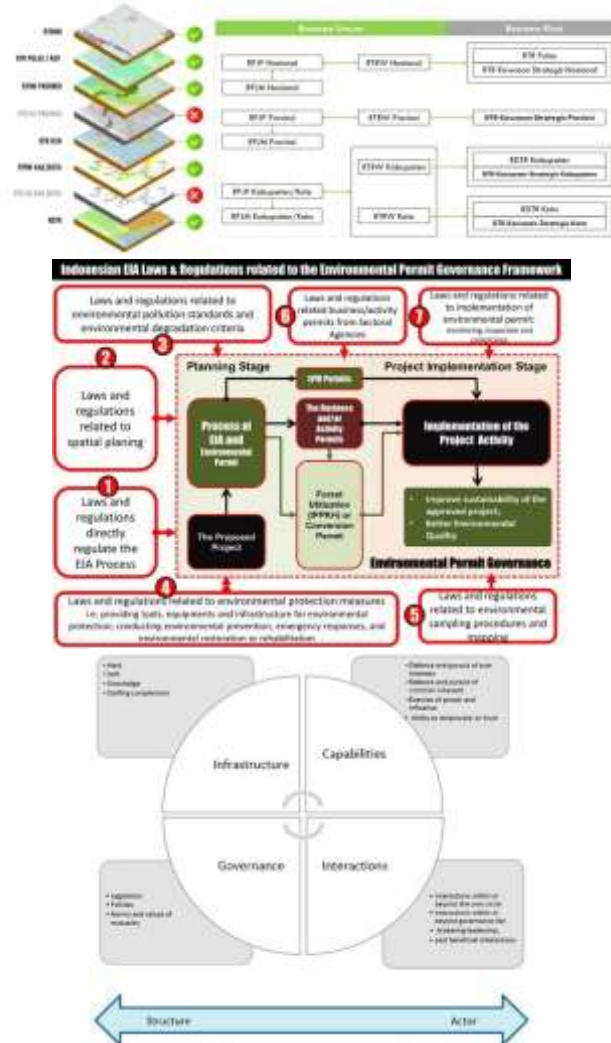
### ***Method of Legal Analysis***

The legal materials in this study are analyzed using **qualitative juridical analysis** through statutory interpretation and doctrinal evaluation. This analysis emphasizes consistency testing among legal norms, interpretation of regulatory provisions, and identification of conceptual gaps affecting implementation practices.

The analytical process involves comparing statutory provisions across different regulatory sectors to identify areas of overlap, contradiction, or ambiguity. The findings are then interpreted using principles of legal certainty, regulatory harmonization, and environmental governance to assess their implications for spatial management practices in Indonesia. Through this method, the study aims to formulate a coherent conceptual framework for strengthening buffer zone land regulation and improving legal certainty in spatial and environmental governance.

**RESULTS**

**Normative Inconsistencies among Statutory Regulations Governing Buffer Zone Land**



**Figure. 2 Normative Inconsistencies among Statutory Regulations Governing Buffer Zone Land**

Normative inconsistencies in the regulation of buffer zone land in Indonesia primarily arise from fragmented sectoral legislation governing agrarian affairs, spatial planning, environmental protection, water resources, and regional governance. Each regulatory regime defines buffer zone land differently in terms of legal status, utilization limits, and institutional authority. For example, spatial planning regulations categorize buffer zones as protected areas within spatial structure planning, while water resource regulations emphasize hydrological protection functions with technical boundary criteria that may differ from spatial planning provisions. This discrepancy demonstrates the absence of a unified legal framework governing buffer zone land.

These inconsistencies are further reflected in the variation of institutional authority responsible for buffer zone management. Environmental agencies prioritize ecological protection, spatial planning authorities emphasize zoning compliance, and land administration institutions focus on tenure legality. As a

result, enforcement actions such as relocation policies, building restrictions, and land-use permits are implemented inconsistently across administrative regions. The absence of synchronized institutional mandates contributes to interpretative conflicts that weaken regulatory effectiveness in controlling spatial utilization within buffer zone areas.

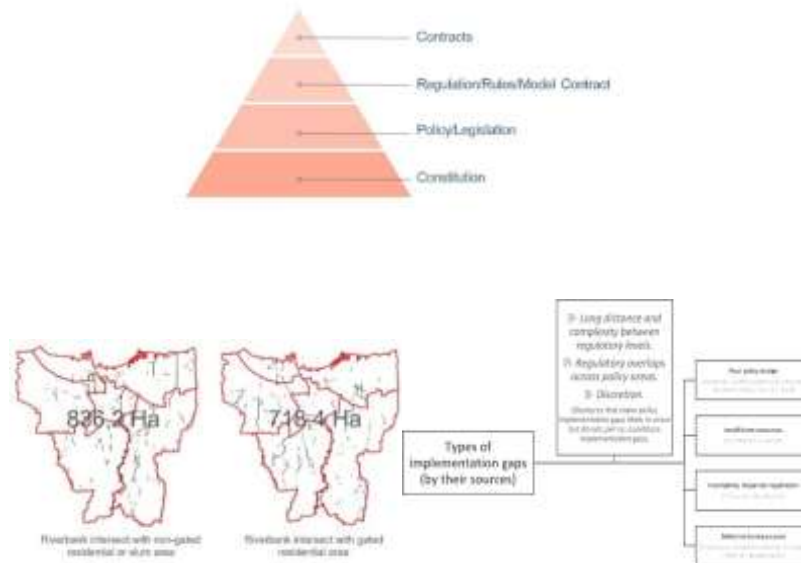
Moreover, regulatory inconsistency also emerges from differences in conceptual classification between protected zones and conditional utilization zones. Some regulations strictly prohibit development activities within buffer zones, while others allow limited use subject to environmental safeguards. This divergence creates ambiguity in determining whether buffer zone land should function exclusively as ecological protection areas or as controlled-use transitional zones. Consequently, stakeholders—including local governments and communities—face uncertainty in interpreting legal obligations and spatial compliance requirements.

Table 1. Comparison of Regulatory Norms Governing Buffer Zone Land in Indonesia

Regulatory Sector	Legal Orientation	Status of Buffer Zone Land	Utilization Policy	Institutional Authority
Spatial Planning Law	Zoning control	Protected spatial zone	Limited conditional use	Spatial Planning Agency
Environmental Law	Ecological protection	Environmental safeguard area	Restricted utilization	Environmental Agency
Water Resources Law	Hydrological function	River/coastal protection boundary	Technical restrictions	Water Resources Authority
Agrarian Law	Land tenure administration	Land rights regulation context	Case-based recognition	Land Administration Agency
Regional Governance Law	Decentralized authority	Local implementation zone	Regionally interpreted	Local Government

The table demonstrates that inconsistencies arise not only from regulatory substance but also from institutional mandates, reinforcing fragmentation in buffer zone governance structures.

**Legal Uncertainty in Spatial and Environmental Governance Practices Due to Regulatory Inconsistency**



**Figure. 3 Legal Uncertainty in Spatial and Environmental Governance Practices Due to Regulatory Inconsistency**

Normative inconsistencies among statutory regulations governing buffer zone land directly contribute to legal uncertainty in spatial and environmental governance practices. One of the most evident manifestations of this uncertainty is the ambiguity surrounding land tenure status within buffer zone areas. In several cases, communities occupying riverbanks or coastal borders possess informal or semi-recognized tenure claims, while environmental regulations simultaneously classify these areas as protected zones. This duality creates uncertainty regarding the legitimacy of settlement activities and complicates enforcement actions undertaken by government authorities.

Legal uncertainty is also reflected in the inconsistency of spatial control policies implemented across regions. Local governments often interpret buffer zone regulations differently depending on administrative priorities, development pressures, and institutional coordination capacity. As a result, similar buffer zone areas may be subject to strict protection measures in one region while being partially utilized for settlement or infrastructure development in another. Such variations weaken the principle of equality before the law and reduce the predictability of regulatory enforcement in spatial governance.

Furthermore, the absence of harmonized regulatory standards affects the effectiveness of environmental protection policies in preventing ecological degradation within buffer zone areas. Overlapping institutional mandates frequently delay enforcement decisions and create jurisdictional disputes among implementing agencies. This condition not only undermines environmental sustainability objectives but also increases the potential for land-use conflicts between communities and government institutions. Therefore, strengthening

regulatory harmonization becomes essential for ensuring legal certainty and improving governance effectiveness in buffer zone land management.

**Analytical Summary of Findings**

Based on doctrinal analysis, the study identifies three principal implications of normative inconsistency:

Table. 2 Analytical Summary of Findings

Aspect	Impact of Normative Inconsistency	Consequence for Legal Certainty
Regulatory Substance	Different legal definitions of buffer zones	Ambiguity in land-use legality
Institutional Authority	Overlapping sectoral mandates	Conflicting enforcement actions
Implementation Practice	Regional variation in interpretation	Unequally applied spatial policies

These findings confirm that inconsistencies among statutory regulations governing buffer zone land significantly contribute to legal uncertainty in spatial and environmental management practices in Indonesia, directly addressing the research problem formulated in this study.

**DISCUSSION**

The findings of this study demonstrate that normative inconsistencies among statutory regulations governing buffer zone land (tanah sempadan) constitute a fundamental source of legal uncertainty in spatial planning and environmental management practices in Indonesia. These inconsistencies primarily arise from fragmented sectoral regulatory frameworks that separately regulate agrarian affairs, spatial planning, environmental protection, and water resource management without adequate legal harmonization. As a result, buffer zone land is regulated through multiple legal perspectives that assign different statuses, functions, and utilization limits to the same territorial space. Spatial planning regulations generally classify buffer zones as protected areas within zoning structures, while water resource regulations emphasize technical hydrological protection criteria, and environmental regulations focus on ecological preservation functions. The absence of synchronization among these regulatory approaches produces interpretative ambiguity regarding the legal status and permissible use of buffer zone land.

This regulatory fragmentation directly affects the implementation of spatial governance policies at both national and regional levels. Government institutions responsible for land administration, environmental protection, and spatial planning often rely on sector-specific legal mandates when exercising their authority over buffer zone areas. Consequently, enforcement actions such as relocation measures, zoning restrictions, and land-use permit controls are implemented inconsistently across administrative regions. In some cases, buffer zone areas are strictly protected from development activities, while in others they

remain partially utilized for settlement and infrastructure expansion. Such variations demonstrate that normative inconsistencies weaken the effectiveness of spatial planning as a preventive regulatory instrument and reduce the predictability of legal enforcement in environmentally sensitive areas.

Furthermore, inconsistencies among statutory regulations also create uncertainty regarding the legitimacy of land tenure within buffer zone areas. Communities occupying riverbanks, coastal boundaries, and reservoir margins frequently obtain administrative recognition from local governments through informal or conditional land-use arrangements. However, environmental and spatial planning regulations simultaneously categorize these areas as protected zones subject to utilization restrictions. This dual regulatory structure generates conflicting interpretations concerning whether such occupation constitutes lawful land use or spatial violation. As a result, buffer zone governance becomes vulnerable to disputes between communities and government authorities, thereby undermining the principle of legal certainty in spatial and environmental management practices.

In addition to regulatory fragmentation, institutional overlap among sectoral authorities further contributes to legal uncertainty in buffer zone governance. Spatial planning agencies, environmental protection institutions, water resource management bodies, and land administration authorities exercise partially intersecting responsibilities over buffer zone areas without clearly defined coordination mechanisms. This overlap leads to differences in enforcement priorities and administrative procedures across regions. Regional governments, which possess significant authority in spatial planning implementation under decentralization policies, often interpret national buffer zone regulations according to local development priorities. Consequently, uniform application of regulatory standards becomes difficult to achieve, and spatial control policies lose their effectiveness as instruments for environmental protection.

Conceptual ambiguity regarding the legal status of buffer zone land also represents an important factor contributing to legal uncertainty in spatial and environmental governance. Some statutory frameworks position buffer zones as strictly protected ecological areas that must remain free from intensive land-use activities, while others allow conditional utilization provided that environmental safeguards are maintained. These differing conceptual approaches reflect the absence of a unified doctrinal foundation defining the legal character of buffer zone land within Indonesia's land law system. As a result, implementing authorities face difficulties in determining whether buffer zone areas should function primarily as conservation zones or as controlled-use transitional spaces supporting socio-economic activities.

This conceptual inconsistency ultimately affects the effectiveness of spatial planning policies in balancing environmental sustainability objectives with development needs. Spatial planning instruments require clear zoning classifications to function properly as mechanisms for regulating land use. However, when statutory regulations provide conflicting definitions and utilization standards for buffer zone areas, zoning enforcement becomes inconsistent and difficult to implement. Therefore, normative inconsistencies

among statutory regulations governing buffer zone land not only create interpretative ambiguity but also weaken institutional coordination and reduce the effectiveness of environmental protection policies. These conditions confirm that regulatory harmonization is essential to ensure legal certainty and strengthen the governance of buffer zone land in Indonesia's spatial and environmental management system.

## **CONCLUSIONS AND RECOMMENDATIONS**

This study demonstrates that normative inconsistencies among statutory regulations governing buffer zone land constitute a significant source of legal uncertainty in spatial planning and environmental management practices in Indonesia. The existence of fragmented regulatory frameworks across agrarian law, spatial planning law, environmental protection law, and water resource management law has resulted in differing interpretations regarding the legal status, utilization limits, and institutional authority over buffer zone areas. These inconsistencies weaken the coherence of the national legal system and create ambiguity in determining whether buffer zone land should function primarily as protected ecological space or as conditionally utilizable land within controlled spatial planning schemes.

The findings further indicate that legal uncertainty arising from regulatory inconsistency affects the implementation of spatial governance policies at both national and regional levels. Differences in institutional authority and interpretation among implementing agencies contribute to uneven enforcement practices, particularly in controlling settlements and infrastructure development within buffer zone areas. As a result, spatial planning instruments lose their effectiveness as preventive mechanisms for environmental protection, while communities face uncertainty regarding the legitimacy of land tenure and land-use activities in these areas. This condition reflects the absence of a harmonized regulatory framework capable of ensuring consistency between environmental protection objectives and spatial development policies.

In addition, conceptual ambiguity concerning the legal position of buffer zone land within Indonesia's land law system further exacerbates governance challenges. The coexistence of protection-oriented and utilization-oriented regulatory approaches demonstrates that buffer zone regulation has not yet been supported by a unified doctrinal foundation. Consequently, spatial control policies become difficult to implement consistently across regions, thereby undermining the principle of legal certainty as a fundamental element of the rule of law in environmental and spatial governance.

### ***Recommendations***

Efforts to strengthen legal certainty in the regulation of buffer zone land require the development of a more integrated and harmonized statutory framework that clearly defines the legal status, function, and utilization limits of buffer zone areas within Indonesia's spatial planning system. Harmonization among sectoral regulations governing agrarian affairs, environmental protection, water resources, and regional governance should be prioritized to eliminate overlapping norms and conflicting interpretations that currently hinder effective

implementation. Such harmonization would contribute to establishing a coherent regulatory structure capable of supporting sustainable spatial governance.

Institutional coordination mechanisms among authorities responsible for spatial planning, environmental protection, water resource management, and land administration also need to be strengthened to ensure consistency in enforcement practices across administrative regions. Clear delineation of institutional responsibilities and the development of integrated policy implementation guidelines would reduce jurisdictional overlap and improve regulatory effectiveness in managing buffer zone areas. Strengthening coordination between central and regional governments is particularly important in ensuring uniform interpretation of buffer zone regulations within the decentralized governance system.

Finally, conceptual clarification regarding the legal position of buffer zone land should be incorporated into future regulatory reform to ensure that spatial planning policies operate within a consistent doctrinal framework. Establishing a unified legal definition of buffer zone land as an ecological protection instrument within spatial governance would enhance the predictability of land-use regulation and reduce the potential for conflict between environmental protection objectives and socio-economic development interests. Through these measures, buffer zone regulation can function more effectively as a legal instrument supporting environmental sustainability and spatial order in Indonesia.

#### **FURTHER STUDY**

Future research is recommended to expand the scope of analysis beyond doctrinal legal approaches by incorporating empirical and socio-legal perspectives to examine how buffer zone land regulations are implemented at regional and local levels in Indonesia.

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