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Submission date: 24-Feb-2025 09:59AM (UTC+0700)
Submission ID: 2596662357
File name: 12408-Article_Text-47673-1-18-20250211_publis.pdf (608.22K)
Word count: 6009
Character count: 34895

Flood Prevention Based on Disaster Risk Management in Malang City

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Submitted: 30-12-2024; Accepted: 12-02-2025; Publish: 24-02-2025
DOI: https://doi.org/10.30996/jpap.v11i1.12408

Abstract

This research is based on the many incidents in Malang City related to flood disasters. Many of these incidents are caused by puddles or runoff of rainwater, which is not channeled properly through drainage channels due to the inability of drainage to accommodate the volume of rainwater and the lack of development of the RTH (Green Open Space). For this reason, the Malang City Government has made regulations regarding implementing disaster management in Malang City Local Regulation Number 1 of 2017. This research aims to describe and analyze the implementation of policies to prevent floods and waterlogging based on disaster risk management in Malang City. This research uses descriptive research with a qualitative approach. This research focuses on policy implementation to prevent floods and waterlogging based on disaster risk management in Malang City using the Edward III policy implementation model. Data sources are primary data sources and secondary data sources. Data collection techniques include interviews, observation, and documentation. Test the validity of the data using triangulation techniques. This research indicates that implementing flood and waterlogging disaster prevention policies has not been fully implemented properly. It has been implemented well when viewed from several aspects, such as communication, disposition, and bureaucratic structure. However, if seen from the aspect of resources, especially facility resources, they are still inadequate and not ideal for the two agencies involved. It can be concluded that this policy is still not successful, and there is a need for evaluation regarding this policy.

Keywords: *Flood; Policy Implementation; Disaster Prevention; Disaster Risk Management*

1. Introduction

Indonesia is a region that has a high potential for natural disasters. Indonesia has a disaster risk index calculated based on the formula: Risk = Hazard x Vulnerability/Capacity. Hazard is calculated based on a natural phenomenon's spatial probability, frequency, and strength (magnitude), such as earthquakes, floods, volcanic eruptions, etc. Vulnerability is calculated based on socio-cultural, economic, physical, and environmental parameters. Capacity is assessed using a regional resilience level approach based on seven priorities, namely: (1) Strengthening policies and institutions; (2) Risk assessment and integrated planning; (3) Development of information systems, training and logistics; (4) Thematic handling of disaster-prone areas; (5) Increasing the effectiveness of disaster prevention and mitigation; (6) Strengthening disaster preparedness and emergency management; and (7) Development of a disaster recovery system (BNPB, 2023). Capacity development for disaster risk reduction is a critical process to substantially reduce disaster losses (Hagelsteen & Becker, 2014)

In addition, the global increase in intense floods, storms, droughts, and heat waves has a likely and ominous link to climate change (Thomas & López, 2015). The potential for flooding tends to increase when Indonesia enters the rainy season. This is driven by high rainfall

ranging from 2000-3000 mm/year. Cited from the official website of the Coordinating Ministry for Human Development and Cultural Affairs of the Republic of Indonesia, the frequency of hydrometeorological disasters in 2020 has increased almost eightfold compared to 2005. The increase in disasters in Indonesia is caused by an increase in extreme rainfall and the impact of current world climate change (Kemenko PMK, 2022). Based on the geographical and geological characteristics of the region, Indonesia is one of the areas prone to flood disasters. Seeing these facts, it cannot be denied that flooding is something that the government should pay attention to.

Findayani (2018) explained that flood disasters are natural events that can occur reactively or unplanned and can occur at any time and often result in loss of life and property. Flooding is the overflow of a river due to water exceeding the river's storage capacity so that it overflows and inundates the surrounding plains or lower areas. Furthermore, according to Pramudita et al. (2022), floods and puddles have differences, namely in the height of the water surface; normally, puddles are less than 40 cm high unless there are things that influence them, while floods have a height of more than 40 cm. Meanwhile, according to Sastrodihardjo (2012), natural conditions such as geography, topography, and river channel geometry can cause floods. Dynamic natural events such as high rainfall, damming from the sea/tides on main rivers, land subsidence and shallowing due to sedimentation, as well as dynamic human activities, such as inappropriate use of flood plain land, namely by establishing settlements on river banks, lack of flood control infrastructure, land subsidence, and sea level rise due to global warming. Ocean warming rates have shown a robust increase in the past six decades (Minière et al., 2023).

Malang City is one of the cities in East Java Province which has had flooding problems for a long time. Based on the *Badan Nasional Penanggulangan Bencana* (2023) in 2022 IRBI (Indonesian Disaster Risk Index) Book, East Java was recorded as having an IRB (Disaster Risk Index) value in 2022 of 121.70, which is included in the "Medium" category; on the other hand, Malang City was recorded as having an IRB value in 2022 of 80.15, which is included in the "Medium" category. According to the Head of the Local Disaster Management Agency (BPBD) of Malang City, the leading causes of flooding are changes in land use and reduced function of rivers, drainage, and waterways. Apart from that, flooding occurs due to the increasing intensity of rain. Based on data from three climatology stations in Malang City, rainfall has fluctuated since 2018. In specific years, there is a significant reduction in rainfall. The following is a figure of Malang City's rainfall intensity.

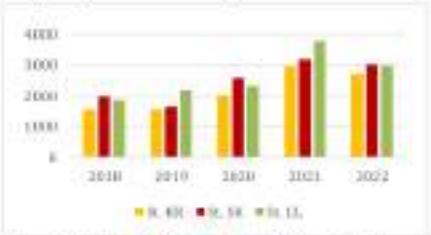

Figure 1. Rainfall Intensity of Malang City (mm³)

Source: Malang City Central Statistics Agency and BMKG Class II of East Java

Based on data from the Malang City Central Statistics Agency from three climatology stations, namely St. KK (Kedungkandang), St. SK (Sukun), and St. CL (Ciliwung), it proves that there is climate uncertainty. The rainfall fluctuations in the graph illustrate that uncertainty. At certain times, rain can come suddenly, and the intensity of rainfall is high. At other times, the intensity can decrease significantly. The distribution of flood-prone areas in Malang City tends to be between 400-475 m above sea level and close to rivers with the potential for high runoff levels. Handling floods and standing water in Malang City is carried out by several agencies, namely the Local Disaster Management Agency (BPBD) of Malang City and the Malang City Public Works, Spatial Planning, Housing and Settlement Areas Department (DPUPRPKP). These two agencies are responsible for implementing policies formulated by the government in disaster management, especially flood.

Policy implementation is the stage at which the government enforces a policy to be executed by government agencies, private institutions, or the community (Fernandez et al., 2024). Based on concerning Disaster Management, this Law explains that the government and regional governments are responsible for implementing disaster management. Malang City Local Regulation Number 1 of 2017 is the legal product used to prevent flood and waterlogging disasters. The government issues policies to address existing social issues within the community. These policies aim to minimize the negative impacts caused by certain phenomena, ensuring that they do not disrupt the well-being of society (Tenga et al., 2023). This Local Regulation explains the objectives and scope, responsibility and authority, stages and mechanisms for implementing disaster management, assistance for disaster victims, the role of communities and business institutions, inter-regional cooperation, monitoring, evaluation, and reporting, as well as conflict resolution, especially in Malang City. This regulation is a reference for researchers who want to implement policies to prevent flood and waterlogging disasters in Malang City.

In 2022, Malang City will experience many problems caused by flooding, disturbing several locations. This is felt directly by residents who live in areas around river basins (DAS) or large ditches. There is a recapitulation of flood and waterlogging disasters that occurred in Malang City over the past 5 years, as follows :

Table 1. Number of Flood and Waterlogging Events in Malang City 2018-2022

No	Year	Number of Flood Events
1	2018	9
2	2019	70
3	2020	55
4	2021	92
5	2022	**168**

Source: The BPBD of Malang City (processed by Researchers, 2023)

Based on Table 1, there is an increase in flooding and waterlogging incidents. This incident must be of concern to the Malang City government and cannot be ignored. According

to the BPBD of Malang City (2022), heavy rain is one of the reasons for triggering an increase in water discharge in several areas and resulting in overflow flooding.

According to Pramudita et al (2022), the cause of flooding and waterlogging in Malang City occurred because the development carried out was not environmentally friendly, in other words the development was located on riverbanks or riverbanks which resulted in the river area becoming narrow. This is a driving factor in the volume of river water when high rainfall overflows. The existing water catchment areas cannot absorb water/puddles properly, and the RTH (Green Open Space) is not being developed properly. Apart from that, floods and waterlogging are caused by poor people's lifestyles, where people still throw rubbish inappropriately, such as in rivers or ditches, which results in blockages in the ditches or water catchments that have been created. It is evident that the problems associated with littering behavior have serious health, economic, and environmental impacts (Chaudhary et al., 2021).

Disaster prevention is one of the efforts in implementing disaster management. According to Adiyoso (2018), prevention and mitigation are stages of disaster management that need to be carried out at all times to reduce the risk of disasters that may occur. One of disaster management's most important approaches is preventing and reducing disasters by involving the community (Pramono et al., 2020). Given the increasing occurrence of floods and waterlogging in Malang City, it is crucial for the local government, as the responsible authority, to take preventive measures. While previous studies have examined flood and waterlogging prevention, this research provides a new perspective by analyzing the issue through the policies of both BPBD and DPUPRPKP. Therefore, this study examines how these policies are applied and their effectiveness in addressing flood and waterlogging issues in Malang City.

2. Methods

This research uses a qualitative approach which was applied at the Local Disaster Management Agency of Malang City (BPBD) and the Malang City Public Works, Spatial Planning, Housing and Settlement Department (DPUPRPKP) in the period from January 2023 to February 2023. Data collection in this research used several methods, including interviews, observation, and documentation. Multiple data collection methods are crucial in qualitative research to ensure the validity and reliability of the findings. As noted by Mekarisce (2020), triangulation involves utilizing various data sources, methods, or theories to verify data, thereby enhancing the credibility of the research outcomes. This ensures that the results are comprehensive and well-founded (Mekarisce, 2020).

Based on primary data, researchers conducted interviews with 6 informants consisting of 1 Head of Division, 2 Civil Servants, 2 Heads of RT, and 1 Community Figure. According to Susanto et al (2023), interviews provide researchers with direct insights into participants' experiences and perspectives, allowing for a deeper understanding of the research problem. The documents used in this research include various legal and regulatory frameworks, such as Law No. 24 of 2007 on Disaster Management, Government Regulation No. 21 of 2008 on Disaster Management Implementation, and East Java Provincial Regulation No. 3 of 2010 on Disaster Management in East Java Province. Ministerial Regulation of Public Works No. 12 of 2014 on the Implementation of Urban Drainage Systems and Malang City Local Regulation No. 1 of 2017 on Disaster Management Implementation were also examined. The research further

incorporates interview results, field observations, relevant events, information, and data obtained through direct observation of flood and waterlogging prevention issues. Additionally, literature, records, and other supporting data concerning disaster risk management-based flood and waterlogging prevention policies in Malang City were analyzed. Nurfajriani et al. (2024) explain that observation allows researchers to capture real-time occurrences in their natural setting, while documentation enriches the research with pre-existing records and materials.

3. Results and Discussion

Sustainable flood management requires simultaneous multi-party involvement and community participation. The participation of every element of society in carrying out flood disaster management is the key to success. It is necessary to understand that involving various parties in disaster management will increase capacity and minimize risks (Ulum, 2014). The Local Disaster Management Agency of Malang City implemented policies to prevent flooding and waterlogging by issuing a disaster program in the form of an Early Warning System (EWS) and Disaster Resilient Village. The Malang City Department of Public Works, Spatial Planning, Housing and Settlement Areas (DPUPRPKP) also issued a program called a Drainage Master Plan.

Policy for preventing floods and waterlogging based on disaster risk management in Malang City refers to several legal products, which include Law Number 24 of 2007 concerning Disaster Management, Government Regulation Number 21 of 2008 concerning the Implementation of Disaster Management, East Java Province Local Regulation Number 3 2010 concerning Disaster Management in East Java Province, and especially in Malang City refers to Malang City Local Regulation Number 1 of 2017 concerning Implementation of Disaster Management which explains the objectives and scope, responsibility and authority, stages and mechanisms for implementing disaster management, assistance for disaster victims, the role of communities and business institutions, inter-regional cooperation, monitoring, evaluation and reporting, and conflict resolution.

The research results show that the BPBD and the PUPRPKP Service of Malang City have their responsibilities but are still related. The BPBD of Malang City is tasked with establishing guidelines and direction for disaster management efforts, including preventing disasters in Malang City, specifically related to floods and waterlogging. Meanwhile, the PUPRPKP Service of Malang City is tasked with executing government affairs in the field of public works, spatial planning, and government affairs in the field of housing and residential areas, which in this case is specifically related to the coordination and implementation of management, supervision and technical control of drainage for the prevention of flood and inundation disasters, water in Malang City. To find out how the implementation of flood and waterlogging disaster prevention policies based on disaster risk management in Malang City below will be analyzed and explained through the variables contained in the policy implementation model theory according to Edward (1980).

1. Communication

Effective communication during disasters is crucial in disseminating timely and accurate information, assisting evacuation efforts, and minimizing panic (NAZLI, 2024). To successfully

implement flood and waterlogging disaster prevention policies in Malang City, communication must be paid attention to because communication must go well with all relevant stakeholders. Policy goals and objectives must be transmitted to target groups to reduce distortions in the implementation or implementation of policies to achieve the goals of a policy or program. Communication influences the policies implemented by the Malang City Government to prevent flood and waterlogging disasters through the Early Warning System (EWS) disaster program and the Disaster Resilient Village as a form of policy implementation. The Malang City Department of Public Works, Spatial Planning, Housing and Settlement Areas (DPUPRPKP) also issued a program called a Drainage Master Plan. In addition, communication in this research also refers to Malang City Local Regulation Number 1 of 2017 as the message to be conveyed. Good communication can be said to be successful if it has (1) transmission or communication channels, (2) clarity of information, and (3) consistency of information or orders.

a. Transmission Indicator (communication channel)

The results of interviews related to transmission between agencies involved is preventing flood and waterlogging disasters, the PUPRPKP Service, and the BPBD of Malang City have coordinated. Meanwhile, communication is transmitted to the public through monthly socialization and can be accessed on the official websites of the two agencies. From the explanation above, communication transmission is carried out. Each agency has also coordinated with each other regarding the prevention of flooding and waterlogging so that information can be delivered well.

b. Clarity of Information Indicator

There is a clear impact on the work of disaster management provide accurate, clear, comprehensive and fast information (Amyan, 2016). The information provided to implement the policy to prevent floods and waterlogging disasters in Malang City is adequate if seen from a clear perspective. This can be seen from each agency familiar with the policy for preventing floods and puddles and their respective duties in the policy itself.

Information in the form of socialization is carried out by what is happening in the field. Apart from that, the regular delivery of information via the websites of both agencies and socialization are also factors driving the clarity of the information received. The delivery to the public is clear and appropriate; however, due to a lack of interest in material related to regulations and a lack of public awareness of the rules, this is the reason why the information aimed at targets is still unclear.

c. Consistency of Information or Commands Indicator

Implementing the flood and waterlogging prevention policy in Malang City showed that information consistency has been implemented well. The PUPRPKP Service of Malang City has consistently provided information, but there are obstacles to this consistency, which is usually interrupted from the sub-district level to the community. This shows that all relevant stakeholders influence the consistency of information.

Meanwhile, the BPBD of Malang City is still inconsistent in providing information, but this does not have a negative meaning because disaster developments are dynamic and will

always be related to situational factors based on the facts occurring in the field. Apart from that, the consistent indicators presented are also based on 2 (two) benchmarks: Human and Material Resources.

2. Resources

The next variable proposed by Edward (1980) in the policy implementation model, resources influence the success of a policy. Resources are an important factor in the implementation process of a program or policy. Resources are essential in a policy program, as they constitute the primary factor ensuring its effective execution (Romadhan et al., 2023). In addition, effectively utilizing available resources is crucial for successfully implementing policies (Sari et al., 2024). Without adequate resource support, both in quantity and quality, a program or policy will be challenging or fail to implement. According to Indiahono (2016), every policy must be supported by adequate resources, both human resources, financial resources, and facility resources.

a. Human Resources

There is a significant relationship between human resource practices such as contingency planning, training and development, communication, and effective disaster management (Mumtaz et al., 2020). The research showed that human resources are sufficient to implement policies to prevent flood and waterlogging. Still, there is a need for additional personnel, considering that the flood and waterlogging in Malang City require special attention from all relevant stakeholders. For example, the PUPRPKP Service of Malang City is sufficient in quantity and quality because the PUPR Task Force receives special training, such as safety training, in carrying out its duties in the field. This is an effort made by the PUPRPKP Service of Malang City to increase human resources, which is a factor in the success of implementing the policy itself.

Overall, the number of employees at the PUPRPKP Service of Malang City is 286 people, consisting of 130 Civil Servants, 156 Civil Servants, and 12 PUPR Task Forces among them. Meanwhile, human resources at the BPBD of Malang City are sufficient, with 57 personnel consisting of 18 Civil Servants and 39 non- Civil Servants. The BPBD of Malang City also conducts training and outreach to its human resources to improve the quality of its human resources. These improvement efforts can be seen such as in Figure 2 :

Figure 2. Training on Mapping Disaster Prone Area
Source: The BPBD of Malang City (2023)

Based on the research results in the field, it is clear that policies to prevent floods and waterlogging can be implemented optimally because they have adequate human resources. However, additional personnel are still needed, considering that flood and waterlogging issues in Malang City require special attention from all relevant stakeholders. The DPUPRPKP of Malang City has sufficient human resources in quantity and quality, with the PUPR Task Force receiving specialized training, such as safety training, to enhance their field performance. Similarly, the BPBD of Malang City ensures the competence of its personnel through regular training and outreach programs. These efforts reflect the commitment of both agencies to strengthening human resource capacity as a key factor in the successful implementation of flood and waterlogging prevention policies.

b. Financial Resources

The research results show that the budget for implementing the flood and waterlogging disaster prevention policy is supportive. No detailed details were provided regarding the budgets of the two agencies involved. However, the research results from interviews show that the budget at the Malang City PUPRPKP Service comes from the original regional income, which has been determined and supported so that it can run optimally. The budget is used for normalizing rivers and water channels, rehabilitation, and canal construction.

The budget for BPBD of Malang City is also immensely supportive, even though it is limited. This can be seen from the budget allocation of IDR 30 million per Flood Early Warning System unit in Malang City, which is spread across 13 (thirteen) locations where floods and waterlogging disasters frequently occur. Ideally, the Flood Early Warning System in Malang City should be placed at all points where flood disasters and waterlogging often happen. Still, due to the limited budget, BPBD of Malang City has prioritized initiating the availability of the existing budget. The budgets of the two agencies implementing the flood and waterlogging disaster prevention policy are already supportive so that the implementation of the flood and waterlogging disaster prevention policy can run well.

c. Facility Resources

Implementing flood and waterlogging prevention policies at the PUPRPKP Service and the BPBD of Malang City has not been supported by adequate facilities. At the DPUPRPKP of Malang City, supporting facilities for flood and waterlogging prevention are available, including excavators for river and drainage channel normalization. However, the number of these facilities remains limited. To address this issue, the department, assisted by the PUPR Task Force, initially operated on a fixed schedule to ensure that all areas in Malang City requiring normalization could be adequately addressed. DPUPRPKP has become more active in conducting daily river sediment removal to support the normalization of drainage and irrigation channels. Normalization efforts have been carried out in several locations, including Andalas Street, Trunojoyo Street, Andalan Tengah Street, Merapi – Argopuro Street, Malaka – Sempu Street, and Bengkalis Street, which are situated in Klojen District. Additionally, similar efforts have been implemented in Puri Cempaka Putih, located in Kedungkandang District, and other areas requiring intervention. The following image illustrates the river normalization process.

Figure 3. Normalization at Puri Cempaka Putih
Source: The PUPRPKP Service of Malang City (2023)

Meanwhile, the BPBD of Malang City is still not ideal and inadequate because the facilities here can be suitable if an Early Flood Warning System is installed in every flood-prone area in Malang City. The following is a picture of the Flood Early Warning System (EWS) belonging to the BPBD of Malang City.

Figure 4. Flood EWS
Source: The BPBD of Malang City (2023)

According to the BPBD of Malang City (2023), the Flood Early Warning System (EWS) is installed at 13 locations where floods and waterlogging disasters frequently occur. The installation of the Flood EWS began in 2020 with 6 (six) initial locations: Bareng Subdistrict, Sudimoro Street, Galunggung Street, Sawojajar Intersection, Letjend S. Parman Street, and Bukit Barisan Street. In 2023, the BPBD of Malang City expanded the system by adding installations at 7 (seven) additional locations: Morgan Street, Muharto Street, Raya Tlogomas Street, Ahmad Yani Street, Sunandar Priyo Street, Jaksa Agung Suprapto Street, and Ki Ageng Gribig Street.

3. Disposition

According to Edward (1980), the success of policy implementation is determined not

only by the extent to which policy actors know what must be done and can do it. Still, it is also determined by the ability of policy actors to have a strong disposition toward the policy being implemented. According to Widodo (2021), disposition is the will, desire, and tendency of policy actors to implement a policy well so that the policy objectives can be realized. If policy implementation is to be successful effectively and efficiently, the implementers not only know what must be done and the ability to execute the policy, but the policy implementers must also have the will to implement the policy. The attitude of policy implementers consists of commitment, comprehension, responsiveness, and integrity (Alhawarly, 2021).

Policy implementation to prevent flood and waterlogging in Malang City showed that the BPBD and the PUPRPKP Service of Malang City have a high attitude and commitment. It can be seen from ongoing monitoring of areas prone to flooding and waterlogging in Malang City in the form of tracking in the field, such as potential disasters and monitoring of waterways and rivers for normalization actions and building houses, which must be based on environmental impact analysis with pay attention to environmental factors to prevent flooding and waterlogging. Apart from that, the intensity of the attitude and commitment of the BPBD and the PUPRPKP Service of Malang City is considered to be good because all levels in both agencies are active and supportive of the policy regarding preventing floods and waterlogging.

4. Bureaucratic Structure

Policy implementation has a complex nature and requires collaboration with many parties. When the bureaucratic structure is not conducive to the implementation of a policy, this will cause ineffectiveness and hinder the policy implementation process. According to Widodo (2021), This bureaucratic structure includes organizational structure, division of authority, relationships between units within the organization concerned, organizational relationships with external organizations, and so on. Therefore, the bureaucratic structure includes the dimensions of Standard Operating Procedures (SOP) and fragmentation, which will facilitate and standardize the actions of policy implementers in doing their duties.

a. Standard Operating Procedures (SOP)

Defining standard operating procedures (SOPs) is a key tool for planning emergency responses (Kato et al., 2022). Implementing flood and waterlogging prevention policies in Malang City showed that agencies already have clear SOPs. As in the PUPRPKP Service of Malang City, the SOP has been clearly explained, which will direct them to take action. The SOP in question is the SOP for preparing complaints about water resources and drainage. Meanwhile, the BPBD of Malang City also has clear SOPs for preventing floods and waterlogging, which refer to SOPs for monitoring potential disasters, surveying and mapping disaster-prone areas, and establishing disaster-resilient sub-districts.

b. Fragmentation

Implementing flood and waterlogging prevention policies in Malang City showed that all agencies involved are fragmented. This aims to speed up and simplify the implementation of policies to prevent flood and waterlogging disasters. In this case, the PUPRPKP Service and the BPBD of Malang City have a clear and precise fragmentation or division of tasks and

responsibilities according to the capabilities of each apparatus.

For instance, the PUPRPKP Service of Malang City handles flooding and standing water problems in the Highways Sector, especially the Drainage Section. Meanwhile, the BPBD of Malang City, which is responsible for preventing flood and waterlogging disasters, lies in prevention and preparedness. In addition to the division of responsibilities in these areas, there must also be good cooperation and coordination so that the implementation of policies to prevent flood and waterlogging in Malang City can run well.

4. Conclusion

It can be concluded that the Local Disaster Management Agency (BPBD) of Malang City executes policy implementation through mitigation programs such as the Early Warning System (EWS) and the Disaster-Resilient Subdistrict initiative. Additionally, the Public Works, Spatial Planning, Housing, and Settlement Areas Service (DPUPRPKP) of Malang City plays a role by introducing the Drainage Master Plan.

Effective communication is a crucial factor in implementing flood and waterlogging prevention policies. Coordination between relevant agencies is well-established through efficient communication channels, including regular outreach programs and an online information system for the public. The clarity of information is good, as it is conveyed regularly, both directly and online. However, challenges remain due to the lack of public interest and awareness regarding regulations, so information dissemination is ineffective across all community levels. Consistency in information delivery is also an issue, particularly in maintaining the flow of communication from the sub-district level to the community. Furthermore, the BPBD of Malang City has shown inconsistencies in providing information. However, this may be attributed to the dynamic nature of disasters, which require continuous updates based on real-time field conditions. Regarding resources, both the BPBD and the DPUPRPKP of Malang City have an adequate workforce to implement the policies. Financial resources, while limited, are still sufficient to support policy execution. However, the availability of facilities for flood and waterlogging prevention remains inadequate.

The commitment and dedication of the BPBD and the DPUPRPKP to disaster prevention efforts are commendable, as all levels within both agencies actively support and implement relevant policies. From a bureaucratic perspective, the organizational structure of both agencies is well-managed. Policy implementers establish and adhere to standard operating procedures (SOPs). Additionally, task fragmentation within both agencies is well-defined according to the respective capacities of the personnel, ensuring the effective distribution of responsibilities in policy implementation.

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