

IMPLEMENTATION OF DISASTER MITIGATION POLICY IN WEST SULAWESI

¹Bujaeramy Hassan, ²Adi Maulana, ³Muhammad Idris, ⁴Muhammad Yamin,
⁵Ahmad Nurzaki Azhar B

¹Development Studies Program, Graduate School, Hasanuddin University, Indonesia

²Department of Geological Engineering, Faculty of Engineering, Hasanuddin University, Indonesia

³Development Studies Program, Graduate School, Hasanuddin University, Indonesia

⁴Faculty of Agricultural Sciences, Graduate School, Hasanuddin University, Indonesia

⁵Development Studies Program, Graduate School, Hasanuddin University, Indonesia

bujaeramyh@gmail.com¹

ABSTRACT

This study aims to analyze the implementation of disaster mitigation policy in West Sulawesi. Employing a qualitative descriptive approach, the research explores the processes of implementing disaster mitigation policy through field observations, questionnaire-based and in-depth interviews, and literature review. The study was conducted at the Regional Disaster Management Agency (BPBD) and other relevant agencies. Data were analyzed using the Miles and Huberman model, which includes data reduction, data display, verification, and conclusion drawing. The findings reveal that the success of disaster mitigation policy implementation is determined not only by the quality of the policy itself but also by institutional coordination, the role of frontline implementers, and the participation of target groups. Four key determinants influence implementation outcomes: communication, resources, bureaucratic structure, and disposition. Furthermore, the study proposes that the disaster mitigation policy in West Sulawesi can be developed into a comprehensive model. This model would be based on multi-level institutional integration and the optimization of the four core determinants to strengthen disaster risk reduction efforts in hazard-prone areas. The effectiveness of policy implementation is deeply tied to cross-level institutional synergy and the systematic application of these four factors to improve community preparedness and resilience.

Keywords: Disaster Mitigation Policy Implementation, Implementation Evaluation, Transparency and Accountability

1. INTRODUCTION

Sulawesi is one of the provinces in Indonesia with a high level of disaster vulnerability. Located in the Pacific Ring of Fire (ring of fire), this region is frequently struck by natural disasters such as earthquakes, landslides, floods, and coastal abrasion. One of the most significant disaster events occurred in January 2021, when a 6.2-magnitude earthquake shook the Mamuju and Majene regions, causing infrastructure damage, loss of life, and significant economic losses. This event underscores the importance of effective and sustainable disaster mitigation policies to minimize similar impacts in the future.

Disaster mitigation is a proactive step aimed at reducing disaster risks and impacts through policies, programs, and actions. Mitigation policies include building disaster-resilient infrastructure, strengthening early warning systems, community education, and sustainable environmental management. However, the implementation of disaster mitigation policies in West Sulawesi still faces various challenges, including inter-institutional coordination, bureaucratic behavior, limited resources, and community participation.

From the perspective of inter-organizational coordination and bureaucracy, the implementation of disaster mitigation policies requires effective coordination among various stakeholders, such as the central government, local governments, disaster management agencies (BNPB and BPBD), and the private sector. However, overlapping authorities, lack of communication, and sectoral egos often hinder implementation effectiveness. Weak coordination can lead to delays in planning and executing mitigation programs.

Regarding bureaucratic behavior, local government officials at the district, sub-district, and village levels play a crucial role in implementing disaster mitigation policies. Unfortunately, limited human resource capacity, lack of training, and an administrative work culture often become obstacles. Officials at the grassroots level must be encouraged to be more proactive in developing locally tailored mitigation plans and mobilizing community participation.

Next, the participation of target groups—communities most affected by disasters—plays a central role in the success of mitigation efforts. However, low public awareness of disaster risks, limited education, and a reliance on reactive rather than preventive approaches pose additional challenges. Appropriate education and community-based approaches need to be strengthened to enable communities to adapt and actively participate in mitigation activities.

The implementation of disaster mitigation policies requires adequate funding allocation. However, limited regional budgets (APBD) often hinder the construction of disaster-resilient infrastructure, the strengthening of early warning systems, and educational programs. Alternative funding mechanisms such as pooling funds, disaster risk insurance, and support from the national budget (APBN) must be maximized to support mitigation policies.

Therefore, efforts to enhance the effectiveness of disaster mitigation policy implementation in West Sulawesi must be carried out through a more integrated and collaborative approach. The government, private sector, donor agencies, and communities must work together to improve coordination, strengthen bureaucratic capacity, and encourage active participation from target groups. With proper implementation, disaster mitigation policies are expected to minimize disaster risks and create a more resilient and prepared society for potential future disasters.

2. MATERIALS AND METHODS

2.1 Materials

2.1.1 Concept of Implementation

Implementation can simply be understood as execution or application. Browne and Wildavsky in Usman, (2004) show argue that implementation is an extension of activities that mutually adjust. According to Syaukani in Mamonto et al (2018), show that implementation is a series of activities aimed at delivering policies to the community so that these policies can produce the desired outcomes. These activities include:

- Preparing a set of follow-up regulations that interpret the policy.
- Preparing resources to drive implementation, including facilities, infrastructure, financial resources, and assigning responsibility for policy execution.
- Delivering the policy concretely to the community.

Based on these perspectives, it is understood that the policy implementation process involves not only the behavior of administrative bodies responsible for executing programs and ensuring compliance from target groups but also the political, economic, and social networks that directly or indirectly influence the behavior of all parties involved in realizing public policy goals.

Paul and Daniel (2005), explain implementation as understanding what actually happens after a program is enacted or formulated. It focuses on events and activities that arise after the enactment of state policy guidelines, encompassing both administrative efforts and the actual impacts on society or events.

2.1.2 Concept of Policy Implementation

Implementation is one stage in the public policy process. Typically, implementation occurs after a policy is formulated with clear objectives. Gaffar (2019), defines

implementation as a series of activities aimed at delivering policies to the community so that they produce the desired results. These activities include preparing follow-up regulations that interpret the policy, mobilizing resources for implementation (such as facilities, infrastructure, and finances), and determining responsible parties for execution.

Paul and Daniel (2005), explain that implementation involves understanding what actually occurs after a program is enacted or formulated. It focuses on post-enactment events and activities, including administrative efforts and tangible impacts on society.

Peter et al, (2011), states that policy implementation is an effort to achieve specific goals using certain means within a defined timeframe. The process of public policy implementation begins once policy objectives are set, programs are designed, and funds are allocated to achieve those objectives. Essentially, policy implementation ensures that a policy fulfills its purpose.

Lester and Stewart, as cited by Winarno (2020), describe policy implementation as a broad administrative tool where various actors, organizations, procedures, and techniques work together to execute policies and achieve desired impacts or goals. Thus, implementation consists of actions taken by the government to achieve objectives outlined in policy decisions. However, policymakers must first assess whether a policy will have positive or negative societal impacts to avoid harm.

Nugroho (2019), asserts that policy implementation is fundamentally about ensuring a policy achieves its objectives. Implementing public policies involves two approaches: directly executing policy programs or formulating derivative policies.

Policy implementation manifests in two forms: programs and additional public policies. Programs are broken down into projects, activities, and utilization aligned with government and public objectives. Policy implementation is often formalized in laws or regional regulations, requiring further clarification or implementing regulations, such as presidential decrees, ministerial decisions, or local government directives. These operationalize policies into actionable projects and activities.

Organizational policy implementation involves executing a series of actions derived from the organization's mission, vision, strategy, policies, programs, projects, and activities, which generate feedback. Nugroho (2019), emphasizes that the mission is primary, as it defines the organization's purpose. The mission shapes the vision, which in turn informs strategies for policy implementation aligned with programs, projects, and activities.

Jamie et al, (2023), highlights that the essence of policy lies in intervention or action. Policy intervention involves identifying problems requiring intervention and clarifying goals in line with the implementation process design. Policy implementation is the actualization of problem identification to align with the designed implementation structure.

Anisur (2016), notes that policy implementation involves questioning how policies are executed, creating implementation procedures, allocating resources, and evaluating outcomes. The core issue in policy implementation is aligning policies with available resources. Achieving this requires implementation controls and evaluations.

George Edward III, as cited identifies four factors determining effective policy implementation: communication, resources, disposition (attitude), and organizational structure. Communication pertains to how policies are conveyed to organizations or the public, resource availability, stakeholder responsiveness, and organizational execution. Resources, particularly human resources, are critical for effective policy execution.

2.1.3 Determinants of Disaster Mitigation Policy Implementation

Implementing disaster mitigation policies is challenging due to various determining factors. George C. Edwards III, identifies four key factors influencing policy implementation: communication, human resources, disposition, and organizational structure. These factors interact, with communication influencing organizational structure,

human resources, and disposition, while resources and disposition affect implementation effectiveness.

2.1.4 Communication

Koontz (2019) defines communication as the transfer of information from sender to receiver, ensuring the recipient understands the message. Robbins (2019) describes communication as conveying and understanding intent, while Yudith (2021) views it as transferring information, ideas, or feelings between individuals. Effective communication requires clear channels, feedback, and contextual factors.

Roem (2019) identifies factors influencing effective communication:

- The communicator's ability to convey information.
- Careful selection of the message.
- Clear and direct communication channels.
- Appropriate media for message delivery.
- Proper timing and media use.
- Adequate dissemination points to ensure original, unaltered messages reach the intended audience.

Deyer (2019) lists considerations for choosing communication methods: speed, accuracy, security, confidentiality, records, impressions, cost, ease of use, workforce composition, and distance. Communication types include upward, downward, horizontal, and diagonal.

Abidin (2019) emphasizes transparent, goal-oriented communication to foster creativity and consistency in policy execution. Clear, specific instructions prevent misunderstandings and enhance implementation adaptability.

2.1.5 Resources

Handoko (2019) defines resource management as planning, organizing, directing, and overseeing activities to achieve organizational and societal goals. Simamora (2019) highlights the importance of optimally utilizing human resources to enhance organizational performance.

Resources include financial, physical, human, and technological assets. Adequate resources are critical for effective policy implementation. Nugroho (2019) specifies required resources:

- Sufficient skilled staff.
- Relevant information for implementation.
- Environmental support for success.
- Authority for policy execution.
- Supporting facilities.

Subyono (2020) notes that resources drive policy implementation, enabling community participation, job creation, and self-reliance.

2.1.6 Disposition

Disposition refers to implementers' attitudes, commitment, and motivation. Subarsono (2019) defines it as the character and readiness of implementers to execute policies as intended. Disposition includes:

- Implementers' responsiveness to policies.
- Their understanding of the policy.
- The intensity of their commitment.

Abidin (2019) adds that disposition involves aligning stakeholders' behaviors with policy goals, fostering solidarity and participatory development.

2.1.7 Organizational Structure

Organizations coordinate rational activities to achieve common goals through division of labor and hierarchical authority. Kochler (2020) and Wright (2021) emphasize that organizations are systems coordinating efforts toward shared objectives. Robbins (2019) outlines organizational structure components:

- Work specialization.
- Departmentalization.
- Chain of command.
- Span of control.
- Centralization/decentralization.
- Formalism.

Effendi (2020), identifies three factors influencing policy performance: the policy itself, the organization, and the implementation environment. Mastura (2019) stresses that organizational structure determines policy success by enabling coordination, planning, and control.

2.2 Method

This research employed a qualitative descriptive approach, aiming to analyze the implementation of disaster mitigation policy in West Sulawesi through an in-depth examination of field conditions. The study was conducted within various Regional Apparatus Organizations (Organisasi Perangkat Daerah/OPD) under the Provincial Government of West Sulawesi, with the research period spanning from December 2024 to January 2025. The focus of this approach was on obtaining rich, contextual insights through observation and interviews, with inductive data analysis emphasizing the discovery of meaning rather than generalization.

The materials used in this study included observation sheets and structured questionnaires designed to guide data collection in the field. The tools employed comprised basic writing instruments, digital cameras for documentation, and tape recorders to capture interview responses accurately. These resources supported a field-based research design focused on direct engagement with key stakeholders.

Data collected in this study consisted of both primary and secondary sources. Primary data were obtained through direct interviews, field observations, and documentation gathered during site visits. Secondary data, meanwhile, were sourced from existing literature, scientific journals, legal frameworks, and media publications relevant to disaster mitigation policy in Indonesia and, more specifically, West Sulawesi.

The data collection techniques used in this study included several complementary methods. Observation was conducted to directly monitor and document relevant behaviors, practices, and institutional interactions in the field. Interviews were carried out using both guided and open-ended formats with key informants such as OPD officials, researchers, and community members. These interviews were essential in capturing institutional perspectives and community experiences. Structured questionnaires were also administered to selected informants to collect consistent responses regarding specific aspects of policy implementation. In addition, a literature review was conducted to examine relevant documents, academic publications, laws, and regulations that provided theoretical and contextual grounding for the study.

For data analysis, this study followed the interactive model of Miles and Huberman, as cited in Sugiyono (2019). This model consists of four stages: data collection, data reduction, data presentation, and conclusion drawing. The process began with the systematic gathering of raw data from the field. Subsequently, data reduction was conducted to filter, categorize, and focus the information relevant to the research objectives. This was followed by data presentation, where findings were organized in a structured and comprehensible

manner. Finally, the research concluded with interpretation and inference, drawing meaning from the observed patterns and relationships in the data.

3. RESULT AND DISCUSSION

The Provincial Government of West Sulawesi has enacted various regulations to strengthen disaster mitigation efforts and reduce the risk of future hazards. Among these are Regional Regulation (Perda) No. 7 of 2022 on disaster management, which serves as the main legal foundation for provincial-level disaster planning and response coordination. In support of vulnerable populations, Governor Regulation (Pergub) No. 45 of 2022 addresses child protection during emergency situations, ensuring that children receive targeted attention in crisis preparedness and response. Additionally, Perda No. 4 of 2022 on the long-term development of housing and settlements (2022–2042) underscores the integration of spatial planning into disaster mitigation strategies, while Perda No. 1 of 2022 focuses on forest management to reduce the risk of landslides and flooding.

In November 2024, the provincial government declared a state of emergency in response to heightened hydrometeorological threats and the potential for a megathrust earthquake. This declaration emphasized the importance of cross-sectoral collaboration in responding to complex and multi-hazard threats, encouraging all relevant institutions and stakeholders to adopt a unified mitigation and preparedness approach.

The implementation of disaster mitigation policies in West Sulawesi involves multi-level collaboration between government agencies, non-governmental organizations (NGOs), and local communities. A key feature of this collaborative model is inter-organizational coordination, particularly between the Regional Disaster Management Agency (BPBD) and technical departments such as Public Works, Health, and Education. NGOs also play an active role, especially in community training and capacity-building. However, coordination efforts face challenges, such as program overlap and gaps in funding, which hinder the coherence and efficiency of mitigation programs.

At the grassroots level, village and sub-district officials function as key implementers. They conduct simulation exercises, training sessions, and contingency planning tailored to the needs of their localities. Despite these efforts, implementation remains constrained by limited financial resources, insufficient logistical support, and low levels of community participation, which reduce the overall effectiveness of local mitigation initiatives.

The implementation process also includes a focus on target groups, particularly those deemed most vulnerable in disaster situations—namely women, children, and the elderly. Special programs have been designed to enhance preparedness and risk awareness among these groups, although the reach and impact of these efforts still require improvement.

Several key factors influence the success or failure of disaster mitigation policy implementation in West Sulawesi. First, communication is critical. The clarity, consistency, and timeliness of policy directives significantly affect the ability of institutions and implementers to coordinate their actions. Instances of miscommunication have been noted to delay responses and disrupt operational procedures.

Second, resources—including adequate funding, qualified personnel, and essential equipment—remain a persistent challenge. Many agencies and local implementers operate with insufficient capacity, limiting their ability to execute programs effectively.

Third, the organizational structure of the implementing agencies also plays a role. Bureaucratic inefficiencies, such as lengthy decision-making procedures and institutional fragmentation, slow down program implementation. There is a need for streamlined administrative systems and well-defined standard operating procedures (SOPs) to support faster and more coordinated action.

Finally, the disposition of the implementers—their attitudes, commitment, and personal values—also influences implementation outcomes. The dedication of frontline staff, along with cultural alignment with community values, can enhance public trust and program success, while a lack of motivation or misaligned incentives can undermine intended results.

The findings of this study are in line with the theoretical framework developed by George C. Edwards III, as cited in Agustino (2019), which identifies four key variables that influence the implementation of public policy: communication, resources, disposition, and bureaucratic structure. Effective policy implementation requires a combination of these elements working in harmony. First, communication must be clear and consistent so that all parties involved have a shared understanding of objectives and procedures. Second, implementers must have access to adequate resources, including personnel with the appropriate skills, access to reliable information, sufficient authority, and the necessary facilities. Third, the organizational structure must support implementation through clear responsibilities, minimal fragmentation, and standardized procedures. Finally, the disposition of implementers—their willingness, commitment, and sense of responsibility—is essential to translate policy into meaningful action on the ground.

These findings highlight the importance of not only having strong disaster mitigation policies but also ensuring the effective functioning of the institutions and actors responsible for their implementation. Strengthening these four determinants can significantly improve disaster preparedness and resilience in West Sulawesi.

4. CONCLUSION

The implementation of disaster mitigation policy in West Sulawesi is fundamentally shaped by the dynamics of inter-organizational coordination, the active participation of local communities, and the effective application of the four core implementation factors: communication, resources, bureaucratic structure, and disposition. These elements serve as critical determinants of success in translating policy frameworks into tangible, field-level outcomes. Although various disaster mitigation regulations and programs have been introduced at the provincial level, their impact remains uneven due to challenges such as limited capacity, fragmented coordination, and inconsistent stakeholder engagement.

To improve the effectiveness of disaster mitigation in West Sulawesi, several strategic recommendations are proposed. First, it is essential to strengthen early warning systems and ensure that spatial planning is based on accurate disaster risk assessments. This will allow for more proactive risk reduction and improve community preparedness, particularly in high-risk zones. Second, the capacity of local actors, including village officials, community groups, and frontline implementers, must be enhanced through technical training and community-based programs. Empowering local institutions ensures that disaster response and mitigation measures are grounded in local knowledge and sustained by those most directly affected.

Third, there is a need to allocate dedicated funding specifically for disaster mitigation activities and to explore opportunities for collaboration with the private sector, including through corporate social responsibility (CSR) programs. Sustainable financing is a prerequisite for long-term resilience building. Fourth, integrating digital technology—such as geographic information systems (GIS), mobile applications, and real-time data platforms—can support more evidence-based decision-making, improve response times, and enable continuous monitoring of risk indicators.

Ultimately, a collaborative and adaptive governance model is required to address the complex and evolving disaster risks faced by West Sulawesi. Strengthening institutional

integration, encouraging inclusive participation, and fostering innovation will be key to building a more resilient, prepared, and responsive regional disaster management system.

REFERENCES

1. Anisur, R.K. (2016). Policy Implementation: Some Aspects and Issues. *Journal of Community Positive Practices*, 16 (3), 3-12.
2. Effendi, Y. R. (2020). Teori Organisasi Dalam Implementasi Manajemen Pendidikan. Chapter Thesis-Comparative Study Results.
3. Gaffar, A. (2009). Politik Indonesia: Transisi Menuju Demokrasi. Yogyakarta: Pustaka Belajar.
4. Jamie, F.C. et al. (2023). Advancing the science of policy implementation: a call to action for the implementation science field. *Transl Behav Med*, 13(11):820–825. doi: [10.1093/tbm/ibad034](https://doi.org/10.1093/tbm/ibad034).
5. Koontz, D. (2019). Perspective The Policy and Role of Government in Management. Harper and Row, New York. p. 109.
6. Mamonto, N., Sumampow, I., & Undap, G. (2018). Implementasi Pembangunan Infrastruktur Desa Dalam Penggunaan Dana Desa Tahun 2017 (Studi) Desa Ongkaw Ii Kecamatan Sinonsayang Kabupaten Minahasa Selatan. *Jurnal Eksekutif*, 1 (1).
7. Nugroho, M. (2019). Manajemen. Edisi kedua belas. Yogyakarta: Penerbit BPFE. h.97.
8. Paul A. Sabatier and Daniel A. Mazmanian. (2005). The Implementation of Public Policy: A Framework of Analysis. *Policy Studies Journal*, 8(4):538 – 560 DOI: [10.1111/j.1541-0072.1980.tb01266.x](https://doi.org/10.1111/j.1541-0072.1980.tb01266.x)
9. Peter K., Corinne L., Frédéric V., Michael H. (2011). Policy implementation. *Policy Press Scholarship Online*, Pages 187–219 DOI: [10.1332/policypress/9781861349071.003.0009](https://doi.org/10.1332/policypress/9781861349071.003.0009).
10. Robbins, S. (2019). The Role of Government in Management of Human Resource. McGraw Hill Inc. Tokyo, p. 285.
11. Sugiyono. (2019). Metode Penelitian Deskriptif, Kualitatif & RND. Alfabeta.
12. Usman, N. (2004). *Konteks Implementasi Berbasis Kurikulum*. PT. Raja Grafindo Persada: Jakarta