MASALAH-MASALAH HUKUM
Available online on https://ejournal.undip.ac.id/index.php/mmh/
Volume 55, Issue 1, March 2026

DISASTER RISK REDUCTION AND SOCIAL JUSTICE FRAMEWORK IN INDONESIAN LAW: FROM NATIONAL TO LOCAL REGULATION

Lita Tyesta Addy Listya Wardhani*, Amalia Diamantina, Athanasius Allan Darma Saputra
Faculty of Law, Universitas Diponegoro, Semarang, Indonesia
*litatyestalita@gmail.com

Abstract

This study examines the extent to which disaster risk reduction (DRR) law incorporates social justice as a normative foundation. It argues that disaster law, particularly within the contemporary DRR paradigm that prioritises prevention, resilience, and collaborative governance, must move beyond technical risk management and embed justice in both substance and procedure. Social justice in disaster governance is conceptualised through four interrelated dimensions: distributive justice, procedural justice, human rights, and good governance. Drawing on Alexy's theory of the ideal dimensions of law, the study contends that the legitimacy of disaster law should not rest solely on formal validity, but also on its orientation toward substantive justice. To assess the realisation of social justice, this study develops an analytical framework consisting of five indicators derived from those dimensions: protection of vulnerable groups, equitable disaster funding, access to disaster-related information, meaningful public participation, and institutional accountability. Using qualitative legal research with a doctrinal approach, the study applies this framework to international, national, and sub-national instruments, including the Sendai Framework for Disaster Risk Reduction, Indonesian Law No. 24 of 2007 on Disaster Management, and Lampung Province Regional Regulation No. 6 of 2024 on Disaster Management. The findings show that these legal frameworks generally recognise elements of social justice, yet significant normative and institutional gaps remain. Vulnerable groups are often defined in broad and static terms, insufficiently reflecting intersecting factors such as gender, disability, age, socioeconomic status, and geographical marginalisation. In addition, participation is commonly acknowledged as a principle, but is rarely supported by clear mechanisms that guarantee meaningful community involvement in decision-making. Strengthening these indicators is essential to transform disaster law into a justice-oriented framework capable of protecting vulnerable populations and advancing DRR objectives.

Keywords: Disaster Risk Reduction; Social Justice; Disaster Law; Governance; Vulnerable Groups.

A. Introduction

Disasters not only threaten human safety but also test a state's commitment to the rule of law and justice (Criddle & Fox-Decent, 2012; Popovski, 2014; Verchick, 2012). In crises situations, governments frequently acquire broader administrative powers, allocate public resources, restrict certain activities, and determine which groups or areas should be prioritised for protection efforts (Bignami et al., 2024; Wang et al., 2025). Such conditions render law critically important to ensure that these powers are exercised lawfully, accountably, and in the public interest (Sonhaji et al., 2022; Dube, 2023). Without adequate legal frameworks, disaster risk governance may give rise to arbitrary actions, the neglect of vulnerable groups, limit public participation, and unfair distribution of the benefits and burdens of disaster policies. Law in disaster situations also assumes a broader normative role: rather than merely addressing arbitrariness, it explicitly affirms the state's obligations and responsibilities to protect human rights (Añón, 2021; Rahmawan et al., 2024). Consequently, the law imposes legal and moral demands on those in power to exercise authority solely to protect human life and well-being, while upholding respect for human rights (Prasetyoningsih & Ichsan, 2024).

The significance of the law during such disaster situations demonstrates that the law cannot be understood merely as a set of formally valid rules. As Satjipto Rahardjo (2009; 2011) reminds us, the law is created for humanity and must be dedicated to the common good of humanity (Aulia, 2018; Ikhsan et al., 2025). Law that relies solely on formal validity without an underlying moral imperative risk producing outcomes inconsistent with justice and the common good. This ethical core is crucial; formalistic law may be easily used to legitimise exercises of power that contradict fundamental fairness. At this point, law is often viewed as having a social control function to ensure that social behaviour aligns with established rules within society (Widyawati, 2020). In this context, the protection of human rights, the limitation of the public power, and the promotion of social justice form inseparable elements of both the formulation and implementation of disaster law (Creta, 2018).

The growing threat posed by disasters to human life and well-being is an undeniable global reality. A recent report by the United Nations Office for Disaster Risk Reduction (UNDRR) identified the "big five hazards" responsible for the most significant global impacts since 2000: earthquakes, extreme heat, hurricanes, floods, and droughts. Collectively, these hazards account for approximately 90 percent of disaster-related human fatalities (UNDRR, 2025). Quite apart from indirect and post-disaster losses—such as human suffering, long-term health impacts, and ecosystem degradation—these hazards generated direct economic losses exceeding USD 195.7 billion, equivalent to approximately 0.15 percent of global GDP (UNDRR, 2025). Categorically, hurricanes, floods, and droughts are classified as hydrometeorological disasters; earthquakes represent as geological disasters; and extreme heat is classified as a climatological disaster. Studies indicate that hydrometeorological disasters stem from extreme meteorological and climatic events, such as floods, droughts, storms, tornadoes, or landslides (Wu et al., 2016). These global trends are consistent with disaster conditions in Indonesia. Infographic data published by the National Disaster Management Agency (*Badan Nasional Penanggulangan Bencana*—BNPB) of the Republic of Indonesia indicate that between 1 January–17 December 2025, disaster events in Indonesia were heavily dominated by hydrometeorological hazards, including floods (1,584 events), extreme weather (673 events), and landslides (225 events) (BNPB, 2025). These disasters affected more than ten million people, displacing thousands and engendering long-term socioeconomic vulnerability.

As a welfare state, Indonesia is constitutionally obligated to protect and ensure the welfare of all its citizens, including in the context of disaster risks. This mandate is based on the wording of the Preamble to the Constitution of the Republic of Indonesia: "*to promote the general welfare….*" Conceptually, a welfare state seeks to ensure that every citizen receives a minimum standard of living, retains access to social services, and enjoys the fulfilment and protection of fundamental rights without discrimination (Elviandri et al., 2019). Operationally, this obligation is four-fold. First, welfare as a condition requires the state to restore and maintain post-disaster well-being. Second, welfare as a social service obliges the government to provide public services, including health care and social services, to affected or at risk communities. Third, welfare as a social benefit entails a specific responsibility to protect vulnerable groups, such as impoverished individuals and persons with disabilities. Fourth, welfare as a developmental process requires the provision of social assistance to improve post-disaster quality of life. These obligations reflect the value of social justice embodied in *Sila 5* of Pancasila as the philosophical foundation of the Indonesian state.

Contemporary disaster governance increasingly adopts the Disaster Risk Reduction (DRR) approach. DRR refers to a systematic framework aimed at preventing and minimising disaster impacts through risk analysis, vulnerability reduction, and enhanced preparedness within the broader context of sustainable development (Barua et al., 2021). Rather than prioritising post-disaster response, DRR emphasises pre-disaster risk reduction by strengthening societal resilience (Aitsi-Selmi et al., 2015; Peters, 2025). This shift necessitates a reconceptualisation of welfare protection. As a condition of prosperity, welfare must be protected across pre-disaster, disaster, and post-disaster phases through effective risk reduction measures. Consequently, the legal framework must adapt to emerging interests and obligations arising from the DRR paradigm. Law is also required to regulate disaster response, define, as well as protect rights and obligations associated with risk reduction. The state bears responsibility for promoting societal preparedness, while citizens are expected to actively participate in strengthening DRR awareness and capacity (Sossai, 2018).

This study aims to expand the analysis of DRR implementation within Indonesian law through a social justice lens. Previous studies, such as studies by Putra & Matsuyuki (2019) and Rahmawan et al. (2024), has tended to focus on legal and empirical analyses of disaster governance—particularly regarding the role of local governments—without connecting these two domains to an understanding of social justice. Both studies examine the extent to which the state fulfils its responsibility to protect its disaster-affected citizens, they fail to provide a philosophical basis for explaining why and how that responsibility ought to be discharged. A similar issue is found in the study by Prasetyoningsih and Ichsan (2024). Although they highlight the state's obligation to protect human rights during disaster situations, their inquiry stops at legal and constitutional analysis without evaluating it through the lens of social justice. This indicates that social justice has yet to be systematically incorporated as an evaluative framework within disaster law studies. Furthermore, whilst legal evaluations of disaster law have been conducted by Ayuni and Arsil (2021), they do not utilise social justice-based indicators. Consequently, an important question remains unanswered: *how can disaster law be evaluated to determine whether it truly realises social justice within the DRR paradigm?*

This research seeks to move beyond standard legal and empirical studies by presenting a conceptual-philosophical analysis. It features an in-depth examination of the value of social justice, which must normatively be embedded in disaster law at both the national and local levels. Although DRR is widely promoted as a human-centred approach, there remains no legal evaluation framework capable of determining when disaster laws informed by DRR can be regarded as socially just. Therefore, in contrast to existing studies, this research not only examines the presence of DRR principles in disaster law but also develops a social justice-based evaluation framework. Grounded in four foundational dimensions of social justice, this framework is operationalised into five specific indicators assess the extent to which disaster laws ensure protection for vulnerable groups, provide access to information and services, facilitate public participation, guarantee equitable funding, and enforce accountability of relevant actors.

Therefore, this study addresses three primary objectives to: (1) analyse how social justice intersects with the concept of DRR within the framework of international law and philosophical discourse; (2) examine how social justice generates indicators suitable for evaluating disaster law, specifically measuring the extent to which law formally incorporates DRR and dimensions of social justice; and (3) evaluate Indonesian disaster law at the national and local levels using these social justice indicators. At the local level, the analysis focuses on Lampung Province Regional Regulation No. 6 of 2024 on Disaster Management. The selection of Lampung Province as the subject of the local-level legal study is based on the author's previous research, which mapped the extent to which the regulation incorporates DRR principles (Wardhani et al., 2025). By extending that preliminary mapping into comprehensive analysis based on social justice indicators, this study seeks to provide a deeper, more systematic understanding of the relationship among DRR, law, and social justice.

B. Method

This study employed a qualitative legal research design underpinned by the doctrinal method, which examined the legal principles and doctrines formulated into norms governing social life (Suteki & Taufani, 2020). To achieve this, several approaches were employed in this research. First, the study adopted a statutory approach by examining legal instruments related to disaster governance at international, national, and local levels, including the SFDRR, Law No. 24 of 2007 on Disaster Management, Government Regulation No. 21 of 2008 on Implementation of Disaster Management, and Lampung Province Regional Regulation No. 6 of 2024. In addition, legal instruments outside the disaster sector that intersect with the issues examined in this study are analysed, specifically regulations concerning human rights and spatial planning. Second, the study employed a conceptual approach by identifying the conceptual intersections among DRR, social justice, and Indonesian law. This conceptual inquiry produced an indicator framework used to assess the extent to which disaster law has incorporated DRR principles and priorities alongside the values of social justice. Through an analysis of the *ratio legis* and the normative and philosophical foundations of the relevant legal norms, this study seeks to identify the philosophical and normative alignment between DRR principles and social justice values. Third, a comparative approach is adopted by presenting selected examples of DRR implementation within other jurisdictions.

The legal materials used in this study consist primarily of primary legal materials (legislation and regulations) and secondary legal materials (journal articles, books, and reports relevant to the subject matter). The study was further supplemented by interviews with policymakers from the Regional Disaster Management Agency of Lampung Province (BPBD Provinsi Lampung). These interviews were conducted on 1 July 2025 at the BPBD Provinsi Lampung Office with the Chief Executive of the BPBD Provinsi Lampung Office, Rudy Sjawal Sugiarto, and a Disaster Analyst at the same institution, Wahyu Hidayat. Accordingly, the interviews were not used as empirical evidence for testing hypotheses; rather, to contextualise and verify the practical implementation of the legal framework examined.

Given the interpretative character of doctrinal legal research, this study recognises that the analysis of legal texts is inseparable from the researcher's perspective in understanding legal norms and doctrines. To enhance the reliability of the analysis, several measures were undertaken. First, legal materials were examined through a systematic comparison of statutory provisions, legal doctrines, and scholarly opinions relevant to disaster law and social justice. Second, the selection of legal sources prioritised materials with strong academic authority, contextual relevance, and currency—particularly those reflecting recent developments in DRR discourse. Third, the analytical process was carried out reflexively by continuously reassessing the coherence between the theoretical framework, legal interpretation, and research findings. Through these combined measures, the study seeks to ensure analytical rigour, transparency, and consistency throughout the research process.

C. Results and Discussion

1. Understanding Disaster Risk Reduction: Legal Context

DRR has evolved from a localised initiative into a central pillar of contemporary disaster management. At the global level, this framework is primarily articulated through the Sendai Framework for Disaster Risk Reduction 2015–2030 (SFDRR), which emphasises the need for context-sensitive policies tailored with the specific characteristics, capacities, and vulnerabilities of individual communities. Through this approach, disaster management policies are expected to be grounded in a comprehensive understanding of disaster risk (Rajabi et al., 2022). To operationalise this, the SFDRR promotes measurable outcomes through clear indicators, while simultaneously advancing an inclusive, people-centred, and locally driven approach to DRR. It further encourages cross-sectoral integration, strengthens resilience through the "Build Back Better" principle, and addresses emerging issues such as climate change, sustainable development, health, education, and multiple hazard contexts through the four priority actions set out in Paragraph 20 of the SFDRR (Maly & Suppasri, 2020). However, the SFDRR is a non-binding instrument under international law. Nevertheless, this characteristic does not diminish its significance as a benchmark and evaluative framework for disaster management, as its normative authority is reinforced by principles and instruments that are already well established within international law (Aronsson-Storrier, 2020).

Such principles and instruments are reflected the Draft Articles on the Protection of Persons in the Event of Disasters (DAPPED), prepared by the International Law Commission (ILC) since 2016 and expected to be formally adopted in 2027. As a general matter, the work of the ILC carries considerable authority within international law because it is developed through a rigorous process that draws upon both soft-law and hard-law norms. Consequently, it plays an important role in the codification and crystallisation of international law into customary international law, contributing to the formation of customary international law and treaty regimes (Foysal, 2023). Although DAPPED has not yet entered into force as a binding treaty, its provisions remain influential as evidence of emerging normative developments in international disaster law.

DAPPED represents a manifestation of the ILC's dual mandate: *lex lata* and *lex feranda.* the first concerns the codification of existing legal norms that are already binding through customary international law, whereas *lex ferenda* involves the formulation of desirable future legal norms intended to address legal gaps (Foysal, 2023). In particular, the ILC explicitly incorporates DRR in Article 9(1) of DAPPED, which provides that: "Each State shall reduce the risk of disasters by taking appropriate measures, including through legislation and regulations, to prevent, mitigate, and prepare for disasters." Furthermore, Article 9(2) of DAPPED stipulates that such measures "include the conduct of risk assessments, the collection and dissemination of risk and past loss information, and the installation and operation of early warning systems." The existence of DAPPED further reinforces the legitimacy of the SFDRR as a soft-law instrument, particularly because Article 8 expressly acknowledges the relevance of other international legal instruments.

Pronto (2019) identifies several important observations concerning the regulation of DRR under Article 9 of DAPPED, each of strengthens the DRR framework. First, DRR is closely connected to a legal obligation arising from the primary responsibility of states to prevent and reduce disaster risk. This obligation is grounded in principles of human rights law, international environmental law, and domestic approaches to DRR adopted by individual states. Second, the use of the term including in Article 9(2) of DAPPED indicates that states retain discretion to adopt additional measures appropriate to their local contexts, rather than limiting them to the three measures specifically identified by the ILC. Third, although Article 9 focuses on national measures to reduce disaster risk, DAPPED as a whole promotes collaborative practice through Article 7, which calls upon states to cooperate "with the United Nations, with the components of the Red Cross and Red Crescent Movement, and with other assisting actors." Accordingly, while Article 9 requires states to undertake appropriate DRR measures according to their respective local circumstances, Article 7 provides the normative foundation for international cooperation whenever such cooperation is necessary to support national DRR efforts.

The provisions of DAPPED closely correspond to the six foundational principles of the SFDRR as explained in the document *Reading the Sendai Framework for Disaster Risk Reduction 2015–2030* (UNDRR, 2015). The provisions concerning state responsibility in DAPPED are consistent with the principle of the primary responsibility of states to prevent and reduce disaster risk, including through cooperation, as articulated in Paragraph 19(a) of the SFDRR. This principle affirms that states bear sovereign responsibility for prioritising disaster prevention and DRR as a fundamental and indispensable obligation (UNDRR, 2015). This principle is reinforced by the principle of shared responsibility among central and local authorities, sectors, and stakeholders under Paragraph 19(b) of the SFDRR, which encourages cooperation between states and all relevant actors involved in disaster prevention and disaster risk reduction (UNDRR, 2015). In relation to DAPPED, this second principle is closely connected to Article 7, which promotes collaboration among actors, and is further strengthened by the principle of inclusive participation contained in Paragraph 19(d), which emphasises the involvement of all segments of society without discrimination or exclusion.

The fourth principle, namely the protection of persons and their assets while promoting and safeguarding all human rights, including the right to development, as set out in Paragraph 19(c) of the SFDRR, further demonstrates that DRR functions as a mechanism for the fulfilment of human rights (UNDRR, 2015). The recognition of human rights directly influences participation, capabilities, risk-informed decision-making, and other factors that contribute to DRR. The fifth principle, concerning the full engagement of executive and legislative institutions at both the national and local levels under Paragraph 19(e) of the SFDRR, underscores that disaster-related issues are not solely the responsibility of executive authorities. Legislative institutions are likewise expected to play an active role in law-making and oversight functions, while effective inter-institutional coordination is required to promote policy coherence and consistency (UNDRR, 2015). Finally, the principle of policy coherence across different sectors, plans, practices, mechanisms, and agendas under Paragraph 19(h) of the SFDRR further emphasises the importance of coherent government action and multi-sectoral risk management.

Beyond these foundational principles, the SFDRR is structured around four distinct priority areas. The first priority—*understanding disaster risk*—serves as the foundation of all DRR policies and measures. This priority operates on the premise that effective disaster law and policy can only be developed through a multidimensional understanding of disaster risk encompassing vulnerability, capacity, exposure, hazard, and environmental factors (Paragraph 23 of the SFDRR). At the national and local levels (Paragraph 24 of the SFDRR), the SFDRR encourages the strengthening of domestic legislation, public access to data, geographic information system mapping, public education, and the integration of local knowledge. Rather than treating risk knowledge as purely technical exercise, these provisions transform risk knowledge into a statutory right and a core governmental obligation. Accordingly, this first priority yields three key legal considerations; first, a legal obligation to produce multidimensional disaster-risk data regularly; second, a legal mandate integrating hazard mapping and vulnerability assessments into spatial planning frameworks; and third, a legal guarantee of public access to risk information as a component of the right to information.

The second priority—*strengthening disaster risk governance to manage disaster risk*—emphasises coherence as a strategic approach for comprehensive risk management. This approach seeks to optimise resource allocation while anticipating the unintended adverse consequences arising from cross-sectoral actions and making effective use of available resources (UNDRR, 2015). At the national and local levels, this priority directs states to embed DRR into cross-sectoral public regulations, formulate localised strategies, secure targeted budget allocation, and foster inclusive institutional collaboration by empowering local authorities alongside community representatives, Indigenous peoples, and migrants. Furthermore, it requires a robust oversight mechanisms, technical and financial assessments, and compliance frameworks (Paragraph 27 of the SFDRR). This governance model also extends to regional and global scales, including the harmonisation of regional planning, cross-border cooperation, and inter-state information exchange (Paragraph 28 of the SFDRR).

Furthermore, studies indicate that effective disaster risk governance relies on at least five key actors: the state; multilateral organisations (including international institutions such as the United

Nations, the World Bank, and international NGOs); academic institutions; community-based organisations; and private entities, including the private sector, media organisations, insurance companies, and financial institutions (Nuñez & Ocampo-Salazar, 2025). From a legal perspective, these governance arrangements are intended to reduce institutional fragmentation and clarify responsibility among disaster-governance actors. Accordingly, this second priority can thus be translated into three key legal considerations. First, a clear allocation of institutional mandates that expressly delineates jurisdictional boundaries, coordination functions, and inter-sectoral accountability. Second, formal mechanisms that legitimise coordination and partnerships between local governments and external actors in the implementation of local policies. Third, the availability of legal enforcement instruments – both incentive-based or sanction-based – to ensure cross-sectoral compliance with established DRR standards.

The third priority—*investing in DRR for resilience*—affirms that public and private investment in disaster prevention and DRR constitutes a critical prerequisite for strengthening economic, social, health, cultural, and environmental resilience (Paragraph 29 of the SFDRR). Studies demonstrate that increased investment can reduce economic vulnerability during disaster situations (Watanabe et al., 2025). To operationalise this priority domestically, the SFDRR advocates for provision of adequate financial and logistical resources for the development and implementation of cross-sectoral DRR strategies, policies, plans, laws, and regulations. Additionally, it calls for the development of risk-transfer mechanisms, financial protection measures, and risk-sharing arrangements between public and private sectors, while systematically embedding risk considerations into broader fiscal instruments, public-private investments, and sustainable development policies (Paragraph 30 of the SFDRR).

At the global and regional levels, the SFDRR emphasises collaboration with international financial institutions, the business sector, and other stakeholders in strengthening financing mechanisms and economic resilience to disasters (Paragraph 31 of the SFDRR). Accordingly, this third priority may be crystallised into three key legal considerations; first, legal certainty regarding budget allocation and the provision of adequate resources for the implementation of DRR at all levels of government; second, the availability of a regulatory framework that facilitates public-private financing schemes, including risk-transfer mechanisms, risk-sharing arrangements, disaster insurance, and other forms of financial protection designed to strengthen resilience against disaster impacts; and third, the existence of legal instruments that guarantee accountability and transparency in disaster-related financial management, including oversight mechanisms and anti-corruption safeguards to prevent the misuse of resources allocated for DRR.

Finally, the fourth priority—*enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation, and reconstruction*—underscores the importance of preparedness as an integral component of DRR. In brief, this priority mandates the integration of climate-change scenarios, the inclusion of marginalised demographics, and the institutionalisation of psychosocial support frameworks within emergency planning based on Paragraph 33 of the SFDRR. It further advocates for community-centred, multi-stakeholder collaboration, and the optimisation of post-disaster phases through the Build Back Better approach. This involves refining land-use planning, enhancing structural standards, harmonising international disaster assistance law, and maintaining systematic mortality registration databases. This fourth priority may likewise be crystallised into three key legal considerations; first, an institutional obligation to develop adaptive emergency planning and contingency plans integrated with responsive emergency financing procedures; second, a regulatory obligation to operate community-centred early warning systems while ensuring protection and inclusive accommodation for the rights of vulnerable groups, including manifestations of gender justice and the leadership of persons with disabilities; and third, the existence of a post-disaster regulatory framework that incorporates the Build Back Better principle.

Based on the foregoing discussion, DRR emerge as a holistic paradigm designed to achieve the highest possible level of protection for society. It provides a regulatory framework capable of accommodating multiple and potentially overlapping dimensions—ranging from institutional arrangements, collaboration, financing mechanisms, and critical issues such as equality, within a coherent and integrated structure. Moreover, DRR does not conceive disaster management as an exclusive responsibility of the state in the sense that public actors, private actors, and the international community are precluded from sharing that responsibility. Rather, it promotes optimal collaborative and participatory action among all relevant stakeholders. Such an approach is essential to ensure that DRR and disaster management are implemented in accordance with local needs and grassroots capacities, thereby fostering resilient communities capable of confronting disaster risks. These characteristics suggest that DRR is not merely a technical framework for risk management, but also a normative framework capable of advancing social justice objectives.

2. Dissecting Social Justice in Disaster Risk Reduction: A Legal-Conceptual Analysis

The preceding discussion of international DRR law provides a basis for understanding DRR as a crucial means of fostering a more equitable and humane social order. Thus, it is entirely accurate to characterise DRR as an instrument for realising social justice, provided one simultaneously recognises that social justice must be explicitly embedded within DRR practices. To understand this reciprocal relationship, it is first necessary to examine the nature of social justice. Referring to David Miller (1999), social justice concerns the institutional mechanism through which a society distributes the essential means to achieve well-being. Social justice, therefore, does not refer to well-being itself, but rather to the conditions that enable individuals to access it via the equitable distribution of public goods. For DRR to be regarded as socially just, it must be capable of distributing public goods fairly; conversely, the provision and protection of public goods must also be secured in a manner that actively reinforces DRR objectives.

Under Miller’s framework, the primary object of social justice is the distribution of public goods and social advantages necessary for human well-being. Public goods refer to goods or services provided by the state or collectively consumed and broadly enjoyed by society (Kohn, 2020). These include social goods—such as access to political participation, education, and health services—as well as economic resources traded in the market, such as income and property (Altwicker, 2022). While some scholars delineate economic goods as material goods, social goods are categorised as normative goods, including freedom, equality, fraternity, and justice (Shukla, 2017). Within disaster management, the protection of both material and normative public goods is of fundamental importance. This concern is also reflected in the SFDRR, which emphasises the protection of marginalised groups as well as the protection of the socioeconomic conditions of affected populations, particularly those living in poverty. The provision of these public goods is especially pronounced within the third and fourth priorities of the SFDRR.

Public goods must be provided by the state because of market failure, including in disaster situations (Kong, 2022). By definition, public goods are non-rivalrous and non-excludable (Kohn, 2020); one individual’s consumption of a public good does not diminish its ability of others to consume the same good, nor can its benefits ordinarily be restricted to particular persons. These characteristics closely correspond to many aspects of DRR. For example, information generated by an early warning system cannot realistically be confined to a privileged cohort, nor does one person’s reception of an alert deplete its utility for the neighbours. Nevertheless, social justice challenges arise in relation to the accessibility and comprehensibility of such information. Disaster-risk information, as a public good, loses its societal value if individuals lack the capacity to interpret it. Consequently, the state's provision of DRR-related public goods cannot stop at formal compliance, such as merely releasing raw data to the public. Rather, it must extend to substantive fulfilment through inclusive disaster education. If the government simply disseminates information without ensuring that local communities possess the capacity to understand and operationalise it, the state effectively fails to uphold social justice within DRR because such information becomes indirectly excludable for certain groups.

At this point, the state primarily deploys legal framework to provide public goods within the context of DRR. Just as the SFDRR and DAPPED establish the practical framework for DRR at the international level, domestic states rely on law to perform their functions and responsibilities, including disaster management. This alignment reflects the reality that law structures the relationship between the state and its citizens while providing the foundation through which the state regulates social life (Magnis-Suseno, 2024). Law functions simultaneously as an instrument for the execution of public authority and as a constraint preventing arbitrary state action. In the context of DRR, as discussed above, law provides the juridical and operational foundation that enables governments to implement DRR effectively, while ensuring compliance with legal principles and limitations designed to safeguard citizens' rights. To achieve this, the law must embody principles that ensure governmental activities, including DRR initiatives conducted in a just manner.

Before examining these principles, a threshold jurisprudential question emerges: *must law itself be substantively just to retain its legal validity?* To answer this question, Robert Alexy proposes a "dual-nature thesis", positing that law comprises both an authoritative social institution (the real dimension) and inherent moral or truth claims (the ideal dimension) (Alexy, 2021). Adopting a non-positivist perspective, Alexy challenges the strict separation between the formal and ideal dimensions of law by arguing that "law necessarily raises a claim to correctness, and that this claim comprises a claim to moral correctness," meaning that "law implicitly—through representative institutions—claims that it contains justice" (Alexy, 2021).

To reconcile these real and ideal dimensions, Alexy distinguishes between two levels of truth. The first tiers concern first-degree truth, which relates exclusively to the ideal or moral dimension of law. The second tier, second-degree truth, integrates this moral correctness with institutional validity. While first-degree correctness emphasises pure justice, second-degree truth refers to justice combined with legal certainty. The principle of legal certainty operates as a formal principle requiring fidelity to authoritatively enacted, socially effective norms, whereas the principle of justice serves as a substantive principle requiring morally correct outcomes (Alexy, 2021). In disaster law, the first level is reflected in the state's moral obligation to protect the right to life of its citizens from disaster-related threats. The second level of Alexy's theory requires that disaster law must not only possess formally valid procedures enacted through legislative processes, but must also function effectively in ensuring the protection, capacity, and access necessary to build societal resilience to disasters.

From this perspective, disaster justice seeks to balance regulatory certainty with moral correctness in protecting vulnerable groups in practice. For statutory evaluation, this framework exposes scenarios where a regulation remains formally valid yet fails to satisfy the moral demands inherent in law. As explained by Spaak (2020), such a failure may be understood as a *qualifying defect*—a condition in which a norm remains legally binding status but suffers from a substantive moral deficiency because it fails to provide adequate protection for the values of justice that law ought to guarantee.

Although Alexy explains why disaster law must satisfy demands of moral correctness, his theory offers limited guidance regarding the institutional mechanisms through which such demands are implemented. To bridge this gap, law and its functions must be understood in a pluralistic manner. Drawing on Dana Burchardt (2019), law does not perform a single function; rather, it operates through three interrelated dimensions: the content-related, the system-related, and the power-related functions. This classification explains how disaster law translates normative objectives into legal norms, institutions, and practices of disaster risk governance.

First, through its content-related function, law performs the inherent task of shaping social reality and stabilising public expectations. In a DRR context, this function explains how law structures social expectations concerning rights, obligations, and standards of protection against disaster risks. Second, through its system-related function, law contributes to social integration (*integrative function*) and coordinates the behaviour of legal subjects (*coordinative function*). This function explains how law coordinates the actions of the various actors involved in DRR, including governments, private-sector entities, and communities. Third, through its power-related function, law provides the basis for the exercise of public authority while simultaneously limiting its exercise through mechanisms of accountability.

As demonstrated through Alexy's theory, DRR-related law must satisfy the demands of moral correctness to avoid falling into a *qualifying defect*. Such moral correctness cannot be understood in abstraction; rather, it must be assessed through concrete and identifiable standards. In other words, the ideal moral values that ought to be realised within DRR-related law must be specified in tangible terms. This is important because the legitimacy of law depends not only on institutional validity but also on the degree to which it reflects moral correctness, justice, and legal certainty. Accordingly, a more concrete set of criteria is required to assess whether disaster law genuinely realises social justice in the context of DRR. In this study, those criteria are developed through four foundational dimensions of social justice: the distributive, procedural, human rights, and good governance dimensions. Derived from dominant strands within contemporary social justice scholarship and international disaster governance norms, these also provide the normative substance for evaluating DRR-related law, while Burchardt's conception of legal functions explains the institutional mechanisms through which that substance is translated into legal norms, institutions, and practices of disaster risk governance.

The distributive dimension constitutes the most fundamental dimension of social justice, which is closely associated with "fairness in the distribution of benefits and burdens in a society" (Capeheart & Milovanovic, 2020). However, such allocation should not be understood as the formal equal distribution of material resources in the Rawlsian sense (Maurya, 2022). In the DRR context, the distributive dimension is more appropriately understood through Martha Nussbaum's capability approach (Nussbaum, 2011).[1] It explains that justice is assessed based on the extent to which individuals possess genuine capabilities to function in a dignified manner, which she classifies into ten central capabilities (Nussbaum, 2011; Robeyns, 2018). These ten central capabilities are closely related to the principles and priorities of the SFDRR, as well as the DRR indicators discussed in the preceding section and summarised in **Table 1**. For this discussion, however, the capabilities that must be guaranteed in disaster contexts can be narrowed to four core capabilities.

[1] The choice of Martha Nussbaum's Capability Approach over theories of justice developed by John Rawls or David Miller is justified by the inherently asymmetrical nature of disasters. Rawls's theory of justice, particularly the Difference Principle, places primary emphasis on the distribution of primary goods, including material resources and formal rights. It assumes that distributive inequalities can largely be addressed through the fair allocation of such goods (Maurya, 2022). However, this approach pays insufficient attention to conversion factors, namely the differing capacities of individuals to transform resources into actual outcomes. In the context of DRR, two individuals who receive the same early warning information may nevertheless face unequal survival prospects if one of them is a person with a disability. David Miller's approach, meanwhile, places greater emphasis on institutional arrangements and the principles of desert and merit, making it less sensitive to the inherent physical vulnerabilities that shape individuals' ability to respond to disaster risks (Miller, 1999). Nussbaum's Capability Approach is therefore preferred because it focuses directly on capabilities as real freedoms to act and explicitly recognises bodily vulnerability as a central concern of justice (Nussbaum, 2011). These characteristics make it particularly compatible with the normative objectives of disaster law and DRR.

Table 1.
Capability Approach (Nussbaum) of the DRR Conceptual Framework

Central Capability	DRR Context
Life	Mortality reduction
Bodily Health	Health resilience
Bodily Integrity	Protection and safety
Senses, Imagination, and Thought	Education and risk awareness
Emotions	Psychosocial recovery
Practical Reason	Community decision-making
Affiliation	Community resilience
Other Species	Ecosystem protection
Play	Inclusive public spaces
Control over One's Environment	Participation and Accountability

Source: Author's Analysis

First, the *capability of life* concerns the opportunity to live a normal lifespan free from premature mortality. In the DRR context, this capability is reflected in efforts to reduce disaster-related mortality and ensure that legal and institutional arrangements prioritise the protection of human life from foreseeable hazards (Aitsi-Selmi et al., 2015). Second, *bodily health* emphasises access to the structural conditions indispensable for physical well-being, including health care, nutrition, shelter, and sanitation. DRR contributes to this capability by strengthening health resilience, protecting vulnerable populations, and ensuring continuity of essential services before, during, and after disaster phases (Maini et al., 2017). Third, *senses, imagination, and thought* relate to access to education, information, and knowledge. This capability is particularly relevant to legal obligations concerning disaster-risk data, public awareness, risk communication, and disaster education, all of which enable individuals and communities to make informed decisions regarding disaster risks (Ebenezer et al., 2026). Fourth, *control over one's environment* highlights the ability to participate in decisions affecting one's life and community. Within DRR, this capability is reflected into meaningful public participation, community-based disaster governance, and accountability mechanisms that allow affected populations to influence disaster-related policies and decision-making processes. It should be noted that the remaining capabilities identified in Table 1 remain important, their full realisation is functionally contingent upon securing these four foundational pillars.

When viewed through the lens of the content-related function, DRR-related law is responsible for intervening in and shaping social realities to facilitate the equitable distribution of rights and capabilities—particularly for vulnerable groups in disaster situations—while simultaneously stabilising public expectations regarding safety and security. Accordingly, disaster law must reject the premise that existing social realities are neutral; rather, it should accord greater priority to vulnerable groups to ensure that the distributive dimension grounded in the capability approach is genuinely realised within DRR. On this basis, the distributive dimension may be translated into two practical legal indicators, requiring affirmative legal norms that prioritise the protection, evacuation, and recovery of groups in vulnerable situations as a means of safeguarding their basic capabilities; and second, redistributive disaster financing.

Rather than using the phrase "vulnerable groups," this study adopts the expression "protection of groups in vulnerable situations," aligning with the intersectionality-based approach to disaster vulnerability proposed by Kuran et al. (2020). This intersectionality approach conceptualises vulnerability not as an inherent, isolated trait, but as the fluid product of multiple interacting factors of marginalisation. It seeks to identify those who are placed in "vulnerable situations" through the interaction between a particular hazard and specific risk factors that constrain their capacity to respond (Kuran et al., 2020). From this perspective, individuals are not inherently vulnerable; rather, they are rendered vulnerable by prevailing social systems, political-economic structures, cultural histories, and historical structures, as well as unequal access to resources (Ferreira et al., 2024). For example, an older person is not automatically vulnerable solely because of age-related biological factors. Instead, crisis-included vulnerability in times of crisis becomes significantly greater when age intersects with situational and structural factors, such as living alone, experiencing cognitive disability, and lacking the technological literacy necessary to access emergency information. Conversely, older persons with substantial financial resources and strong social networks may demonstrate a high degree of resilience.

The second indicator is *redistributive disaster financing*. This indicator requires the law to mandate that disaster-related budget allocations from the central government be directed primarily toward regions characterised by high disaster-risk indices but limited fiscal capacity. Such budget allocations are essential for ensuring the effective provision of public goods and for strengthening capabilities to reduce and respond to disaster risks. Moreover, DRR emphasises the role of both public and private actors in investing to enhance economic, social, health, and cultural resilience (Okuda & Kawasaki, 2022). As the primary provider of public goods, the government must be capable of managing investment processes involving private actors in a manner that ensures equitable distribution and prevents misuse by particular interests. Such capacity is particularly important because natural disasters, human-induced disasters, and disaster risks significantly increase the likelihood of corruption due to weak oversight in managing disaster funds and large-scale assistance programmes (Zafar et al., 2023).

Shifting focus from resource allocation, the procedural dimension addresses the structural dynamics of governance; who participates, how they are involved, and how information flows are managed. Within the context of DRR-related law, procedural justice cannot be reduced to the mere fulfilment of bureaucratic formalities. This position is informed by Jürgen Habermas's discourse principle, which posits that legal legitimacy derives not from the institutional pedigree of the lawmaker, but from whether the legal norms can win the uncoerced assent of all parties potentially affected through a process of rational deliberation (Febriani et al., 2025). When correlated with the system-related function, law performs integrative and coordinative roles by aligning the plans and actions of various actors and preventing institutional fragmentation. In this respect, law is expected to channel the social energies emerging from the lifeworld of communities into formal policy-making procedures.

To ensure that DRR-related law effectively translates social aspirations for justice into legal practice, the procedural dimension gives rise to two legal indicators. First, *equal access to disaster information and services* requires the law to guarantee equal access to disaster-risk information. The state must institutionalise procedures for disseminating information that are inclusive, transparent, and comprehensible to local communities, thereby preventing risk information from becoming effectively excludable to non-elite groups. Second, *meaningful public participation* requires the state to create avenues through which informal public forums, Indigenous peoples, and social movements may contribute to decision-making processes through informal participatory channels. Viewed through Sherry Arnstein's ladder of participation, this can only be regarded as meaningful when legal frameworks are capable of shifting communities from the level of formal tokenism—where individuals are merely informed or consulted without legal consequence—to the level of citizen power, where partnerships and community control exert genuine legal influence over decision-making processes (Skinner-thompson, 2022).

The two dimensions discussed above must be optimally guaranteed within DRR based on a more fundamental dimension, namely human rights. The human rights dimension functions as a foundational dimension of legitimacy that permeates all indicators, rather than generating a separate indicator. Human rights themselves constitute a fundamental universal value that must be protected in disaster situations (Prasetyoningsih & Ichsan, 2024). To establish a rigorous doctrinal foundation, the dimension draws upon Henry Shue's conception of basic rights, which Thomas Pogge (2011) analytically reconstructs by positing that the fulfilment of moral right regarding disaster-related entitlement occurs if—and only if—it satisfies three cumulative and interrelated conditions: (1) Condition A (actual enjoyment), meaning individuals genuinely enjoy the substance of the right, such as physical safety and access to food and water during disasters; (2) Condition B (socially guaranteed), whereby such enjoyment is socially guaranteed through institutional arrangements designed to address standard threats; and (3) Condition C (enforcement as a right), which indicates that the contributions of others to fulfilling Conditions A and B are understood as legal obligations that citizens are entitled to claim, rather than mere voluntary acts of charity.

Within the context of DRR, Pogge's interpretation of Condition B provides a particularly progressive legal benchmark. According to Pogge, social guarantees are not required to provide perfect protection against every conceivable threat; rather, they must be sufficiently effective in addressing standard threats, namely threats that satisfy three criteria: they are foreseeable, remediable, and, if left unaddressed through adequate regulation, would render the enjoyment of rights uncertain. These characteristics closely correspond to Article 9(2) of the DAPPED, which establishes state obligations concerning the operation of early warning systems and risk assessment. Consequently, a state's failure to enact mitigation regulations despite the existence of clearly identified disaster risks constitutes a failure to satisfy Condition B and confirms the occurrence of an unlawful omission by public authorities.

When examined through the lenses of the content-related function and the power-related function, Pogge and Shue provide concrete constitutional constraints. Through the content-related function, DRR-related law is responsible for translating Pogge's philosophical prerequisites into positive norms within domestic legislation, the criteria governing standard threats and institutional duties serve to constrain administrative discretion. The recognition of human rights ensures that the state cannot invoke the excuse of a "purely natural disaster" to evade its legal responsibility for failures in mitigation that result in the loss of citizens' right to life. Consequently, the human rights dimension does not generate a separate indicator; rather, it serves as an indispensable source of legal legitimacy for all indicators formulated under the other dimensions.

To synthesise these distributive, procedural, and human rights imperative into a functional legal architecture, a final dimension must also be considered; accountability within the framework of good governance. In relation to DRR-related law, accountability may be divided into two aspects based on the work of Mark Bovens (2010). First, *accountability as a virtue* conceptualises accountability as an active normative standard of conduct. Within DRR-related law, this virtue requires an institutional moral awareness regarding the protection of citizens' right to security. Tied to the power-related function, this virtue-based aspect requires the law to establish clear limits on administrative discretion so that political authority in disaster governance is exercised fairly, transparently, and predictably. Second, *accountability as a mechanism* conceptualises accountability as a retrospective and relatively passive social relationship, in which an actor bears a legal obligation to explain and justify his or her conduct before a forum that possesses the authority to impose consequences. Given that disaster risk governance under Priority 2 of the SFDRR is inherently multi-actor in nature, this second aspect provides a broad typology that encompasses various accountability forums, including legal accountability, administrative accountability, and social accountability.

By integrating accountability as both virtue and mechanism, the good governance dimension of DRR-related law gives rise to the fifth practical legal indicator: the cross-sectoral accountability of state and non-state actors. from *ex-ante virtous* perspective, DRR law must establish substantive behavioural norms requiring public institutions to act responsively and transparently. This include obligations to conduct and publicly disclose periodic audits of critical infrastructure and spatial-planning risk maps in order to prevent information manipulation driven by strategic market behaviour. From an *ex post* mechanistic perspective, the law must institutionalise clear actor-forum relationships accompanied by meaningful legal consequences through judicial remedies and other forms of legal responsibility.

When the principles, priorities, and key elements of the SFDRR (see the previous discussion) are correlated with the indicators derived from the four dimensions of social justice discussed above, a close nexus emerges, as illustrated in **Table 2**.[2] This nexus demonstrates that DRR constitutes an approach that promotes social justice in disaster governance, including the protection of human rights and the fulfilment of fundamental human capabilities. It should be noted that Table 2 depicts the dominant nexus between SFDRR priorities and social justice indicators. In reality, a failure to realise one indicator inevitably degrades the integrity of the others. For example, a failure to satisfy the fifth indicator—which is linked to the key elements of Priority 3 of the SFDRR—may undermine the fulfilment of the first and second indicators, which are associated with the key elements of Priority 4. Accordingly, the fulfilment of social justice indicators must be pursued comprehensively, as they collectively reflect the implementation of the key elements embedded within the SFDRR.

Table 2.
Correlation Between the Key Elements of the SFDRR and Social Justice Indicators

Social Justice Indicator	SFDRR Priority	Key Element / Legal Criterion
Indicator 1: Protection of Groups in Vulnerable Situations	Priority 4	Obligation to provide inclusive protection for vulnerable groups
Indicator 2: Redistributive Disaster Financing	Priority 3	Legal certainty regarding DRR budget allocation and resource provision
		Regulatory framework facilitating public-private financing, risk-sharing, and financial protection mechanisms
		Financial accountability, transparency, and anti-corruption safeguards

[2] It should be emphasised that the five social justice indicators developed in this study are not intended to constitute a universal or exhaustive framework. Rather, they represent an operationalisation of the four foundational dimensions of social justice, correlated with the principles, priorities, and key elements of the SFDRR. The selected indicators therefore reflect the most prominent and contextually relevant manifestations of social justice for evaluating disaster law within a DRR framework. In practice, different legal, social, and institutional contexts may generate additional indicators or alternative formulations of social justice. Nevertheless, the five indicators proposed in this study provide a sufficiently robust analytical framework for assessing the extent to which a disaster law framework accommodates the protection of groups in vulnerable situations, equitable resource distribution, access to information, public participation, and accountability in DRR.

Social Justice Indicator	SFDRR Priority	Key Element / Legal Criterion
Indicator 3: Equal Access to Disaster Information and Services	Priority 1 and Priority 4	Legal obligation to produce multidimensional disaster-risk data periodically
		Legal mandate for hazard mapping and vulnerability assessment integrated into spatial planning
		Legal guarantee of public access to disaster-risk information, including community-centred early warning systems
		Adaptive emergency planning integrated with responsive emergency financing
Indicator 4: Meaningful Public Participation	Priority 2	Formal mechanisms legitimising coordination and partnerships between local governments and external actors, including vulnerable communities
Indicator 5: Accountability of State and Non-State Actors	Priority 2 and Priority 4	Clear allocation of institutional mandates, coordination functions, and accountability arrangements
		Availability of enforcement instruments, including incentives and sanctions
		Post-disaster regulatory framework based on the Build Back Better principle

Source: Author's Analysis

Table 2 demonstrates that each social justice indicator derives from one or more priorities of the SFDRR. This correlation indicates that social justice is not an external value imposed upon DRR, but is fundamentally embedded within the normative architecture of the SFDRR itself. Accordingly, evaluating disaster law through social justice indicators serves as reliable mechanism for measuring the extent to which domestic legal frameworks internalise the substantive commitments contained in the SFDRR.

The foregoing framework of four social justice dimensions and five practical indicators does not exist in a normative vacuum detached from Indonesia's legal order. The central role of law in implementing DRR in Indonesia is reinforced by the philosophical foundation of Indonesian law in Pancasila. Conceptually, the legal system is structured hierarchically, with the highest norm referred to as the *Staatsfundamentalnorm*.[3] In the Indonesian context, Pancasila occupies this position, serving as the ultimate source of law (Wardhani et al., 2022). When examined in relation to the priorities of the SFDRR and the general principles of social justice, Pancasila demonstrates substantial conceptual compatibility. Its Fifth Principle underscores values such as fairness in all aspects of life, balance between rights and obligations, the aspiration to achieve both material and

[3] Within the hierarchy of legal norms proposed by Hans Nawiasky, commonly referred to as the *Stufenbautheorie*, the *Staatsfundamentalnorm* denotes the fundamental norm of the state that provides the basis for the formation of the constitution (*Staatsverfassung*). In the Indonesian legal system, this position is occupied by Pancasila as the philosophical foundation of the state, which is also enshrined in the fourth paragraph of the Preamble to the Constitution of the Republic of Indonesia. Consequently, the Constitution and all subordinate legal norms must be consistent with Pancasila as the foundational norm of the Indonesian legal order. See further on Susanti (2017), Wardhani et al. (2022), and (Samekto & Natalis, 2024).

spiritual prosperity for all citizens, and a commitment to progress and development (Jesica et al., 2018). These core social justice values provide the constitutional basis for operationalising the distributive dimension through redistributive financing mechanisms and the protection of groups in vulnerable situations. Other principles of Pancasila also reinforce these commitments – most notably the Second Principle, which embodies humanity and equality, and the Fourth Principle, which reflects democratic participation and deliberation.

3. Normative Analysis of Disaster Law in Indonesia: National and Local (Lampung Province) Context

The preceding discussion demonstrated that the DRR legal framework developed within international law is closely intertwined with the concept of social justice. Its adoption is imperative because it facilitates the realisation of social justice principles that have been translated into the five indicators developed in the previous section. Conversely, DRR itself requires the incorporation of social justice to ensure its effective implementation. In this regard, law functions as an instrument that ensures DRR becomes a governmental priority and is implemented responsibly on the basis of human rights protection. DRR-related law must therefore be constructed upon social justice as the moral foundation that justifies its existence. The following discussion adopts a more practical approach by implementing the indicators developed in the preceding section to Indonesia's disaster law framework. This aims to assess the extent to which disaster law has incorporated DRR principles and priorities while simultaneously ensuring the inclusion of social justice dimensions. Accordingly, this section employs the five indicators to evaluate the extent to which disaster law regulates DRR while promoting social justice in disaster governance at the national level in Indonesia.

In this section, the legal instruments examined operate at two levels: national and local (provincial), with Lampung Province serving as the local case study. This is one of the provinces on the island of Sumatra that is projected to experience a significant number of disaster events in 2025 and is classified as an area with a moderate level of disaster risk. Throughout 2025, more than 100 hydrometeorological disaster events occurred, resulting in 14 fatalities and affecting over 290,000 people through injury, loss, and displacement (BNPB, 2025). This empirical condition is consistent with the Lampung Province National Disaster Risk Assessment 2022–2026, which identifies floods—one of the principal forms of hydrometeorological disasters—as the most frequently occurring type of disaster. Accordingly, the adoption of DRR priorities grounded in social justice constitutes a crucial strategy for addressing disaster risks in Lampung Province.

In 2024, the Government of Lampung Province enacted a regional regulation on disaster management through Lampung Province Regional Regulation No. 6 of 2024 on Disaster Management. This regulation amended Lampung Province Regional Regulation No. 13 of 2011 on Disaster Management. The urgency of revising the disaster management regulatory framework in Lampung stems from a paradigm shift in disaster governance in Indonesia, encompassing three fundamental transformations; first, disaster management no longer focuses exclusively on emergency response but instead prioritises risk management through preventive measures; second, the state's obligation to protect the public from disaster risks is no longer viewed merely as an administrative responsibility, but as a manifestation of the fulfilment of human rights; and third, disaster management has evolved into a shared responsibility involving broader society rather than remaining the exclusive domain of government institutions (Wardhani et al., 2025). These regulatory changes represent an initiative by the local government to incorporate the DRR approach into regional disaster governance.

Table 3.
Analysis of the Difference in Substance of DRR Lampung Province Regional Regulation No. 13 of 2011 with Lampung Province Regional Regulation No. 6 of 2024

Substance	Lampung Province Regional Regulation No. 13 of 2011	Lampung Province Regional Regulation No. 6 of 2024
Principles of disaster management	Incorporate the principle of "empowerment"	Removing the principle of "empowerment"
Scope of regulation	Not regulated	Regulated in Article 5
Responsibility	The primary responsibility aims to ensure disaster victims' rights are met according to minimum service standards.	The primary responsibility is implementing DRR and integrating it into development programs.
Implementation of disaster management in non-disaster situations	Does not regulate the role of research	Stipulating that research and development in the field of disaster management can support the implementation of disaster management
DRR	Lacks provisions regarding the formulation of DRR action plans	Includes regulations on DRR action plans under Article 16
Spatial plan	Not specifically regulated	Specifically regulated in Article 21
Education and training	Not specifically regulated	Specifically regulated in Article 22
Local wisdom	Not specifically regulated	Specifically regulates in Articles 27, 41, and 59
Governance under disaster conditions	Not regulated	Regulated in Article 29 paragraph (3), which is led by the head of the BPBD
Rehabilitation and reconstruction	Does not regulate spatial planning, building construction standards, sociocultural and economic contexts	Regulate arrangements regarding spatial planning, building construction standards, sociocultural, and economic contexts in Article 29 paragraph (1) and Article 41 paragraph (1)
Classification of disasters	Not specifically regulated	Regulates natural, non-natural and social disasters in Article 42
Work procedure	Not specifically regulated	Regulated in Chapter VII Work Procedures
Community rights	Does not cover disaster indemnification due to technological and construction failures.	Covers compensation for disasters due to technological and construction failures
Obligation to obtain permission to collect money	Set out in letter d of Article 12	Not specifically regulated
Ways of community participation	Not specifically regulated	Regulated in Article 56

Source: Wardhani, Diamantina, and Saputra (2025)

This section also examines the extent to which Lampung Province Regional Regulation No. 6 of 2024 aligns with DRR principles and the social justice indicators developed in the preceding discussion.

a. Indicator One: Protection of Groups in Vulnerable Situations

The protection of groups in vulnerable situations constitutes both a key indicator and a fundamental justification for regulating DRR through law as a means of realising social justice. In addition to its grounding in social justice principles, this obligation is reflected in Article 5(3) of Law No. 39 of 1999, which provides that "every person belonging to a vulnerable group is entitled to receive special treatment and protection in accordance with his or her particular circumstances." The explanatory memorandum to this provision identifies "vulnerable groups" as including older persons, children, impoverished individuals, pregnant women, and persons with disabilities. Crucially, the phrases "including" indicates that the legal norm is non-exhaustive, thereby permitting the inclusion of other demographics, such as Indigenous peoples, who are formally recognised as vulnerable groups under Presidential Regulation No. 53 of 2021 on National Human Rights Action Plan 2021–2025—to be included within this classification.

Law No. 24 of 2007 provides that vulnerable groups are entitled to social protection and a sense of security (Article 26(1)(a)), as well as dedicated protection during the implementation of disaster management in emergency response situations (Article 48(e)). Such protection is implemented through the provision of priority assistance in the form of rescue, evacuation, security measures, health services, and psychosocial support (Article 55(1) of Law No. 24 of 2007). Article 55(2) of Law No. 24 of 2007 specifies that these vulnerable groups include: (1) infants, toddlers, and children; (2) pregnant and breastfeeding women; (3) persons with disabilities; and (4) older persons. The same classification is reproduced in Article 1(15) of Government Regulation No. 21 of 2008. At the regional level, Lampung Province Regional Regulation No. 6 of 2024 (see Article 1(29) and Article 35(2)) adopts precisely the same classification found in Law No. 24 of 2007 and Government Regulation No. 21 of 2008.

Furthermore, Article 51(4) of Government Regulation No. 21 of 2008 provides that during the rescue and evacuation of disaster-affected communities, vulnerable groups must receive structural priority in emergency disaster assistance through search, rescue, and relief operations. The Regulation also dedicates a separate provision specifically to the protection of vulnerable groups (Article 53(1) and (2)), reaffirming the core principles established in Article 55(1) of Law No. 24 of 2007. Specifically, Article 53(1) prioritises disaster victims "suffering serious injuries" and vulnerable groups through rescue, evacuation, security measures, health services, and psychosocial support. Article 53(2) further specifies the institutional dimension of this protection, requiring implementation by relevant agencies and institutions under the coordination of the Head of BNPB and/or the Head of BPBD, while also establishing facilitation and assistance mechanisms. These same provisions are reproduced in Article 35(1) and (3) of Lampung Province Regional Regulation No. 6 of 2024.

The foregoing provisions clearly reflect both the relevant SFDRR priority and the social justice indicators developed in the previous section. The prioritisation of vulnerable populations directly corresponds to the second key element of Priority 4 of the SFDRR, namely *the guarantee of protection and inclusive accommodation for the rights of vulnerable groups*. Nevertheless, several critical issues must be highlighted before these provisions can be regarded as fully satisfying the indicator concerning the protection of groups in vulnerable situations. An examination of these three legal instruments discussed above reveals a tendency toward rigid classifications of vulnerable groups that do not incorporate an intersectional approach. The use of categorical labels such as "vulnerable groups" indicates that the primary focus remains on predefined categories rather than on individuals and communities whose disaster risk is heightened by the interaction of specific situational and structural factors.

Viewed through the capability approach, the classification contained in Article 55 of Law No. 24 of 2007 risks reducing the rights of vulnerable groups to a formalistic requirement during the emergency response phase. Indonesia's disaster law framework appears to overlook the fact that individuals possess different conversion factors that shape their ability to transform resources into capabilities. For example, the vulnerability of a child living in poverty within a disaster-prone area is layered and substantially different from that of a child from a wealthy urban family with stable economic resources (Caruso, 2017). A useful comparison may be drawn with jurisdictions that employ dynamic, intersectional approaches in understanding vulnerable situations. Sweden, for instance, focuses on dynamic root causes—including access to information technology, social isolation, and stress-management capacity—as well as spatial and temporal dimensions (Kuran et al., 2020). This approach recognises that actors who are ordinarily considered strong may become vulnerable depending on the characteristics of a particular crisis. In Indonesia, this legal weakness is compounded by the limited enforceability of the existing legislation; because these protective guarantees are confined almost exclusively to acute emergency response phase—particularly rescue and evacuation activities—the regulations fail to impose specific legal obligations upon BNPB and BPBD to undertake affirmative interventions during the pre-disaster (*ex-ante*) phase.

To avoid treating groups in vulnerable situations as passive recipients of assistance, the law must guarantee their central capabilities through active capacity-building measures during the pre-disaster phase. This evidence direction can be found in other disaster-related regulatory instruments. Although Presidential Regulation No. 87 of 2020 on Master Plan for Disaster Management 2020–2044 does not specifically refer to groups in vulnerable situations, both the policy architecture and strategic framework reflected in BNPB Regulation No. 1 of 2025 on National Disaster Management Plan 2025–2029 identify the inclusion of vulnerable groups as one of the strategic challenges of disaster management for the 2025–2029 period. Within the disaster management strategy matrix, Activity 4.5.2.c identifies the empowerment of women, persons with disabilities, and Indigenous communities as a key strategy for enhancing the involvement of vulnerable groups. Such empowerment is realised through education, training, capacity-building programmes, and technical guidance for persons with disabilities in the field of disaster management.

From the perspective of legal hierarchy, however, these *ex-ante* commitments contained in BNPB Regulation No. 1 of 2025 encounter significant normative limitations. As an executive planning document, the National Disaster Management Plan does not possess independent executory force and lacks rigid legal sanctions in cases where sectoral ministries or local governments fail to implement its provisions. This problem reinforces the central argument advanced in this article: recognition of the importance of strengthening the active capabilities of vulnerable groups within policy documents, such as BNPB Regulation No. 1 of 2025, will continue to face implementation deficits unless the parent statute—Law No. 24 of 2007—is amended to convert these legal aspirations into binding positive legal obligations supported by institutional enforcement mechanisms. These active capabilities provide the foundation for realising inclusive leadership among groups in vulnerable situations.

b. Indicator Two: Redistributive Disaster Financing

This indicator constitutes a crucial component in ensuring that disaster financing is sufficient to enable the effective implementation of DRR. Normatively, Indonesia's disaster-financing regime is grounded in the ready-to-use fund (*Dana Siap Pakai*/DSP) and contingency fund schemes (Articles 60–62 of Law No. 24 of 2007 in conjunction with Articles 5–6 of Government Regulation No. 21 of 2008). Formally, these regulations impose a shared fiscal responsibility on both the central and local governments, requiring them to allocate disaster-management budgets "adequately" across all disaster phases management. However, the use of the phrase "adequately" creates substantial ambiguity regarding the required level of funding, rendering mitigation financing at the local level fluctuating and highly discretionary. As a result, it becomes difficult to determine when a government has failed to fulfil its funding obligations, while simultaneously limiting the ability of public actors and communities to demand legal accountability for insufficient DRR budget allocations.

This situation differs from the framework adopted under the Disaster Management Act (DMA) 57 of 2002 and the National Disaster Management Framework (NDMF) 2005 of South Africa. These instruments employ a clear threshold funding formula requiring provinces to allocate 1.2 per cent, and municipalities between 0.5 and 1.0 per cent, of their internal financial capacity to disaster funds (Du Toit et al., 2024). Furthermore, the relaxation of emergency financial administration standards under Article 34 of Government Regulation No. 21 of 2008 may create vulnerabilities in fiscal governance. Consequently, disaster financing at the local level remains highly dependent upon the prevailing legal-political dynamics and budgetary priorities of local governments. In the case of Lampung Province, for example, the politics of disaster budgeting has revealed positive developments, as reflected in the expansion of disaster-related budget allocations from IDR 5 billion in 2021 to IDR 55 billion in 2025 (interview with informants).

Concerning the public-private financing, the legal basis for the involvement of non-state actors has been accommodated through Articles 7, 8, 9, and 22(e) of Government Regulation No. 21 of 2008, which govern the participation of communities and the business sector, including oversight mechanisms under Article 31(2). The fundamental weakness of this regulatory cluster lies in its conceptual reductionism; the role of the private sector is positioned passively as a provider of philanthropic assistance during emergency and post-disaster situations, while government authority is largely confined to administrative functions, such as registration and the licensing of fundraising activities. This structural limitation is evident in the experience of Lampung Province, where private actors such as PT Bukit Asam Tbk. have contributed disaster assistance primarily through corporate social responsibility (CSR) programmes during emergency situations (interview with informants). However, the existing regulatory framework does not provide an enabling framework for strategic pre-disaster partnerships, such as risk-transfer mechanisms through joint disaster insurance schemes or fiscal incentives for private investment in disaster mitigation measures.

Nevertheless, the regulatory framework possesses notable strengths in terms of formal accountability. All funds received from the public must be directly recorded within the State Budget (APBN) or Regional Budget (APBD) structures (Article 7(2) and (3) of Government Regulation No. 21 of 2008) and are subject to a dedicated accounting system administered by the Ministry of Finance (Article 35(2)). Furthermore, Articles 34(2) and 36 of Government Regulation No. 21 of 2008 establish a maximum three-month deadline for emergency-response financial reporting, followed by a comprehensive audit conducted in accordance with governmental accounting standards. These *ex-post* control mechanisms, with the mandate to provide soft loans for productive enterprises to disaster victims who have lost their livelihoods (Article 27 of Government Regulation No. 21 of 2008), demonstrate that domestic law seeks to maintain a balance between emergency flexibility, the protection of citizens' economic capabilities, and the enforcement of accountability and transparency in post-disaster governance.

c. Indicator Three: Equal Access to Disaster Information and Services

This indicator is fundamental to ensuring the procedural dimension of DRR. Access to disaster-related information constitutes an essential component of human rights protection, as mandated by Article 14(1) of Law No. 39 of 1999 on Human Rights. Within the context of DRR, access to information is an indispensable prerequisite for enabling individuals to develop the real capabilities necessary to protect themselves and respond effectively to disaster risks. For analytical clarity, the fulfilment of this indicator is assessed through the following four components.

1) Legal Obligation to Produce Multidimensional Disaster-Risk Data Periodically (Priority 1 – Point 1)

The production of comprehensive disaster-risk data constitutes the scientific foundation of all DRR policies. Indonesia's domestic legal framework adopts a multidimensional understanding of risk—including hazard, vulnerability, and capacity—through Article 7(1) of Law No. 24 of 2007. The periodic nature of such data is institutionally reinforced by Article 8(7) of Law No. 24 of 2007, which mandates that National Action Plans (RAN) and Regional Action Plans (RAD) for DRR are established for a period of three years and become the subject to review when necessary. Through the interaction of these provisions, the state is normatively obligated to continuously update its territorial risk framework to guarantee citizens' right to security.

2) Legal Mandate for Hazard Mapping and Spatial Planning (Priority 1 – Point 1)

Normatively, the provision of disaster-related information through disaster-prone area maps constitutes an institutional responsibility of BNPB and BPBD (Articles 21 and 25 of Law No. 24 of 2007 in conjunction with Article 4(1)(c) of Minister of Home Affairs (MoHA) Regulation No. 46 of 2008 on Guidelines for the Organisation and Working Procedures of Regional Disaster Management Agencies). This dissemination obligation is reinforced through the requirement to update disaster-related data periodically (Article 16 of Government Regulation No. 21 of 2008; Article 25(2)(g) of Lampung Province Regional Regulation No. 6 of 2024). Moreover, disaster-risk maps must be integrated into spatial-use control mechanisms. Article 13(2) of Government Regulation No. 21 of 2008 explicitly requires spatial management mechanisms to incorporate safety standards and sanctions. This requirement is further supported by Article 5(2) of Law No. 26 of 2007 on Spatial Planning, which designates disaster-prone areas as protected zones, and Article 7(3) of Government Regulation No. 13 of 2017 on National Spatial Plan, which mandates disaster adaptation measures within development areas.

At the local level, BPBD is also responsible for providing disaster-related information through the preparation, establishment, and dissemination of disaster-prone area maps (see Article 21(c) of Law No. 24 of 2007 and Article 4(1)(c) of MoHA Regulation No. 46 of 2008). Such maps constitute a form of information dissemination that visually represents the risks posed by one or multiple hazards within a single mapping format, thereby enabling the identification of areas exposed to one or several disaster risks simultaneously (Winarti, 2018). Through the dissemination of disaster-risk information via mapping, communities can identify disaster-prone areas and strengthen their preparedness capacities. Similar provisions are contained in Article 21(3) of Lampung Province Regional Regulation No. 6 of 2024. In addition, BNPB and BPBD are required to develop accurate disaster-related data and information and to continuously update disaster emergency-response standard operating procedures as part of disaster preparedness efforts (Article 16 of Government Regulation No. 21 of 2008; Article 25(2)(g) of Lampung Province Regional Regulation No. 6 of 2024).

Within the context of Lampung Province, the implementation and enforcement of spatial planning are formally supported by the existence of disaster-prone area maps intended to inform communities residing in disaster-risk areas (Article 21(3) of Lampung Province Regional Regulation No. 6 of 2024). However, the regulatory framework indicates that such maps are not necessarily required to be prepared before the formulation of spatial plans, nor are they expressly designated as the basis for spatial planning decisions. The wording of the relevant provision suggests that disaster-prone maps function primarily during the implementation and enforcement stages of spatial planning rather than serving as foundational planning instruments.

At the same time, Article 6(2) of the Lampung Province Regional Regulation No. 14 of 2023 on the Spatial Plan of Lampung Province for 2023–2043 already incorporates a component relating to "strategies for reducing natural-disaster risk". Nevertheless, it does not require the use of disaster-risk maps or social vulnerability indices that would enable development planning to be aligned with disaster-risk conditions. Consequently, regulatory harmonisation is necessary to ensure that these instruments operate in a complementary manner, particularly given that Lampung Province is predominantly affected by hydrometeorological disasters, which are closely associated with anthropogenic activities.

3) Legal Guarantee of Public Access to Risk Information as a Fulfilment of the Right to Information (Priority 1 – Point 3)

Procedural balance is constructed through a nexus of rights and obligations. Article 26(1)(c) of Law No. 24 of 2007 establishes the right of every person to obtain information regarding disaster management policies, which corresponds directly to the public obligation to provide accurate information (Article 27(c) of Law No. 24 of 2007). This legal interaction is mirrored in Article 53(c) and Article 54(c) of Lampung Province Regional Regulation No. 6 of 2024. The importance of this guarantee is existential in nature; research conducted by Tjitrawati and Romadhona (2023) on the 2018 Palu disaster demonstrates that inadequate access to information had a direct impact on the high mortality rate among affected populations. To operationalise this right, the state has established a responsive and asymmetrical institutional structure. Article 12(c) of Law No. 24 of 2007 requires BNPB to disseminate disaster-related information to the public. This mandate is implemented technically through the Directorate of Dissemination and Evaluation (Article 139 of BNPB Regulation No. 4 of 2019 on the Organisational Structure and Working Procedures of the National Disaster Management Agency) and the Disaster Data, Information, and Communication Center (Article 265 of BNPB Regulation No. 4 of 2019). The operations of these institutions provides clarity regarding institutional mandates and responsibilities, thereby reflecting accountability as a mechanism in ensuring transparency of disaster-risk information.

An important measure for securing public access to risk information is the establishment of Early Warning Systems (EWS). The legal basis for EWS development is explicitly provided in Article 14(1)(b) of Government Regulation No. 21 of 2008, which requires disaster-management funds to be utilised for the development of early warning systems whenever a disaster threat emerges. However, no specific provisions regulate how such systems should be designed to reach vulnerable groups at the grassroots level. This regulatory gap increases the risks that will be illustrated through the case of two villages in Lampung Province under the Fourth Indicator.

4) Institutional Obligations to Develop Adaptive Emergency Planning and Contingency Plans, as well as Responsive Emergency Financing Procedures (Priority 4 – Point 1)

The obligation to formulate emergency plans and adaptive contingency plans has already been incorporated into Government Regulation No. 21 of 2008 and the domestic emergency preparedness regime is fundamentally based upon this regulation. Article 16(2) mandates the preparation of disaster emergency-management plans, which serve as operational guidelines (Article 17(1)). However, the regulation contains a qualifying defect in Article 17(3), which provides that: "Disaster emergency-management plans may be complemented by the preparation of contingency plans." The use of the word '*may*' render the provision discretionary rather than mandatory. The absence of contingency plans at the regional level carries no legal consequences, creating a degree of flexibility that is inconsistent with the rigorous preparedness standards envisaged by the SFDRR.

Based on a financial perspective, emergency financing procedures are governed through the DSP mechanism within both the APBN and APBD (Article 41(1) and (2) of Government Regulation No. 21 of 2008). The principal obstacle associated with the DSP mechanism is administrative and temporal in nature: funds may only be disbursed following the issuance of a Disaster Emergency Status Decree by the Regional Head (Article 2 of BNPB Regulation No. 4 of 2020 on the Utilisation of Ready-to-Use Funds). Consequently, delays may occur during the emergency response phase. To anticipate this bureaucratic rigidity, regional institutions frequently adopt administrative measures by maintaining emergency preparedness status throughout the year to facilitate intervention mechanisms, as confirmed in the following interview with the Lampung Provincial BPBD:

> *"Over the past two to three years, we have continuously declared an emergency preparedness status throughout the year through gubernatorial regulations. Without establishing this emergency preparedness status, interventions from the BNPB would not be possible. BNPB* can *intervene by providing assistance, whether in the form of logistics or direct aid, only if the region has at least an emergency preparedness status."*

This interview suggests that local authorities have developed administrative workarounds to compensate for deficiencies in the formal legal framework.

d. Fourth Indicator: Meaningful Public Participation

Meaningful public participation presupposes the ability of communities, including vulnerable groups, possess the capacity to participate in disaster-related decision-making (Nkombi & Wentink, 2022). Public participation is also established both as a civic obligation and civic rights in disaster management (see Article 26 and 27(b) of Law No. 24 of 2007). More specifically, Law No. 24 of 2007 emphasises that DRR activities undertaken by the government may include participatory disaster-management planning and the development of a disaster-aware culture (Article 37(2)). Nevertheless, neither Law No. 24 of 2007 nor Government Regulation No. 21 of 2008 provides clear provisions regarding how participation should be implemented during the pre-disaster phase as part of DRR.

This regulatory ambiguity allows authorities to relegate communities to passive beneficiaries rather than empowering them as active agents capable of shaping outcomes. For example, development-planning forums at the municipal and regency levels (*Musyawarah Perencanaan Pembangunan* or Musrenbang) frequently involve community members only as passive participants for the purpose of satisfying administrative requirements (Akbar et al., 2020). Vulnerable groups are often excluded altogether on the grounds of practical limitations.

To realise social justice within the DRR concept, participation must be genuinely meaningful by ensuring that affected communities—particularly vulnerable groups—possess the capability not only to express their views but also to have those views heard and taken into consideration.

Unlike the national legal framework, Lampung Province Regional Regulation No. 6 of 2024 regulates public participation in a considerably more detailed manner. The regulation explicitly identifies the various ways in which communities may participate throughout different phases of disaster management. For example, Article 56 provides that public participation during the pre-disaster phase can encompass conducting disaster-risk assessments; conducting disaster-related research; undertaking disaster-prevention measures; cooperating with government authorities in mitigation efforts; participating in disaster-management education, training, and public awareness programmes; and/or establishing disaster-resilient communities and areas.

However, the use of the term *may* within the provision again indicates its discretionary nature. In other words, the regulation stops short of mandating procedures that governments must follow to ensure public involvement in disaster management. Nonetheless, the detailed specification of participatory forms facilitates the identification and mapping of potential public involvement far more effectively than abstract regulatory provisions. These participatory mechanisms have also been implemented by the Lampung Provincial BPBD. One of the most significant initiatives is the establishment of Disaster-Resilient Villages (*Desa Tangguh Bencana* or *Destana*), launched in collaboration with Mitra Bentala, a non-governmental organisation working in the environmental sector (interview with informants).

The establishment of *Destana* represents a critical mechanism for realising the indicator of meaningful public participation. In Indonesia, villages constitute autonomous entities possessing community-based capacities and initiatives to regulate their own social dynamics while minimising external intervention (Hariyanto et al., 2025). This capacity is grounded in the principle that strategic decisions should ideally be made at the level closest to the affected communities in order to ensure effective governance. Consequently, village governance emphasises community involvement, transparency, and accountability, which are manifested through deliberative community forums. Yet, while these initiatives demonstrate a higher degree of participation, further evidence is required to determine whether communities exercise genuine influence over formal governmental decision-making processes.

In addition to the establishment of *Destana*, village-level participation in Lampung Province has also been promoted through the development of the *Early Warning Response Action Protocol* (*Protokol Aksi Merespons Peringatan Dini* or AMPD), which has been implemented in two villages: the Flood Disaster AMPD Protocol in Sukabanjar Village, South Lampung Regency, and the Flood Disaster AMPD Protocol in Talang Baru Village, South Lampung Regency. These AMPD protocols were formulated with the objective of saving lives and mitigating more severe disaster impacts through a forecast-based approach grounded in local disaster history. The approach was subsequently operationalised through the identification of early warning triggers and corresponding early actions. This substantive content includes, among other elements, disaster-exposure profile analysis, as illustrated in the comparison of the two protocols presented in **Table 4** below.

Table 4.
Risk Vulnerability and Capacity Profiles in the AMPD Protocols of Two Villages

Risk Aspect	Sukabanjar Village	Talang Baru Village
Humans	**Vulnerabilities & Risks:** Fatalities (swept away, death), injuries, diarrheal diseases; limited information sensitivity; reluctance to evacuate due to concerns over property; unequal levels of preparedness.	**Vulnerabilities & Risks:** Fatalities, injuries, psychological stress, and disaster-induced disabilities; limited swimming skills among residents; absence of evacuation signage and specialised teams for vulnerable groups.
	Capacities: Disaster-Resilient Village (Destana) team; community-operated rainfall and water-level monitoring devices; and local knowledge for interpreting natural warning signs.	**Capacities:** Active Destana team, regular capacity-building programmes, and allocation of contingency funds within the Village Budget (APBDes).
Buildings and infrastructure	**Vulnerabilities & Risks:** Damage to houses and public facilities; destruction of household assets caused by river narrowing, waste accumulation, strong currents, and the absence of a technical Early Warning System (EWS).	**Vulnerabilities & Risks:** Bridge collapse and complete disruption of public facilities; spatial development within hazard-prone zones, with 5.6% of housing located along riverbanks; absence of a village ambulance service.
	Capacities: Existence of a dam, use of village halls and sports fields as evacuation shelters, designated safe evacuation routes, and a Livable Housing Assistance Programme.	**Capacities:** Water-tower infrastructure, river water-level monitoring equipment, assembly points at the central mosque, and river normalisation and channel-relocation programmes.
Agriculture and plantations	**Vulnerabilities & Risks:** Total crop failure and fallen or washed-away trees. Risks are exacerbated by agricultural land located in low-lying and riverbank areas, planting during peak rainy seasons, and the absence of village food reserves.	**Vulnerabilities & Risks:** Crop failure, land degradation and reduction of arable land; absence of technical irrigation systems; approximately 24 hectares of land located in hazard-prone areas; high dependence on seasonal conditions.
	Capacities: Seedling assistance programmes (avocado, citrus, and coconut varieties) and livestock-capital assistance programmes (goats and cattle).	**Capacities:** Presence of farmer groups, cattle-breeding communities, and strategic partnerships for oil-palm cultivation.
Social	**Vulnerabilities & Risks:** Social tensions arising from differences of opinion and social jealousy. These risks are aggravated by the neglect of disability rights, misinformation, and patriarchal norms that prioritize men.	**Vulnerabilities & Risks:** Social conflict, jealousy, and the exclusion of vulnerable groups from aid distribution. These risks are aggravated by inaccurate data collection, unequal aid distribution, and limited public awareness.
	Capacities: Strong coordination between the village government and residents, social solidarity, and corporate CSR support from surrounding companies.	**Capacities:** Open communication among residents, active participation of Destana teams and youth organisations (*Karang Taruna*), and a strong culture of mutual cooperation (*gotong royong*).
Economy	**Vulnerabilities & Risks:** Sharp declines in income, shortages of essential goods, and depletion of household savings. These risks are aggravated by inundated	**Vulnerabilities & Risks:** Post-disaster unemployment, sudden impoverishment, business failures, and severe food-supply disruptions. These risks are aggravated by

Risk Aspect	Sukabanjar Village	Talang Baru Village
	plantations, the absence of labour unions for factory workers, and a lack of personal emergency savings. **Capacities:** Presence of farmer groups, Village-Owned Enterprises (BUMDes), village retail shops, and protection provided through company labour unions.	the absence of cooperatives and loss-insurance schemes, as well as the concentration of businesses along riverbanks. **Capacities:** Strengthening of BUMDes through the Women's Savings and Loans Scheme (*Simpan Pinjam Perempuan*—SPP).
Health	**Vulnerabilities & Risks:** Physical illness, psychological trauma, and stress. These risks are aggravated by the absence of public campaigns promoting Clean and Healthy Living Behaviour (PHBS) and the limited number of public sanitation facilities. **Capacities:** Provision of clean water and emergency sanitation facilities in evacuation centres, optimisation of village health posts (*Pustu*), and active participation of *Posyandu* and *Posbindu* volunteers.	**Vulnerabilities & Risks:** Outbreaks of dengue fever, diarrhoea, and skin diseases following disasters. These risks are aggravated by inadequate public sanitation facilities and the absence of a standby village ambulance. **Capacities:** Establishment of health posts in evacuation centres, active involvement of local medical personnel, assured medicine stocks, and routine village sanitation programmes.
Environment	**Vulnerabilities & Risks:** Damage to plantation vegetation, contamination of wells by floodwaters, landslides, and waste accumulation. These risks are aggravated by the construction of houses and bridges in violation of river-buffer-zone regulations. **Capacities:** Fruit-tree planting initiatives, routine drainage maintenance, productive use of household yards, and optimisation of family medicinal plant gardens (*TOGA*) managed by the Family Welfare Movement (*PKK*).	**Vulnerabilities & Risks:** Emergence of new informal settlements, contamination of clean-water sources, landslides, and unmanaged solid waste. These risks are aggravated by the absence of a final disposal site (TPA), lack of a waste-collection system, and the absence of standards for disaster-adaptive housing design. **Capacities:** Tree planting and erosion-control fodder grass cultivation, river-channel relocation policies, and routine community-wide voluntary work programmes.

Source: The AMPD Protocols

As presented in Table 3, the AMPD Protocols have also sought to integrate risk mapping under the Third Indicator, recognition of the intersectional vulnerabilities experienced by groups in vulnerable situations under the First Indicator, and meaningful public participation, given that the protocols were formulated at the level of autonomous villages. More importantly, the AMPD Protocols illustrate that the five social justice indicators are not discrete or self-contained elements, but rather operate in an interdependent manner. The identification of vulnerable groups requires the availability of risk information and vulnerability mapping; meaningful participation depends upon equal access to disaster information; and the formulation of community-based protocols relies upon collaboration among governmental institutions, local communities, and non-state actors.

In this regard, the AMPD Protocols provide an empirical illustration of how social justice in DRR can only be realised through the simultaneous implementation of multiple indicators rather than through the fulfilment of any single indicator in isolation. The development of these protocols further resulted from cooperation between government institutions and Aktion Deutschland Hilft and Arbeiter-Samariter-Bund, two international non-governmental organisations specialising in disaster management. Such international cooperation constitutes an implementation of Article 60 of Lampung Province Regional Regulation No. 6 of 2024, which permits global-level collaboration in disaster management.

Other forms of public participation in Lampung Province include disaster education and training programmes conducted through religious institutions—such as the establishment of Disaster-Resilient Parishes (*Paroki Tangguh Bencana*) in collaboration with Caritas, a non-governmental organisation focusing on humanitarian issues. Academic institutions have also been involved through cooperation between the Government of Lampung Province, the Sumatra Institute of Technology, and the University of Lampung, particularly through community service programmes (*Kuliah Kerja Nyata*) conducted within *Destana* initiatives (interview with informants).

e. Fifth Indicator: Accountability of State and Non-State Actors

The fifth indicator serves to ensure that the realisation of the other indicators is carried out in an accountable manner, thereby closing opportunities for abuses of power that might otherwise hinder the realisation of social justice in DRR. To achieve accountability, it is necessary to establish a clear allocation of institutional mandates that delineate the boundaries of authority, coordination functions, and intersectoral accountability arrangements. Law No. 24 of 2007 clearly regulates the division of authority between the central and regional governments (Articles 6–9), as well as the distribution of responsibilities between BNPB and BPBD as the institutions established to administer disaster management (Articles 10–25). The existence of BPBD as the primary disaster-management agency at the regional level reflects a more decentralised and democratic model of disaster governance in Indonesia (Putra & Matsuyuki, 2019). This allocation of authority provides institutional certainty regarding chains of command and coordination.

Moreover, such institutional arrangements establish the limits of each institution's authority, thereby enabling public oversight and reporting when abuses of power occur. However, as a regional governmental body, BPBD remains accountable to the Regional Head, whereas BNPB operates within a direct vertical chain of command to the President. Consequently, BPBD remains subject to local political dynamics, which can occasionally undermine the standardisation that ought to be maintained at the national level.

The role of non-state actors is also accommodated through provisions governing the involvement of business entities and international organisations (Articles 28–30 of Law No. 24 of 2007). These provisions demonstrate the state's normative recognition that societal resilience cannot be achieved without mobilising the resources and capacities of non-state actors. Article 29 of Law No. 24 of 2007 specifically imposes an imperative obligation upon business entities to comply with principles of social accountability and to respect humanitarian boundaries when conducting business activities in disaster contexts. One contribution that such non-state actors may provide is the fulfilment of basic needs under the First Indicator (Article 52(2) of Government Regulation No. 21 of 2008). To ensure that collaboration among these actors remains accountable, the law establishes coercive instruments through which accountability develops into a relationship of responsibility carrying real legal consequences. Law No. 24 of 2007 provides such instruments through Chapter IX on Supervision and Chapter XI on Criminal Provisions.

Formally, Law No. 24 of 2007 imposes severe sanctions for violations of disaster-management standards. This is particularly evident through Article 79, which subjects corporations to fines increased by a factor of three and additional penalties, including the revocation of business licenses and legal-entity status. Nevertheless, this enforcement framework suffers from a qualifying defect that undermines the effectiveness of DRR. The sanctions provided under Articles 75 and 76 of Law No. 24 of 2007 are fundamentally reactive; penalties may only be imposed when negligent development activities have already "caused a disaster." As a consequence, the law loses its preventive (*ex ante*) coercive force to halt dangerous patterns of spatial exploitation before disaster materialises. In this respect, the substantive content of Lampung Province Regional Regulation No. 6 of 2024 largely mirrors that of Law No. 24 of 2007. Another important element within this indicator concerns the existence of a post-disaster regulatory framework that adopts the Build Back Better (BBB) principle. Post-disaster governance under Law No. 24 of 2007 (Articles 57 and 59) and Government Regulation No. 21 of 2008 normatively separates the post-disaster phase into rehabilitation and reconstruction. Rehabilitation is directed toward restoring pre-disaster conditions, whereas reconstruction seeks to rebuild better than before.

Critically, the material separation of these two phases creates an evaluative gap. The rehabilitation provisions contained in Article 68(1) and Article 71(1) of Government Regulation No. 21 of 2008 restrict recovery objectives to the restoration of the status *quo ante*, thereby risking the reproduction of pre-existing structural vulnerabilities. Reconstruction, meanwhile, is implemented only after rehabilitation has completed. This sequencing creates a risk of failing to break the cycle of pre-disaster vulnerability and may widen the gap between the idealism of Build Back Better and realities on the ground (Fernandez & Ahmed, 2019)—particularly where reconstruction projects remain tied to local development plans that are insufficiently sensitive to disaster risks.

At the same time, Indonesian disaster law demonstrates notable strengths by incorporating substantive BBB elements within the reconstruction phase. This commitment is reflected in Article 75(1)(d) and Article 86 of Government Regulation No. 21 of 2008, which require the application of appropriate design standards and the use of improved disaster-resistant technologies, and equipment based on assessments of regional hazard conditions. Furthermore, a particularly significant positive feature appears in Article 81(3)(h), which explicitly mandates integrity and freedom from corruption in reconstruction budget-planning documents. This constitutes a highly responsive normative mechanism, given that the post-disaster construction sector is widely recognised as one of the area's most vulnerable to corruption—a phenomenon that frequently serves as a major driver of BBB failures internationally (Fernandez & Ahmed, 2019).

D. Conclusion

This study demonstrates that the Sendai Framework for Disaster Risk Reduction (SFDRR) and Indonesia's disaster risk reduction (DRR) legal framework share a common normative commitment to social justice. Although they operate at different legal and institutional levels, both frameworks recognise that disaster governance cannot be reduced to emergency response or technical risk management. Instead, DRR must be understood as a legal project aimed at reducing unequal exposure to risk, protecting vulnerable populations, and ensuring that disaster policies are implemented through inclusive governance. Using the analytical framework developed in this study, it is evident that Indonesia's legal framework and the local legal framework of Lampung Province generally accommodate the five core indicators of social justice in DRR: protection of vulnerable groups, redistributive disaster financing, access to disaster information and services, meaningful public participation, and accountability of state and non-state actors.

However, the incorporation of these indicators at the normative level does not automatically ensure the realisation of social justice in practice. A law may formally recognise DRR principles while still failing to address the structural inequalities that shape disaster vulnerability. For this reason, this study contributes not only an evaluation of Indonesia's disaster legal framework but also a social justice assessment framework for disaster law. This framework operationalises four foundational dimensions of social justice—distributive justice, procedural justice, human rights, and good governance—into five practical legal indicators. It provides a conceptual tool for assessing whether disaster law merely adopts the language of DRR or substantively advances justice through the protection of capabilities, participation, access, accountability, and fair distribution of resources.

The analysis shows that several gaps remain within the regulatory framework. First, the law continues to rely on relatively static categories of vulnerable groups. Although women, children, persons with disabilities, older persons, and economically disadvantaged communities are often identified as groups requiring protection, the legal framework has not fully adopted an intersectional understanding of vulnerability. In disaster contexts, vulnerability is rarely produced by a single identity or condition. It is shaped by the interaction of gender, age, disability, poverty, geographical isolation, indigenous status, legal identity, and unequal access to public services. Without an intersectional approach, disaster law risks treating vulnerable groups as homogeneous categories and may fail to identify those experiencing overlapping disadvantage.

Second, public participation is formally recognised, yet procedures for meaningful and inclusive participation remain insufficiently detailed. Participation should not be limited to consultation after policies have already been designed. Affected communities should be involved from the earliest stages of risk mapping, planning, budgeting, implementation, monitoring, and evaluation. This is important because communities in disaster-prone areas often possess local knowledge that is essential for effective DRR. Without clear procedural guarantees, participation may become symbolic and fail to influence decision-making.

Third, disaster-financing obligations are established in law, but the absence of clearer standards on adequacy, enforceability, and vulnerability-based allocation weakens effectiveness. Redistributive disaster financing requires more than the availability of funds; it requires mechanisms that prioritise communities facing the highest risk and the lowest adaptive capacity. Fourth, although accountability mechanisms are available, stronger obligations and oversight arrangements are still needed, particularly for non-state actors involved in infrastructure development, spatial planning, resource extraction, public service delivery, and post-disaster reconstruction. In contemporary disaster governance, private actors may affect disaster risk, and the legal framework must ensure that their conduct is subject to transparency, supervision, and remedy.

Information obtained through interviews with policymakers generally confirms that these legal norms have been translated into several local DRR initiatives. Nevertheless, the interviews function only as contextual support for the doctrinal analysis and should not be interpreted as a comprehensive assessment of DRR implementation. Future research should broaden the inquiry by incorporating the perspectives of affected communities, civil society organisations, private-sector actors, academic institutions, media, and other components of the hexahelix framework.

Accordingly, future legal reforms should strengthen intersectional protection for vulnerable groups, expand vulnerability-based budgeting, improve accessibility of early warning systems and disaster-risk information, institutionalise meaningful participatory procedures, reinforce accountability and transparency for public and private actors, and ensure effective legal remedies when DRR obligations are not fulfilled. These reforms are necessary to transform disaster law from a formal regulatory instrument into a justice-oriented framework capable of reducing risk, protecting human dignity, and advancing social justice.

REFERENCES

Aitsi-Selmi, A., Egawa, S., Sasaki, H., Wannous, C., & Murray, V. (2015). The Sendai Framework for Disaster Risk Reduction: Renewing the Global Commitment to People's Resilience, Health, and Well-being. *International Journal of Disaster Risk Science*, *6*(2), 164–176. https://doi.org/10.1007/s13753-015-0050-9

Akbar, A., Flacke, J., Martinez, J., & van Maarseveen, M. F. A. M. (2020). Participatory Planning Practice in Rural Indonesia: A Sustainable Development Goals-Based Evaluation. *Community Development*, *51*(3), 243–260. https://doi.org/10.1080/15575330.2020.1765822

Alexy, R. (2021). *Law's Ideal Dimension*. Oxford University Press.

Altwicker, T. (2022). Social Justice and the Judicial Interpretation of International Equal Protection Law. *Leiden Journal of International Law*, *35*, 221–244. https://doi.org/10.1017/S0922156522000048

Añón, M. J. (2021). Human Rights Obligations, Especially, in Times of Crisis. *The Age of Human Rights Journal*, *17*, 1–26. https://doi.org/10.17561/tahrj.v17.6406

Aronsson-Storrier, M. (2020). Sendai Five Years on: Reflections on the Role of International Law in the Creation and Reduction of Disaster Risk. *International Journal of Disaster Risk Science*, *11*(2), 230–238. https://doi.org/10.1007/s13753-020-00265-y

Aulia, M. Z. (2018). Hukum Progresif dari Satjipto Rahardjo: Riwayat, Urgensi, dan Relevansi. *Undang: Jurnal Hukum*, *1*(1), 159–185. https://doi.org/10.22437/ujh.1.1.159-185

Ayuni, Q., & Arsil, F. (2021). Acceleration for Disasters: Evaluation of the Disaster Management Act in Indonesia. *IOP Conf. Series: Earth and Environmental Science*, *716*(012034), 1–8. https://doi.org/10.1088/1755-1315/716/1/012034

Barua, P., Begum, M., & Molla, M. H. (2021). General Overview of Disaster Risk Reduction and Resilience Strategies. *Social Change*, *10*(1), 121–251. https://ypsa.org/publications/social-change-vol-10-2021/

Bignami, D. F., Ambrosi, C., Bertulessi, M., Menduni, G., Pozzoni, M., & Zambrini, F. (2024). Governance Strategies and Tools Towards the Improvement of Emergency Management of Natural Disasters in Transboundary Areas. *International Journal of Disaster Risk Reduction*, *111*, 104704. https://doi.org/10.1016/j.ijdrr.2024.104704

BNPB. (2025). *Rangkuman Bencana Tahun 2025*. Geoportal Data Bencana Indonesia. https://gis.bnpb.go.id/arcgis/apps/sites/#/public/pages/bencana-besar-tahun-2025

Bovens, M. (2010). Two Concepts of Accountability: Accountability as a Virtue and as a Mechanism. *West European Politics*, *33*(5), 946–967. https://doi.org/10.1080/01402382.2010.486119

Burchardt, D. (2019). The Functions of Law and their Challenges: The Differentiated Functionality of International Law. *German Law Journal*, *20*(4), 409–429. Cambridge Core. https://doi.org/10.1017/glj.2019.29

Capeheart, L., & Milovanovic, D. (2020). *Social Justice: Theories, Issues, and Movements (Revised and Expanded Edition)*. Rutgers University Press.

Caruso, G. D. (2017). The Legacy of Natural Disasters: The Intergenerational Impact of 100 Years of Disasters in Latin America. *Journal of Development Economics*, *127*, 209–233.

https://doi.org/10.1016/j.jdeveco.2017.03.007

Creta, A. (2018). Integrating Human Rights into Disaster Management: Normative, Operational and Methodological Aspects. In F. Z. Giustiniani, E. Sommario, F. Casolari, & G. Bartolini (Eds.), *Routledge Handbook of Human Rights and Disasters* (pp. 132–148). Routledge. https://doi.org/10.4324/9781315115238

Criddle, E. J., & Fox-Decent, E. (2012). Human Rights, Emergencies, and the Rule of Law. *Human Rights Quarterly*, *34*(1), 39–87. https://doi.org/10.1353/hrq.2012.0001

Du Toit, N., Steenkamp, P., van Niekerk, D., & Groenewald, A. (2024). Analysing the Characteristics of Post-Disaster Funding that Make It Susceptible to the Risk of Economic Crime: A South African Frame of Reference. *Journal of Financial Crime*, *32*(2), 304–320. https://doi.org/10.1108/JFC-03-2024-0099

Dube, F. (2023). The Rule of Law in a State of Disaster: Evaluating Standards for the Promulgation, Administration and Enforcement of Emergency Regulations in South Africa. *Hague Journal on the Rule of Law : HJRL*, *15*(1), 143–159. https://doi.org/10.1007/s40803-022-00179-5

Ebenezer, Y., Durga, K., Chandrakala, N. B., Shashank, G., Sharma, M., Selvakumar, P., & Manjunath, T. C. (2026). Disaster Education and Awareness Programs. In Q. Ali & M. T. I. Khan (Eds.), *Strengthening Global Resilience to Natural Disasters* (pp. 73–102). IGI Global. https://doi.org/10.4018/979-8-3693-9745-9

Elviandri, Dimyati, K., & Absori. (2019). Quo Vadis Negara Kesejahteraan: Meneguhkan Ideologi Welfare State Negara Hukum Kesejahteraan Indonesia. *Mimbar Hukum*, *31*(2), 252–266. https://doi.org/10.22146/jmh.32986

Febriani, R., Supartiningsih, S., & Tjahyadi, S. (2025). Jurgen Habermas's Views on Legal Validity and Discourse Ethics: A Literature Review. *Jurnal Civics: Media Kajian Kewarganegaraan*, *22*(1), 20–31. https://doi.org/10.21831/jc.v22i1.1289

Fernandez, G., & Ahmed, I. (2019). "Build Back Better" Approach to Disaster Recovery: Research Trends since 2006. *Progress in Disaster Science*, *1*, 100003. https://doi.org/10.1016/j.pdisas.2019.100003

Ferreira, R., Davidson, T., Buttell, F., Contillo, C. M., Lentz, B., Leddie, C., Leahy, C., Nu, C., Simkins, M., Jerolleman, A., Eide, C., Glaude, M. W., Thomas, J., Leiva, D., Awbrey, M. L., & Friedman, R. (2024). Barriers to Equitable Disaster Recovery: A Scoping Literature Review. *International Journal of Disaster Risk Reduction*, *110*(104628), 1–17. https://doi.org/10.1016/j.ijdrr.2024.104628

Foysal, Q. O. (2023). The International Law Commission and International Disaster Law. In A. Singh (Ed.), *International Handbook of Disaster Research* (pp. 1849–1862). Springer Nature Singapore. https://doi.org/10.1007/978-981-19-8388-7_127

Hariyanto, H., Yeyeng, A. T., Kapugu, B. A., Arowosaiye, Y. I., & Tajuddin, M. S. (2025). Democratization of Village Autonomy in the Construction of Indonesian Administrative Law: Is It Possible? *Jurnal Media Hukum*, *32*(2 SE-Articles), 190–209. https://doi.org/10.18196/jmh.v32i2.25216

Ikhsan, I., Rahayu, R., & Sularto, R. (2025). Bridging Law and Society: Reorienting Sociological Jurisprudence for Progressive Legal Reform in Indonesia. *Jurnal Hukum Progresif*, *13*(2), 313–350. https://doi.org/10.14710/jhp.13.2.313-350

Jesica, N., Nadia, M., & Septiyati, L. (2018). The Realization of Social Justice for the Poor Citizens According to Legal Philosophy. *Fiat Justisia*, *12*(4), 284–297. https://doi.org/10.25041/fiatjustisia.v12no4.1383

Kohn, M. (2020). Public Goods and Social Justice. *Perspectives on Politics*, *18*(4), 1104–1117. https://doi.org/10.1017/S1537592719004614

Kong, F. (2022). How to Realize the Better Integrated Disaster Risk Governance by Public Financial Investment in China? *Sustainable Environment*, *8*(1), 1–7. https://doi.org/10.1080/27658511.2021.2007592

Kuran, C. H. A., Morsut, C., Kruke, B. I., Krüger, M., Segnestam, L., Orru, K., Nævestad, T. O., Airola, M., Keränen, J., Gabel, F., Hansson, S., & Torpan, S. (2020). Vulnerability and Vulnerable Groups from an Intersectionality Perspective. *International Journal of Disaster Risk Reduction*, *50*, 101826. https://doi.org/10.1016/j.ijdrr.2020.101826

Magnis-Suseno, F. (2024). *Etika Politik* (13th ed.). Gramedia Pustaka Utama.

Maini, R., Clarke, L., Blanchard, K., & Murray, V. (2017). The Sendai Framework for Disaster Risk Reduction and Its Indicators—Where Does Health Fit in? *International Journal of Disaster Risk Science*, *8*(2), 150–155. https://doi.org/10.1007/s13753-017-0120-2

Maly, E., & Suppasri, A. (2020). The Sendai Framework for Disaster Risk Reduction at Five: Lessons from the 2011 Great East Japan Earthquake and Tsunami. *International Journal of Disaster Risk Science*, *11*(2), 167–178. https://doi.org/10.1007/s13753-020-00268-9

Maurya, S. K. (2022). On Just, Justice and Distributive Justice: A Critical and Comparative Discourse. *Journal of Liberty and International Affairs*, *8*(2), 240–254. https://doi.org/10.47305/JLIA2282240m%20

Miller, D. (1999). *Principles of Social Justice*. Harvard University Press. https://doi.org/10.2307/j.ctv1pdrq04

Nkombi, Z., & Wentink, G. J. (2022). The Role of Public Participation in Disaster Risk Reduction Initiatives: The Case of Katlehong Township. *Jàmbá - Journal of Disaster Risk Studies*, *14*(1), a1203. https://doi.org/10.4102/jamba.v14i1.1203

Nuñez, M. A., & Ocampo-Salazar, C. (2025). Dimensiones de la gobernanza del riesgo de desastres: Una revisión sistemática. *Revista de Estudios Latinoamericanos Sobre Reducción Del Riesgo de Desastres (REDER)*, *9*(1), 51–66. https://doi.org/10.55467/reder.v9i1.177

Nussbaum, M. C. (2011). *Creating Capabilities: The Human Development Approach*. Belknap Press.

Okuda, K., & Kawasaki, A. (2022). Effects of Disaster Risk Reduction on Socio-Economic Development and Poverty Reduction. *International Journal of Disaster Risk Reduction*, *80*(103241). https://doi.org/10.1016/j.ijdrr.2022.103241

Peters, L. E. R. (2025). The Peace Imperative for the Sendai Framework for Disaster Risk Reduction. *International Journal of Disaster Risk Science*, *16*(1), 9–19. https://doi.org/10.1007/s13753-024-00596-0

Pogge, T. (2011). Shue on Rights and Duties. In C. R. Beitz & R. E. Goodin (Eds.), *Global Basic Rights* (pp. 113–130). Oxford University Press. https://doi.org/10.1093/acprof:osobl/9780199604388.003.0006

Popovski, V. (2014). State Negligence Before and After Natural Disasters as Human Rights

Violations. In C. Hobson, P. Bacon, & R. Cameron (Eds), *Human Security and Natural Disasters* (1st edn, pp. 94–110). Routledge. https://doi.org/10.4324/9781315817675-6

Prasetyoningsih, N., & Ichsan, M. (2024). Kajian Yuridis atas Ketentuan Darurat Bencana dalam Konstitusi Sebagai Jaminan Hak Asasi Manusia Korban Bencana. *Jurnal Hukum Ius Quia Iustum*, *31*(1), 49–75. https://doi.org/10.20885/iustum.vol31.iss1.art3

Pronto, A. N. (2019). The ILC's Articles on the Protection of Persons in the Event of Disasters and Disaster Risk Reduction: A Legislative History. In K. L. H. Samuel, M. Aronsson-Storrier, & K. N. Bookmiller (Eds.), *The Cambridge Handbook of Disaster Risk Reduction and International Law* (pp. 71–86). Cambridge University Press. https://doi.org/10.1017/9781108564540.006

Putra, D. I., & Matsuyuki, M. (2019). Disaster Management Following Decentralization in Indonesia: Regulation, Institutional Establishment, Planning, and Budgeting. *Journal of Disaster Research*, *14*(1), 173–187. https://doi.org/10.20965/jdr.2019.p0173

Rahardjo, S. (2009). *Hukum Progresif: Sebuah Sintesa Hukum Indonesia*. Genta Publishing.

Rahardjo, S. (2011). Hukum Progresif: Hukum yang Membebaskan. *Jurnal Hukum Progresif*, *1*(1), 1–24. https://doi.org/10.14710/hp.1.1.1-24

Rahmawan, A. B., Eliana, G., Habibi, L. A., & Nariswari, A. A. (2024). A Comparative Study of Earthquake Disaster Management Laws between USA and Indonesia. *Jàmbá - Journal of Disaster Risk Studies*, *16*(1), 1–12. https://doi.org/10.4102/jamba.v16i1.1582

Rajabi, E., Bazyar, J., Delshad, V., & Khankeh, H. R. (2022). The Evolution of Disaster Risk Management: Historical Approach. *Disaster Medicine and Public Health Preparedness*, *16*(4), 1623–1627. https://doi.org/10.1017/dmp.2021.194

Robeyns, I. (2018). The Capability Approach. In S. Olsaretti (Ed.), *The Oxford Handbook of Distributive Justice* (pp. 109–128). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199645121.013.5

Samekto, F. X. A., & Natalis, A. (2024a). Exploring the Grundnorm Dilemma: Can Pancasila be Considered the Grundnorm in the Context of 'the Pure Theory of Law'? *Journal of Philosophical Investigations*, *18*(48), 319–338. https://doi.org/10.22034/jpiut.2024.62978.3843

Shukla, R. C. (2017). Public Policy and Social Good: Theory, Practice and Beyond. *Annales. Etyka w Życiu Gospodarczym*, *20*(4), 19–35. https://doi.org/10.18778/1899-2226.20.4.02

Skinner-thompson, J. (2022). Procedural Environmental Justice. *Washington Law Review*, *97*(2), 399–458. https://digitalcommons.law.uw.edu/wlr/vol97/iss2/5

Sonhaji, Wibawa, K. C. S., Natalis, A., & Noho, M. D. H. (2022). Animal Rights in Indonesian Environmental Law: Case Studies in Disaster Prone Areas. *International Journal of Sustainable Development and Planning*, *17*(1), 299–305. https://doi.org/10.18280/ijsdp.170130

Sossai, M. (2018). States' Failure to Take Preventive Action and to Reduce Exposure to Disasters as a Human Rights Issue. In F. Z. Giustiniani, E. Sommario, F. Casolari, & G. Bartolini (Eds.), *Routledge Handbook of Human Rights and Disasters* (pp. 119–131). Routledge. https://doi.org/10.4324/9781315115238

Spaak, T. (2020). Robert Alexy and the Dual Nature of Law. *Ratio Juris*, *33*(2), 150–168.

https://doi.org/10.1111/raju.12285

Susanti, B. (2017). Menyoal Jenis dan Hierarki Peraturan Perundang-Undangan di Indonesia. *Jurnal Jentera*, *1*(2), 128–143. https://jurnal.jentera.ac.id/index.php/jentera/article/view/10

Suteki, & Taufani, G. (2020). *Metodologi Penelitian Hukum: Filsafat, Teori, dan Praktik*. Rajawali Pers.

Tjitrawati, A. T., & Romadhona, M. K. (2023). Affliction in the Post Palu Disaster: State Failure to Implement Human Rights Standard on Disaster Management. *Cogent Social Sciences*, *9*(1), 2233255. https://doi.org/10.1080/23311886.2023.2233255

UNDRR. (2015). *Reading the Sendai Framework for Disaster Risk Reduction 2015 - 2030*. United Nations Office for Disaster Risk Reduction (UNDRR). https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030

UNDRR. (2025). *Global Assessment Report on Disaster Risk Reduction 2025: Resilience Pays: Financing and Investing for our Future.* United Nations Office for Disaster Risk Reduction (UNDRR). https://www.undrr.org/gar/gar2025

Verchick, R. R. M. (2012). Disaster Justice: The Geography of Human Capability. *Duke Environmental Law & Policy Forum*, *23*(1), 23–71. https://scholarship.law.duke.edu/delpf/vol23/iss1/2

Wang, H., Zhang, S., & Ran, B. (2025). Co-Production During Crises: A Strategy to Mitigate Crisis-Induced Conflicts in Public Service Provision. *International Public Management Journal*, *28*(6), 787–819. https://doi.org/10.1080/10967494.2025.2479045

Wardhani, L. T. A. L., Diamantina, A., & Saputra, A. A. D. (2025). Towards Sustainable Development: Reviewing Disaster Risk Reduction's Content in Lampung's Regional Regulation Amendment. *IOP Conf. Series: Earth and Environmental Science*, *1537*(012028), 1–10. https://doi.org/10.1088/1755-1315/1537/1/012028

Wardhani, L. T. A. L., Noho, M. D. H., & Natalis, A. (2022). The Adoption of Various Legal Systems in Indonesia: An Effort to Initiate the Prismatic Mixed Legal Systems. *Cogent Social Sciences*, *8*(1). https://doi.org/10.1080/23311886.2022.2104710

Watanabe, K., Ishiwatari, M., Sasaki, D., Sakamoto, A., & Nakayama, M. (2025). Investing in Resilience: A Long-Term Analysis of China's Flood Protection Strategies. *Resilient Cities and Structures*, *4*(1), 115–123. https://doi.org/10.1016/j.rcns.2025.03.001

Widyawati, A. (2020). The Role of the Law in Development Acceleration To Generate People Well-Being. *Jurnal Hukum Progresif*, *8*(2), 98–109. https://doi.org/10.14710/jhp.8.2.98-109

Winarti, W. (2018). Disaster Risk Analysis to Support the Development of Regional Spatial Plan of Tasikmalaya Regency, Indonesia. *Journal of the Civil Engineering Forum*, *4*(2), 157–168. https://doi.org/10.22146/jcef.33663

Wu, H., Huang, M., Tang, Q., Kirschbaum, D. B., Ward, P., Goddard, N., & Flight, S. (2016). Hydrometeorological Hazards: Monitoring, Forecasting, Risk Assessment, and Socioeconomic Responses. *Advances in Meteorology*, 1–3. https://doi.org/10.1155/2016/2367939

Zafar, S., Ur, I., & Ammara, S. (2023). Disasters and Corruption: An Empirical Analysis of 16 Countries From Asia and the Middle East. *International Journal of Disaster Risk Reduction*, *90*(103678), 1–13. https://doi.org/10.1016/j.ijdrr.2023.103678