

Implementation of Decentralized Disaster Management: A case Study of Destana Village Near Sinabung Volcano

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ARTICLE INFO

ABSTRACT

Received: 30 Dec 2024

Revised: 12 Feb 2025

Accepted: 26 Feb 2025

Introduction: To implement disaster risk reduction programs at the local level, Indonesia has introduced the concept of “Destana”, which stands for “Disaster Resilient Village”. The goal is to enable villages to establish disaster risk reduction programs to form independent and resilient communities that are able to adapt to and face potential disaster threats and recover swiftly from disaster impacts.

Objectives: This study analyzes how decentralized disaster management in Indonesia involves various actors in several types of organizations at the local level.

Methods: This study analyzes how decentralized disaster management in Indonesia involves various actors in several types of organizations at the local level. This case study was conducted in one of the designated Destana villages near Sinabung Volcano.

Results: The results of this study show that the establishment of Destana village has led to the gathering of relevant actors who have disaster knowledge within the Destana organization.

Conclusions: This undertaking, carried out by various disaster management institutions at the local level, has been successful in utilizing village potential for disaster management. However, disaster management regulations and allocated resources, especially for disaster mitigation, have not accommodated changes in the decentralized disaster management system. As a result, not all Destana villages that have been formed are actively moving to carry out disaster mitigation efforts.

Keywords: Disaster risk reduction communication, Destana organization, Sinabung volcano.

INTRODUCTION

On the basis of the Indonesian Disaster Information Data from the National Disaster Management Agency (dibi.bnpb.go.id) in 2023, there were 5,400 disasters with a death toll (fatality) of 325 people. As a country that is very prone to disasters, the establishment of disaster management institutions in Indonesia is still relatively new and was carried out several years after the tsunami in 2004. Law on Disaster Management No. 24 of 2007 serves as the legal basis for the establishment of disaster management institutions at every level of government. At the central level, it is called the Badan Nasional Penanggulangan Bencana (henceforth referred to as BNPB) or the National Disaster Management Agency. At the provincial and district/city levels, it is called the Badan Penanggulangan Bencana Daerah (henceforth referred to as the BPBD) or Regional Disaster Management Agency. The law stipulates the term “Destana”, which stands for “Desa Tangguh Bencana” or “Disaster Resilient Village”, which describes a village that has the independent ability to adapt and deal with disaster risk as well as the ability to swiftly recover from the damaging impacts of a disaster. This concept thus paves the way for establishing disaster

management at the very local level in Indonesia. The term “Destana” should henceforth be frequently used in this study as the main subject matter.

In addition to being varied, disasters in Indonesia can occur in various regions during the same period. In 2023, according to data from the National Disaster Management Agency (2024), there were 5,400 disasters. Top-down disaster management is not effective because there is a tendency to assume that 'one size fits all' (Sim et al, 2017) in this top-down system. Top-down disaster management approaches, typified by the imposition of objectives on disaster-affected populations without considering their vulnerabilities in addressing the associated risks (D'Andrea et al, 2022). Therefore, disaster vulnerability in Indonesia needs to be anticipated down to the smallest regional level, which includes villages and subdistricts. The establishment of Destana is a further effort so that disaster management is truly bottom-up.

Changes in disaster management policy in Indonesia began when the government passed the Disaster Management Law in 2007, which mandated the existence of disaster management institutions at the regional level, namely, provinces and districts/cities. Previously, disaster management was coordinated by an institution at the central level called the National Disaster Management Coordination Agency.

The 2007 Disaster Management Law was not fully initiated by formal institutions and policymakers. The reform itself has actually been a result of complex processes involving diverse actors within civil society and nonstakeholder actors (Lassa, 2013). Although not fully initiated by the government, at that time, the response of the state, especially the ruler, to disaster issues was very sensitive (Sharma, 2003). One of them was in the formation and appointment of leadership at the BNPB. Four years after its formation in 2008, BNPB created the Destana program in 2012, which showcased its timely progress.

Local governments become the principal actors who formulate disaster management policies and administer their implementation (Lee, 2019). Although they are the main actors, local government decisions and outcomes are affected by the rules, decisions, and outcomes of organizations operating at other levels of governance (Valdivieso & Andersson, 2017). The regulation allowed actors at the local level to play a central role in disaster management. However, in the Destana program, various actors are involved, including state civil servants (ASNs). The ASNs involved in the Destana program are regulated by the Ministry of Home Affairs (Kemendagri), so they must comply with the regulations of the ministry. However, the Ministry of Home Affairs does not have regulations related to disaster management, including Destana. Therefore, the implementation of this program is highly dependent on the ability of the actors to exploit existing regulatory loopholes.

The involvement of social actors at the local level and the existence of structures that can be both enabling and constraining are key features of structuration theory. In *The Constitution of Society: Outline of the Theory of Structuration*, Anthony Giddens (1984) assesses interpretations of social change from the perspective of structures and actors. Giddens proposed that structures are always both enabling and constraining (Stones, 2005). Structural properties are rules and resources (Cohen, 1989), which, in a disaster management system, can include regulations and human and financial resources. In addition to regulations on human resources, financial resources for Destana depend on the local government. Allocations for Destana are related to decisions from village governments to district/city governments. To run the Destana program, local actors must increase their control over resources; this control is exercised through the following, or rejection, of rules (Whittington in Golsorkhi et al, 2010). The implementation of the Destana program is highly dependent on the capabilities of actors at the local level. With the existing structure, social actors who have the ability to make a difference, that is, exercise some sort of power (Giddens, 1984), which is referred to as agency, can develop the Destana program.

Studies on the bottom-up approach in disaster management have been conducted by several researchers. In 1990, Wolensky & Wolensky highlighted the capacity of local governments in disaster management in the United States. They reported that although decentralization can increase the autonomy of local governments, local governments face several problems, such as ineffective leadership and a lack of preparedness (Wolensky & Wolensky, 1990). The initiation of a bottom-up disaster management regime in China is described in the following two studies. First, Paltemaa (2017b) described the disaster management regime at the local level in terms of the role of actors and civil society, which is still not optimal. In the same year, Sim et al. (2017) reported that China initiated a community-based disaster risk reduction system that complemented the top-down disaster management system.

Decentralization and efforts to actively involve local governments in disaster management were also carried out in Chile. Valdivieso & Andersson's (2017) research focused on environmental disaster risk management and revealed that the success of local governments depends on rules, representations, municipal structures, institutional trajectories, and polycentric relationships between municipal governing councils and society. Research in various countries has shown that efforts to change the disaster management paradigm are important. According to Paltemaa (2017a), studying disaster management offers unique windows for researchers to study society and explain social and political changes therein. Studying changes in the disaster management paradigm from the theory of structuration will enrich previous studies that focused on structure. Meanwhile, the role of actors in the change seems to still be ignored. By conducting case studies, this research will examine how actors play a role, exercising their powers, within disaster management structures that are enabling and constraining.

OBJECTIVES

In this study, the theoretical proposition proposed is that a paradigm shift in disaster management requires the role of social actors/agents in the disaster management structure that is enabling and constraining. The first rationale in single-case study research is critical. The case would be critical to the theory or theoretical propositions. In structural theory, agents draw on structures to produce actions that change or reproduce structures (Stones, 2005).

The change in the disaster management system from top-down to bottom-up through the Destana program, on the one hand, is the result of the actions of agencies that have succeeded in changing disaster management regulations. However, to implement this paradigm shift, the actions of actors are needed to utilize the existing structure.

METHODS

This study uses a case study method involving the implementation of the Destana program in the Sinabung volcano area in Karo Regency, North Sumatra. This research employs a case study method because of the ability of this approach to study cultural and social phenomena in actual events and settings (Stake in Denzin and Lincoln, 1994). The volcanic area was chosen because volcanic activity is one of the major natural hazards (Paltemaa, 2017a).

Since the eruption in 2010, Mount Sinabung in Karo Regency, North Sumatra, has been active. The selection of the area in Mount Sinabung is based on single-case study rationales (Yin, 2018). The selection of the case should be related to the theory or theoretical propositions of interest (p. 171).

RESULTS

3.1 Local Governance Institutions in Disaster Management

The formation of disaster-prone villages/subdistricts is a government effort to empower communities to be able to help themselves when disasters occur. The mandate of Law No. 24 of 2007 concerning disaster management, the paradigm shift in disaster management in Indonesia, should commence from the information of disaster management institutions at the provincial and district/city levels.

The BPBD is a local disaster management institution. However, in addition to BPBD, disaster management is also the responsibility of several agencies, according to the type of disaster that occurs. If a disaster results in infrastructure damage, the agency responsible is the Public Works Agency. If it is related to human health issues, it is handled by the health agency. BPBD, at both the district and provincial levels, has a complex role in disaster management.

There are three functions of BPBD: coordination, command, and implementation. According to the Head of the Preparedness Section of the Karo BPBD, Roma Sihaloho, this change in BPBD function depends on the scale and type of disaster that occurs.

When a large-scale disaster occurs, the regional head holds the command function and BPBD as the implementer. However, in disasters on a smaller scale, BPBD can hold the command function. In addition, there are several times when BPBD only performs the coordination function. For example, during the COVID-19 pandemic, BPBD has carried out coordination functions, including budgeting, administration (correspondence), and campaigns/appeals to the public.

What distinguishes BPBD from other agencies is the focus of the program, which is directed at mitigation and preparedness programs. The Regulation of the Head of BNPB No. 3 of 2008 concerning Guidelines for the

Establishment of BPBD stated that disaster mitigation efforts are carried out in two ways. The first is providing information and knowledge about disaster threats and risks in the area. The second is education, training, and improving skills in implementing disaster management. While BPBD is formed only at the district level, the mitigation efforts mentioned above will be more effective if they are carried out at a lower level. This is inseparable from the diversity of the area and density of districts/cities in Indonesia. The largest district in Indonesia, Merauke, covers an area of almost 50 thousand square kilometers. Moreover, the district with the largest population, Bogor, is inhabited by more than 5.6 million people. According to Mr. Darius Sinulingga, Disaster Management Arranger for the North Sumatra Province BPBD, "Destana is a BPBD at the village level", which is expected to be able to carry out the duties and functions of BPBD at the village level.

3.2 *Destana: From the Top-Down Approach to Community-Based Disaster Management*

The legality of Destana is stipulated in the Regulation of the Head of BNPB No. 1 of 2012. In general, the purpose of the formation of Destana is to create independent capabilities to adapt to and face the threat of disaster, as well as recover immediately from the impact of disasters. Destana is formed by the BPBD at the district level. In the Sinabung volcano area, the Karo Regency BPBD formed 14 destana in four subdistricts from 2019--2023.

After the destana was formed, the village formed a Forum Pengurangan Risiko Bencana (henceforth referred to as FPRB) or Disaster Risk Reduction Forum. This forum aims to unite elements of organizations/stakeholder groups at the village level to carry out the destana program. Unlike BPBD, which is formed by government employees, FPRB is loaded by people from various backgrounds. In addition to the village head, FPRB involves elements of stakeholders such as youth, religious, and traditional organizations. The most active actors in FPRB are disaster volunteers, such as the head of FPRB in Perbaji Village. Hasan Tarigan has been a disaster volunteer since the eruption of Mount Sinabung in 2010. In 2010, Mount Sinabung erupted 400 years ago. The long duration of the eruption caused panic among the community.

Nevertheless, delegating the role of BPBD to FPRB is not an easy task. There are at least 8 programs that must be implemented by Destana, as follows:

1. Village disaster risk assessment in the form of a nondigital village risk map, containing at least one type of disaster, must be posted in a crowded place.
2. Making a village disaster management plan in the form of a preparedness document to anticipate disasters.
3. Contingency plan containing the preparedness (human, equipment, and logistics) owned by the village to address disasters. Fourth.
4. An early warning system in the form of an information delivery device owned by the village if a disaster is about to occur.
5. Evacuation routes and disaster signs, namely, opening and determining evacuation routes and determining temporary gathering points.
6. The simulation involves periodic training so that the community can save themselves more quickly and accurately when a disaster occurs.
7. Mitigation, namely, all strategic efforts to reduce disaster risk.
8. Innovation in community involvement and participation in disaster management in the village.

One of the things provided by the provincial BPBD is Fasilitator Daerah (henceforth referred to as Fasda) or a regional facilitator. Fasda is tasked with assisting FPRB in identifying threats, vulnerabilities, and village capacity in dealing with disasters, as well as assisting FPRB in preparing program management documents at the village level. One of the programs that must be carried out by Destana is disaster training and simulation. Simulations are needed so that every villager knows the steps to take when a disaster occurs. When a disaster occurs, BPBD cannot be expected to be present instantly in the field. Training and simulations are usually initiated by the district BPBD, but the activities are guided by Fasda.

Another form of village independence in disaster management is disaster budget management. Indonesia has allocated budgets for villages called village funds every year. In the fourteen villages that have formed Destana in Karo Regency, the village available funds range from IDR 585 million to 1.150 billion. However, village funds can only be used for disasters if the village head has declared an emergency response situation. On the basis of the

Guidelines for Determining Emergency Disaster Status issued by BNPB, emergency response status can be declared only if there is a disruption to life and livelihoods that results in disaster victims and/or evacuation and damage to facilities and infrastructure. Given these requirements, mitigation programs are difficult to carry out during the calm period, even though Mount Sinabung's status has still been categorized as active until now.

The minimal use of village funds for disaster mitigation stems from administrative problems in allocating the budget, as conveyed by Roma Sihalo: "Yesterday, we made a socialization of the use of village funds for disaster mitigation. It turned out that when they wanted to use it for disaster mitigation, it was a bit difficult in budgeting village funds," she stated because mitigation was not considered a job that requires its own account code.

One of the villages that has allocated village funds is Gung Pinto village. Gung Pinto Village Head, Roy Bangun, said that his village had deliberately budgeted village funds for Destana, such as for the socialization of disaster. The success of Gung Pinto village in allocating village funds for disaster mitigation programs is due to the active role of the village head and staff in studying how to use village funds and their administrative reporting.

3.3 *Changes in Regulations and Their Impacts on the Destana Program*

BPBD, as the institution that formed the Destana, is also responsible for implementing the Destana program. For this reason, BPBD sets the budget and funds for the Destana program. However, at the end of 2018, the Ministry of Home Affairs issued a 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 Permendagri 101/2018). In this regulation, disaster issues are categorized as part of basic services. On the one hand, Permendagri 101/2018 ensures that disaster mitigation and preparedness issues are part of the mandatory affairs that must be fulfilled by the government. Nonetheless, Permendagri 101/2018 also caused confusion in its implementation. There are two major changes in the regulation. First, BPBD is withdrawn to become part of the Ministry of Home Affairs. This is stated in several articles that regulate the duties and obligations of BPBD as part of the basic services of the Ministry of Home Affairs. Therefore, there is confusion in the bureaucratic flow. Second, in terms of programs, BPBD must fulfill what is stated in Permendagri 101/2018. However, for implementation procedures, BPBD must follow BNPB regulations.

In addition to these obstacles concerning regulations, program funding is also a problem for BPBD. In Article 4 paragraph (1) Permendagri 101/2018, one of the tasks mandated to BPBD to prepare a disaster risk assessment document. Large funds are needed because satellite maps must be available. Although stated in the Regulation of the Minister of Home Affairs, the ministry does not have a budget for the program. Similarly, at BNPB, there are no funds for preparing a disaster risk assessment. The only possible source of funds is the Anggaran Pendapatan dan Belanja Daerah (APBD) or the Annual Provincial Income and Budget Fund. However, the possibility and implementation also depend on each region. Only if the district has a large budget can the disaster risk assessment document be funded. In implementing the program, BPBD must follow the technical guidelines of the BNPB. However, in terms of preparing the budget, it must follow the guidelines of the Ministry of Home Affairs, even though the program funds do not come from the ministry. As a result, there is a back-and-forth cycle between BPBD, BNPB, and the Ministry of Home Affairs, which slows down the program implementation process.

In addition to the position of BPBD, which is also under the Ministry of Home Affairs, the second impact of Permendagri 101/2018 is the transfer of the Destana program to the Social Service. This has caused confusion in the implementation of the Destana program. According to Roma Sihalo, the Social Service does not feel that Destana is part of the Social Service program. Meanwhile, in BPBD, the program codification and accounts for Destana have been lost and moved to the Social Service. The only program that can still be allocated for Destana is strengthening regional capacity, which can only be used for one village and one type of disaster. In fact, Destana was not resilient to one type of disaster but rather to all types of disasters that are vulnerable to threats to one village.

In addition to the BPBD at the district level, the Destana program has also disappeared at the BPBD at the provincial level. The regional facilitator (Fasda), which is a provincial BPBD program, has also not continued. Destana assistance stopped at the end of 2023. Assistance by Fasda is crucial for the sustainability of the Destana program. Fasda is not only tasked with providing an understanding of disasters, such as socialization and disaster

simulations. Fasda is also tasked with assisting forums and villages in budgeting and reporting on the use of village funds for disaster mitigation.

The end of funding for fasda further complicated the implementation of the Destana program. Villages were used to be routinely provided with assistance. Fasda usually assists several villages in one district. For Karo Regency, there are two Fasda who assist 14 Destana, which were visited by Fasda in turn. In fact, if necessary, Fasda can accelerate assistance in one village. After no longer being assisted by Fasda, villages are expected to find a way, creativity and independence to continue the Destana program.

DISCUSSION

BPBD, as a central coordinating institution, faces significant bureaucratic challenges, especially in terms of budgeting and authority. To implement the Destana program, BPBD must coordinate the program to various regions throughout the country and truly direct and implement the phases of work that, in essence, must be carried out at the national, regional and local community levels (Smith, 2005).

The establishment of BPBD in provinces and districts, followed by the establishment of Destana as the implementer of disaster management at the village level, is the most appropriate model in Indonesia. However, the existence of these institutions is not enough to just maintain their organizational entities. The implementation of the Destana program shows that the relationship between the regional BPBD (provincial and district) and villages in the Destana program has been running quite well. The initiatives taken, both by BPBD and forums in the villages, are evidence that these institutions are able to develop the Destana program. Therefore, the researcher recommends that the authority and budget allocation of BPBD with respect to the Destana program be restored as before.

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