

Criminalization of Land Conflicts, Last Resort Principle, and Human Rights Protection: A Systematic Literature Review

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Keywords:	ABSTRACT
Land Conflict; Criminalization; Ultimatum Remedium; Human Rights; Wrongful Conviction	This systematic literature review examines how the literature conceptualizes the criminalization of land conflicts, how the use of criminal law should be constrained by the ultima ratio principle, the human rights implications arising from criminalization, and the forms of state responsibility and compensation discussed when criminal justice mechanisms are wrongfully applied. The review follows a PRISMA-based design and draws on Scopus searches structured around four research questions. The screening process began with 1,855 records and, following initial filtering, title and abstract screening, open-access retrieval, and full-text eligibility assessment, resulted in a final corpus of 70 journal articles published between 2021 and 2026. Thirteen (13) articles informed RQ1, twenty-nine (29) informed RQ2, twelve (12) informed RQ3, and sixteen (16) informed RQ4. The findings demonstrate that land conflicts become criminalized when administrative, civil, customary, and sociopolitical disputes are reframed through criminal law, particularly in contexts involving land grabbing, extractivism, Indigenous marginalization, and state-corporate alliances. The review further indicates that the ultima ratio principle is best operationalized through the prior use of non-penal remedies, proportionality, minimal intervention, restorative justice mechanisms, and strict procedural safeguards. The identified human rights implications include threats to land rights, Indigenous peoples' rights, livelihoods, participation, the right to a fair trial, and access to justice. The final strand of the literature demonstrates that wrongful criminalization may give rise to state obligations concerning judicial or administrative review, exoneration, compensation, rehabilitation, and institutional reform. Based on these findings, this article proposes a Land Conflict Criminalization and Human Rights Protection Framework that prioritizes non-penal dispute resolution, subjects the use of criminal law to an ultima ratio test, centers human rights protection, and requires effective state remedies when punitive powers are misused.

INTRODUCTION

Land conflicts are no longer merely private disputes over title, possession, or boundaries. They have become strategic arenas in which competing claims over territory, livelihoods, identity, natural resources, development projects, and state authority intersect. In agrarian societies, land is not only an economic asset but also a foundation for community survival, cultural belonging, environmental protection, and political recognition. Growing pressures from plantation expansion, extractive industries, infrastructure development, conservation projects, and market-oriented land governance have increased the complexity of land disputes. In this context, the quality of

land governance is increasingly assessed not only by the state's ability to ensure legal certainty over property rights but also by its capacity to prevent coercion, protect vulnerable groups, and resolve conflicts without transforming rights-based claims into criminal liability.

The literature demonstrates that land conflicts involve multiple legal and institutional domains with distinct mandates. Land administration institutions manage registration, boundaries, tenure recognition, and dispute resolution; civil law governs ownership and compensation; customary and Indigenous legal systems protect collective relationships with land; environmental governance regulates natural resources; and criminal justice institutions maintain public order and enforce criminal law. A central challenge is that these domains often operate according to different evidentiary standards, administrative procedures, political priorities, and conceptions of legality. When these differences are not effectively coordinated, unresolved agrarian disputes may be reframed as criminal conduct before the underlying issues of tenure, recognition, or compensation are adequately examined. Biesel and Mendonça (2025) show that racialized land tenure can transform historically rooted dispossession into contemporary exclusion and the criminalization of subsistence practices (Biesel & Mendonça, 2025). Stassart et al. (2025) demonstrate that corruption and legality can jointly shape property formation in frontier settings, enabling certain land claims to acquire legal recognition while rendering competing uses legally or administratively invisible (Stassart et al., 2025). Berenschot et al. (2024) demonstrate that palm oil companies in Indonesia may employ contentious strategies involving connections with public authorities, suppression of protests, and the criminalization of protest leaders (Berenschot et al., 2024). Priyatno et al. (2023) similarly show that land expropriation may be facilitated through intimidation and criminalization, illustrating how penal mechanisms can serve processes of property acquisition rather than the neutral administration of justice (Priyatno et al., 2023).

The problem, therefore, is not simply that criminal law is applied in land conflicts but that it may be invoked prematurely, selectively, and without adequate examination of the noncriminal origins of the dispute. Criminal law represents one of the state's most coercive legal instruments because it exposes individuals to investigation, prosecution, detention, stigma, and punishment. Accordingly, its use in agrarian conflicts should be treated as an exceptional measure rather than as an ordinary instrument of land governance. Čevers (2025) explains that the *ultima ratio* principle requires criminal law to be used only when other legal mechanisms are inadequate (Čevers, 2025). Adhari et al. (2024) emphasize that the formulation of *ultimum remedium* in criminal codes reflects a broader need to constrain penal intervention according to the principles of proportionality and necessity (Adhari et al., 2024). Adiyatma et al. (2025) show that the criminalization of Indigenous environmental defenders may transform law from an instrument of protection into a mechanism of ecological and structural injustice (Adiyatma et al., 2025). Rodrigues et al. (2022) demonstrate that environmental defenders under threat may experience criminalization, intimidation, and violence, illustrating the human rights consequences of punitive escalation (Rodrigues et al., 2022). When criminalization subsequently results in wrongful prosecution, wrongful conviction, or a miscarriage of justice, the issue also extends to state responsibility and compensation. Mujuzi (2022) explains that international human rights law recognizes compensation for miscarriages of justice, while Berenschot and Dhiaulhaq (2025) show that land dispossession can produce conditions of rightlessness when legal protections are redirected away from affected communities (Berenschot & Dhiaulhaq, 2025; Mujuzi, 2022).

A central problem identified in the literature is that land disputes involving significant administrative, customary, socioeconomic, and human rights dimensions are often addressed through the most coercive legal instrument available: criminal law (Girsang & Gunarto, 2024). This approach is problematic because criminal prosecution may shift attention away from unresolved issues of tenure, recognition, compensation, or land administration and instead place communities, Indigenous peoples, land defenders, or affected citizens in the position of criminal suspects (Bachriadi & Aspinall, 2023). A second problem is that existing scholarship on *ultimum remedium* remains dispersed across various fields, including corruption, copyright, abortion, environmental law, juvenile justice, detention, business regulation, and medical negligence; consequently, its implications for land conflicts have not been systematically synthesized (Bikelis, 2025). This fragmentation makes it difficult to formulate clear criteria for determining when criminal law may legitimately be invoked in agrarian conflicts and when non-penal mechanisms, such as administrative remedies, civil remedies, mediation, restitution, or compensation, should be prioritized (Peters et al., 2023). A third problem is that compensation is often examined separately from the criminalization of land conflicts, even though the misuse of criminal law may cause material, psychological, reputational, and social harm to individuals who are wrongfully prosecuted or convicted (Grown et al., 2026). In this context, compensation should not be treated merely as a technical post-conviction remedy but as an element of state responsibility for addressing the consequences of wrongful prosecution, miscarriages of justice, or judicial error (Fernández, 2021). Mujuzi (2022) shows that international human rights law recognizes compensation for miscarriages of justice, while Dargue (2024) demonstrates that access to compensation may nevertheless be restricted by demanding legal thresholds (Dargue, 2024; Mujuzi, 2022). Therefore, the research problem addressed in this review concerns not only the excessive or inappropriate use of criminal law in land conflicts but also the absence of an integrated framework connecting criminalization, the *ultima ratio* principle, human rights protection, state responsibility, and compensation for victims of wrongful criminalization.

Many studies examine land rights, land governance, Indigenous peoples' rights, food estate development, or environmental justice, but fewer integrate these concerns with an analysis of criminalization within a single synthesis (Mendes et al., 2025; Wisnaeni & Najib, 2025). Similarly, the literature on wrongful conviction and compensation is well developed within criminal justice scholarship, yet it is rarely applied to land-related overcriminalization and the misuse of penal authority (Hellqvist, 2023; Lingard, 2024). This review addresses this gap by integrating criminalization, *ultima ratio* reasoning, human rights protection, and state responsibility within a unified systematic literature review framework.

This review has four objectives: (1) to explain how the literature conceptualizes the criminalization of land conflicts; (2) to synthesize how the literature constrains the use of criminal law through the *ultima ratio* principle; (3) to identify the human rights implications of land-conflict criminalization; and (4) to examine the literature on state responsibility and compensation for wrongful criminalization or wrongful conviction. Theoretically, this article integrates agrarian conflict scholarship with criminal law theory, human rights analysis, and the literature on state remedies. Methodologically, it demonstrates how a concept-centric synthesis can be organized around four interrelated research questions within a PRISMA-guided review design. Practically, it proposes a Land Conflict Criminalization and Human Rights Protection Framework to inform law enforcement agencies, land governance institutions, courts, and policymakers.

METHOD

Research Design

his study employed a systematic literature review (SLR) design following the PRISMA framework for study identification, screening, eligibility assessment, and inclusion. A concept-centric approach was used to organize and synthesize the literature according to the four research questions. Given the doctrinal, qualitative, and heterogeneous nature of the included studies, the findings were synthesized qualitatively to develop a conceptual framework rather than subjected to meta-analysis.

Database and Search Strategy

The primary database was Scopus. The search strings followed the research-question table above and were intentionally broad enough to capture land conflict, criminalization, ultima ratio, human-rights, and wrongful-conviction literatures. The searches were conducted separately for each RQ so that the screening and extraction process remained traceable.

Scopus was used as the main database. The search was conducted separately for each RQ because each research question represents a distinct analytical domain. The exact Boolean search strings used in the Scopus search strategy are presented below.

RQ1 search string: ("land conflict" OR "land dispute" OR "land grabbing" OR "land rights" OR "agrarian reform" OR "land tenure" OR "indigenous land") AND ("criminalization" OR "criminalisation" OR "prosecution" OR "law enforcement" OR "legal action" OR "human rights")

RQ2 search string: ("criminal law" OR "criminal justice" OR "penal law") AND ("last resort" OR "ultima ratio" OR "minimal intervention" OR "proportionality" OR "overcriminalization")

RQ3 search string: ("land conflict" OR "land dispute") AND ("human rights" OR "indigenous rights" OR "access to justice" OR "legal protection")

RQ4 search string: ("wrongful conviction*" OR "miscarriage* of justice" OR "wrongful prosecution" OR "wrongful imprisonment" OR "wrongful incarceration" OR "judicial error*" OR "criminal justice error*" OR "exonerat*" OR "actual innocence") AND (compensat* OR "state responsibility" OR "state liability" OR "government liability" OR redress OR reparation* OR remed* OR damages)

Inclusion and Exclusion Criteria

Tabel 1. Inclusion and Exclusion Criteria

Criterion	Inclusion	Exclusion
Publication source	Peer-reviewed journal articles indexed or identified through Scopus search	Books, proceedings, reports, editorials, opinion pieces, news items
Year	Published between 2021 and 2026	Published outside 2021-2026
Document type	Article	Non-article document types
Language	English	Non-English articles
Source type	Journal	Non-journal sources
Publication stage	Final publication	Articles without final publication status or incomplete metadata
Access	Open-access or accessible full text for final eligibility review	Not open access or not accessible for full-text analysis
Subject relevance	Relevant to land conflict criminalization, last resort / proportionality, human rights, or wrongful criminalization / compensation	Articles that do not answer the research questions

Screening Process

The identification stage found 1,855 records across the four RQ-specific searches. Database filtering based on year, document type, language, source type, and final publication status reduced the corpus to 472 records. Title and abstract screening

reduced the corpus to 203 records. Open-access screening retained 118 articles for full-text eligibility assessment. Full-text assessment produced 70 final included articles: 13 for RQ1, 29 for RQ2, 12 for RQ3, and 16 for RQ4.

Tabel 2. Identification Stage and Number of Articles Screened

RQ	Initial search	After database filters	After title/abstract	Open-access articles	Final full-text included
RQ1	821	216	52	35	13
RQ2	593	144	67	40	29
RQ3	100	42	30	18	12
RQ4	341	70	54	25	16
Total	1855	472	203	118	70

For more details about the indentification stage flow through the PRISMA method, Figure 1 shows the PRISMA-based screening results by research question.



Figure 1. PRISMA-based screening results by research question.

Data Extraction

Data were extracted separately for each research question using the following fields: author(s) and year, country/context, method, main focus, key findings, and contribution to the relevant RQ. This structure made it possible to preserve the distinct logic of each RQ while still building an integrated final synthesis.

Data Analysis

The analysis used thematic synthesis and concept-centric review. For RQ1, the focus was on mechanisms of criminalization; for RQ2, on normative limits on penal intervention; for RQ3, on rights impacts and access to justice; and for RQ4, on error correction, compensation, and accountability. The four thematic syntheses were then integrated into the final framework.

RESULTS AND DISCUSSION

Overview of Selected Articles

The final synthesis included 70 articles published between 2021 and 2026. The RQ1 corpus included 13 articles focused on land conflicts, land grabbing, land mafias, corporate contentious politics, extractivism, Indigenous struggles, and environmental defenders (Adiyatma et al., 2025; Bachriadi & Aspinall, 2023; Berenschot et al., 2024; Biesel & Mendonça, 2025; Girsang & Gunarto, 2024; Jurema & Oliveira, 2023; Lord & Sareen, 2025; Natasa et al., 2026; Priyatno et al., 2023; Rodrigues et al., 2022; Stassart et al., 2025; Suntoro et al., 2022; Wirawan et al., 2024).

The RQ2 corpus included 29 articles on the last resort principle, ultima ratio, proportionality, overcriminalization, restorative justice, diversion, detention, criminal-law limits, and alternative regulatory pathways (Adhari et al., 2024; Aprilianda & Krisna, 2023; Bikelis, 2025; Ceron et al., 2026; Čevers, 2025; Ekinci, 2024; Flora et al., 2023; Furramani & Hoti, 2022; Gruodyte & Orlauskas, 2024; Gruodyte & Urbsyte, 2021;

Kahlmeter & Bäckman, 2025; Lappi-Seppala, 2023; Lee & Kim, 2024; Navratilova, 2024; Nega, 2022; Nikka, 2025; Nurferyanto & Takahashi, 2024; Peters et al., 2023; Pranka, 2021; Rotaru, 2026; Sakowicz, 2022; Sasmita, 2021; Scheliha, 2025; Stojanovic & Bodrozic, 2025; Sulistiani & Fakhriah, 2023; Susilo et al., 2025; Tammenlehto & Kallio, 2025; Utomo et al., 2026; Widijowati & Charisma, 2026).

The RQ3 corpus included 12 articles on human rights, Indigenous rights, land dispossession, access to justice, fair compensation, environmental justice, land courts, food estate policy, resource conflicts, and threats to environmental defenders (Berenschot & Dhiaulhaq, 2025; Diar & Lestari, 2025; Hariyanto, 2024; Iswantoro, 2021; Maria et al., 2023; Mendes et al., 2025; Menton et al., 2021; Rodrigues et al., 2022; Sigit, 2023; Toledo et al., 2023; Wahid & Sulistiyono, 2025; Wisnaeni & Najib, 2025).

The RQ4 corpus included 16 articles on wrongful conviction, miscarriage of justice, wrongful prosecution, false confession, post-conviction review, trial by media, compensation, judicial error, and state accountability (Alagna, 2024; Dargue, 2024; Descheemaeker, 2023; Duce & Findley, 2022; Fernández, 2021; Grown et al., 2026; Hellqvist, 2023, 2024; Kassin et al., 2025; Lingard, 2024; McGuire & Renaud, 2023; Mujuzi, 2022; Nabaskues Martínez De Eulate, 2024; Said et al., 2025; Solodov & Zębek, 2022; Travers, 2024).

Article Extraction for RQ1: Criminalization of Land Conflicts

The RQ1 corpus contains studies from Indonesia, Brazil, Tanzania, Peru, and Nigeria, and it also includes normative work on agrarian regulation and eco-justice (Adiyatma et al., 2025; Lord & Sareen, 2025; Natasa et al., 2026). Several studies analyze indigenous marginalization and extractive governance (Jurema & Oliveira, 2023; Natasa et al., 2026), others focus on racialized or frontier dispossession (Biesel & Mendonça, 2025; Stassart et al., 2025), and another cluster examines land mafias, land grabbing, intimidation, and corporate contentious politics (Bachriadi & Aspinall, 2023; Berenschot et al., 2024; Girsang & Gunarto, 2024; Priyatno et al., 2023; Wirawan et al., 2024). The set is completed by work on threats to environmental defenders and human-rights-based agrarian reform (Rodrigues et al., 2022; Suntoro et al., 2022).

Tabel 3. Article Extraction for RQ1: Criminalization of Land Conflicts

No.	Author(s) & Year	Country/Context	Method	Main Focus	Key Findings	Contribution to RQ
1	Natasa et al. (2026)	Indonesia	Normative legal / doctrinal	Explains how land conflict is criminalized or how land rights are undermined in Indonesia.	Findings reveal that the “paradox of recognition” is driven by two primary factors: first, overly complex administrative requirements for legal status that transform a fundamental right into a “state-granted” privilege; ...	Shows that criminalization often targets indigenous territorial claims and turns recognition gaps into penal vulnerability.
2	Adiyatma et al. (2025)	Indonesia	Comparative doctrinal	Explains how land conflict is criminalized or how land rights are undermined in Indonesia.	Findings reveal that the law, instead of serving as an instrument of protection, often legitimizes ecological exploitation and marginalization through selective enforcement and the absence of robust safeguards for Indigenous...	Shows that criminalization often targets indigenous territorial claims and turns recognition gaps into penal vulnerability.
3	Biesel & Mendonça (2025)	Brazil	Ethnographic qualitative	Explains how land conflict is criminalized or how land rights are	The article introduces the concept of racialized land tenure to illuminate how colonial land governance systems in Brazil continue to	Helps map how administrative, political, and corporate disputes are

				undermined in brazil.	shape dispossession and ecological degradation in post-colonial contexts. Drawing from...	translated into criminal cases.
4	Stassar et al. (2025)	Brazil	Not clearly specified	Explains how land conflict is criminalized or how land rights are undermined in brazil.	Corruption undermines natural resource governance and conservation efforts, fueling deforestation and violence against land and environmental defenders. To address this complex issue and avoid stereotypical and colonial ...	Shows that criminalization is embedded in land grabbing, land-mafia networks, and manipulated legality.
5	Lord & Sareen (2025)	Tanzania	Ethnographic qualitative	Explains how land conflict is criminalized or how land rights are undermined in tanzania.	Forest carbon offsetting schemes, including Reducing Emissions from Deforestation and forest Degradation (REDD+), have attracted criticism from the outset, for building upon former colonial international relations to jus...	Helps map how administrative, political, and corporate disputes are translated into criminal cases.
6	Berenschot et al. (2024)	Indonesia	Dataset / empirical analysis	Explains how land conflict is criminalized or how land rights are undermined in indonesia.	we show that palm oil companies are contentious actors, in the sense that companies engage in conscious and strategic efforts to make and realize their claims, and for this purpose mobilize a particular contentious reper...	Helps map how administrative, political, and corporate disputes are translated into criminal cases.
7	Girсанг & Gunarto (2024)	Indonesia	Normative legal / doctrinal	Explains how land conflict is criminalized or how land rights are undermined in indonesia.	Findings suggest that a comprehensive approach involving legal enforcement, public education, improved land administration, and active community participation is essential to reduce land grabbing.	Shows that criminalization is embedded in land grabbing, land-mafia networks, and manipulated legality.
8	Wirawan et al. (2024)	Indonesia	Normative legal / doctrinal	Explains how land conflict is criminalized or how land rights are undermined in indonesia.	The recent actions of the land mafia in Indonesia, especially after the implementation of reforms, have increased significantly in the land sector, including individuals and many government institutions, disrupting the i...	Shows that criminalization is embedded in land grabbing, land-mafia networks, and manipulated legality.
9	Priyatno et al. (2023)	General / conceptual	Normative legal / doctrinal	Explains how land conflict is criminalized or how land rights are undermined in general / conceptual.	Corporations or business actors have an important role in increasing economic development, but in practice these corporations or business actors often commit business crimes that harm the community by means of intimidati...	Helps map how administrative, political, and corporate disputes are translated into criminal cases.
10	Jurema & Oliveira (2023)	Peru	Not clearly specified	Explains how land conflict is criminalized or how land rights are	At the root of much of the deforestation, land rights violations, human rights abuses and ultimately the continuation of unequal, neocolonial North-South	Shows that criminalization often targets indigenous territorial claims and turns recognition gaps

				undermined in peru.	relations are the twofold phenomena of global market pressures for...	into penal vulnerability.
11	Bachri adi & Aspina ll (2023)	Indone sia	Not clearl y speci fied	Explains how land conflict is criminalized or how land rights are undermined in indonesia.	ABSTRACT: In Indonesia, "land mafias" (mafia tanah) proliferate, alongside mafias that cluster around other commodities and state functions. Authors analyze the composition, character, modes, and sources of resilience of...	Shows that criminalization is embedded in land grabbing, land-mafia networks, and manipulated legality.
12	Rodrig ues et al. (2022)	Brazil	Not clearl y speci fied	Explains how land conflict is criminalized or how land rights are undermined in brazil.	Latin America has a long history of extractive and exploitative territorial activities, dating back to the colonial era. However, in the last decade there has been a steep increase in these activities,...	Helps map how administrative, political, and corporate disputes are translated into criminal cases.
13	Suntor o et al. (2022)	Indone sia	Not clearl y speci fied	Explains how land conflict is criminalized or how land rights are undermined in indonesia.	The complexities of land and natural resource cases involve multiple stakeholders ranging from the government and security forces to corporations. The conflicts that drive these cases are reflected in the Indonesian Comm...	Helps map how administrative, political, and corporate disputes are translated into criminal cases.

Overall, the RQ1 table shows that criminalization in land conflicts is not accidental but patterned: it emerges from recognition failures, resource frontiers, and the manipulation of legality (Natasa et al., 2026; Stassart et al., 2025). The table also shows that criminalization is frequently relational, involving corporate-state alliances, intimidation, suppression of protest, and legal reframing of community resistance (Berenschot et al., 2024; Priyatno et al., 2023). Finally, the RQ1 corpus demonstrates that criminalization is inseparable from broader questions of indigenous rights, environmental defence, and agrarian justice (Adiyatma et al., 2025; Rodrigues et al., 2022; Suntoro et al., 2022).

Findings for RQ1: Criminalization of Land Conflicts



Figure 2. Conceptual map for RQ1: Criminalization of Land Conflicts.

The first major finding is that land-conflict criminalization is anchored in structural conditions such as the paradox of legal recognition, extractive development, and insecure tenure (Biesel & Mendonça, 2025; Lord & Sareen, 2025; Natasa et al., 2026). The second major finding is that criminalization is operationalized through concrete mechanisms: co-optation of leaders, suppression of protest, land-mafia practices, intimidation, and the hijacking of registries, cadastres, or law-enforcement processes (Bachriadi & Aspinal,

2023; Berenschot et al., 2024; Priyatno et al., 2023; Stassart et al., 2025). The third major finding is that criminalization produces rights harms by exposing environmental defenders and indigenous communities to threats, exclusion, and forced displacement (Adiyatma et al., 2025; Rodrigues et al., 2022). A final finding is that the literature repeatedly points toward corrective alternatives such as eco-justice, human-rights-based agrarian regulation, and stronger recognition of collective rights (Adiyatma et al., 2025; Suntoro et al., 2022).

Article Extraction for RQ2: Criminal Law as a Last Resort

The RQ2 corpus is the largest and most diverse because the last-resort principle is developed across multiple doctrinal fields rather than only in land-conflict (Čevers, 2025; Rotaru, 2026). A first cluster provides general normative accounts of ultima ratio and proportionality (Adhari et al., 2024; Čevers, 2025; Furramani & Hoti, 2022; Gruodyte & Urbsyte, 2021; Nikka, 2025). A second cluster explores sector-specific applications in environmental law, abortion, sex work, bribery, healthcare, copyright, taxation, ship safety, AI-related infringement, business and human rights, and economic crime (Bikelis, 2025; Ceron et al., 2026; Ekinici, 2024; Gruodyte & Orlauskas, 2024; Navratilova, 2024; Nurferyanto & Takahashi, 2024; Peters et al., 2023; Rotaru, 2026; Utomo et al., 2026). A third cluster addresses penal restraint through detention standards, youth justice, restorative settlement, judicial supervision, and diversionary or extra-judicial mechanisms (Aprilianda & Krisna, 2023; Kahlmeter & Bäckman, 2025; Lappi-Seppala, 2023; Nega, 2022; Sakowicz, 2022; Sasmita, 2021; Sulistiani & Fakhriah, 2023; Susilo et al., 2025).

Tabel 4. Article Extraction for RQ2: Criminal Law as a Last Resort

No	Author(s) & Year	Country /Context	Method	Main Focus	Key Findings	Contribution to RQ
1	Rotaru (2026)	General/ conceptual	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in general / conceptual.	Environmental criminal law should target serious harm while preserving administrative and regulatory alternatives.	Adds sector-specific criteria for deciding when criminal sanctions are justified and when they should be restrained.
2	Utomo et al. (2026)	General/ conceptual	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in general / conceptual.	Restorative, settlement, and prosecutorial-discretion mechanisms can resolve disputes without immediate penal escalation.	Adds sector-specific criteria for deciding when criminal sanctions are justified and when they should be restrained.
3	Widijowati & Charisma (2026)	Indonesia	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in Indonesia.	Ultima ratio/ultimum remedium provides a doctrinal limit requiring necessity, serious harm, and proportional criminalization.	Provides the normative criteria for restricting penal intervention through ultima ratio and proportionality.
4	Čevers (2025)	General /	Not clearly specified	Clarifies last-resort, proportionality, or	Ultima ratio/ultimum remedium	Provides the normative criteria for

		conceptual		minimal-intervention limits on criminal law in general / conceptual.	provides doctrinal limit requiring necessity, serious harm, and proportional criminalization	restricting penal intervention through ultima ratio and proportionality.
5	Scheliha (2025)	Germany	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in Germany.	The article contributes to limiting penal intervention through necessity, proportionality, minimal intervention, or non-penal alternatives.	Adds sector-specific criteria for deciding when criminal sanctions are justified and when they should be restrained.
6	Nikka (2025)	General / conceptual	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in general / conceptual.	Proportionality review can limit excessive punishment, but it may also be misused to legitimize punitive policy.	Provides the normative criteria for restricting penal intervention through ultima ratio and proportionality.
7	Tammenlehto & Kallio (2025)	General / conceptual	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in general / conceptual.	Complex regulatory disputes should use criminal law only for intentional and serious violations	Adds sector-specific criteria for deciding when criminal sanctions are justified and when they should be restrained.
8	Ceron et al. (2026)	General / conceptual	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in general / conceptual.	Proportionality review can limit excessive punishment, but it may also be misused to legitimize punitive policy.	Provides the normative criteria for restricting penal intervention through ultima ratio and proportionality.
9	Bikelis (2025)	Lithuania	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in Lithuania.	Proportionality review can limit excessive punishment, but it may also be misused to legitimize punitive policy.	Provides the normative criteria for restricting penal intervention through ultima ratio and proportionality.
10	Stojanovic & Bodrozic (2025)	General / conceptual	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in general / conceptual.	Environmental criminal law should target serious harm while preserving administrative and regulatory alternatives.	Adds sector-specific criteria for deciding when criminal sanctions are justified and when they should be restrained.

11	Kahlmeter & Backman (2025)	General / conceptual	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in general / conceptual.	Juvenile justice supports minimal intervention, diversion, and detention as a last resort.	Adds sector-specific criteria for deciding when criminal sanctions are justified and when they should be restrained.
12	Susilo et al. (2025)	Indonesia	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in Indonesia.	Detention should be exceptional and subject to strict necessity, proportionality, and judicial supervision.	Adds sector-specific criteria for deciding when criminal sanctions are justified and when they should be restrained.
13	Adhari et al. (2024)	Comparative / International	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in comparative / international.	Ultima ratio/ultimum remedium provides a doctrinal limit requiring necessity, serious harm, and proportional criminalization.	Provides the normative criteria for restricting penal intervention through ultima ratio and proportionality.
14	Lee & Kim (2024)	South Korea	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in South Korea.	The article contributes to limiting penal intervention through necessity, proportionality, minimal intervention, or non-penal alternatives.	Adds sector-specific criteria for deciding when criminal sanctions are justified and when they should be restrained.
15	Ekinci (2024)	General / conceptual	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in general / conceptual.	The article contributes to limiting penal intervention through necessity, proportionality, minimal intervention, or non-penal alternatives.	Adds sector-specific criteria for deciding when criminal sanctions are justified and when they should be restrained.
16	Gruodyte & Orlauskas (2024)	Lithuania	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in Lithuania.	Proportionality review can limit excessive punishment, but it may also be misused to legitimize punitive policy.	Provides the normative criteria for restricting penal intervention through ultima ratio and proportionality.
17	Navratilova (2024)	European / EU	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits	Environmental criminal law should target serious harm while preserving	Adds sector-specific criteria for deciding when criminal sanctions are

				on criminal law in european / eu.	administrative and regulatory alternatives.	justified and when they should be restrained.
18	Nurferyanto & Takahashi (2024)	Indonesia	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in indonesia.	Boundaries between administrative tax enforcement and criminal prosecution must be carefully drawn.	Adds sector-specific criteria for deciding when criminal sanctions are justified and when they should be restrained.
19	Peters et al. (2023)	General / conceptual	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in general / conceptual.	The article contributes to limiting penal intervention through necessity, proportionality, minimal intervention, or non-penal alternatives.	Adds sector-specific criteria for deciding when criminal sanctions are justified and when they should be restrained.
20	Flora et al. (2023)	General / conceptual	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in general / conceptual.	The article contributes to limiting penal intervention through necessity, proportionality, minimal intervention, or non-penal alternatives.	Adds sector-specific criteria for deciding when criminal sanctions are justified and when they should be restrained.
21	Aprilianda & Krisna (2023)	Indonesia	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in indonesia.	Juvenile justice supports minimal intervention, diversion, and detention as a last resort.	Adds sector-specific criteria for deciding when criminal sanctions are justified and when they should be restrained.
22	Sulistiani & Fakhriah (2023)	General / conceptual	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in general / conceptual.	Ultima ratio/ultimum remedium provides a doctrinal limit requiring necessity, serious harm, and proportional criminalization.	Provides non-penal or restorative alternatives that operationalize criminal law as a last resort.
23	Lappi-Seppala (2023)	Finland / Nordic	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in finland / nordic.	Detention should be exceptional and subject to strict necessity, proportionality, and judicial supervision.	Adds sector-specific criteria for deciding when criminal sanctions are justified and when they should be restrained.

24	Furramani & Hoti (2022)	Albania	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in albania.	Proportionality review can limit excessive punishment, but it may also be misused to legitimize punitive policy.	Provides the normative criteria for restricting penal intervention through ultima ratio and proportionality.
25	Sakowicz (2022)	Poland	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in poland.	Detention should be exceptional and subject to strict necessity, proportionality, and judicial supervision.	Adds sector-specific criteria for deciding when criminal sanctions are justified and when they should be restrained.
26	Nega (2022)	Ethiopia	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in ethiopia.	Juvenile justice supports minimal intervention, diversion, and detention as a last resort.	Adds sector-specific criteria for deciding when criminal sanctions are justified and when they should be restrained.
27	Sasmita (2021)	General / conceptual	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in general / conceptual.	Restorative, settlement, and prosecutorial-discretion mechanisms can resolve disputes without immediate penal escalation.	Adds sector-specific criteria for deciding when criminal sanctions are justified and when they should be restrained.
28	Pranka (2021)	European / EU	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in european / eu.	Professional negligence should not automatically become a criminal matter where civil or disciplinary responses are adequate.	Adds sector-specific criteria for deciding when criminal sanctions are justified and when they should be restrained.
29	Gruodyte & Urbsyte (2021)	General / conceptual	Not clearly specified	Clarifies last-resort, proportionality, or minimal-intervention limits on criminal law in general / conceptual.	Ultima ratio/ultimum remedium provides a doctrinal limit requiring necessity, serious harm, and proportional criminalization.	Provides the normative criteria for restricting penal intervention through ultima ratio and proportionality.

The extraction table reveals that RQ2 is theoretically rich because it combines general penal theory with highly practical sectoral applications. It also shows that the idea of criminal law as a last resort is not exhausted by the phrase ultimum remedium; it is operationalized through proportionality, seriousness thresholds, restorative pathways, procedural review, and alternatives to detention or prosecution. These

elements provide the criteria needed to evaluate when criminal law should and should not be used in land-related conflicts.

Findings for RQ2: Criminal Law as a Last Resort

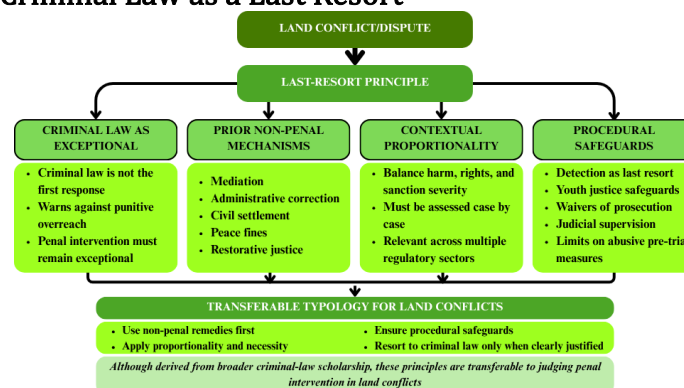


Figure 3. Typology for RQ2: Criminal Law as a Last Resort.

A first finding is that the literature consistently treats criminal law as exceptional and warns against punitive overreach (Čevers, 2025; Furramani & Hoti, 2022; Gruodyte & Urbsyte, 2021; Nikka, 2025). A second finding is that last-resort reasoning depends on the availability of prior non-penal mechanisms such as mediation, administrative correction, civil settlement, peace fines, and restorative justice (Sasmita, 2021; Sulistiani & Fakhriah, 2023; Utomo et al., 2026). A third finding is that proportionality must be assessed contextually; studies on copyright, abortion, sex work, tax crime, ship safety, medical negligence, bribery, and environmental protection all emphasize balancing harm, rights, and sanction severity (Ceron et al., 2026; Ekinci, 2024; Gruodyte & Urbsyte, 2021; Peters et al., 2023; Pranka, 2021; Stojanovic & Bodrozic, 2025; Widiowati & Charisma, 2026). A fourth finding is that procedural safeguards are part of last-resort reasoning, as shown by studies on detention, youth justice, waivers of prosecution, judicial supervision, and prevention of abusive pre-trial measures (Aprilianda & Krisna, 2023; Kahlmeter & Bäckman, 2025; Lappi-Seppala, 2023; Sakowicz, 2022; Susilo et al., 2025). Although these articles are not land-specific, together they yield a transferable typology for judging penal intervention in land conflicts (Adhari et al., 2024; Flora et al., 2023).

Article Extraction for RQ3: Human Rights Implications

The RQ3 corpus directly addresses the human-rights implications of land conflict and land-conflict criminalization, with a strong focus on Indonesia and Brazil and selected contributions from global commodity-chain and compensation debates (Berenschot & Dhiaulhaq, 2025; Mendes et al., 2025). Some studies analyze institutional routes to justice, such as class actions, land courts, hybrid dispute settlement, and land-office management (Diar & Lestari, 2025; Iswantoro, 2021; Sigit, 2023; Wahid & Sulistiyono, 2025). Others emphasize substantive rights impacts, including food sovereignty, indigenous protection, environmental defenders' security, and fair compensation in large-scale land acquisitions (Hariyanto, 2024; Menton et al., 2021; Rodrigues et al., 2022; Wisnaeni & Najib, 2025).

Tabel 5. Article Extraction for RQ3: Human Rights Implications

No.	Author(s) & Year	Country/Context	Method	Main Focus	Key Findings	Contribution to RQ
1	Berenschot & Dhiaulhaq (2025)	Indonesia	Not clearly specified	Identifies rights impacts, remedies, or access-to-justice concerns in land conflict in indonesia.	Land dispossession produces rightlessness by denying effective legal recognition and exposing communities to criminal processes.	Clarifies which human rights are affected by land conflict and criminalization, especially tenure, livelihood, and indigenous rights.

2	Diar Lestari (2025)	& Indonesia	Not clearly specified	Identifies rights impacts, remedies, or access-to-justice concerns in land conflict in indonesia.	Formal barriers to class actions can obstruct Indigenous communities from accessing justice in land disputes.	Shows that institutional access to justice is crucial for protecting rights in land disputes.
3	Wahid & Sulistiyono (2025)	Indonesia	Not clearly specified	Identifies rights impacts, remedies, or access-to-justice concerns in land conflict in indonesia.	Specialized land courts may improve access to justice and reduce unresolved disputes that escalate into coercive enforcement.	Shows that institutional access to justice is crucial for protecting rights in land disputes.
4	Wisnaeni & Najib (2025)	Indonesia	Not clearly specified	Identifies rights impacts, remedies, or access-to-justice concerns in land conflict in indonesia.	Food-estate policy risks ecological harm, local-sovereignty erosion, and marginalization of Indigenous communities.	Clarifies which human rights are affected by land conflict and criminalization, especially tenure, livelihood, and indigenous rights.
5	Mendes et al. (2025)	Brazil	Not clearly specified	Identifies rights impacts, remedies, or access-to-justice concerns in land conflict in brazil.	Commodity trade can externalize land conflict, environmental injustice, and rights harms onto local communities.	Clarifies which human rights are affected by land conflict and criminalization, especially tenure, livelihood, and indigenous rights.
6	Hariyanto et al. (2024)	General / conceptual	Not clearly specified	Identifies rights impacts, remedies, or access-to-justice concerns in land conflict in general / conceptual.	Land ownership regulation should protect human rights through consultation, transparency, and effective dispute settlement.	Clarifies which human rights are affected by land conflict and criminalization, especially tenure, livelihood, and indigenous rights.
7	Maria et al. (2023)	General / conceptual	Not clearly specified	Identifies rights impacts, remedies, or access-to-justice concerns in land conflict in general / conceptual.	Large-scale land acquisition often fails to provide fair compensation and may intensify conflict and displacement.	Shows that rights protection in land conflict includes fair compensation and effective remedies, not merely formal legality.
8	Toledo et al. (2023)	Brazil	Not clearly specified	Identifies rights impacts, remedies, or access-to-justice concerns in land conflict in brazil.	State duties under human-rights systems include demarcation, protection, and crisis response for Indigenous territories.	Clarifies which human rights are affected by land conflict and criminalization, especially tenure, livelihood, and indigenous rights.
9	Sigit Daryono (2023)	& Indonesia	Not clearly specified	Identifies rights impacts, remedies, or	Hybrid dispute settlement can integrate formal and	Shows that institutional access to justice is

				access-to-justice concerns in land conflict in indonesia.	community mechanisms for equitable land conflict resolution.	crucial for protecting rights in land disputes.
10	Rodrigues et al. (2022)	Brazil	Not clearly specified	Identifies rights impacts, remedies, or access-to-justice concerns in land conflict in brazil.	Environmental defenders face threats, criminalization, intimidation, and violence in land and resource conflicts.	Clarifies which human rights are affected by land conflict and criminalization, especially tenure, livelihood, and indigenous rights.
11	Menton et al. (2021)	Brazil	Not clearly specified	Identifies rights impacts, remedies, or access-to-justice concerns in land conflict in brazil.	Pandemic conditions intensified land grabbing, illegal mining, resource conflict, and Indigenous resistance.	Clarifies which human rights are affected by land conflict and criminalization, especially tenure, livelihood, and indigenous rights.
12	Iswantoro (2021)	Indonesia	Not clearly specified	Identifies rights impacts, remedies, or access-to-justice concerns in land conflict in indonesia.	Administrative mediation and ADR can reduce escalation and support rights-based land conflict resolution.	Clarifies which human rights are affected by land conflict and criminalization, especially tenure, livelihood, and indigenous rights.

The RQ3 extraction table shows that human-rights protection in land conflict is both substantive and procedural. Substantively, the literature covers tenure, indigenous culture, livelihood, compensation, and environmental integrity; procedurally, it covers standing, courts, class actions, hybrid settlement, and land-office administration. The table therefore supports an understanding of rights protection that extends beyond formal ownership.

Findings for RQ3: Human Rights Implications

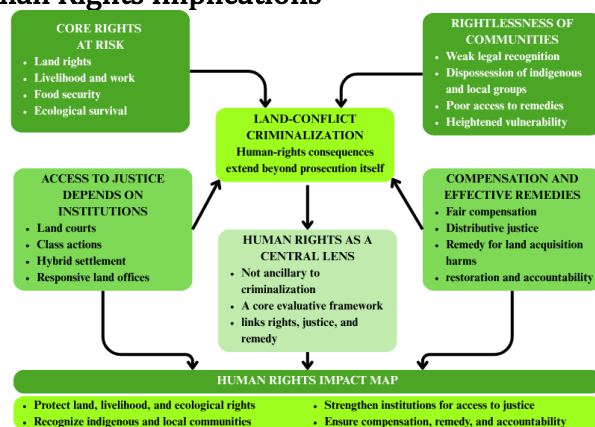


Figure 4. Human-rights impact map for RQ3: Human Rights Implications.

A first finding is that land-conflict criminalization threatens the core bundle of rights connected to land, livelihood, food, and ecological survival (Hariyanto, 2024; Menton et al., 2021; Wisnaeni & Najib, 2025). A second finding is that indigenous and local communities experience rightlessness when land dispossession is paired with weak legal recognition and poor access to remedy (Berenschot & Dhiaulhaq, 2025; Diar & Lestari, 2025; Rodrigues et al., 2022). A third finding is that access to justice depends on institutional design: the availability of land courts, class actions, hybrid settlement, or

responsive land offices determines whether rights can be effectively claimed (Iswantoro, 2021; Sigit, 2023; Wahid & Sulistiyono, 2025). A fourth finding is that fair compensation and effective remedies remain critical, particularly in large-scale land acquisition settings where distributive injustice is acute (Hariyanto, 2024). Overall, the RQ3 literature demonstrates that human-rights analysis is not ancillary to land-conflict criminalization; it is one of its central evaluative frameworks (Maria et al., 2023).

Article Extraction for RQ4: State Responsibility and Compensation

The RQ4 corpus brings together doctrinal, empirical, and review-based studies on wrongful prosecution, wrongful conviction, post-conviction review, and compensation (Duce & Findley, 2022; Hellqvist, 2023). A first cluster explains causes of error, such as false allegations, tunnel vision, police-induced confessions, forensic weakness, and technology-mediated injustice (Kassin et al., 2025; McGuire & Renaud, 2023; Solodov & Zębek, 2022). A second cluster focuses on review and exoneration barriers in Nordic systems, New South Wales, Australia, and Aotearoa New Zealand (Growth et al., 2026; Hellqvist, 2023, 2024; Lingard, 2024). A third cluster discusses compensation and accountability across Chile, Mexico, the United Kingdom, BRICS states, and broader doctrinal debates on damages and reparation (Dargue, 2024; Descheemaeker, 2023; Fernández, 2021; Mujuzi, 2022). The corpus also includes contextual studies on alleged smugglers in Italy, false allegations in Iraq, trial by media in Spain, and revision of wrongful convictions in China (Alagna, 2024; Nabaskues Martínez De Eulate, 2024; Said et al., 2025; Travers, 2024).

Tabel 6. Article Extraction for RQ4: State Responsibility and Compensation

No	Author(s) & Year	Country/ Context	Method	Main Focus	Key Findings	Contribution to RQ
1	Alagna (2024)	Italy	Qualitative socio-legal	Examines wrongful conviction, wrongful prosecution, review, or compensation in Italy.	Since 2014, numerous people on the move have been accused of migrant smuggling in Italian courts for steering makeshift vessels or for assisting in navigation across the Mediterranean Sea. This is the...	Explains how miscarriages of justice arise and what the state must do to correct and prevent them.
2	Hellqvist (2023)	Finland / Nordic	Comparative doctrinal	Examines wrongful conviction, wrongful prosecution, review, or compensation in Finland / Nordic.	All the Nordic countries offer individuals who claim to have been wrongfully convicted the possibility to apply for post-conviction review. The research on wrongful convictions has however often discussed the risk that....	Shows that review and exoneration mechanisms are a precondition for meaningful accountability.
3	Fernández (2021)	Chile / Mexico	Case study	Examines wrongful conviction, wrongful prosecution, review, or compensation in Chile / Mexico.	This research article has as its objective to analyze state responsibility for judicial error in Chile and in Mexico, based on the premise that compensation for judicial error is a human right....	Explains how miscarriages of justice arise and what the state must do to correct and prevent them.

4	Duce Findley (2022)	& Comparative / International	Not clearly specified	Examines wrongful conviction, wrongful prosecution, review, or compensation in comparative / international.	This paper provides an overview of several central topics for comparative research on wrongful convictions and prosecutions (near misses). The work addresses three issues: studies that attempt to establish the quantity o...	Explains how miscarriages of justice arise and what the state must do to correct and prevent them.
5	Dargue (2024)	European / EU	Not clearly specified	Examines wrongful conviction, wrongful prosecution, review, or compensation in european / eu.	Restrictive compensation tests may make redress nearly inaccessible after quashed convictions.	Explains the remedial side of state responsibility, especially compensation and reparation.
6	Descheemaeker (2023)	Australia / Aotearoa New Zealand	Not clearly specified	Examines wrongful conviction, wrongful prosecution, review, or compensation in australia / aotearoa new zealand.	This paper examines an idea which has made some headway into legal scholarship and case law, namely, that the violation of a right ought to sound in substantial (compensatory) damages in and...	Explains the remedial side of state responsibility, especially compensation and reparation.
7	Travers (2024)	Iraq	Not clearly specified	Examines wrongful conviction, wrongful prosecution, review, or compensation in iraq.	As the mandate of the United Nations Investigative Team to Promote Accountability for Crimes Committed by Da'esh/ISIL (UNITAD) ended on 17 September 2024, the future of justice for ISIL's survivors in Iraq...	Explains how miscarriages of justice arise and what the state must do to correct and prevent them.
8	Solodov Zębek (2022)	& Poland	Case study	Examines wrongful conviction, wrongful prosecution, review, or compensation in poland.	The overall complexity of the subject matter and the required high level of expertise make environmental crime investigations quite a challenging task for law enforcement. The clandestine nature of environmental offences...	Explains how miscarriages of justice arise and what the state must do to correct and prevent them.
9	Said et al. (2025)	China	Analytical study	Examines wrongful conviction, wrongful prosecution, review, or compensation in china.	In the Disruption Era, the revision of criminal wrongful convictions is vital to the protection of human rights. Moreover, it has a wide and profound impact on judicial credibility with complex mechanisms...	Explains how miscarriages of justice arise and what the state must do to correct and prevent them.

10	Mujuzi (2022)	BRICS	Review / commentary	Examines wrongful conviction, wrongful prosecution, review, or compensation in brics.	For many decades, international human rights law has recognised the danger of wrongful convictions and miscarriages of justice. It is against this background that measures have been taken to prevent or combat...	Explains how miscarriages of justice arise and what the state must do to correct and prevent them.
11	McGuire & Renaud (2023)	General / conceptual	Not clearly specified	Examines wrongful conviction, wrongful prosecution, review, or compensation in general / conceptual.	One of the more striking recent miscarriages of justice was perpetrated by the UK's Post Office when subpostmasters and subpostmistresses were prosecuted for fraud that actually arose from malfunctioning software. Over 7...	Explains how miscarriages of justice arise and what the state must do to correct and prevent them.
12	Nabaskues Martínez De Eulate (2024)	Brazil	Qualitative socio-legal	Examines wrongful conviction, wrongful prosecution, review, or compensation in brazil.	This article deals with different trial-by-media cases. First of all, some paradigmatic cases are cited that occurred in the United States where the media played an important role in spreading ideas to...	Explains the remedial side of state responsibility, especially compensation and reparation.
13	Kassin et al. (2025)	European / EU	Interview-based case study	Examines wrongful conviction, wrongful prosecution, review, or compensation in european / eu.	Wrongful conviction databases have shed light on the fact that innocent people can be induced to confess to crimes they did not commit. Drawing on police practices, core principles of psychology, and...	Explains how miscarriages of justice arise and what the state must do to correct and prevent them.
14	Lingard (2024)	Australia / Aotearoa New Zealand	Review / commentary	Examines wrongful conviction, wrongful prosecution, review, or compensation in australia / aotearoa new zealand.	After exhausting legal avenues, individuals who believe they have suffered a miscarriage of justice can petition the executive arm of government for a conviction or sentence review. This pathway has been criticised...	Shows that review and exoneration mechanisms are a precondition for meaningful accountability.
15	Growns et al. (2026)	Australia / Aotearoa New Zealand	Analytical study	Examines wrongful conviction, wrongful prosecution, review, or compensation in australia / aotearoa new zealand.	Objective: Miscarriages of justice—such as wrongful conviction, false accusation, and investigation—have serious psychological and social impacts. While most research in this area originates in the US and UK, little is k...	Explains how miscarriages of justice arise and what the state must do to correct and prevent them.

16	Hellqvist (2024)	General / conceptual	Case study	Examines wrongful conviction, wrongful prosecution, review, or compensation in general / conceptual.	In Sweden, individuals who claim they have been wrongfully convicted can apply for post-conviction review. However, researchers have argued that the path towards exoneration is filled with barriers that some may overcome...	Shows that review and exoneration mechanisms are a precondition for meaningful accountability.
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The RQ4 extraction table demonstrates that state responsibility is not a narrow compensation question but a broader accountability architecture. The reviewed studies connect causation, correction, and remedy: errors must first be recognized and reviewed, then corrected through exoneration or other post-conviction pathways, and finally addressed through compensation, rehabilitation, and institutional reform. This logic is essential for the article's final framework because it supplies the remedial endpoint when land-conflict criminalization becomes wrongful.

Findings for RQ4: State Responsibility and Compensation



Figure 5. State responsibility and compensation framework for RQ4: State Responsibility and Compensation.

A first finding is that miscarriages of justice often arise from identifiable institutional pathologies, including tunnel vision, unreliable evidence, coerced confessions, technological systems, and politically charged allegations (Alagna, 2024; Kassin et al., 2025; McGuire & Renaud, 2023; Solodov & Zębek, 2022). A second finding is that access to justice after conviction remains difficult because review and exoneration procedures are often narrow, discretionary, slow, or inaccessible (Hellqvist, 2023, 2024; Lingard, 2024). A third finding is that meaningful state responsibility requires more than formal acknowledgment; it requires compensation, rehabilitation, and structural reform, as emphasized in the Chile-Mexico comparison, BRICS analysis, UK compensation debate, and doctrinal discussions of damages (Dargue, 2024; Descheemaeker, 2023; Fernández, 2021; Mujuzi, 2022). A fourth finding is that wrongful criminalization has broader social consequences for credibility, legitimacy, and collective trust in justice institutions (Grown et al., 2026; Said et al., 2025). Accordingly, the RQ4 literature supplies the remedial and accountability dimension of the final SLR framework.

Summary of Key Findings

Tabel 7. Summary of Key Findings

RQ	Dominant Finding	Output
RQ1	Land conflicts become criminalized when land rights, protest, customary use, or community resistance are reframed as criminal conduct through selective enforcement, corporate pressure, legality capture, or land-mafia practices.	Conceptual map of criminalization of land conflicts
RQ2	Criminal law should be used only after non-criminal remedies are exhausted and after necessity, serious harm, proportionality, evidence, and vulnerability tests are satisfied.	Typology of last resort principle in land conflicts

RQ3	Criminalization affects land rights, Indigenous rights, livelihood, fair trial, access to justice, and the security of environmental and land defenders.	Human rights impact map
RQ4	State responsibility requires correction, accountability, compensation, rehabilitation, and non-repetition when criminal enforcement becomes wrongful.	State responsibility and compensation framework

From Land Conflict to Criminalization

The review shows that land conflict becomes criminalized when legal and political institutions transform disputes over tenure, community claims, or extractive expansion into questions of public order, trespass, land grabbing, or related offences (Berenschot et al., 2024; Natasa et al., 2026). This transformation is facilitated by state-corporate alliances, administrative opacity, land-mafia practices, and the strategic use of legality itself (Bachriadi & Aspinall, 2023; Stassart et al., 2025; Wirawan et al., 2024). The broader implication is that criminalization in land conflict is often a governance choice rather than an inevitable legal consequence (Priyatno et al., 2023).

Criminal Law and the Last-Resort Principle

The RQ2 literature makes it possible to articulate a practical last-resort test for land conflicts: before criminal law is used, authorities should ask whether administrative, civil, restorative, or negotiated mechanisms remain viable (Sulistiani & Fakhriah, 2023; Utomo et al., 2026). If criminal law is still considered, the intervention should satisfy necessity and proportionality and should be accompanied by strong procedural safeguards (Čevers, 2025; Lappi-Seppala, 2023; Sakowicz, 2022). This discussion is especially important for land conflicts because the underlying issues are often relational and structural, making punitive solutions a poor first response.

Human Rights Protection in Agrarian Conflicts

The RQ3 findings confirm that criminalization of land conflict affects not only liberty interests but also a wider bundle of human rights, including land rights, indigenous rights, participation, livelihood, food security, environmental integrity, and access to justice (Berenschot & Dhiaulhaq, 2025; Mendes et al., 2025; Wisnaeni & Najib, 2025). This means that the assessment of criminal law in land conflicts cannot stop at doctrinal legality; it must also evaluate whether institutions protect vulnerable groups and provide accessible remedies (Diar & Lestari, 2025; Sigit, 2023; Wahid & Sulistiyono, 2025). A human-rights lens therefore becomes indispensable to evaluating both the causes and consequences of criminalization.

State Responsibility and Compensation

The RQ4 literature demonstrates that misuse of criminal justice creates a duty on the state not only to stop the abuse but also to correct it and remedy its consequences (Duce & Findley, 2022; Mujuzi, 2022). This duty includes review and exoneration mechanisms, compensation, rehabilitation, recognition of harm, and reform of the institutional conditions that enabled the injustice (Fernández, 2021; Hellqvist, 2023, 2024). For land-conflict criminalization, this insight is critical because it clarifies what justice requires when punitive intervention was wrongful from the start or became wrongful in its implementation.

Proposed Framework

The framework starts from the premise that land conflicts must first be diagnosed as multi-dimensional disputes. Before any criminal case is pursued, decision-makers should identify whether the dispute involves unresolved land administration, customary tenure, corporate acquisition, state concession, eviction, or environmental governance. The second step is to detect criminalization risks: selective enforcement, SLAPP-like action, land-mafia legality, intimidation, arbitrary arrest, or protest suppression. The third step is the last resort test, which asks whether non-criminal remedies have been

exhausted, whether the alleged harm is serious, whether evidence is strong, whether criminalization is proportionate, and whether vulnerable groups will be harmed. The fourth step is human-rights assessment. The final step is state responsibility and compensation if criminal enforcement produces wrongful prosecution, wrongful conviction, or miscarriage of justice.



Figure 6. Land Conflict Criminalization and Human Rights Protection Framework.

The framework also integrates human-rights safeguards at the point of intervention, not only after harm occurs. In this sense, the framework is both preventive and remedial: it seeks to prevent overcriminalization and, where prevention fails, to ensure accountability and reparation.

CONCLUSION

This review concludes that the criminalization of land conflicts is best understood as a patterned shift from governance-based dispute resolution to penal control. This shift is facilitated by tenure insecurity, inadequate legal recognition, extractive pressures, manipulated legality, and unequal political power. Under these conditions, the use of criminal law in land conflicts should be constrained by the ultima ratio principle and continuously assessed through a human rights framework. The review makes four principal contributions. First, it provides a conceptual map of criminalization in land conflicts. Second, it develops a typology of ultima ratio reasoning. Third, it synthesizes the human rights implications of land-conflict criminalization. Fourth, it integrates state responsibility and compensation into the same analytical framework. Together, these contributions form the Land Conflict Criminalization and Human Rights Protection Framework.

This review has several limitations. It primarily relies on Scopus, restricts inclusion to English-language journal articles published in final form between 2021 and 2026, and requires open-access full-text availability at the final inclusion stage. Future research should expand database coverage, incorporate non-English-language scholarship, and empirically evaluate the proposed framework in specific land-conflict contexts, particularly those involving Indigenous peoples, land and environmental defenders, and contested development projects. (Alshamari, 2026)

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