

Natural Disaster Management in Local Government from the Perspective of Collaborative Governance

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Article Info

Keyword:
Collaborative
Governance,
Disaster Management,
Pre-Disaster Phase,
Bima Regency,
Multi-Hazard Risks.

Abstract: This research aims to evaluate the collaborative governance approach in the pre-disaster phase and the efforts made by various actors to anticipate disasters in Bima Regency. The research used a descriptive qualitative method with subjects selected through purposive sampling technique. Data collection techniques included observation, interviews, and documentation. The research results indicate that disaster management in Bima Regency is conducted through a collaborative governance approach involving all elements of society. The Disaster Management Agency (BPBD) acts as the leading sector in implementing programs in the Regional Disaster Management Plan in collaboration with cross-sectoral partners. This collaboration process has also integrated the Disaster Management Plan into the strategic and annual work plans of all SKPDs, and the local government collaborates with universities in developing research results that can be directly applied by the government, individuals, and families. This collaboration has resulted in disaster mitigation strategies focused on strengthening the legal framework, increasing capacity, and accountability of disaster management governance.

Article History:

Received: 03 February 2023

Revision: 14 February 2023

Accepted: 20 February 2023

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INTRODUCTION

Natural disasters, such as floods, earthquakes, hurricanes, wildfires, and landslides, can strike at any time and can have devastating consequences for society and the environment (Dutta, 2017). These events can result in loss of life, damage to property and infrastructure, displacement of people, and disruption of essential services (Suppasri et al., 2021). Natural disasters also have significant economic implications, as they can lead to substantial costs associated with disaster response and recovery efforts.

Local governments have a critical role in managing natural disasters, as they are often the first responders to such events (Jung & Song, 2015). They are responsible for coordinating the response efforts and ensuring that citizens are safe and well-supported during and after the disaster (Vielot & Horney, 2014). Local governments also play a critical role in disaster risk reduction by investing in hazard mitigation measures, including planning and zoning regulations, building codes, and early warning systems.

Pre-disaster management is one of the important tasks for the government to provide protection to the community from the threat of disasters (Butt, 2014; Etinay et al., 2018). The presence of a disaster can endanger the safety of the community and cause

a lot of damage and loss to the country. Prevention efforts to prepare for the presence of a disaster must be maximized by the government in order to minimize the impact that will arise (Kusumastuti et al., 2014; Santoso et al., 2014). Law Number 24 of 2007 concerning Disaster Management, in article 33, explains that disaster management consists of three stages: 1) pre-disaster, 2) emergency response, and 3) post-disaster. Pre-disaster efforts become a very important stage to be maximized so that the entire disaster management process can run well (Rayawan et al., 2021).

The phenomenon of disasters, especially natural disasters, is one of the many public problems faced by the Indonesian community (Yulianto et al., 2021). Natural disasters are disasters caused by events or a series of events caused by nature (Ali et al., 2019), including earthquakes, tsunamis, volcanic eruptions, floods, droughts, hurricanes, and landslides.

Bima Regency is one of the areas in Indonesia that has extraordinary natural beauty, but Bima Regency is also an area that is prone to natural disasters. The Bima Regency area is mostly (70%) mountainous areas with highland textures, making it prone to landslides and flash floods every year (Sopiawati & Hatuti, 2019). According to Kompas and Republika data in 2020, from January to March 2020, parts of Bima Regency were hit by severe floods in Sanggar, Monta, Wera, Bolo, Palibelo, and Sape Districts.

In addition, disasters in Bima Regency are also dominated by earthquakes, tidal waves, storm surges, forest fires, droughts, extreme weather, volcanoes, poisoning due to intrusion of seawater, epidemics, and outbreaks of diseases (Haeril et al., 2020). According to Republika data in 2020, Bima Regency is also an area affected by drought in NTB since July 2020, namely 35 villages in nine districts with a total of 5,660 affected people.

The concerns felt by most of the Bima Regency community certainly become a public problem that must be immediately addressed by the Bima Regency government, one of which is by taking prevention and pre-disaster measures to prepare everything needed when a natural disaster occurs. The paradigm currently developing in governance is the concept of collaborative governance.

Collaborative governance is defined as a process where organizations that have interests in a particular issue work together to find solutions determined together in order to achieve goals that they cannot achieve individually (Harimbawa et al., 2022). Thus, the issue of natural disasters in Bima Regency in the perspective of collaborative governance is considered important and can be one of the solutions for finding effective and efficient ways for the government to deal with this issue (Septanaya & Fortuna, 2023). Collaborative governance can be carried out by the government, the community, the private sector, and disaster actors to carry out pre-disaster efforts to prepare for facing natural disasters that may occur at any time (Manaf et al., 2018).

Natural disasters are unpredictable phenomena that can strike at any time, causing massive destruction and loss of life (Rosselló et al., 2020). Bima Regency, located in the eastern part of Indonesia, is no stranger to natural disasters, particularly floods and landslides, which have occurred with alarming frequency in recent years. The impact of these disasters on the local community is immense, ranging from loss of livelihoods to severe physical injuries and even death.

To mitigate the impact of natural disasters, it is crucial to develop a comprehensive disaster management plan that emphasizes collaboration and cooperation between various stakeholders (Kapucu, 2014). The concept of collaborative governance is an effective approach to dealing with natural disasters, as it encourages the involvement of all relevant actors in the disaster management process, including government agencies, non-governmental organizations, private sector, and the affected communities themselves.

In Bima Regency, the application of the concept of collaborative governance in disaster management has the potential to maximize services and improve the overall response to natural disasters. This can be achieved by involving various stakeholders in the disaster management process, from the planning stage to post-disaster recovery efforts. By involving all stakeholders in the disaster management process, the community will have a better understanding of the risks and the measures that need to be taken to mitigate the impact of natural disasters.

One of the key benefits of collaborative governance is the pooling of resources and expertise, which enables more effective and efficient disaster response (Kalesnikaite, 2019). For instance, government agencies can provide technical expertise and resources, while non-governmental organizations can provide logistical support and community outreach services. The private sector can also play a crucial role in disaster response, particularly in terms of providing financial resources and expertise in areas such as construction and engineering.

In addition to pooling resources and expertise, collaborative governance can also help to build resilience among communities by involving them in the disaster management process. This can be achieved by providing training and education on disaster preparedness, early warning systems, and evacuation procedures. By empowering communities to take an active role in disaster management, they become more resilient and better equipped to deal with future disasters.

RESEARCH METHODS

The qualitative method and aims to analyze the application of the concept of collaborative governance in dealing with natural disaster problems in Bima Regency, particularly in prevention and pre-disaster preparation efforts (Avoyan, 2022). The location of the research includes the BPBD of Bima Regency, the Regional Planning and Development Agency (Bappeda), the Environmental Agency of Bima Regency, and Environmental Watchdog Organizations in Bima Regency, which are chosen strategically to understand the case studies and issues that exist.

Nonprobability sampling technique is used to choose the research subjects, employing purposive sampling to select the samples by considering specific aspects to ensure they can provide relevant information about the research (Campbell et al., 2020). The data collection technique comprises observation, interview, and documentation. Once all data has been collected from the field, the next step is data analysis. The interactive model data analysis technique is used in this study, which includes three primary stages: data reduction, data presentation, and conclusion drawing (Castleberry & Nolen, 2018).

The study uses the concept of collaborative governance to handle natural disaster issues in Bima Regency. This concept refers to the cooperation between various parties, including the government, the community, and non-governmental organizations, in managing natural disaster issues. This is done to improve the effectiveness and efficiency in handling natural disasters, particularly in terms of prevention and pre-disaster preparation.

RESULTS AND DISCUSSION

Disaster management is an essential aspect of governance, especially in areas prone to natural disasters like earthquakes, tsunamis, floods, landslides, and volcanic eruptions (Efendi et al., 2019; Maulana, 2021). The success of disaster management in any region is dependent on the ability of the local government agencies to formulate effective policies and implement them (Das & Luthfi, 2017). Bima Regency is one such region in Indonesia that is vulnerable to natural disasters, and its local government agencies play a crucial role in mitigating the effects of these disasters on the local population.

The Disaster Management Act No. 24 of 2007 lays down the principles of disaster management, which include coordination, integration, partnership, and empowerment (Cahyono et al., 2022). Coordination is essential in disaster management because it helps to ensure that all the relevant agencies work together seamlessly. Integration is also crucial because it helps to ensure that all the disaster management efforts are aligned with the overall development plans of the region (Septanaya & Fortuna, 2023). Partnership is essential because it helps to ensure that all the stakeholders, including the government, private sector, civil society, and communities, work together towards a common goal. Empowerment is essential because it helps to build the capacity of the local communities to respond effectively to disasters.

Effective policy formulation and implementation are critical for the success of disaster management. The local government agencies in Bima Regency must have a clear understanding of the risks and vulnerabilities of the region to natural disasters (Suraya & Haeril, 2022). They should also have a comprehensive disaster management plan that outlines the roles and responsibilities of each agency involved in disaster management. The plan should also identify the resources required for disaster management, including human resources, financial resources, and equipment.

Disaster management in Bima Regency is a form of commitment by the Bima Regency Government to disaster management in the region and also represents the role of the local government in supporting national disaster management efforts (Haeril et al., 2022). The implementation of the Bima Regency Disaster Management Plan is a joint responsibility of the local government as the main responsible party.

Therefore, the main requirement for disaster management efforts is the integration of institutions and sectors based on an integrative principle that relies on cooperation or partnerships between all parties, including local communities (Bealt et al., 2016). The participation of all elements as a manifestation of democratic participation in disaster management efforts will help to identify, codify, and share knowledge that can

be used by decision-makers (Retnandari, 2022), in this case, the local government, as a reference for disaster management in Bima Regency.

The Disaster Management Act No. 24 of 2007 requires the establishment of a Regional Disaster Management Agency (BPBD) in areas with a high risk of disasters (Anantasari et al., 2017). The BPBD is the official government organization of the Bima Regency that carries out disaster management activities, including disaster prevention and mitigation, preparedness, emergency response, rehabilitation, and reconstruction, as well as planned, targeted, integrated, and comprehensive coordination of disaster management activities.

Through Regional Regulation No. 7 of 2010 regarding Amendments to Bima Regency Regional Regulation No. 3 of 2008 concerning the Formation, Composition, Position, Duties, and Functions of Bima Regency Regional Device Organizations, the establishment of the Bima Regency BPBD is expected to ensure the integration of policy-making and operational implementation of regional disaster management in a targeted and integrated manner (Rudy & Ali, 2023). It is also expected to be an organization capable of coordinating all disaster management efforts in Bima Regency.

The Bima Regency BPBD plays a crucial role in disaster management efforts in the region. The BPBD is responsible for implementing programs and coordinating cross-sectoral cooperation with other disaster management agencies in Bima Regency. The BPBD's role is to ensure that the Bima Regency Disaster Management Plan is effectively implemented and that all relevant agencies and institutions are working together in harmony to achieve disaster management objectives.

To achieve optimal disaster management, it is essential that the BPBD collaborates with other agencies and institutions. These agencies and institutions include local government units, law enforcement agencies, hospitals, and community organizations. The coordination between these agencies is critical to ensuring that disaster management efforts are efficient and effective (Lawelai & Nurmandi, 2022). By working together, the agencies can share resources, expertise, and information, enabling them to respond to disasters quickly and efficiently.

In addition to coordination, disaster management efforts must also involve integration, partnership, and empowerment. These principles are outlined in the Disaster Management Act No. 24 of 2007. Integration refers to the need for coordination and cooperation between different agencies and institutions involved in disaster management. Partnership involves the collaboration between different sectors and stakeholders to develop effective disaster management strategies. Empowerment refers to the need to empower local communities to participate in disaster management efforts actively.

The success of disaster management efforts in Bima Regency depends heavily on the ability of the BPBD to work collaboratively with other agencies and institutions (Djabbar, 2021). By implementing programs and policies outlined in the Bima Regency Disaster Management Plan, the BPBD can ensure that all stakeholders are working together to achieve the common goal of effective disaster management. Through cross-sectoral cooperation and the principles of coordination, integration, partnership, and

empowerment, the BPBD can maximize the impact of disaster management efforts and minimize the negative effects of disasters on the people and the region of Bima Regency.

The success of any disaster management effort relies heavily on the implementation of effective policies and strategies (Becken & Hughey, 2013). In the Bima Regency, the implementation of these policies is influenced by the cultural values developed in the region. These cultural values are essential in guiding the behavior of individuals and organizations in the disaster management sector towards achieving effective disaster management outcomes.

One of the key cultural values in Bima Regency is proactivity. This value involves being proactive in taking measures to mitigate the effects of disasters before they occur. It encourages the adoption of preventive measures and early warning systems to minimize the impact of disasters on the community. This value ensures that the community is always prepared to respond to any impending disaster.

Another cultural value is discipline, which emphasizes adherence to regulations and procedures in disaster management efforts. This value ensures that all individuals and organizations involved in disaster management efforts act in accordance with the set guidelines and standards. This is essential in ensuring that resources are utilized efficiently and effectively in disaster management.

Innovation is also a crucial cultural value in the Bima Regency. This value encourages the development and adoption of new and creative solutions to disaster management challenges. It encourages the use of modern technologies and approaches in disaster management, such as the use of drones in search and rescue operations.

Cooperation is also highly valued in the Bima Regency, where disaster management efforts involve collaboration between various agencies and stakeholders. This cultural value ensures that all parties involved in disaster management efforts work together towards a common goal, sharing resources and expertise to achieve the desired outcomes.

Transparency is also an important cultural value in the Bima Regency. This value ensures that all stakeholders involved in disaster management efforts are informed and involved in the decision-making process. This ensures accountability and fosters trust between stakeholders, essential in the effective implementation of disaster management policies.

Disaster management is a complex and multifaceted task that requires the involvement and cooperation of various stakeholders (Becken & Hughey, 2013). While the Bima Regency BPBD plays a critical role in coordinating and implementing disaster management efforts, it is not enough to rely solely on their efforts, particularly given the limited resources that are available to them. In order to effectively manage disasters, it is crucial to involve all stakeholders, including the private sector and community organizations, in disaster management efforts.

The private sector can play a crucial role in disaster management by providing resources, expertise, and logistical support (Chen et al., 2013). They can assist in providing emergency supplies and equipment, transportation, and communication networks, all of which are essential for effective disaster response. Community organizations, on the other hand, can provide valuable support by leveraging their local

knowledge and networks to facilitate communication and coordination among different groups.

By involving all stakeholders in disaster management efforts, the Bima Regency BPBD can leverage the strengths and resources of different groups to build a comprehensive and effective disaster management system. This can help to ensure that resources are allocated efficiently, and that response efforts are coordinated and effective in addressing the needs of affected communities. Furthermore, involving all stakeholders can help to promote a sense of ownership and responsibility for disaster management efforts, which can help to build resilience and preparedness in the face of future disasters.

CONCLUSION

The implementation of disaster management in Bima Regency is carried out through a collaborative governance approach with principles of coordination, integration, partnership, and empowerment. This approach involves the participation of all elements as a manifestation of democratic participation in disaster mitigation efforts. In this approach, the Bima Regency Disaster Management Agency (BPBD) acts as the leading sector and strives to implement programs in the Bima Regency Disaster Management Plan in collaboration with cross-sectoral cooperation.

In its implementation, the BPBD of Bima Regency acts as a coordinator, facilitator, motivator, and program implementer. Through this collaboration, a disaster mitigation strategy is developed by strengthening regulations and institutional capacity, which are focused on strengthening the legal framework for disaster management and improving the capacity and accountability of disaster management governance. This collaborative process has also integrated the Disaster Management Plan (RPB) into the strategic plan and annual work plan of all government agencies. The local government also collaborates with universities in developing research results that can be directly applied by the government, individuals, and families, such as the construction of earthquake-resistant houses, absorption wells, and others.

Disaster management is a crucial aspect of governance in Bima Regency, where the implementation of disaster management policies is done through a collaborative governance approach. The involvement of all stakeholders, including the private sector and community organizations, in disaster management efforts is crucial to achieving effective disaster management. The Bima Regency BPBD plays a critical role as a coordinator, facilitator, motivator, and program implementer in this process. Through collaboration with cross-sectoral agencies, the BPBD has been able to implement programs and strengthen institutional capacity to achieve disaster risk reduction. The integration of the Disaster Management Plan into the strategic and annual work plans of all SKPD has also helped in implementing disaster management policies. Additionally, the government has collaborated with higher education institutions to develop research that can be applied directly to reduce the vulnerability of the region to multi-hazard risks. The hope is that these research studies will help to improve disaster management efforts and reduce the impact of disasters on the community in Bima Regency.

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