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The role of local governments in flood disaster mitigation in Makassar city

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Abstract
This study aims to find out and describe the role of the Government in flood disaster mitigation in Makassar City as well as factors that affect the role of the government in flood disaster mitigation in the city of Makassar. This type of research uses a qualitative approach with descriptive elaboration. A qualitative approach with descriptive elaboration is research that aims to obtain an overview to understand and explain the role of local governments in flood disaster mitigation in the city of Makassar. The data collection in this study uses observation techniques, interviews, literature studies, and documentation studies. The results of the study show that the role of the government in mitigating flood disasters in the city of Makassar is in the form of improving the drainage system, effective early warning, education and public awareness, and building dams. In addition, the government's efforts to mitigate flood disasters are divided into three stages, including pre-disaster, emergency response, and post-disaster. Factors that affect the role of the government in flood disaster mitigation consist of supporting factors, namely synergy between agencies in the ranks of the local government of Makassar city, vertical coordination of Makassar's Regional Board for Disaster Management (BPBD) with government agencies which higher positions. In addition, the inhibiting factors are limited resources, changes in land use.

Keywords:

Local Government, Mitigation, Flood Disaster, Government Response, Disaster Management, Government Agency

1 | INTRODUCTION

Indonesia is a disaster-prone country, due to various natural disasters such as earthquakes, tsunamis, and floods. Among the types of disasters that have been mentioned, one that is quite threatening is floods (Ariyani et al., 2022). Floods still dominate the types of disasters in Indonesia. This is due to the high rainfall whenever the rainy season occurs (Aksa & Afrian, 2022; Setiadi et al., 2023). This condition has many impacts in Indonesia, both positive and negative. One of the positive impacts obtained is the large diversity of flora and fauna as well as the potential of Indonesia's natural resources that are supported. In addition, high rainfall can also cause negative effects, such as floods (Bollin et al., 2003).

In relation to disasters, floods are included in the category of natural disasters if the event or series of conditions that occur threaten and disrupt natural life and people's lives (Aksa & Afrian, 2022). Both in terms of natural, non-natural, and human factors, this can result in casualties, environmental damage, property losses, and psychological impacts. Flood conditions in Indonesia can be said to be a seasonal disaster, because every time the rainy season arrives, floods hit several areas in Indonesia. According to Law Number 24 of 2007 Article 1 concerning Disaster Management, flooding is an event that occurs when a place is flooded due to overflowing water which exceeds the capacity of water discharge in an area and causes physical, social, and economic losses (Kusumasari & Nature, 2012). In addition, flooding can also occur due to overflowing surface water runoff and its volume exceeding the flow capacity, such as drainage or water bodies (Bollin et al., 2003; Parvin et al., 2016). The city of Makassar, as one of the largest cities and economic centers in eastern Indonesia, is not spared from the threat of flooding. Located on the southern coast of Sulawesi Island, the city faces significant flood risks, especially during the rainy season. The flat topography in some parts of the city, coupled with high rainfall and poor drainage systems, makes Makassar one of the flood-prone areas in Indonesia. Every year, floods often hit various sub-districts in this city, resulting in serious disruption to community activities, damage to infrastructure, and large economic losses (Parthasarathy, 2016).

According to data from the Makassar City Regional Disaster Management Agency (BPBD), Manggala's District is one of the area most often affected by floods. The area has a long history of flooding, with puddles often reaching dangerous heights. The main causes of flooding in Manggala's District include the lack of adequate drainage systems, uncontrolled land conversion, and rapid population growth that is not balanced with good infrastructure planning. The floods in Makassar not only have an impact on people living in vulnerable areas, but also on the city's economy as a whole, as many main roads and public facilities are disrupted by waterlogging. Based on Law Number 24 of 2007 concerning Disaster Management, flooding is defined as an event that occurs when an area is flooded due to overflowing water that exceeds the discharge capacity in the area, which then causes physical, social, and economic losses (Kusumasari & Nature, 2012). This definition suggests that flooding is not just a problem of overflowing water, but also covers a wider range of aspects, including long-term impacts on society and the environment (Mohammed, 2018).

In the City of Makassar, floods are also caused by overflowing surface water runoff and its volume exceeds the capacity of drainage such as drainage or water bodies. As a city with a high level of urbanization, inadequate drainage systems are often unable to hold rainwater, especially when rainfall is at its peak. Many areas of the city, including residential and business districts, are submerged in water every time the monsoon season arrives, disrupting daily life and economic activities. Floods have a wide and diverse impact on Makassar City. From an economic point of view, floods cause huge losses, both in the form of infrastructure damage, disruption of economic activities, and post-disaster recovery costs (Rouhanizadeh et al., 2020; Saifulsyahira et al., 2016). On the social side, floods often result in mass evacuations, loss of homes, and disruption to public services such as education and health. The psychological impact also cannot be ignored, as floods can cause trauma, stress, and uncertainty for victims who have lost their possessions and homes (Malalgoda et al., 2010).

The Government of Makassar has made various efforts to reduce flood risks and impacts, including through the improvement of flood control infrastructure, such as the construction of reservoirs, embankments, and drainage systems. In addition, disaster mitigation and community preparedness programs have also been implemented to increase community capacity in dealing with flood disasters. However, the challenges faced are still very large. One of the main challenges is coordination between government agencies and other stakeholders, which is often less than optimal in dealing with flood emergency situations. In addition, climate change is also a factor that increase aggravating the risk of flooding in Makassar City. Rising global temperatures result in changes in rainfall patterns, which are increasingly unpredictable and tend to be extreme (Dewan, 2015; Huang et al., 2021; Miao & Davlasheridze, 2022; Yusuf et al., 2021). This adds complexity to flood disaster mitigation efforts in this city, as it requires a more comprehensive and adaptive approach (Parvin et al., 2016).

Thus, flood management in Makassar City requires a holistic approach, involving various aspects such as spatial management, infrastructure planning, community education, and better coordination between government agencies. In addition, increasing community capacity to deal with disasters, as well as awareness of the importance of protecting the environment, is also key in efforts to reduce the risk of future floods (Dang, 2024; Koutsovili et al., 2023; Luu et al., 2018). A sustainable approach based on comprehensive disaster mitigation principles will be key in overcoming the challenges of flooding in Makassar City, as well as protecting the community from greater impacts in the future.

2 | METHODS

This study uses a descriptive qualitative method to explore and understand the role of local governments in flood disaster mitigation in Makassar City. This method was chosen because of its ability to provide an in-depth and comprehensive picture of the phenomenon being studied, especially related to aspects of social and behavioral nature.

This descriptive qualitative methodology focuses on collecting descriptive data in the form of written and oral words from informants and observable behaviors. The data obtained includes information from various primary and secondary sources. Primary data were obtained through direct observation methods, in-depth interviews, and literature studies. Observations were conducted to capture the dynamics and real situation on the ground, while in-depth interviews with key informants—such as the Head of Preparedness at the Makassar's BPBD and the Head of the Emergency and Logistics Sub-Division—provided more detailed insights into their experiences, views, and actions in handling flood disasters. Literature studies are conducted to obtain theoretical context and relevant additional information from existing literature. In addition to primary data, secondary data is also collected from archives and documents related to disaster management, including reports and records from the Makassar's BPBD. This secondary data is important to supplement the information obtained from the field and provide a more comprehensive picture of the policies and procedures implemented.

The data analysis in this study was carried out through several stages. First, data reduction is carried out to filter and simplify raw data into more relevant information. Second, data presentation is carried out by compiling data that has been reduced in a systematic and easy-to-understand form, such as tables, graphs, and narratives. Finally, conclusions are drawn to identify patterns, themes, and meanings from the data that has been collected. Data validity techniques are also applied to ensure the validity and reliability of research findings. These techniques include triangulation of data sources, verification of informants, and member checking to ensure that the interpretation of the data is accurate and accountable.

3 | RESULTS AND DISCUSSION

3.1 | Pre-Disaster

Disaster Prevention and Preparedness

Floods are natural disasters that need attention, because they threaten people's lives and economies. Floods are the third largest natural disaster in the world that has claimed many lives and caused property losses (Kusumasari & Alam, 2012; O'Brien et al., 2012). Often floods are underestimated, even though as members of the community, we must participate to be prepared to face the threat of flood danger with early preparation and a deep understanding of disasters. This is very necessary, especially for people in flood-prone areas. Flood events are an inevitable catastrophe, especially in the rainy season (Miao & Davlasheridze, 2022; Posner & Georgakakos, 2017). Prevention and mitigation activities are at the core of disaster management efforts (Qian et al., 2023; Robin et al., 2023; Stanley et al., 2023). This paradigm is based on the belief that eliminating or reducing the strength and destructive power of a threat is the most important factor in reducing losses caused by a disaster, both loss of life and damage to infrastructure and property. Prevention and mitigation also allow the government and civil society to control or reduce spending on the restoration of facilities and infrastructure in the community. In other words, prevention and mitigation prevent an area from developing from scratch again. In addition, prevention and mitigation reduce the stress or burden on the government and society that usually arises due to emergency response situations and post-disaster recovery (Rouhanizadeh et al., 2020).

Preparedness in dealing with floods helps communities in planning actions that need to be taken during floods. Success in handling and evacuating/evacuating during floods is highly dependent on the preparedness of communities and individuals (Pandey, 2019; Xie et al., 2023). When a flood occurs, all activities will be carried out in an emergency situation under chaotic conditions, so good planning, coordination, and training are needed so that handling and evacuation during floods goes well (Parvin et al., 2016). Looking at the data and phenomena above, researchers tentatively conclude that the impact caused by this flood disaster is numerous. Almost all aspects of people's lives were disrupted due to floods. However, it is necessary to realize that the quality of disruption in this aspect of people's lives is not total, and this is highly dependent on the magnitude of the threat of the disaster. This impact is also influenced by the capacity of the community and the inability of the community to deal with disasters. This is in accordance with the concept of disaster risk reduction that disaster risk is determined by the concepts of hazard, vulnerability, and invulnerability (Ishiwatari, 2021)

In this case, the Government of Makassar is making efforts by providing education and building public awareness. Education and public awareness are key elements in preparing communities to better deal with the threat of flooding. The Government of Makassar provides education about flood risks, their causes, and actions that must be taken in emergency situations. With a better understanding of flood hazards, residents can better plan and respond. However, the government must ensure that the public has a clear understanding of flood risk and the importance of evacuation if necessary. This can include training residents in identifying flood-prone zones and safe evacuation procedures. This awareness is important because it can reduce the risk of injury or loss of life in a flood situation. Directions for people in dense settlements in the process and scenario of flood disasters, especially in Manggala and Tamalanrea Districts, are part of flood disaster preparedness. The Government of Makassar provides evacuation route maps and assembly points for the community, conducts counseling and training on the types of disasters and how to handle them, prepares the community in the evacuation process, provides first aid in accidents, and provides initial logistics during flood disasters. In addition, the government has increased access and capacity for information on the flood disaster prevention process through various media and government institutions (Rubin & Barbee, 1985; Saifulsyahira et al., 2016).

3.2 | During Emergency Response

Rescue and Evacuation of Disaster Victims

Floods are natural disasters that need attention, because they threaten people's lives and economies and are the third largest natural disaster in the world that has claimed many lives and property losses(Basu et al., 2013; Rubin & Barbee, 1985). Often floods are underestimated, as members of the community, we are obliged to participate in preparing to face the threat of flood danger with early preparation and deep understanding and knowledge of dealing with disasters, this is very necessary, especially for people whose areas are in flood-prone. Floods are an inevitable catastrophe, especially during the rainy season.

The government is responsible for evacuating residents from flooded areas and providing rescue assistance to those in need. The Makassar City Regional Disaster Management Agency (BPBD) plays an important role in the rescue and evacuation of flood victims. The main task of BPBD is to coordinate disaster response efforts, which includes several key functions such as planning and prevention, preparedness, emergency response and recovery and rehabilitation. In relation to emergency response, BPBD establishes a SAR (Search and Rescue) Team usually involved in the evacuation process of flood victims in Makassar City or in any place with the following steps. In a flood situation, the SAR Team first evaluates the flood situation, including water levels, currents, and the general condition of the affected area. They will take these factors into account to determine the best approach in the evacuation process. After observing the flood conditions, the SAR Team will search for and rescue flood victims. They use rubber boats, motorboats, or other evacuation tools according to water conditions and accessibility of the affected areas (Pudyastuti, 2023).

Provision of Emergency Facilities

The Government of Makassar has implemented several strategic efforts to mitigate the impact of floods. One of the key aspects in the response to the flood disaster in Makassar is the preparation of temporary shelters for affected residents (Uddin & Matin, 2021). The government has taken strategic steps to mitigate the impact of the floods, with a particular focus on providing temporary shelters for affected residents. As one of the major cities in Indonesia that is prone to flooding, Makassar has faced challenges in protecting its citizens from the adverse effects of this disaster. Therefore, the provision of temporary shelters is a key element in the response to flood disasters.

These temporary shelters are designed to provide safe and comfortable shelter for refugees during times of crisis. The Government of Makassar, through the Regional Disaster Management Agency (BPBD), is working with non-governmental organizations to establish shelters in strategic locations and are relatively safe from flood risks. These places not only serve as shelters from the elements, but also equipped with adequate basic facilities, including good sanitation, access to clean water, as well as basic health facilities. The provision of these facilities aims to ensure that the basic needs of the refugees remain met while they are in the shelter, so that they can survive in difficult conditions without having to face health problems or lack of basic necessities. In the flood that occurred in December 2022, the Government of Makassar established 22 evacuation locations in Manggala's District, an area that was quite severely affected by the flood. This effort is part of the government's commitment to protect its citizens from the impact of disasters, by providing a safe and decent place for them to shelter during emergencies. The preparation of these shelters also reflects the importance of coordination between various parties, both from the central and local governments, as well as support from non-governmental organizations and local communities.

Furthermore, flood management in Makassar is not only limited to the emergency response period, but also includes long-term mitigation efforts. The Government of Makassar continues to strive to improve community preparedness in dealing with flood disasters through education and increasing public awareness. In addition, the government also continues to make infrastructure improvements, such as drainage systems and water resource management, to minimize the risk of flooding in the future (Ariyani et al., 2022; McShane & Yusuf, 2019). Thus, the provision of temporary shelters equipped with adequate basic facilities is one of a series of strategic steps taken by the Government of Makassar to ensure the welfare and safety of its citizens in the face of flood threats.

Distribution of Food and Drinking Water Aid

After the floods, the distribution of food and drinking water became the top priority in disaster management efforts. The Government of Makassar, through the Regional Disaster Management Agency (BPBD) and related agencies, is working with various institutions, both government and non-government, as well as donors, to ensure that food and drinking water assistance can be immediately distributed to all affected individuals. The speed and efficiency in the distribution of this aid is essential to avoid further impacts that could worsen the situation, such as hunger or disease caused by lack of access to clean water (Haryanto et al., 2020).

In the implementation of aid distribution, ready-to-eat food is one of the most needed elements by refugees. The distribution of this food was carried out by involving various parties, including the National Disaster Management Agency (BNPB), the Indonesia National Army (TNI), the Indonesia Republic Police (Polri), and volunteers from the community. The involvement of these various elements shows the importance of cross-sector collaboration in dealing with disasters, where each party has a crucial role in ensuring that aid can be distributed on target. Ready-to-eat food distributed to flood victims is generally obtained from public kitchens established by the Government of Makassar, in this case the Makassar City Social Service. These public kitchens are set up in strategic locations close to flood-affected areas, allowing the cooking and food distribution process to run efficiently. This public kitchen is equipped with adequate equipment and raw materials to meet the nutritional needs of the refugees, and is manned by trained personnel who can ensure the quality and cleanliness of the food served. Apart from public kitchens, donations of ready-to-eat food also came from the community.

This assistance comes from a variety of groups, from individuals to organizations, who have volunteered to provide support for flood victims. This food donation was distributed through various channels, both directly to the victims and through officers on duty in the field. The active participation of the community in providing assistance shows high social solidarity and strengthens the existing aid network, so that it can reach victims who need more quickly. The importance of food and water distribution in disaster management lies not only in meeting basic needs, but also in maintaining social stability and health of the affected communities.

By ensuring that every affected individual has adequate access to clean food and water, further risks such as malnutrition, dehydration, and the spread of disease can be minimized. Therefore, good coordination between the government, relevant institutions, and the community is urgently needed to ensure that the distribution of aid can run smoothly and effectively. It is also an indicator of preparedness and responsive response in dealing with disasters, which is very important in reducing the adverse impacts caused by floods.

Refugee Health Assistance

The health of residents living in evacuation posts is one of the top priorities in flood disaster management efforts in Makassar City, especially considering the risk of spreading diseases that tends to increase post-flood. Humid environmental conditions, crowded evacuation centers, and limited sanitation facilities create conditions that are vulnerable to the emergence of various infectious diseases, such as dengue fever, diarrhea, and respiratory infections. Realizing this, the Government of Makassar, through the Health Office and supported by volunteers, has prepared a medical team that is ready to provide emergency care and carry out intensive health surveillance in shelters.

The medical team on duty at the evacuation post is equipped with adequate medical equipment and medicines to handle various health complaints that may arise. They provide basic health services, including health checkups, medications, and handling more serious medical cases if needed. In addition, the medical team is responsible for monitoring and controlling the potential spread of flood-related diseases. They actively carry out early detection of symptoms of infectious diseases, which are followed up with preventive measures, such as administering vaccines or health counseling. In the context of handling flood disasters in Makassar City, the active surveillance strategy is one of the methods implemented by health teams in evacuation centers. This active

surveillance is a form of health surveillance that carried out continuously and systematically to detect early signs of possible disease outbreaks. This surveillance is crucial in minimizing further impacts on already vulnerable populations, especially in emergency situations where access to health services may be limited (Kron, 2015).

The basic principle of active surveillance is the real-time collection, analysis, and interpretation of health data, which allows medical teams to make quick decisions and respond effectively to conditions that threaten public health. This active surveillance is based on epidemiological theories that emphasize the importance of early detection and rapid response to prevent the spread of the disease. At the evacuation post in Manggala's District, Makassar City, the health team carried out various surveillance activities, including routine health checks, screening for symptoms of certain diseases, as well as collecting data and reporting each finding to the local health center for further coordination. In addition to preventive and curative efforts, health education is also an important component in maintaining the health of refugees (Islam et al., 2016).

The Government of Makassar, through the Health Office, held health education sessions at evacuation centers to increase residents' awareness of the importance of maintaining personal and environmental hygiene, as well as disease prevention measures that must be taken. This education covers topics such as the importance of washing hands with soap, waste management, the use of clean water, and other measures that can help prevent the spread of disease. In addition to providing direct care, the health team also plays a role in empowering the community to be more resilient in dealing with health risks in emergency situations.

Overall, flood disaster management efforts in Makassar, attention to health in evacuation centers reflects the commitment of the government and various related parties to protect the welfare of the affected communities. Through a holistic approach—involving active surveillance, medical services, and health education—efforts are sought to minimize the health impacts of floods, therefor people can get through these difficult times with a lower risk to their health (Raungratanaamporn et al., 2014).

Disaster Management Coordination

Regulation of the Head of the National Disaster Management Agency (Perka BNPB) Number 03 of 2018 concerning the Handling of Refugees in Disaster Emergencies emphasizes the importance of collaboration in handling refugees by involving various parties (Kusumasari & Alam, 2012; Malalgoda et al., 2010). In its implementation, BNPB and BPBD are required to integrate the roles of non-governmental institutions, business institutions, and the community in various aspects of handling refugees. This includes financing, technical and administrative assistance, experts, and logistics and equipment. The involvement of these various parties aims to ensure a more comprehensive and responsive response to the urgent needs of refugees.

Coordination between government agencies, such as the BPBD, the Health Office, the police, and the fire department, is a key element in responding to the flood situation, especially in vulnerable areas such as Manggala's District. Each institution has complementary roles and responsibilities in dealing with disasters. BPBD, for example, is responsible for the overall management of disaster management, while the Health Office focuses on providing medical services and disease prevention at evacuation sites. The police and fire brigade play an important role in evacuation and handling of emergency situations. Effective coordination between them ensures that every aspect of disaster management can be carried out properly, from evacuation to aid distribution.

Moreover, cooperation with non-governmental organizations and volunteers further strengthens disaster response. They often have the additional resources and expertise needed in emergency situations, and can adapt quickly to provide direct assistance to affected communities. The involvement of local communities is an important factor in the success of disaster management. By providing a role to the community in the evacuation and disaster management process, community resilience to future natural disasters can be built stronger.

Through effective and collaborative coordination, the Government of Makassar has not only managed disasters more efficiently, but also instilled awareness and preparedness at the community level. This approach

creates synergies between governments, non-governmental organizations, and communities, which together strengthen disaster management efforts and build resilience to upcoming disaster threats.

3.3 | Post-Disaster

Post-disaster recovery is one of the important aspects of disaster management that cannot be separated from the overall efforts in disaster management in Indonesia. According to Zeng et al., (2019), post-disaster recovery can be conceptualized as a differential process that involves recovery, reconstruction, and reshaping of the physical, social, economic, and natural environment through planning and actions taken after a disaster. More than just an effort to restore the status quo, disaster recovery can also be an opportunity for the government to build a stronger and more resilient region to future disaster risks. This recovery process is known as the Rehabilitation and Reconstruction phase (Arlikatti et al., 2018).

Rehabilitation, as part of the recovery phase, is etymologically derived from two words, namely "re" which means return, and "habilitation" which means ability. In a broader, rehabilitation can be interpreted as the process of restoring the ability or state of an entity to its original condition. The Great Dictionary of the Indonesian Language (KBBI) defines rehabilitation as the restoration of a position, situation, or good name that has been possessed before. Operationally, rehabilitation is the process of improving and restoring all aspects of public services and people's lives in post-disaster areas, with the main goal of normalizing or restoring government functions and people's lives to an adequate level.

Regulation of the Head of the National Disaster Management Agency (Perka BNPB) No. 11 of 2008 concerning Guidelines for Post-Disaster Rehabilitation and Reconstruction, rehabilitation activities cover several important aspects. Among them are environmental improvement in disaster-affected areas, improvement of infrastructure and public facilities, provision of assistance for the repair of residents' houses, restoration of social and psychological conditions, health services, reconciliation and conflict resolution, socio-economic and cultural recovery, and restoration of security and order. This activity includes the restoration of government functions and public services. In its implementation, rehabilitation must pay attention to building construction standards, as well as consider local social, customs, culture, and economic conditions.

Responding to the impact caused by the floods in Makassar City, the government under the coordination of the Mayor has implemented a rehabilitation program that targets various aspects, including settlements and infrastructure facilities such as roads, bridges, drainage channels, and other public facilities. In the settlement sector, the role of the government is more limited. The active involvement of the community in mutual cooperation activities to clean the house and the environment is a key factor in this stage. The government provides support in the form of providing the necessary tools and materials to clean and repair the houses of affected residents.

Meanwhile, the rehabilitation of infrastructure facilities begins with a thorough evaluation of infrastructure damage due to flooding. Teams from related agencies, such as the Public Works and Spatial Planning Office (PUPR) and the Environment and Forestry Service, conducted a mapping of the most severely affected areas to determine remediation priorities. Critical infrastructure such as major roads, bridges, and drainage channels that are vital for mobility and water management are the main focus of rehabilitation. The city government then allocates a budget for repairs from the Regional Revenue and Expenditure Budget (APBD) or applies for budget assistance from the central government through disaster relief funds. For larger rehabilitation projects, municipalities often work with private contractors and consultants who have expertise in infrastructure construction and improvement. In the implementation of projects, speed and quality are the two main principles that are maintained. For example, in repairing roads and bridges, quick repair techniques are applied so that infrastructure functions can be restored immediately, but still prioritize safety aspects (Alizadeh Kharazi / Behzadan, 2021; Arlikatti et al., 2018).

In addition to focusing on rehabilitating damaged infrastructure, the city government is also taking preventive measures to prevent similar damage in the future. One of these preventive efforts is the improvement of the drainage system. The city government conducts regular cleaning of drainage channels and builds other supporting infrastructure to ensure the smooth flow of water and minimize the risk of flooding (Becker, 2009). This increase in drainage capacity is not only carried out in flood-affected areas, but also in areas that have the potential to be affected in the future. The importance of community involvement in the rehabilitation process cannot be ignored. The city government actively engages the community through participatory programs and education on the importance of infrastructure maintenance. Public awareness of the importance infrastructure maintenance can contribute significantly to maintaining the durability of public facilities and reducing the risk of damage in the future (Robin et al., 2023; Stanley et al., 2023; Wang et al., 2024).

With this holistic and collaborative approach, the Government of Makassar is not only working to recover from the direct impact of flooding but also building a stronger foundation for the region's resilience to future disasters. Through planned and participatory rehabilitation, it is hoped that the city will not only recover but also become more resilient in the face of the threat of impending disasters.

4 | CONCLUSION

Based on the results of research and analysis that have been submitted previously, it can be concluded that the role of local governments in flood disaster mitigation in Makassar City includes three main stages, namely pre-disaster, emergency response, and post-disaster. The pre-disaster stage includes prevention, preparedness, and dissemination of information to the community regarding flood risk. In this phase, local governments strive to educate the public, develop an early warning system, and implement policies and infrastructure that can reduce disaster risk. Community preparedness is also very important, which involves training and simulation of disaster response so that the community is prepared for the worst.

During the emergency response phase, the main focus is on evacuating residents, providing emergency assistance, and effective communication and dissemination of information. Local governments, along with the Regional Disaster Management Agency (BPBD), police, and fire brigades, work together to implement evacuation procedures, ensure equitable distribution of aid, and maintain good communication with the community. This activity aims to minimize the direct impact of the disaster and ensure that the basic needs of the victims are met immediately. The post-disaster stage involves damage assessment, cleanup, rehabilitation, and the provision of financial assistance. Damage assessments are carried out to determine the extent of the impact of flooding and priority repairs. Cleaning aims to restore environmental conditions to a safer and cleaner state. Rehabilitation focuses on improving infrastructure and socio-economic recovery of the community, while providing financial assistance helps affected residents to return to normal conditions. Several factors affect the effectiveness of disaster mitigation. Supporting factors include synergy between agencies in the local government ranks and vertical coordination between the Makassar's BPBD and higher government agencies. This synergy ensures that mitigation efforts can be carried out in a coordinated and integrated manner. However, there are also inhibiting factors, such as limited resources and changes in land use, that can reduce the effectiveness of mitigation.

Based on the description above, it can be concluded that the Makassar's BPBD, in collaboration with the local government, has carried out various disaster mitigation processes for the residents of Manggala's District through preventive and repressive measures. However, to increase the effectiveness of disaster mitigation, local governments are advised to evaluate the use of land and infrastructure that has been built. This is important to ensure that mitigation efforts are on target and effective. In addition, increased cooperation and synergy between the local government and other stakeholders is needed so that services to the community can run optimally. Community involvement in the mitigation and rehabilitation process also needs to be increased to build better community resilience to future disasters.

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Disclosure Statement

This research was conducted independently and transparently, with the aim of providing an objective overview of the role of local governments in flood disaster mitigation in Makassar City. All views and conclusions in this study are entirely the results of the author's analysis based on the data obtained.

Data Availability Statement

The data underlying the findings of this study are available to interested parties and can be accessed by contacting the authors. The data includes the results of interviews, data from BPBD, and documentation related to disaster mitigation policies and actions taken by the government of Makassar.

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