

Implementation of the Disaster Mitigation Program by the Regional Disaster Management Agency (BPBD) of Sukabumi District: Policy Implementation Analysis Based on Van Meter and Van Horn Model

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ABSTRACT

This research aims to analyze the implementation of disaster mitigation programs by the Regional Disaster Management Agency (BPBD) of Sukabumi Regency, which is an area with high risk of hydrometeorological disasters. This study uses the Van Meter and Van Horn policy implementation model by examining six main variables: policy standards and objectives, resources, characteristics of implementing organizations, inter-organizational communication, implementer disposition, and social, economic, and political environment. The research method used is descriptive qualitative with data collection techniques through in-depth interviews with 15 key informants, participatory observation, and documentation studies. The results show that although the policy framework is available normatively in the 2020-2024 RPBD and regional regulations, field implementation still faces significant obstacles. Only 19% of Disaster Resilient Village (Destana) targets have been achieved, early warning systems cover only 24% of vulnerable points, and education programs reach only 32.5% of annual targets. This study recommends strengthening institutional capacity, optimizing cross-actor communication, and increasing community participation as prerequisites for successful disaster mitigation at the regional level.

Keywords: Policy Implementation, Disaster Mitigation, BPBD, Sukabumi, Van Meter and Van Horn

1. INTRODUCTION

Indonesia faces complex challenges in disaster risk management as a country located in the Pacific Ring of Fire with very high disaster vulnerability levels (Djalante et al., 2017; Rafliana et al., 2022). Sukabumi Regency is one of the areas with high exposure to various types of natural disasters, ranging from earthquakes, tsunamis, to hydrometeorological disasters such as floods and landslides.

Geographically, Sukabumi area is located in an earthquake-prone area because it is traversed by the active Cimandiri fault, has coastal areas vulnerable to tsunamis, and hilly topography prone to landslides. This condition is exacerbated by global climate change that causes extreme rainfall intensity to increase, contributing to higher flood and landslide risks (IPCC, 2021; Nurjanah et al., 2022)

Historical disaster data shows a worrying increasing trend. According to records from BPBD Sukabumi Regency, there has been a significant increase in the number of disaster events in the last five years. 2023 recorded 217 disaster events with losses reaching more than Rp 1.2 billion, causing casualties and damage to important infrastructure such as houses, village roads, and public facilities

The disaster management paradigm in Indonesia has undergone fundamental transformation since the enactment of Law Number 24 of 2007 on Disaster Management. This law mandates a shift from a responsive approach (post-disaster response) to a comprehensive approach that integrates pre-disaster, during disaster, and post-disaster phases (Djalante & Lassa, 2019). Disaster mitigation as an integral part of disaster risk management not only focuses on handling when disasters occur, but also includes systematic efforts to reduce risk through sustainable development and increasing community preparedness.

The Sukabumi Regency Government through BPBD has established disaster mitigation policies outlined in the Regional Disaster Management Plan (RPBD) 2020-2024 document and Regent Regulation No. 45 of 2021. However, the implementation of these policies still faces various structural and operational challenges.

Empirical studies show that the implementation of disaster mitigation policies at the local level often faces constraints in the form of budget limitations, lack of trained human resources, weak cross-sector coordination, to low awareness and community participation (Lummen & Yamada, 2014; Sudmeier-Rieux et al., 2015). Research by Sharifi (2016) identified that the gap between policy planning and field implementation is one of the critical factors that hinder the effectiveness of disaster mitigation programs.

Therefore, an in-depth evaluation of the implementation of disaster mitigation programs in Sukabumi Regency is needed to identify factors that influence implementation effectiveness. This research uses the Van Meter and Van Horn (1975) policy implementation model as an analytical framework, which focuses on six key variables in policy implementation: policy standards and objectives, resources, characteristics of implementing organizations, inter-organizational communication, implementer disposition, and social, economic, and political environment.

2. METHODS

This research uses a qualitative approach with descriptive analytical methods. The qualitative approach was chosen because it can describe in depth and comprehensively the process of implementing disaster mitigation programs in Sukabumi Regency, including obstacles and opportunities faced by implementers in the field (Creswell, 2018).

The research was conducted in Sukabumi Regency, West Java Province, focusing on five villages with high disaster risk levels based on BPBD risk maps: Cisolok Village (tsunami prone), Cidadap Village (landslide prone), Sukamulya Village (flood prone), Bojongtipar Village (earthquake prone), and Neglasari Village (multi-hazard). The research was conducted for six months, from January to June 2024.

Determination of research informants using purposive sampling technique with criteria: (1) having knowledge and experience related to disaster mitigation program implementation, (2) directly involved in the implementation process, and (3) able to provide credible and dependable information. A total of 15 research informants consisting of: BPBD officials (5 people), village heads and village officials (5 people), community leaders and volunteers (3 people), and supporting stakeholders (2 people).

Data collection techniques were carried out through:

1. In-depth interviews with structured interview guidelines based on six variables of the Van Meter and Van Horn model
2. Participatory observation of disaster mitigation program implementation activities
3. Documentation study of policy documents and activity reports

Data analysis was carried out through three stages according to the Miles and Huberman (1994) model: data reduction, data presentation, and conclusion drawing. Data validity was tested using four criteria from Lincoln and Guba (1985): credibility, transferability, dependability, and confirmability.

3. RESULTS AND DISCUSSIONS

a. Disaster Event Profile in Sukabumi Regency

Disaster event data in Sukabumi Regency shows a consistent increasing trend from 2020 to 2024. BPBD Sukabumi Regency data analysis reveals the following pattern:

Table 1. Disaster Event Data in Sukabumi Regency 2020-2024

Tahun	Jumlah Kejadian	Korban Jiwa	Kerugian (Rp)
2020	165	5	870 million
2021	189	4	950 million
2022	203	6	1.1 billion
2023	217	7	1.2 billion
2024*	98 (until June)	3	600 million

Source: BPBD Sukabumi Regency, 2024

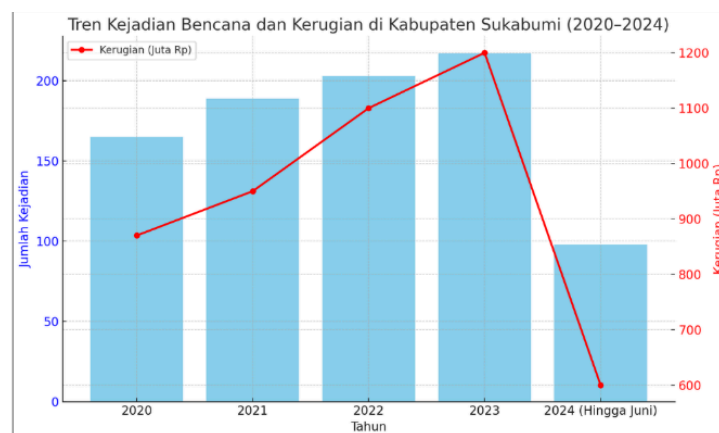


Figure 1: Realization of Disaster Resilient Village Program Outcomes in Sukabumi District (2020-2024)

This data shows a significant increase in disaster event frequency, with an average increase of 7.4% per year. Economic losses also escalated from Rp 870 million in 2020 to Rp 1.2 billion in 2023. Analysis by disaster type shows the dominance of hydrometeorological disasters (85%), followed by geological disasters (12%), and other disasters (3%).

b. Implementation Based on Van Meter and Van Horn Model

1) Policy Standards and Objectives

Analysis of policy documents shows that the normative framework for disaster mitigation programs in Sukabumi Regency has been comprehensively formulated in RPBD 2020-2024 and Regent Regulation No. 45 of 2021. These documents establish three main mitigation programs: Development of Disaster Resilient Villages (Destana) with a target of 100 villages, Community-Based Early Warning Systems at 50 vulnerable points, and Disaster Education and Awareness Programs for 2,000 people per year.

However, implementation evaluation shows a significant gap between policy targets and field realization. Until June 2024, Destana achievement only reached 19 villages (19% of target), early warning systems were only installed at 12 points (24% of target), and education programs only reached an average of 650 people per year (32.5% of target).

According to the Head of BPBD Sukabumi (Informant 1): "The targets set in RPBD are actually realistic when viewed from needs, but in implementation we face technical and non-technical constraints that are not fully anticipated in planning."

2) Resources

Resource analysis reveals significant limitations in three main aspects:

Human Resources: BPBD Sukabumi Regency has 47 employees, with 25 people serving as field personnel. Considering the area of Sukabumi (4,145.70 km²) and the number of villages (365 villages), the coverage ratio reaches 1:14.6 villages per field officer. Competency analysis shows that only 40% of field officers have disaster certification from BNPB.

Financial Resources: Limited budget allocation becomes a constraint in program implementation, affecting the procurement of equipment and training activities.

Technology and Infrastructure: Limited early warning system equipment is a major constraint in program implementation. Of the target of 50 early warning device installation points, only 12 points have been installed due to limited resources for procurement and maintenance.

3) Characteristics of Implementing Organizations

BPBD has three technical fields, but mitigation program implementation tends to run separately between fields. Training, counseling, and infrastructure development activities

do not support each other systemically. Internal structure and SOP revitalization is needed so that synergy between fields can be created.

The Head of Prevention and Preparedness Division (Informant 2) stated; *"With limited human resources, we often have difficulty providing intensive assistance for Destana formation. One officer must handle dozens of villages, while the Destana formation process requires continuous assistance."*

4) Inter-organizational Communication

Coordination between partner institutions such as health, education, and village apparatus services is still formal. The lack of regular coordination forums and stakeholder involvement causes miscommunication in implementing simulations or disaster education. Public communication is also still one-way, not providing space for citizen participation..

5) Implementer Disposition

The commitment of most implementers is good, but has not been supported by soft-skills training such as public communication and cultural approaches. Some volunteers complained about the rigid and technocratic approach of officers when delivering material to the community.

6) Social, Economic, and Political Environment

Social-economic factors are very influential. Poor communities tend to neglect training because they are more focused on earning a living. Meanwhile, politically, mitigation programs are less of a priority in village Musrenbang, so budget support is low.

Grafik Realisasi Program Destana 2020–2024

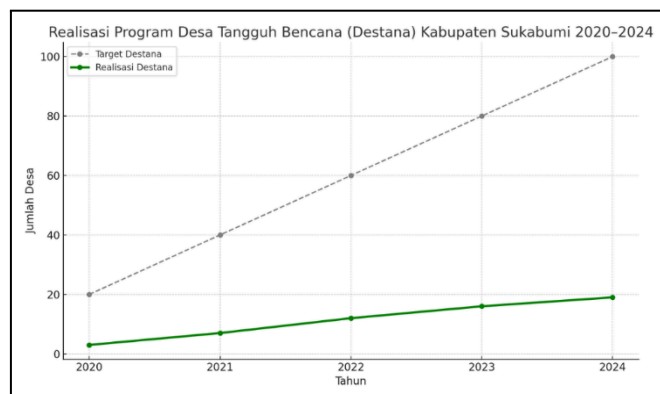


Figure 2. Achievement Realization of Disaster Resilient Village Program in Sukabumi District (2020-2024)

The following is a graph of the realization of the Disaster Resilient Village Program (Destana) in Sukabumi Regency from 2020 to 2024:

1. The Destana target increases annually, but actual achievement falls far short of the target.
2. By 2024, only 19 villages (19% of the target of 100 villages) had successfully achieved Destana status.

Synthesis with Other Studies

This study's findings align with research by Oktari et al. (2018) which identified that limited technical capacity and inter-agency coordination are major obstacles to implementing mitigation programs in Indonesia. Similarly, Hidayati et al. (2021) emphasized the importance of bottom-up approaches and community participation in improving the effectiveness of mitigation programs.

The research by Sharifi (2016) and Sudmeier-Rieux et al. (2015) shows that successful implementation of disaster mitigation policies requires integration between top-down and bottom-up approaches, as well as effective coordination across various levels of government. This finding is reinforced by current conditions in Sukabumi where the gap between planning and implementation becomes a critical factor.

Recent studies by Rafliana et al. (2022) also show that the effectiveness of disaster mitigation in Indonesia is highly dependent on local capacity and multi-level governance coordination, which is consistent with the findings in Sukabumi Regency.

4. CONCLUSION

This research concludes that the implementation of disaster mitigation programs by BPBD Sukabumi Regency is still far from optimal. Although normatively there is an adequate regulatory framework, its implementation is hampered by limited human resources and infrastructure, weak organizational synergy, and low community awareness.

The Van Meter and Van Horn model proves that all analyzed variables have an influence on implementation success. The gap between policy standards and field realization is an indicator of weak integration between planning and implementation.

Therefore, recommendations that can be given include: (1) Strengthening institutional capacity, both in structure, personnel, and technology; (2) Improving resource allocation for mitigation programs; (3) Revitalizing cross-sector communication and community involvement in every stage of mitigation; (4) Increasing community disaster literacy through local culture-based approaches.

By strengthening these elements, it is hoped that disaster mitigation programs can run more effectively and adaptively to actual conditions in the field.

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