

Decentralizing disaster management in Indonesia through disaster resilient villages (destana) program: A structuration analysis



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Abstract This article examines how social agents—particularly local disaster management institution, disaster facilitators, village leader, and local volunteers—have influenced the shift toward a decentralized disaster management system in Indonesia. Drawing on Giddens' theory of structuration, the article explores the interplay between agency and structure in the transformation of disaster governance. It focuses on how actors navigate institutional constraints, mobilize resources, and enact change in regulatory frameworks. This study uses a single case study method where Mount Sinabung was selected due to the prolonged eruption conditions in the area. The findings highlight the duality of structure, where disaster management reform is not solely driven by top-down policy but also by grassroots-level action and communicative practices that reproduce or transform systemic arrangements.

Keywords: disaster management system, communicative practices, mount sinabung

1. Introduction

In the last two decades, Indonesia has undergone a significant transformation in its disaster management framework, transitioning from a centralized, reactive model to a more decentralized and community-engaged system. Establishment of disaster management institutions from the central to regional levels, which only occurred a few years after the 2004 tsunami. Law No. 24 of 2007 on Disaster Management became the legal basis for the establishment of disaster management institutions at all levels of government. At the national level, it is called the National Disaster Management Agency (Badan Nasional Penanggulangan Bencana – BNPB), while at the provincial and district/city levels, it is called the Regional Disaster Management Agency (Badan Penanggulangan Bencana Daerah – BPBD). Centralized disaster management system, historically failed because of as slow responses, such as in the 2004 Aceh tsunami or logistical challenges during Mount Sinabung eruptions. Despite the tendency to assume a universal solution within this hierarchical framework, top-down disaster management has proven ineffective due to the vast and varied nature of disasters (Sim et al., 2017). Furthermore, top-down disaster management strategies are characterized by imposing goals on disaster-affected communities, ignoring their vulnerability in terms of risk reduction (D'Andrea et al., 2022).

The top-down disaster management shows how a Jakarta-based command center often struggles to coordinate responses across islands. Indonesia's vast territory and varied geographical factors result in a variety of potential disasters that can occur in several places simultaneously. The National Disaster Management Agency stated that there had been 5,400 natural disasters in 2023, causing 325 fatalities (dibi.bnpb.go.id). Given regional diversity, Indonesia's disaster vulnerability must be addressed at the most granular level, and villages and sub-districts represent the most basic regional levels in Indonesia. Decentralization allows for more participatory governance and empowerment of local agency—a critical principle in democratic disaster risk reduction. Local governments, when well-trained and resourced, have proven effective in early warning systems, evacuation planning, and community mobilization.

The establishment of Disaster Resilient Villages (Destana) is an additional initiative to ensure that disaster management is truly grassroots-oriented. The program is a form of transformation capacity, responsibility, and decision-making to the local level. Village is the smallest official unit of government in Indonesia. To make government programs at the village level a success depends heavily on collaborative governance among village authorities, local state agencies, community facilitators, and local volunteers. The actors have to work together and playing complementary roles in building resilience from the ground up.



This article investigates the role of individual and collective actors in this transformation. Rather than viewing regulatory change as purely top-down, it highlights how local government officers, disaster facilitators, and civil society actors actively shaped, contested, and redefined the rules and resource distributions of disaster management—consistent with the central tenets of structuration theory.

While existing literature has acknowledged the importance of decentralization in Indonesia's disaster management system, there are critical gaps when it comes to analyzing how local-level programs like Destana function as decentralized governance structures, especially through the lens of structuration theory. Most studies (e.g., Putra & Matsuyuki, 2019; Hadi, 2020) focus on macro-level institutional reforms, such as national frameworks (RIPB, RPJPN) or regional disaster agencies (BPBD), with limited exploration of how village-level actors (village heads, disaster facilitators, local volunteers) actively shape disaster governance. Structuration theory emphasizes the duality of structure and agency—a concept underexplored in the Destana context, where local actors not only follow central policies but also adapt and reproduce new governance practices on the ground.

Although Maulana (2020) and Husna et al. (2022) recognize the importance of community preparedness and individual literacy, there is little systematic analysis of community-based models like Destana as institutionalized forms of participatory governance. The current literature lacks a theoretical lens—particularly one like structuration theory—that can explain how structures (laws, resources, institutions) and agency (local actors, communities) interact over time in a decentralized disaster management system. This article will address this gap by applying structuration theory to analyze how local actors (village heads, facilitators, communities) exercise agency within structural constraints (laws, funding, disaster frameworks) in the Destana program. This article will also illustrate how Destana is not only a technical disaster management tool but also a social system where institutional structures and local practices recursively shape each other and highlighting how decentralization is practiced and negotiated at the village level, beyond formal policy discourse.

1.1. Disaster Governance in Indonesia: From Centralization to Decentralization

Disasters occur when a community affected by one or more hazards is unable to cope with the situation independently and requires external assistance for recovery (Dufty, 2020). As a result, the community does not have sufficient knowledge or skills to take appropriate steps to reduce the potential negative impacts of the risks faced (Simonović, 2010). To reduce disaster risks, various countries have established disaster management institutions that have clear structures and functions, aiming to achieve certain goals together while remaining sensitive to their environmental conditions (Max, 2020).

In Indonesia, disaster management institutions were established in response to the disaster event where the 2004 Indian Ocean tsunami led to the establishment of new national laws and policies on disaster management, as well as the creation of regional and national institutions to implement them (Hu, 2018). Following the enactment of the Disaster Management Law in 2007 and the establishment of BNPB the following year, the Indonesian government framework shifted to a bottom-up, autonomous structure. This arrangement is regulated in the Regional Autonomy Law which has been in effect since 2004. Yet, this shift was not merely a legal transformation; it was enabled and driven by the everyday practices of actors operating on the ground.

Decentralization, according to the World Bank (1999), includes the granting of political, fiscal, and administrative powers to local governments. This process can involve increasing the resources and responsibilities that local governments currently have while increasing government efficiency and readiness. Although the government as a whole has implemented decentralization since Indonesia's independence in 1945, disaster management still often uses a top-down approach. Before the BNPB was established, the disaster management agency functioned as a national coordination agency or team based in the capital city Jakarta. The increasing complexity of today's disasters closely relates to changes in disaster management strategies. Disaster management organizations must implement proactive, community-based strategies that leverage local resources and capabilities to reduce risk and vulnerability (Azad et al., 2020). Another reason for decentralized disaster management lies in the nature of the disaster itself. Every disaster has a local character (Cone et al., 2017); therefore, disaster management efforts must be carried out locally, because that is where the real impact of the disaster is usually experienced (Britton, 1984).

A decentralized disaster management system requires community participation, a legal framework, training, education, information exchange, and international cooperation to create a systematic, structured, and balanced approach (Bang, 2014). The national governance framework must align the disaster risk management agenda with the government's long-term development plan (Jones, 2011). At the same time, local governments need to work together to facilitate the exchange of information and resources between local actors and partners involved in disaster response (Song et al., 2024). The idea of localization in disaster management is based on the assumption that every disaster, regardless of its magnitude, can be understood as a series of interconnected local operations (Patricelli, 2009). Local governments, which play the most active role in disaster management, implement strategies to address disasters (Wolensky and Wolensky, 1990). However, various challenges confront the effectiveness of local governments in managing disasters. In the context of diverse disasters, disaster management programs prioritize the distribution of resources from outside to affected areas (Misha et al., 2021). Disaster response organizations need to coordinate efforts across local units in the country and oversee aspects of the work that

automatically require a broader approach either nationally, regionally, or territorially beyond the local community (Smith, 2005). Collaboration is thus an important aspect at all levels of government.

The change in the disaster management paradigm affects the responsibilities of government and communities. In the old disaster framework, disaster management was mostly handled by the government, with very limited community participation in the disaster response process (Atsumi and Goltz, 2014). The shift from a top-down to a bottom-up approach in disaster management requires considering the vulnerability and capacity of local communities to create synergy between community dynamics and disaster risk reduction strategies, including aspects of resilience, sustainability, and resistance (Ireni-Saban, 2012). In the case of Mount Sinabung, local actors—village leaders, disaster facilitators, civil society—often acted ahead of formal institutional responses. Their engagement in knowledge dissemination, community coordination, and resources mechanisms demonstrates how agency transforms structure.

1.2. Structuration Theory: The Roles of Agencies and Structural Changes

Structuration theory (Giddens, 1984) offers a dynamic lens to analyze how social systems are both shaped by and shape human agency. Structure is defined not as an external constraint but as rules and resources that are both the medium and outcome of social practice. This concept of the duality of structure is crucial for understanding institutional change. Stones (2005) elaborates this by emphasizing the role of *internal structures*—the memories, experiences, and knowledge that actors draw upon in action—and *external structures*, the social environment in which action occurs. Cohen (1989) adds that the use of allocative and authoritative resources allows agents to exert power and influence over institutional arrangements.

Applied to disaster governance, this theory helps explain how local actors work within—and against—existing institutional frameworks to initiate structural change. Actors are not merely passive implementers of policy; they are knowledgeable agents capable of reflexive monitoring, and capable of using their positionality, discourse, and networks to challenge dominant power structures. Giddens (1984) emphasized that rules in social systems are often misinterpreted as fixed; in reality, they are contestable and enacted differently depending on context. For example, national regulations that required uniform evacuation procedures were adapted by local facilitators to fit the social and cultural norms of displaced Karo communities. These adaptations reflect what Stones (2005) would call the use of modalities: ways in which agents interpret and implement structural elements through action.

In addition, resources—both material (allocative) and symbolic (authoritative)—were central in enabling agency. For instance, facilitators who had access to social capital or informal influence within local institutions were more successful in advocating for permanent relocation policies or redefining risk zones. Cohen (1989) describes these resources as essential in an agent's ability to "make a difference."

A key insight from structuration theory is that constraints are not simply obstacles, but also potential enablers of change (Cohen, 1989: 214). In disaster governance, legal ambiguity, institutional inertia, and conflicting mandates often created bottlenecks. However, these same conditions also opened spaces for negotiation, innovation, and policy experimentation by local actors. Actors engaged in reflexive monitoring—adjusting their strategies based on feedback and evolving circumstances—embody the transformative potential of agency. For instance, local facilitators in the Sinabung case used repeated cycles of trial-and-error to develop relocation mechanisms that eventually influenced national policy.

2. Materials and Methods

This study applies a case study method that focuses on the implementation of the Destana program in the Sinabung volcano area in Karo Regency, North Sumatra. We chose this methodology due to its capacity to examine cultural and social phenomena within authentic contexts and events (Stake in Denzin and Lincoln, 1994). Researchers considered this volcanic area because its volcanic activity poses a serious natural threat (Paltemaa, 2017a). Mount Sinabung in Karo Regency, North Sumatra, has been active since the 2010 eruption, and its current status is alert. The choice of the Mount Sinabung area is based on the decision to conduct a single case study. The selection of cases must be in accordance with relevant theories or theoretical statements (Yin, 2018).

This study was conducted using a qualitative approach, where data were obtained through interviews, observations, and document analysis relevant to the study topic. In-depth interviews were conducted with a number of intentionally selected informants, that considered to have an understanding and knowledge of issues related to disaster management in disaster-resilient villages in Karo Regency. The participants of this research are local government officials, village/community leaders, disaster facilitators, and local volunteers. The researchers conducted interviews with government officials from the BPBD of Karo Regency who are responsible for mitigation and preparedness. This is related to the research theme that focuses on the Destana program. The interview process with government officials is usually carried out in government offices by bringing a research permit letter.

Data collection was conducted in selected villages where key informants, including village leaders, disaster facilitators, and local volunteers, resided and actively participated in Destana-related activities. Consistent with case study methodology, the research relied on multiple sources of evidence, particularly in-depth interviews and participant observation, which were

often conducted concurrently to enhance contextual understanding and triangulation. To ensure informed participation, all village informants were briefed on the research objectives prior to the data collection process. Preliminary information regarding Destana activities in the target villages was obtained through interviews with representatives of the Regional Disaster Management Agency (BPBD), who served as initial gatekeepers. The first entry into the field was conducted with the accompaniment of BPBD officials or disaster facilitators, who introduced the researcher to community stakeholders. This facilitated rapport-building and access to key informants and ensured that participants understood the research purpose, contributing to ethical and cooperative engagement throughout the fieldwork. Researchers conducted the field work in March-April 2024. Observations and interview were conducted two Destana villages: Perbaji and Gung Pinto, which were recommended by BPBD as the most active Destanas currently in Karo Regency.

Document analysis conducted to examine the structural dimensions, particularly regulations and resource allocation mechanisms that governing the implementation of the Disaster-Resilient Village (Destana) program. The documents selected for analysis included:

- National legislation, such as *Law No. 24 of 2007* on Disaster Management and *Government Regulation No. 21 of 2008* on the Implementation of Disaster Management;
- Ministerial-level regulations, including *Regulation of the Minister of Home Affairs No. 101 of 2018* (Permendagri 101/2018), which categorizes disaster management as a basic public service at the sub-national level;
- BNPB technical guidelines, particularly *BNPB Regulation No. 1 of 2012* on the General Guidelines for the Destana Program, which specifies program objectives, institutional roles, and implementation stages;
- Regional and local policy documents, such as BPBD strategic plans, village development planning documents, and resource allocation records related to the use of Village Funds (Dana Desa) for Destana activities.

The documents were purposefully selected based on their relevance to the two key structural components under investigation: (1) regulatory frameworks; and (2) resource distribution mechanisms.

In line with this theoretical orientation, the data analysis focused on identifying how rules and resources embedded in the Destana program structure either enabled or constrained the practices of key actors involved in disaster risk reduction at the village level. Analysis was conducted in three interlinked stages:

Mapping Structure: Identification of institutional rules and resource allocation mechanisms through document analysis and interviews with BPBD and government actors;

Understanding Agencies: Interpretation of how community leaders and local actors exercised discretion, interpreted regulations, and mobilized resources in context-specific ways;

Exploring Enabling and Constraining Dynamics: Synthesis of how structure facilitated or limited agencies in practice, highlighting cases where actors reproduced, adapted, or resisted institutional policies.

Through this analytical process, the study aimed to capture the duality of structure in decentralized disaster governance: how formal regulations and organizational practices both shaped and were reshaped by the actions of local agents.

3. Results

3.1. Resources and regulation: structures that enable and constrain the implementation of Destana

The Disaster-Resilient Village (Destana) program in Indonesia is governed by a combination of national disaster laws, government regulations, technical guidelines, and ministerial decisions. These legal and policy instruments define the program scope, funding mechanisms, and institutional responsibilities. The primary legal basis for all disaster management is Law No. 24/2007 on Disaster Management. Law No. 24/2007 Establishes the roles of BNPB (National Disaster Management Agency) and BPBD (Regional Disaster Management Agencies) and encourages local government and community involvement in disaster preparedness and mitigation.

Technical guidelines on implementation of Destana program regulate in Head of BNPB Regulation No. 1/2012 on General Guidelines for Disaster Resilient Villages (Destana) is the reference for implementing the Destana program. It defines what constitutes a Destana, its characteristics, and development stages; emphasizes community empowerment, participatory risk assessment, and local capacity building; and guides the formation of village-level disaster management teams (Tim Siaga Bencana Desa). Another related regulation is Law No. 6/2014 on Villages which regulates that village fund can be used for Destana activities such as evacuation drills, risk mapping, and early warning systems.

Inconsistence and lack of clarity regarding Destana implementation come in 2018 when Ministry of Home Affairs (Kemendagri) issued Regulation of the Minister of Home Affairs concerning Technical Standards for Basic Services in the Minimum Service Standards for the Subdistrict/City Disaster Affairs (henceforth mentioned as Pemendagri 101/2018). According to this Permendagri No. 101/2018, disaster management is explicitly categorized as a basic public service at the district/city level. This means that local governments (regents/mayors) and their regional agencies (especially BPBD) have a mandatory obligation to provide disaster-related services.

Pemendagri 101/2018 makes BPBD has dual regulatory alignment: BNPB and Kemendagri. Vertical accountability to the Ministry of Home Affairs for service delivery and administrative performance and functional/technical alignment with BNPB

for national standards, training, and DRR coordination. Permendagri 101/2018 not only creates dual accountability of BPBD. It also makes regulatory inconsistencies of interpretations of whether disaster programs fall under development, emergency response, or public service categories.

Inconsistency in categorizing disaster programs has an impact on difficulties in accessing disaster funds. At the village and district levels, the phenomenon of resource bottlenecks occurs. While Village Funds are available, the rules for accessing and allocating them for disaster programs are often unclear or heavily bureaucratized.

This dual accountability: administrative to the Ministry of Home Affairs and technical to BNPB, illustrates the complex institutional structuration of disaster governance in Indonesia, where decentralization coexists with national standardization. This complexity makes the implementation of the Destana program highly dependent on the ability of local actors to utilize the duality of structures of disaster management.

3.2. The agencies: social actors driving decentralization of disaster management through Destana

3.2.1. BPBD (Regional Disaster Management Agency)

BPBD plays a pivotal role in initiating and supporting the establishment and sustainability of the Destana program. The first step typically involves building communication with village leaders to secure local approval and ensure institutional commitment. As Romalisda, Head of the Preparedness Section at the Karo Regency BPBD, explained, "*Destana initiates by establishing a constructive rapport with the village head to facilitate the issuance of an official decree for the formation of Destana, promote community engagement in socialization and simulations, and guarantee the allocation of financial resources for the sustainability of Destana within the village.*"

BPBD also plays an essential role in technical training, capacity building, and program oversight. Once the Destana forum (FPRB) is formed, BPBD provides technical guidance and disaster preparedness training, often in partnership with other government bodies (such as the District Health Office, Police, or Provincial BPBD), NGOs, or expert organizations (e.g., search and rescue teams, volcano observatories).

Furthermore, BPBD is involved in advocating for and overseeing the use of village funds for disaster preparedness. Romalisda noted a challenge in this regard: "*Village funds are often used more for physical activities in the village rather than community empowerment.*" However, she acknowledged the exception of Gung Pinto village, whose head has consistently allocated village funds for Destana programs for three consecutive years. BPBD also provides facilitators to support Destana implementation, funded by the provincial budget, reflecting the agency's commitment to embedding disaster resilience at the grassroots level.

3.2.2. Village/Community Leaders

Village heads are central to the Destana program's implementation. Their primary responsibilities include issuing decrees (SK) for the formation of the Destana forum and the Disaster Risk Reduction Forum (FPRB), mobilizing community resources, and ensuring program sustainability.

Village leaders are also responsible for the institutional continuity of Destana. However, poor understanding of these responsibilities can jeopardize the program. For instance, Rulianto, a Destana facilitator, highlighted that "*During the transition of village officials or leadership, Destana documents should be well maintained and handed over to new officials, but in several locations, these documents were found missing.*"

Leaders who personally understand and value disaster preparedness often become strong advocates. Baginta Tarigan, former village head of Gung Pinto and current chair of the local Destana Forum, reflected on his transformative experience during the 2010 Mount Sinabung eruption: "*I experienced profound fear due to my ignorance of the necessary protective measures... prompting my immediate consent to the BPBD's initiative to establish Destana in Gung Pinto.*"

Village heads also influence budgetary decisions, and their discretion determines whether or not village funds are allocated for disaster preparedness. Gung Pinto stands out as a model case in this regard, as its village head, Roy Pranata Bangun, confirmed, "*We have budgeted village funds for Destana for three consecutive years.*"

3.2.3. Disaster Facilitators

Disaster facilitators serve as the main technical support personnel for Destana at the village level, typically assigned for a one-year period. Their role includes conducting participatory risk assessments (PRA), developing village emergency plans, facilitating training and simulations, and building local capacity to respond to disasters. Facilitators often have prior experience and receive training from BNPB or partner NGOs.

They also play a significant relational role, acting as intermediaries between community members and governmental institutions. Their work is often intensive and relational. For example, Baginta Tarigan noted the dedication of Rulianto, a facilitator, saying, "*He came to deliver disaster information even at night, knowing we were only available in the village during the evening.*"

Facilitators further foster cross-regional communication between Destana groups. Rulianto shared a case where he facilitated cooperation between Destana in Tanjung Balai City and Destana in Karo Regency to enable agriculture–marine product exchange: *“Now they have been able to exchange information about their agricultural products.”*

4. Local Volunteers

Local volunteers represent the grassroots capacity that sustains Destana’s operational activities. Many of them have experience in previous disaster responses—particularly during the prolonged eruption of Mount Sinabung—and contribute their expertise and local knowledge to the FPRB.

These volunteers are often integrated into Destana forums, bringing with them a strong spirit of solidarity and voluntary action. Hasan Tarigan, Head of the FPRB Destana in Perbaji village, emphasized this connection: *“In the previous disaster, many volunteers helped, and most of the members of this forum are volunteers from previous eruptions.”* Rulianto further noted the importance of maintaining this voluntary spirit: *“Experienced village volunteers will be tested in the field and understand the essence of volunteers, which is to be voluntary without imbalance.”* Volunteers also assist in simulations, evacuations, and disseminating disaster education to the broader community, making them indispensable to Destana’s local operations. Rahmiani, a volunteer, said she taught disaster management during a wirid, or social gathering event for women in Gung Pinto village. She delivered a message to remind them of the actions they need to take when ash falls from a volcano or when the village evacuation route is blocked.

5. Discussion

Indonesia has pursued political and administrative decentralization since 1999, so disaster management should align with this structure. Local governments have increasing authority and responsibility in governance; disaster management should reflect this institutional shift. Decentralized systems can reduce bureaucratic delay and increase transparency and accountability. Historically, disaster management was overseen by a central body known as the National Disaster Management Coordinating Agency (BNPB), located in the nation’s capital.

A centralized disaster organization is not an ideal choice for a country as large and diverse as Indonesia. Reforms then emerged from a complex process involving many actors in civil society and non-stakeholder entities (Lassa, 2013). The institution has been progressively operational, and four years after its establishment in 2008, BNPB started the Destana program in 2012.

Despite strong regulation support for the Destana program, limitations in human agency significantly impede its effectiveness. A qualitative evaluation in Kepuhkiriman Village, Sidoarjo, revealed that although the village had 40 trained volunteers, Destana activities remained dormant due to a lack of facilitators to guide community engagement and resource use (Munir & Sari, 2022). Similarly, Septyaningrum and Wibawani (2023) reported that the efficiency of Destana remained weak due to underutilization of human resources, especially the lack of volunteers and facilitators

The reliance on external disaster facilitators further constrains development. Once the BPBD-appointed facilitator’s tenure ends, many Destana forums declines sharply due to insufficient local mentorship and engagement (UNDP & BNPB, 2020). Moreover, a broader study on Destana in Magetan showed that only about 20% of villages met the main ‘Disaster Resilient Village’ criteria; the study attributed this shortfall primarily to insufficient Destana forum capacity, especially to access and use Village Fund allocations (Nugroho et al., 2024).

In the context of Destana implementation, the role of social actors, particularly BPBD, village leaders, disaster facilitators, and volunteers, is the key to success, despite structural challenges. In Giddens’ structuration theory, social actor who exercises power, mobilizes knowledge, or makes strategic decisions in line with or in resistance to existing structures. Cohen (1989) stated agencies can mobilize both allocative resources (material, technical, financial) and authoritative resources (institutional position, leadership legitimacy, networks) to not only implement disaster policies but also to adapt them to local contexts and reproduce new forms of governance at the grassroots level.

BPBD deploys allocative resources such as funding for training, technical materials, and the assignment of disaster facilitators. Simultaneously, it utilizes authoritative resources by leveraging its institutional mandate and authority to coordinate with village leaders and other stakeholders. This research is also part of the use of authoritative resources where one of the BPBD employees encouraged the university to research the Destana program in Karo Regency.

Village leaders use their authoritative power to issue decrees (SK Destana and SK FPRB) and allocate village funds (allocative resources) to sustain Destana. Leaders who internalize disaster preparedness norms actively reproduce resilient governance practices through socialization and institutionalization of risk reduction.

Disaster facilitators, although operating within provincial BPBD structures, act as grassroots agents. They rely on training knowledge (allocative resource) and social trust (authoritative resource) to educate communities, coordinate forums, and connect different Destana groups across regions—thus expanding the web of local disaster governance.

Local volunteers bring in experiential allocative resources (knowledge of local disaster responses, tools, and networks) and moral-authoritative legitimacy (community recognition) to institutional spaces like Destana forums. Their participation helps sustain practices of voluntary, community-based resilience.

The interaction between structure and agency in the Destana program reveals important implications for both the program's implementation and broader decentralized disaster governance. The decentralized disaster management system in Indonesia relies heavily on the understanding of the actors. Stones (2005) stated that information influences every action of the actors. They will create, maintain, and change various social systems using the knowledge they have (Cohen, 1989).

Based on those assumptions, then locally empowered governance emerges where village leaders are proactive, facilitators are relationally embedded, and BPBD is flexible in adapting procedures. Destana in Gung Pinto village is a model case where regulations were used constructively, and resources were deployed strategically, resulting in continuity, funding allocation, and strong community engagement.

When actors use their knowledge beyond routine duties, then it is created institutional improvisation. This is done by disaster facilitators and BPBD, such as fostering inter-Destana networks and facilitating knowledge exchange. It shows how agents innovate within and beyond structural limits, gradually transforming governance cultures from reactive to preventive.

The implementation of the Destana initiative in the Mount Sinabung area shows serious efforts from stakeholders at various levels to achieve change by utilizing existing regulations and resources. Decentralized disaster management is not merely about transferring authority from central government to local government, but also about enabling local actors to interpret, reproduce, and sometimes transform disaster governance through dynamic interactions between structure and agency.

6. Conclusions

This study shows that the decentralization of disaster management in Indonesia was not solely the product of legal reform but emerged through the everyday practices of agents operating within and upon structure. Using structuration theory, we understand that disaster regulations evolve through recursive practices where actors utilize rules and resources, reflect on constraints, and enact change.

Destana implementation under overlapping regulations exemplifies Giddens' duality of structure: where formal rules (like Permendagri 101/2018 and BNPB guidelines) both empower and constrain local disaster governance. BPBDs and village actors operate within this dynamic structure—not merely as passive rule-followers, but as active agents whose practices reproduce, negotiate, and sometimes transform the institutional landscape of disaster management in Indonesia. This has significant implications for future policy: empowering local agency through capacity-building, institutional flexibility, and dialogic engagement is not just supportive—it is foundational for resilient and adaptive disaster governance.

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Ethical considerations

The authors confirm that all participants provided written informed consent prior to participation in this research.

Conflict of Interest

The authors declare no conflicts of interest.

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