



JiHK is licensed under a Creative Commons Attribution 4.0 International license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

DOI: 10.46924/jihk.v7i2.331



## Spatial Conflicts Between Protected Rice Fields and Regional Spatial Planning in the Context of Sustainable Agricultural Land Protection

Jihan Nurfajrina Radhwa<sup>1\*</sup>, & Waluyo Waluyo<sup>2</sup>

<sup>1,2</sup>Universitas Pembangunan Nasional “Veteran” Jawa Timur Surabaya, Indonesia

### Correspondence

Jihan Nurfajrina Radhwa,  
Universitas Pembangunan Nasional “Veteran” Jawa Timur Surabaya, Indonesia, Jl. Rungkut Madya, Gn. Anyar, Kec. Gn. Anyar, Surabaya, Jawa Timur 60294, e-mail:  
jihan.n.radhwa@gmail.com

### How to cite

Radhwa, Jihan Nurfajrina., & Waluyo, Waluyo. 2026. Spatial Conflicts Between Protected Rice Fields and Regional Spatial Planning in the Context of Sustainable Agricultural Land Protection. *Jurnal Ilmu Hukum Kyadiren* 7(1), 705-720.  
<https://doi.org/10.46924/jihk.v7i2.331>

*Original Article*

### Abstract

The protection of Protected Rice Fields (LSD) serves as a strategic instrument for safeguarding national food security, as mandated by Law No. 41 of 2009 and Law No. 26 of 2007. However, its implementation is frequently hindered by inconsistencies between satellite-based LSD maps and Regional Spatial Planning (RTRW), resulting in legal uncertainty and economic losses, particularly for parties bound by contracts established prior to the policy's enactment. This study employs a normative-juridical approach, incorporating legislative, conceptual, and case-based analyses to examine the legal framework, implementation practices, and normative-empirical gaps. The findings reveal weak synchronization between central and regional policies, the absence of derivative regional regulations, and the lack of transitional mechanisms for preexisting contracts. It concludes that effective LSD protection requires policy harmonization, integration into the RTRW, on-site verification, compensation mechanisms, and enhanced public participation to ensure fairness, legal certainty, and the sustainable use of agricultural land.

**Keywords:** *Land Conversion, Non-Agricultural Land, Protected Rice Fields*

### Abstrak

Perlindungan Lahan Sawah yang Dilindungi (LSD) merupakan instrumen strategis untuk menjaga ketahanan pangan nasional sebagaimana diamanatkan UU No. 41 Tahun 2009 dan UU No. 26 Tahun 2007. Namun, implementasinya sering terkendala ketidaksesuaian peta LSD berbasis citra satelit dengan Rencana Tata Ruang Wilayah (RTRW) daerah, yang menimbulkan ketidakpastian hukum dan kerugian ekonomi, khususnya bagi pihak yang telah memiliki perikatan sebelum penetapan. Penelitian ini menggunakan metode yuridis normatif dengan pendekatan perundang-undangan, konseptual, dan kasus, menganalisis kerangka hukum, praktik pelaksanaan, serta kesenjangan normatif-empiris. Hasil penelitian menunjukkan lemahnya sinkronisasi pusat-daerah, ketiadaan regulasi turunan di daerah, dan kurangnya mekanisme transisi bagi kontrak yang ada. Kesimpulannya, efektivitas perlindungan LSD memerlukan harmonisasi kebijakan, integrasi dalam RTRW, verifikasi lapangan, mekanisme kompensasi, dan penguatan partisipasi publik untuk menjamin keadilan, kepastian hukum, serta keberlangsungan pemanfaatan lahan pertanian.

**Kata kunci:** *Alih Fungsi, Lahan Non-Pertanian, LSD*

## 1. INTRODUCTION

Food security is a fundamental pillar of sustainable development and a strategic priority within Indonesia's national policy agenda. Protecting agricultural land, particularly rice paddies, constitutes a crucial instrument for ensuring the sustainability of domestic food production. This mandate is explicitly stipulated in Law No. 41 of 2009 concerning the Protection of Sustainable Food Agricultural Land (PLP2B Law), Law No. 26 of 2007 on Spatial Planning, and their derivative regulations. The policy is further reinforced by the designation of Protected Rice Field Land (LSD) through a Decree of the Minister of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN), aimed at controlling land conversion in a measurable manner, aligned with Regional Spatial Planning (RTRW), and based on up-to-date spatial data. Within this ideal framework, regional governments, in coordination with the central government, are expected to consistently designate LP2B and LSD areas in their RTRW and Regional Regulations (Perda), ensure that satellite imagery-based LSD maps reflect actual on-the-ground conditions, provide legal certainty for stakeholders—including landowners, investors, and agricultural enterprises—implement strict oversight mechanisms to prevent non-agricultural conversion, and offer compensation or assistance to affected parties to ensure that the principles of justice, utility, and sustainability are upheld.

In practice, however, the protection of rice fields faces persistent structural, technical, and legal challenges. First, many regions have been slow to enact LP2B Regional Regulations, leaving land protection measures to rely solely on RTRW documents without operationally binding enforcement instruments. Second, LSD maps utilized by the central government are predominantly derived from 2018–2019 satellite imagery, which often fail to account for recent land use changes or align with spatial pattern maps in the regional RTRW. Consequently, parcels that have already undergone functional changes or become subject to legal agreements remain classified as LSD, creating potential disputes and material losses for both owners and developers. Third, coordination between central and regional authorities remains weak in terms of data synchronization, regulatory development, and on-site monitoring. Limited public awareness further exacerbates the problem, as most community members and business actors remain uninformed about the legal implications of LSD designation. Fourth, a conflict of interest persists between economic development priorities—such as housing, industry, and infrastructure—and the objective of preserving agricultural land, often resulting in policy compromises that dilute the original food security agenda.

This situation reflects a tension between a progressive normative legal framework and the practical limitations of implementation on the ground. Without targeted policy interventions—including the updating of spatial data, synchronization of RTRW documents, and the provision of adequate legal safeguards—the overarching goal of securing national food resilience through LSD designation remains at risk of being

unattainable. The Sustainable Food Crop Land Protection (LP2B) and Protected Rice Field (LSD) policies have been the focus of considerable academic discourse, underscoring their strategic role in Indonesia's food security and sustainable development objectives. Prior studies have examined aspects of policy execution, compliance with spatial planning mandates, implementation challenges, and their implications for farmer welfare and legal certainty.

Research at the regional level has frequently underscored the limited capacity of local governments to operationalize the mandates of Law No. 41 of 2009. For example, Oktiana et al. analyzed LP2B protection in Sleman under Regional Spatial Planning Regulation No. 12 of 2012, finding that the policy primarily functioned to regulate land conversion without formally designating LP2B areas, due to regulatory, coordination, and budgetary constraints.<sup>1</sup> Similar conclusions were reached by Masrukhin in Cirebon, where LP2B implementation remained at the planning stage, lacking substantive provisions for guidance, monitoring, and sanctions. From a spatial planning and policy alignment perspective<sup>2</sup>, Janti found that in Bantul, high rates of land conversion were not accompanied by robust regional regulations, rendering LP2B policies difficult to enforce.<sup>3</sup> Likewise, Pitaloka emphasized that LP2B protection is highly dependent on spatial planning frameworks, and where these are weak, LP2B policies tend to be ineffective.<sup>4</sup>

Technical issues surrounding the designation of Protected Rice Fields (LSD) were examined in a study by Soeharjono et al., which detailed the procedures for synchronizing LSD boundaries with Regional Spatial Plans (RTRW). The study identified notable discrepancies between the 2018–2019 satellite-based LSD maps and both the actual land conditions and the spatial patterns defined in the RTRW. One significant consequence is the potential for material losses among parties who had entered into legal agreements prior to the LSD designation but whose land was subsequently classified as protected.<sup>5</sup> Normative–empirical analyses by Erwahyuningrum et al. and Sari & Budhianti further highlighted legal challenges associated with LSD implementation, including weak regulatory oversight,

---

<sup>1</sup> Ulfa Nur Oktiana, Waluyo Waluyo, and Asianto Nugroho, "Pelaksanaan Perlindungan Lahan Pertanian Pangan Berkelanjutan Berdasarkan Regulasi Rencana Tata Ruang," *Jurnal Discretie* 1, no. 1 (2020): 16–24, <https://doi.org/10.20961/jd.v1i1.50201>.

<sup>2</sup> Masrukhin Masrukhin, "Perlindungan Lahan Pertanian Pangan Berkelanjutan Dalam Perspektif Alih Fungsi Lahan Di Kabupaten Cirebon," *Hermeneutika: Jurnal Ilmu Hukum* 3, no. 2 (2019): 369–73, <https://doi.org/10.33603/hermeneutika.v3i2.2598>.

<sup>3</sup> Gesthi Ika Janti, "Perlindungan Lahan Pertanian Pangan Berkelanjutan Guna Memperkokoh Ketahanan Pangan Wilayah: Studi Di Kabupaten Bantul, Daerah Istimewa Yogyakarta," *Jurnal Ketahanan Nasional* 22, no. 1 (2016): 1–21, <https://doi.org/10.22146/jkn.16666>.

<sup>4</sup> Endang Dyah Ayu Pitaloka, "Kebijakan Perlindungan Lahan Pertanian Pangan Berkelanjutan Dalam Dimensi Politik Hukum Penataan Ruang," *Jurnal IUS Kajian Hukum Dan Keadilan* 8, no. 1 (2020): 49–78, <https://doi.org/10.29303/ius.v8i1.718>.

<sup>5</sup> Andy Rachmat Soeharjono, Aartje Tehupeory, and Wiwik Sri Widiarty, "Analisis Yuridis Kepastian Hukum Bagi Investor Terhadap Pemetaan Lahan Sawah Dilindungi," *Syntax Idea* 6, no. 5 (2024): 2281–98, <https://doi.org/10.46799/syntax-idea.v6i5.3306>.

inconsistencies in central–regional authority, and low public awareness. These issues have intensified the conflict of interest between economic development objectives and the protection of agricultural environments.<sup>6</sup>

From a spatial planning perspective, Hambali et al. mapped the potential of Sustainable Food Crop Land Protection (LP2B) in Sumenep and found substantial discrepancies between LP2B maps, the RTRW, and existing land use.<sup>7</sup> Similar findings were reported by Rokhmah in Demak, where mismatches between planning maps and actual conditions were compounded by rising demand for residential land and inadequate policy dissemination. Social and policy dimensions also influence land protection.<sup>8</sup> Ansari et al. emphasized the necessity of consistent regional policies in integrating LP2B into the RTRW, followed by formalization through LP2B Regional Regulations; without such measures, food security could be jeopardized.<sup>9</sup> Complementing this view, Susanti et al. argued that land protection strategies must balance economic, social, and ecological considerations.<sup>10</sup>

While prior research has addressed issues such as LSD–RTRW inconsistencies, delays in the adoption of LP2B Regional Regulations, and the adverse effects of land conversion on food security, relatively few studies have examined assistance mechanisms for stakeholders affected by LSD designation—particularly when contractual agreements predate such designation. This study offers a novel perspective by analyzing the synchronization of satellite imagery–based LSD policies with the legal certainty of existing agreements, within the broader framework of land protection and stakeholders’ rights. The research’s distinct contribution lies in combining normative legal analysis with a public policy governance approach in the context of agricultural land protection. Accordingly, the study aims to: (1) analyze the legal and policy foundations for LSD designation in relation to Law No. 41 of 2009, Law No. 26 of 2007, and their derivative regulations; (2) identify and assess inconsistencies between satellite imagery–based LSD maps and the RTRW, along with their implications for

---

<sup>6</sup> Rizki Erwahyuningrum, Heru Kuswanto, and Habib Adjie, “Problematika Hukum Penetapan Lahan Sawah Dilindungi (LSD) Terhadap Pelaku Bisnis Di Indonesia,” *Jurnal Bisnis Dan Manajemen* 3, no. 2 (2023): 329–36, <https://ejournal.penerbitjurnal.com/index.php/business/article/view/191>; Diah Niken Sari and Meta Indah Budhianti, “Lahan Sawah Dilindungi Dikaitkan Dengan Rencana Tata Ruang Berdasarkan Peraturan Presiden Nomor 59 Tahun 2019,” *Reformasi Hukum Trisakti* 5, no. 4 (2023): 840–51, <https://doi.org/10.25105/refor.v5i4.18366>.

<sup>7</sup> Ferdi Rifanda Hambali, Sutaryono Sutaryono, and Sukmo Pinuji, “Kesesuaian Kawasan Lahan Pertanian Pangan Berkelanjutan Dengan Rencana Tata Ruang Wilayah Di Kabupaten Sumenep,” *Tunas Agraria* 4, no. 3 (2022): 276–292, <https://doi.org/10.31292/jta.v4i3.164>.

<sup>8</sup> Meirina Rokhmah, “Potensi Dan Kendala Kebijakan Perlindungan Lahan Pertanian Pangan Berkelanjutan Di Kabupaten Demak,” *Jurnal Pembangunan Wilayah Dan Kota* 8, no. 2 (2012): 157–66, <https://doi.org/10.14710/pwk.v8i2.11568>.

<sup>9</sup> Muhammad Nur Ansari, Syamsul Bachri, and Kahar Lahae, “Efektivitas Terhadap Pelaksanaan Pengaturan Lahan Pertanian Pangan Berkelanjutan,” *Repertorium: Jurnal Ilmiah Hukum Kenotariatan* 9, no. 2 (2020): 135–51, <https://doi.org/10.28946/rpt.v9i2.863>.

<sup>10</sup> Febrita Susanti, Rasyid Ridha, and Baiq Harly Widayanti, “Analisis Kesesuaian Lahan Pertanian Dengan Program Lahan Sawah Dilindungi Di Kabupaten Lombok Barat,” *Jurnal Humanitas: Katalisator Perubahan Dan Inovator Pendidikan* 10, no. 1 (2023): 118–128, <https://doi.org/10.29408/jhm.v10i1.24407>.

non-agricultural land conversion; and (3) evaluate the legal and economic impacts of LSD designation on parties with preexisting agreements, including potential material losses and legal uncertainty.

## **2. RESEARCH METHODOLOGY**

This study adopts a normative legal research approach, focusing on the examination of positive legal norms, legal doctrines, and principles relevant to the designation of Protected Rice Fields (LSD) and their relationship to the legal certainty of contractual agreements. This approach is selected due to the need for an in-depth analysis of the legal framework, its normative interpretation, and its relevance to agricultural land protection. The research is descriptive–analytical in nature, aiming to systematically describe the applicable legal provisions, their implementation in practice, and the discrepancies between normative prescriptions (*das sollen*) and empirical realities (*das sein*).

The analysis is conducted through three principal approaches. First, the statute approach examines the hierarchy, substance, and interrelationship of Law No. 41 of 2009, Law No. 26 of 2007, Government Regulations, Regulations of the Minister of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN), Ministerial Decrees, and Regional Regulations governing LP2B and RTRW. Second, the conceptual approach explores the concepts of “sustainable agricultural land protection,” “legal certainty,” and “land conversion” from the perspectives of agrarian law, spatial planning law, and contract law. Third, the case approach analyzes judicial decisions, jurisprudence, and specific cases involving LSD, particularly those concerning contracts executed prior to its designation.

The legal materials comprise primary sources (statutory regulations, judicial decisions, official documents), secondary sources (books, scholarly articles, prior research, expert opinions), and tertiary sources (legal dictionaries, encyclopedias). Data collection is carried out through an extensive literature review of both national and international legal databases. The data are analyzed qualitatively and normatively, employing techniques of legal interpretation, legal reasoning, regulatory harmonization, and normative–empirical gap analysis to develop findings and formulate policy recommendations.

## **3. RESEARCH RESULT AND DISCUSSION**

### **3.1. Legal and Policy Basis for the Designation of Protected Rice Fields (LSD) with Reference to Law No. 41 of 2009, Law No. 26 of 2007, and Their Implementing Regulations**

This study analyzes the legal and policy foundations for the designation of Protected Rice Fields (LSD), with particular reference to Law No. 41 of 2009 on the Protection of Sustainable Agricultural Land, Law No. 26 of 2007 on Spatial Planning, and their subsidiary regulations. The research focuses on identifying legal issues arising from inconsistencies between LSD designation and non-agricultural land use, and on assessing how central and regional government policies can be harmonized to mitigate adverse impacts, particularly those related to land conversion. The study also underscores the urgency of providing comprehensive support to communities and stakeholders in resolving conflicts triggered by LSD policies.

The findings indicate that the LSD designation—implemented under the Decree of the Minister of Agrarian Affairs and Spatial Planning/National Land Agency No. 1589/SK-HK.02.01/XII/2021—frequently overlaps with the Regional Spatial Plan (RTRW) established through regional regulations. Field data reveal three primary factors contributing to this issue:

1) Insufficient Dissemination of the LSD Policy

Efforts by central and regional governments to communicate satellite imagery-based LSD designations to the public and business actors remain inadequate. Limited human resources in regional land offices and low public engagement in seeking information exacerbate this knowledge gap, resulting in many parties entering into non-agricultural land agreements without realizing that the land in question is included in the LSD plan.

2) Absence of Derivative Regional Regulations

The central government's LSD designation has not been followed by the enactment of derivative regional regulations (Perda) or technical rules—such as regent or mayor regulations—governing implementation mechanisms, objection procedures, and oversight. Consequently, LSD policy implementation at the regional level tends to rely on general central regulations, leaving room for interpretation and exposing stakeholders to legal uncertainty.

3) Lack of Synergy Among Land Governance Stakeholders

Effective mitigation of LSD's impacts on non-agricultural land requires cross-sector and multi-level coordination among the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency, regional land offices, local governments, and Land Deed Officials (PPAT)/Notaries. Weak coordination has fueled disputes, particularly in lawsuits concerning unlawful acts related to land conversion.

The main finding of this research is that although the LSD designation policy is normatively aligned with the objectives of Law No. 41 of 2009 and Law No. 26 of 2007, its implementation reveals both normative and practical contradictions between central

and regional policies. Without stronger public awareness, regulatory harmonization, and stakeholder collaboration, this policy risks undermining legal certainty and public trust in agrarian governance. The study further identifies the need for comprehensive support mechanisms that extend beyond legal remedies—such as objection and compensation processes—to include administrative tools (e.g., public reporting portals) and social measures (e.g., community outreach) to minimize negative impacts.

Previous research has partially addressed these challenges. Chandra and Suhadi examined overlapping LP2B and RTRW policies but focused primarily on spatial planning aspects.<sup>11</sup> Ajeng H.K. et al. concentrated on the technical processes of LSD mapping via satellite imagery, without addressing legal implications.<sup>12</sup> Rosit and Aisiyah found that LSD conflicts generally stemmed from divergent policy interpretations between central and regional governments but did not propose a comprehensive assistance framework.<sup>13</sup> In contrast, this study offers an integrated analysis model that combines normative, administrative, and social dimensions within an LSD policy assistance framework. It also emphasizes the urgency of developing LSD-specific regional regulations to serve as instruments for adapting central policies to local contexts.

Within a multi-level governance framework, these findings highlight that at the national level, Law No. 41 of 2009 mandates the protection of sustainable agricultural land through LP2B/LSD designation, as reinforced by Government Regulation No. 59 of 2019 and Regulation of the Minister of Agrarian Affairs and Spatial Planning/National Land Agency No. 2 of 2024. Concurrently, Law No. 26 of 2007 requires integration with regional RTRW as a key instrument for regulating spatial use.

At the regional level, the absence of derivative regulations significantly hinders the adaptation of central government policies. The discrepancies between LSD maps derived from satellite imagery and the zoning provisions of the regional Spatial Plan (RTRW) indicate weak integration of spatial data and insufficient field verification. This condition is consistent with the policy gap theory, which posits that disparities in implementation instruments and institutional capacities across different levels of government create a disconnect between policy formulation and actual practice.

The regulatory uncertainty resulting from overlapping provisions constitutes a form of vertical inconsistency within the legal framework. Such inconsistency has the potential to generate legal disputes, both through administrative objection mechanisms

---

<sup>11</sup> Meireza Aditya Chandra and Suhadi Suhadi, “Analisis Hukum Faktor Penyebab Ketidaksesuaian Peta Lahan Sawah Dilindungi Dengan Peta Tata Ruang,” *Nomos: Jurnal Penelitian Ilmu Hukum* 5, no. 2 (2025): 309–320, <https://doi.org/10.56393/nomos.v5i2.3191>.

<sup>12</sup> Ajeng H.K et al., “Dampak Alih Fungsi Lahan Sawah Dilindungi (LSD) Terhadap Ketahanan Pangan Pedesaan Di Kabupaten Jember,” *Inicio Legis* 4, no. 2 (2023): 167–81, <https://doi.org/10.21107/il.v4i2.23103>.

<sup>13</sup> Harun All Rosit and Nuraini Aisiyah, “Evaluasi Dampak Ketidaksesuaian LSD Dengan RTRW Terhadap Pembangunan Dan Pertanian Di Karanganyar,” *Widya Bhumi* 4, no. 2 (2024): 159–75, <https://doi.org/10.31292/wb.v4i2.109>.

and judicial litigation. In the context of the agrarian economy, the misalignment between LSD determinations and the RTRW can impede land conversion processes, leading to substantial material losses for businesses and investors.<sup>14</sup>

The findings underscore that LSD designation carries strategic importance for safeguarding national food security. However, its effectiveness depends on the alignment of central and regional policies, the enactment of derivative regional regulations, the establishment of objection and compensation mechanisms, and the active involvement of the public. Based on the research, three strategic recommendations are proposed:

- 1) Formulating a Regional Regulation on Land and Building Rights (LSD) that prescribes procedures for designation, field verification, objection submission, compensation, and inter-stakeholder coordination. This regulation should be grounded in Law No. 41 of 2009, Law No. 26 of 2007, and their implementing regulations, while incorporating adaptations to accommodate regional conditions.
- 2) Developing a Public Reporting and Participation Portal to enhance transparency, oversight, and early conflict resolution. Such a platform could function as a centralized clearinghouse for identifying, verifying, and resolving issues before they escalate into formal legal disputes.
- 3) Strengthening vertical and horizontal coordination among the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN), regional land offices, local governments, Land Deed Officials (PPAT)/Notaries, and the broader community. Vertical coordination ensures that central policies are implemented in accordance with their intended objectives, while horizontal coordination fosters the integration of local interests into broader policy frameworks.

### **3.2. Inconsistencies Between Satellite Imagery-Based LSD Maps and Regional Spatial Planning (RTRW) and Their Implications for Non-Agricultural Land Conversion**

This study examines the inconsistencies between satellite imagery-based maps of Protected Rice Fields (LSD) and regional Spatial Planning (RTRW), as well as their implications for non-agricultural land conversion. The designation of LSD is a legal instrument designed to preserve rice fields as a cornerstone of national food security. Legally, LSD falls under the regulatory framework of Law No. 41 of 2009 on the Protection of Sustainable Food Agricultural Land (PLP2B) and Law No. 26 of 2007 on Spatial Planning, further operationalized through derivative regulations such as

---

<sup>14</sup> Yoga Firman Nur Robbi, Sadino Sadino, and Suartini Suartini, "Aspek Hukum Lahan Sawah Dilindungi Dan Tata Ruang," *Fundamental: Jurnal Ilmiah Hukum* 13, no. 2 (2024): 90–116, <https://doi.org/10.34304/jf.v13i2.278>.



Government Regulation No. 1 of 2011 on the Designation and Conversion of Sustainable Food Agricultural Land, alongside regional RTRW regulations.

Pursuant to Article 44 of Law No. 41 of 2009, LSD designation must be based on an inventory and identification of existing rice fields with strategic functions. This mandate is reinforced by Law No. 26 of 2007, specifically Articles 14 and 19, which require that both national and regional spatial plans allocate protected agricultural areas within the RTRW. Consequently, LSD functions not only as a category of agricultural land requiring protection but also as a legally protected spatial designation integrated into binding planning documents.

Empirical research in multiple regions shows that integrating spatial data from the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN) and the Ministry of Agriculture facilitates the identification of strategically important land. However, synchronization between LSD data and regional RTRW maps remains suboptimal, slowing the incorporation of LSD into regional RTRW regulations.<sup>15</sup>

Institutionally, the ATR/BPN is responsible for producing LSD spatial maps, while the Ministry of Agriculture manages the technical data on sustainable food cropland. Regional governments, under Law No. 26 of 2007 and Law No. 23 of 2014 on Regional Government, are tasked with integrating LSD into both the RTRW and the Detailed Spatial Plan (RDTR). In practice, overlapping authorities often cause delays. Some regional governments wait for finalized LSD maps from the central government before making RTRW revisions, while the central government expects regions to initiate proposals for LSD designation. This “mutual waiting” cycle undermines the timely protection of paddy fields.

Law No. 41 of 2009 underscores the obligation to protect sustainable food cropland to safeguard long-term food security. LSD serves as a critical implementation mechanism to prevent the uncontrolled conversion of rice fields to non-agricultural uses. Article 44 of the PLP2B Law explicitly prohibits conversion of designated LSD areas, except for strategic public purposes, and even then only under strict procedures with a mandatory requirement for equivalent land replacement.

The designation of Protected Rice Fields (LSD) plays a critical role in controlling the conversion of paddy fields, a process that has contributed to the decline in national rice production. In practice, however, economic pressures and property investment trends often drive land conversion, even within LSD areas, particularly in peri-urban regions. This study identified four primary obstacles to effective LSD implementation: (1) suboptimal synchronization of spatial data between central and regional governments, particularly concerning LSD boundary delineation; (2) limited human and

---

<sup>15</sup> Ansari, Bachri, and Lahae, “Efektivitas Terhadap Pelaksanaan Pengaturan Lahan Pertanian Pangan Berkelanjutan”; Erwahyuningrum, Kuswanto, and Adjie, “Problematika Hukum Penetapan Lahan Sawah Dilindungi (LSD) Terhadap Pelaku Bisnis Di Indonesia”; Niken Sari and Budhianti, “Lahan Sawah Dilindungi Dikaitkan Dengan Rencana Tata Ruang Berdasarkan Peraturan Presiden Nomor 59 Tahun 2019.”

financial resources within local governments to conduct regular field verification; (3) development and investment pressures that frequently override the procedural safeguards governing LSD conversion; and (4) insufficient integration of oversight mechanisms involving community participation. Without active, community-based monitoring, the risk of violations remains high.

Government Regulation No. 1 of 2011 provides the technical framework for the designation and conversion of land within LSD areas, including procedures for inventory, determination, and replacement in cases of conversion for public interest purposes. At the regional level, the effectiveness of LSD protection is highly dependent on its integration into the Regional Spatial Planning (RTRW) Regulation. Empirical evidence shows that regions incorporating LSD into their RTRW achieve stronger land protection outcomes, as all spatial use permits must refer to the RTRW. Conversely, regions lacking such integration often experience permitting confusion and a higher incidence of violations.

While Indonesia's legal framework for LSD protection is robust, implementation gaps persist between regulatory provisions and field realities. Weak cross-sectoral coordination and the absence of truly deterrent sanctions undermine effectiveness. Although Law No. 41 of 2009 prescribes both criminal and administrative penalties, enforcement remains inconsistent. Similarly, while Law No. 26 of 2007 mandates the protection of agricultural land in spatial planning, RTRW revisions frequently serve as a legal avenue for land conversion, suggesting that local political dynamics can significantly influence policy outcomes.

Based on the analysis, this study proposes several strategic measures to strengthen LSD protection:

- 1) Periodic synchronization of spatial data between the Ministry of ATR/BPN, the Ministry of Agriculture, and local governments.
- 2) Mandatory integration of LSD into the RTRW and RDTR, reinforced through regional regulations.
- 3) Strengthened community-based monitoring, involving farmer groups and civil society organizations.
- 4) Enhanced sanctions and consistent law enforcement against violations, including permit revocation and proportional fines.
- 5) Economic incentives for farmers within LSD areas to reduce the economic drivers of non-agricultural land sales.

### **3.3. Legal and Economic Impacts of Protected Rice Field (LSD) Designation on Parties with Pre-Existing Contractual Agreements**

This study examines the legal and economic implications of Protected Rice Field (LSD) designation for parties bound by contractual agreements established prior to the designation, with particular attention to potential material losses and the resulting legal uncertainty. The issue arises from discrepancies between the LSD designation under the Decree of the Minister of ATR/BPN No. 1589/SK-HK.02.01/XII/2021 and both the actual field conditions and the rice field allocation zones delineated in regional Spatial Planning (RTRW) documents. In practice, these inconsistencies have hindered the conversion of land for non-agricultural purposes, directly affecting the enforceability and execution of contracts entered into before the LSD was formalized.

Findings indicate that legal uncertainty is largely attributable to insufficient dissemination of LSD policies by both local governments and public communication channels. Land offices at the district and municipal levels often face limitations in human resources and information technology infrastructure, resulting in suboptimal verification and dissemination of LSD satellite imagery maps. As a consequence, communities or businesses with pre-existing non-agricultural land agreements frequently become aware of an LSD designation only when applying for a change in land use, effectively impairing their contractual rights. Moreover, most regions lack implementing regulations—such as Regional Regulations or Regent/Mayor Regulations—specific to LSD, leaving enforcement dependent on general central government provisions that do not adequately address the nuances of contracts predating the designation.

The research also highlights deficiencies in both vertical coordination (between central and regional governments) and horizontal coordination (among regional institutions), which slow the process of clarifying or disputing LSD status and thereby exacerbate economic losses. These losses may include foregone profits from halted development or land conversion, increased costs from project delays or cancellations, and potential litigation from contract partners alleging breaches of obligations that are, in fact, consequences of government policy.

Legal uncertainty is further reinforced by substantial discrepancies between RTRW spatial plans and satellite imagery-based LSD maps, the absence of mechanisms to resolve disputes over pre-existing contracts, and limited public participation channels for objections or clarification of land status. Previous studies have stressed the importance of alignment between RTRW and central government policy to prevent such overlaps. This study supports those conclusions but extends the analysis to contractual and economic dimensions that have received limited scholarly attention.<sup>16</sup> Research by Ajeng H.K. et al. and Erwahyuningrum et al. confirms the technical utility of satellite imagery in LSD designation but notes its insufficient consideration of socio-

---

<sup>16</sup> Anita Anita, Rusfandi Rusfandi, and Meidy Triasavira, "Pencegahan Alih Fungsi Lahan Serta Penataan Ruang Dalam Rangka Mewujudkan Pembangunan Berkelanjutan," *Jendela Hukum* 9, no. 1 (2022): 93–106, <https://doi.org/10.24929/fh.v9i1.2052>.

economic realities—findings consistent with the present study.<sup>17</sup> Earlier work by Iqbal and Sumaryanto explored general land use conversion controls but did not distinguish the unique challenges of lands under pre-existing contractual agreements.<sup>18</sup> This study addresses that gap by emphasizing the need to explicitly protect existing contractual rights within LSD-related land use policies.

From a legal standpoint, the core issue lies not solely in LSD designation itself, but in the absence of a transitional policy mechanism that safeguards existing contractual arrangements. LSD designation should comply with the principle of legal certainty, as enshrined in Article 28D(1) of the 1945 Constitution, ensuring the protection of vested rights, and the principle of proportionality, which seeks to balance the public interest in preserving agricultural land with the legitimate rights and obligations of private parties.

The uncertainty generated by LSD designation without adequate transitional safeguards produces a ripple effect: discouraging investors, impeding capital flows, deteriorating the regional investment climate, and potentially reducing regional revenues—particularly in sectors such as property development and non-agricultural industries that are constrained by the policy.

Based on the results of this study, three principal findings warrant the attention of policymakers. First, there is an urgent need for transitional regulations that explicitly safeguard contracts or agreements entered into prior to the establishment of Protected Rice Field (LSD) designations. Such provisions could take the form of exception clauses or compensation mechanisms for parties disadvantaged by their inability to fulfill contractual obligations as a result of LSD designation. Implementing this measure is essential to ensuring legal certainty and mitigating disputes that may arise from abrupt changes in land status.

Second, the determination of LSD boundaries using satellite imagery must be accompanied by enhanced public outreach and thorough field verification. Data derived from satellite imagery should be cross-validated with actual on-site conditions and the corresponding Regional Spatial Plan (RTRW) before being formally adopted. Policy dissemination should be conducted transparently through official and participatory channels, including the establishment of a public reporting and objection platform. This approach would minimize land misclassification and provide a structured avenue for the submission of public objections.

Third, effective multi-level coordination among stakeholders in the land sector is critical. Collaboration between the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (BPN), local governments, and other relevant actors—

---

<sup>17</sup> Ajeng H.K et al., “Dampak Alih Fungsi Lahan Sawah Dilindungi (LSD) Terhadap Ketahanan Pangan Pedesaan Di Kabupaten Jember”; Erwahyuningrum, Kuswanto, and Adjie, “Problematika Hukum Penetapan Lahan Sawah Dilindungi (LSD) Terhadap Pelaku Bisnis Di Indonesia.”

<sup>18</sup> Muhammad Iqbal and Sumaryanto Sumaryanto, “Strategi Pengendalian Alih Fungsi Lahan Pertanian Bertumpu Pada Partisipasi Masyarakat,” *Analisis Kebijakan Pertanian* 5, no. 2 (2007): 167–82, <https://doi.org/10.21082/akp.v5n2.2007.167-182>.

such as notaries and the Land Deed Official (PPAT)—must be strengthened both vertically and horizontally. Such synergy would accelerate the resolution of land disputes, reduce the likelihood of litigation that could impede LSD implementation, and enhance overall policy acceptance among stakeholders.

To address the identified legal and economic challenges, this study offers several strategic recommendations. First, synchronization between central and regional authorities is necessary to harmonize LSD regulations with the RTRW, thereby preventing substantive policy conflicts. In addition, a publicly accessible participation portal should be developed to facilitate online reporting, objection submissions, and requests for exceptions, thus improving transparency and broadening avenues for public engagement.

Second, well-defined compensation and redress mechanisms should be established to protect parties whose contractual rights are adversely affected by LSD designation. Strengthening field verification prior to the official release of LSD maps is also essential to ensure data accuracy and avoid misclassification. Finally, the formulation of Regional Regulations or Regent/Mayor Regulations specific to LSD is imperative to provide a clear and enforceable legal framework at the regional level. Taken together, these measures aim to ensure that the LSD policy is implemented in a manner that is fair, effective, and aligned with both national food security objectives and the legitimate interests of all stakeholders.

#### **4. CONCLUSION**

This study examines the legal foundations and policy framework for the designation of Protected Rice Fields (*Lahan Sawah Dilindungi*, LSD) under Law No. 41 of 2009, Law No. 26 of 2007, and their derivative regulations. It further identifies inconsistencies between LSD maps derived from satellite imagery and regional Spatial Planning Plans (RTRW), assessing their implications for land conversion, and evaluates the legal and economic impacts on parties bound by contractual agreements prior to LSD designation.

The findings reveal that, despite the robustness of the normative framework, LSD implementation faces three principal challenges: (1) spatial discrepancies between LSD maps and RTRW, which generate legal uncertainty; (2) the absence of derivative regional regulations specifying procedures for objections, compensation, and oversight; and (3) weak intergovernmental coordination and inadequate policy dissemination, resulting in material losses for parties with pre-existing contractual obligations. These constraints diminish policy effectiveness, undermine public trust, and may adversely affect the regional investment climate. The study confirms that the effectiveness of LSD protection depends on the synchronization of central and regional policies, the integration of LSD provisions into RTRW and RDTR (Detailed Spatial Plans), the

establishment of transitional mechanisms that safeguard existing contracts, and the enhancement of public participation.

The contribution of this research lies in its development of an integrated analytical model that combines normative, administrative, and social perspectives, offering a practical reference for agrarian policymakers. However, the study is limited by its reliance on normative analysis and selected case studies, without quantitative assessment of broader national economic impacts. Future research is recommended to integrate legal analysis with spatial and economic evaluations supported by empirical data.

Policy recommendations emerging from this study include: (1) formulating LSD regulations that are adaptable to regional contexts; (2) establishing a public reporting and grievance portal; (3) conducting rigorous field verification prior to official LSD designation; and (4) providing compensation or incentives for affected parties. These measures are intended to promote equitable, effective, and sustainable protection of rice fields.

## REFERENCES

### Journals

- Ajeng H.K, I Wayan Yasa, Fendi Setyawan, and Yusuf Adiwibowo. "Dampak Alih Fungsi Lahan Sawah Dilindungi (LSD) Terhadap Ketahanan Pangan Pedesaan Di Kabupaten Jember." *Inicio Legis* 4, no. 2 (2023): 167–81.  
<https://doi.org/10.21107/il.v4i2.23103>.
- Anita, Anita, Rusfandi Rusfandi, and Meidy Triasavira. "Pencegahan Alih Fungsi Lahan Serta Penataan Ruang Dalam Rangka Mewujudkan Pembangunan Berkelanjutan." *Jendela Hukum* 9, no. 1 (2022): 93–106.  
<https://doi.org/10.24929/fh.v9i1.2052>.
- Ansari, Muhammad Nur, Syamsul Bachri, and Kahar Lahae. "Efektivitas Terhadap Pelaksanaan Pengaturan Lahan Pertanian Pangan Berkelanjutan." *Repertorium: Jurnal Ilmiah Hukum Kenotariatan* 9, no. 2 (2020): 135–51.  
<https://doi.org/10.28946/rpt.v9i2.863>.
- Chandra, Meireza Aditya, and Suhadi Suhadi. "Analisis Hukum Faktor Penyebab Ketidakesesuaian Peta Lahan Sawah Dilindungi Dengan Peta Tata Ruang." *Nomos: Jurnal Penelitian Ilmu Hukum* 5, no. 2 (2025): 309–320.  
<https://doi.org/10.56393/nomos.v5i2.3191>.
- Erwahyuningrum, Rizki, Heru Kuswanto, and Habib Adjie. "Problematisa Hukum Penetapan Lahan Sawah Dilindungi (LSD) Terhadap Pelaku Bisnis Di Indonesia." *Jurnal Bisnis Dan Manajemen* 3, no. 2 (2023): 329–36.  
<https://ejournal.penerbitjurnal.com/index.php/business/article/view/191>.
- Hambali, Ferdi Rifanda, Sutaryono Sutaryono, and Sukmo Pinuji. "Kesesuaian

- Kawasan Lahan Pertanian Pangan Berkelanjutan Dengan Rencana Tata Ruang Wilayah Di Kabupaten Sumenep.” *Tunas Agraria* 4, no. 3 (2022): 276–292. <https://doi.org/10.31292/jta.v4i3.164>.
- Iqbal, Muhammad, and Sumaryanto Sumaryanto. “Strategi Pengendalian Alih Fungsi Lahan Pertanian Bertumpu Pada Partisipasi Masyarakat.” *Analisis Kebijakan Pertanian* 5, no. 2 (2007): 167–82. <https://doi.org/10.21082/akp.v5n2.2007.167-182>.
- Janti, Gesthi Ika. “Perlindungan Lahan Pertanian Pangan Berkelanjutan Guna Memperkokoh Ketahanan Pangan Wilayah: Studi Di Kabupaten Bantul, Daerah Istimewa Yogyakarta.” *Jurnal Ketahanan Nasional* 22, no. 1 (2016): 1–21. <https://doi.org/10.22146/jkn.16666>.
- Masrukhin, Masrukhin. “Perlindungan Lahan Pertanian Pangan Berkelanjutan Dalam Perspektif Alih Fungsi Lahan Di Kabupaten Cirebon.” *Hermeneutika: Jurnal Ilmu Hukum* 3, no. 2 (2019): 369–73. <https://doi.org/10.33603/hermeneutika.v3i2.2598>.
- Niken Sari, Diah, and Meta Indah Budhianti. “Lahan Sawah Dilindungi Dikaitkan Dengan Rencana Tata Ruang Berdasarkan Peraturan Presiden Nomor 59 Tahun 2019.” *Reformasi Hukum Trisakti* 5, no. 4 (2023): 840–51. <https://doi.org/10.25105/refor.v5i4.18366>.
- Oktiana, Ulfa Nur, Waluyo Waluyo, and Asianto Nugroho. “Pelaksanaan Perlindungan Lahan Pertanian Pangan Berkelanjutan Berdasarkan Regulasi Rencana Tata Ruang.” *Jurnal Discretie* 1, no. 1 (2020): 16–24. <https://doi.org/10.20961/jd.v1i1.50201>.
- Pitaloka, Endang Dyah Ayu. “Kebijakan Perlindungan Lahan Pertanian Pangan Berkelanjutan Dalam Dimensi Politik Hukum Penataan Ruang.” *Jurnal IUS Kajian Hukum Dan Keadilan* 8, no. 1 (2020): 49–78. <https://doi.org/10.29303/ius.v8i1.718>.
- Robbi, Yogya Firman Nur, Sadino Sadino, and Suartini Suartini. “Aspek Hukum Lahan Sawah Dilindungi Dan Tata Ruang.” *Fundamental: Jurnal Ilmiah Hukum* 13, no. 2 (2024): 90–116. <https://doi.org/10.34304/jf.v13i2.278>.
- Rokhmah, Meirina. “Potensi Dan Kendala Kebijakan Perlindungan Lahan Pertanian Pangan Berkelanjutan Di Kabupaten Demak.” *Jurnal Pembangunan Wilayah Dan Kota* 8, no. 2 (2012): 157–66. <https://doi.org/10.14710/pwk.v8i2.11568>.
- Rosit, Harun All, and Nuraini Aisiyah. “Evaluasi Dampak Ketidaksesuaian LSD Dengan RTRW Terhadap Pembangunan Dan Pertanian Di Karanganyar.” *Widya Bhumi* 4, no. 2 (2024): 159–75. <https://doi.org/10.31292/wb.v4i2.109>.
- Soeharjono, Andy Rachmat, Aartje Tehupeiry, and Wiwik Sri Widiarty. “Analisis Yuridis Kepastian Hukum Bagi Investor Terhadap Pemetaan Lahan Sawah Dilindungi.” *Syntax Idea* 6, no. 5 (2024): 2281–98.

<https://doi.org/10.46799/syntax-idea.v6i5.3306>.

Susanti, Febrita, Rasyid Ridha, and Baiq Harly Widayanti. “Analisis Kesesuaian Lahan Pertanian Dengan Program Lahan Sawah Dilindungi Di Kabupaten Lombok Barat.” *Jurnal Humanitas: Katalisator Perubahan Dan Inovator Pendidikan* 10, no. 1 (2023): 118–128. <https://doi.org/10.29408/jhm.v10i1.24407>.