

**THE ROLE OF LOCAL GOVERNMENT IN DISASTER  
MANAGEMENT  
(Study on the Regional Disaster Management Agency in  
Flood Disaster Mitigation in Samarinda City)**

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**ABSTRACT**

Flooding in Samarinda City is a problem that never ends every year. Based on Law Number 24 of 2007 concerning Disaster Management, the implementation of disaster management in situations of potential disaster includes preparedness, early warning, and disaster mitigation. This study aims to analyze the stages of flood disaster mitigation in Samarinda City based on Law Number 24 of 2007 concerning Disaster Management. This type of research uses qualitative descriptive research with informant selection through purposive techniques. Data collection techniques through observation, in-depth interviews, documentation and literature study, and data analysis techniques using the triangulation method. The results showed that the efforts made by the BPBD of Samarinda City in disaster mitigation were mapping disaster-prone areas, monitoring disaster-prone areas, socializing, and disseminating information as well as coordinating with local governments, and conducting education and training. The inhibiting factors in disaster mitigation are budget constraints, weak regulations, limited human resources in disaster management, and low levels of public awareness.

**Keywords:** disaster management; pre-disaster; mitigation; flood

**ABSTRAK**

Bencana banjir di Kota Samarinda merupakan problematika klasik setiap tahunnya yang secara langsung mengancam segala sendi kehidupan. Peran pemerintah daerah melalui Badan Penanggulangan Bencana Daerah merupakan pihak yang bertanggung jawab dalam meminimalisir dampak resiko-resiko bencana tersebut salah satunya melalui mitigasi bencana. Penelitian ini bertujuan untuk menganalisis peran pemerintah daerah melalui BPBD dalam melakukan mitigasi bencana banjir di Kota Samarinda berdasarkan Undang-Undang Nomor 24 Tahun 2007 tentang Penanggulangan Bencana. Jenis Penelitian menggunakan penelitian deskriptif kualitatif dengan pemilihan informan pemilihan informan melalui teknik *purposive*. Teknik koleksi data melalui observasi, wawancara mendalam, dokumentasi dan studi pustaka serta teknik analisis data menggunakan metode triangulasi. Hasil penelitian menunjukkan bahwa peran yang dilakukan oleh BPBD Kota Samarinda dalam memitigasi bencana masih belum optimal. hal tersebut terlihat dari a pemetaan daerah rawan bencana yang belum sesuai, pemantauan di daerah yang rawan bencana yang masih tidak komprehensif, namun sosialisasi dan penyebaran informasi sudah dapat dilakukan melalui berbagai media masa dan elektronik, sedangkan dari koordinasi kepada pemerintah daerah masih belum terlaksana dengan baik. Berkaitan dengan pendidikan dan pelatihan masih sangat terbatas oleh minimnya anggaran, serta peringatan dini yang masih mengadakan sistem informasi dari pemerintah provinsi.

**Kata Kunci:** manajemen bencana; pra bencana; mitigasi; banjir

**BACKGROUND**

The government is the highest authority responsible for all aspects of the lives of its citizens. This is done in various ways, one of which is to avoid the risk of danger due to natural disasters. Indonesia is geographically located in a tropical climate with 2 (two) seasons, namely the summer and rainy season which is characterized by extreme changes in weather, temperature, and wind direction that can trigger disasters such as: floods, landslides, droughts, and forest fires.

Based on the Law of the Republic of Indonesia Number 24 of 2007 concerning Disaster Management, it states that the community has the right to receive social protection and a sense of security, especially for disaster-prone community groups. Furthermore, a disaster is an event or series of events that threatens and disrupts people's lives and livelihoods caused by both natural and or non-natural factors and human factors, resulting in human casualties, environmental damage, property losses, and psychological impacts.

Samarinda City, the capital of East Kalimantan Province, is geographically located on the banks of the Mahakam River and becomes a 'subscription' to flooding every year. Data from the National Disaster Management Agency recorded that at least five floods have occurred in Samarinda from January to June 2015 and have not ended until now. This condition often claimed lives, data from the BPBD of Samarinda City recorded 4 people died due to flooding. Such as the case of the death of a toddler in Sungai Pinang Subdistrict, and the death of a junior high

school student due to electric shock during flooding.

Moreover, in 2020 the victims affected by the flood disaster reached 47,281 people spread across several urban villages and sub-districts with heights ranging from 30-100 cm in each location (Head of Emergency Management of BPBD Samarinda City, 2020). Based on this, a real and appropriate role is needed from the local government to reduce the risk of hazards that threaten community activities. Local governments through BPBDs should ideally be able to minimize the impact of these disasters, as stated in Law Number 24 of 2007 concerning Disaster Management, it is stated that one of the duties of BPBDs is to provide guidelines and direction for disaster management.

BPBDs are tasked with coordinating the implementation of disaster management activities in a planned, integrated, and comprehensive manner. One of them is to provide guidance and direction in a disaster management effort. In this case, the efforts made by BPBD start from the pre-disaster stage, emergency response, and finally the recovery stage or post-disaster stage. The pre-disaster stage itself consists of three activities, one of which is disaster mitigation.

Disaster mitigation is literally an effort to prevent disasters or, if possible, to eliminate hazards (Ramli, 2011). The government as the highest authority has a crucial role in mitigating disasters considering that mitigation is a real step to minimize the occurrence of potential disasters, especially flood disasters that often harm property and claim lives. Based

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on this, this study aims to explain how the Role of Local Government in Disaster Management (Study on the Regional Disaster Management Agency in Flood Disaster Mitigation in Samarinda City).

The government is a vital organ that has a big role in the benefit of the life of the nation and state, one of which is done through the fulfillment of a sense of security. The context of the role itself according to Levinson as cited by Soejono is the concept of what individuals can do that is important for the social structure of society, roles include norms developed with a person's position or place in society, roles in this sense are a series of rules that guide a person in social life (Soekanto, 2007). Meanwhile, the word "role" or "role" in the oxford dictionary is defined: Actor's part; one's task of function. Which means actor; one's task or function.

The National Disaster Management Agency (BNPB) is a non-ministerial government agency that has the task of assisting the President of the Republic of Indonesia in carrying out disaster management in accordance with the mandate of Law Number 24 of 2007 concerning Disaster Management. The government as the highest authority in a country has a major role, in which the government and local governments as responsible for organizing disaster management (including natural disasters, non-natural disasters, and social disasters) from BNPB which is a ministerial-level non-departmental government agency, as regulated by Article 5 juncto Article 10 of Law Number 24 of 2007 concerning Disaster Management.

Natural disasters are disasters caused by events or a series of events caused by nature, including earthquakes, tsunamis, volcanic eruptions, floods, droughts, hurricanes, and landslides (Mulyanto et al: 2012). Meanwhile, mitigation is a series of efforts to reduce disaster risk, both through physical development and awareness and improvement of the ability to face disaster threats (BNPB: 2012). In line with this, disaster mitigation is a term that refers to all actions to reduce the impact of a disaster that can be taken before it occurs, including preparedness and risk reduction measures related to man-made hazards and natural hazards that are already known, and the planning process for response to disasters that occur (Maryani:2012).

Disaster mitigation is an effort made to prevent disasters or, if possible, to eliminate hazards (Ramli, 2011). Therefore, efforts made to mitigate disasters are very important to do considering that mitigation is the first step that can be taken in order to minimize the occurrence of potential disasters, especially flood disasters in Samarinda City so as not to cause greater impacts or losses to the local community if not carefully anticipated. For this reason, this study aims to examine the role of government in disaster management in Samarinda City, especially in flood disaster mitigation carried out by the Samarinda City Regional Disaster Management Agency (BPBD).

## **METHODS**

This research used descriptive qualitative research because it wanted to analyze the role of the government in flood

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disaster mitigation in Samarinda City. This research produces descriptive data in the form of written or spoken words from people and observed behavior (Moleong, 2011). Primary data in this research was obtained by means of observation and in-depth interviews, namely data collection by conducting direct and oral questions and answers to parties related to the problem under study.

The data analysis technique used includes three concurrent activities, namely: data reduction, data presentation, and conclusion drawing. With a qualitative approach, the logic built is more inductive-abstractive (Sanapiah, Faisal, in Burhan Bungin, 2003: 68). The data analysis technique used in this research is to use steps as proposed by Burhan Bungin (2003: 70), namely data collection, data reduction, data display, verification, and confirmation of conclusions. While the credibility/degree of trust checking technique used in this research is the source triangulation technique.

## **RESULTS AND DISCUSSION**

### **The Government's Role in Flood Disaster Mitigation in Samarinda City**

Natural disasters have always been seen as something that is beyond human control, therefore, to minimize the occurrence of victims due to disasters, community awareness and preparedness are needed in facing disasters. Samarinda City, which is the capital of East Kalimantan Province, is an area with a complex disaster level.

Floods and forest and land fires are disasters with the highest frequency of occurrence so special attention from the

government is needed, especially at the disaster mitigation stage. The role of the government through BPBD in overcoming the impact of disasters in Samarinda City is carried out through disaster mitigation implemented by building a barrier zone between potential disasters and existing risk factors. Mitigation can be structural, namely by strengthening buildings and infrastructure that have the potential to be affected by disasters such as making building codes, and engineering designs. In addition, there is nonstructural mitigation by increasing understanding of the magnitude of potential disasters, maintaining sensitivity to take accurate action before or when disasters occur, including based on:

### **Mapping of Disaster-Prone Areas**

The guarantee of a sense of security and avoidance of danger is the responsibility of the government as the owner of the highest authority as well as a servant of the community. In this case, the role of the government through the BPBD of Samarinda City is carried out by conducting a disaster risk assessment, which aims to estimate potential losses, both loss of life and property due to disaster events in Samarinda City.

The process of government protection through BPBD Kota Samarinda through the disaster risk assessment is carried out by identifying the level of threat, the level of loss, and the level of regional capacity to determine the level of risk of each type of disaster in each district/city based on low class, medium class, and high class. The results of the study are used as a basis for local governments to determine

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strategies and regional priority policies in preparing for disaster management planning.

The disaster risk assessment is intended to produce disaster management policies that are prepared based on the components of threat, vulnerability, and capacity. The threat component is compiled based on the intensity and probability of occurrence parameters. Meanwhile, the vulnerability component is compiled based

on socio-cultural, economic, physical, and environmental parameters. And the capacity component is compiled based on the parameters of regulatory capacity, institutions, warning systems, education and skills training, mitigation, and preparedness systems. The results of this disaster risk assessment are disaster risk maps and disaster risk assessment documents. To provide clarity, it can be seen in the following figure.

**Figure 1. Disaster Risk Mapping**



Source: Regulation of the Head of the National Disaster Management Agency No. 02/2012

In the 2013-2017 Disaster Management Plan (RPB) of Samarinda City, it is stated that the level of disaster risk in Samarinda City is obtained from the combination of the threat level, loss level, and capacity level for each type of disaster in Samarinda City. The potential high-risk levels of

disasters in Samarinda City are floods, extreme weather, forest and land fires, droughts, and landslides, while social conflicts have a medium risk level, and epidemics and disease outbreaks have a low-risk level. To provide clarity, this can be seen in the following figure:

Figure 2. Potential Disaster Risk of Samarinda City

TINGKAT RISIKO		TINGKAT KAPASITAS		
		TINGGI	SEDANG	RENDAH
TINGKAT KERUGIAN	RENDAH		EPIDEMI DAN WABAH PENYAKIT;	KONFLIK SOSIAL;
	SEDANG			CUACA EKSTREM; BANJIR; KEBAKARAN HUTAN DAN LAHAN; KEKERINGAN; TANAH LONGSOR;
	TINGGI			

  

	TINGKAT RISIKO BENCANA RENDAH
	TINGKAT RISIKO BENCANA SEDANG
	TINGKAT RISIKO BENCANA TINGGI

Source: Samarinda City Disaster Management Plan 2017

Based on data from Indonesian Disaster Data and Information (DIBI) in 2019, the total number of disaster events recorded in Samarinda City was 53 events, with 7 deaths, 246 people injured, and 15,640 displaced. The incident also resulted in 2,034 heavily damaged houses and 109 lightly damaged houses. Overall, floods were the disaster with the highest frequency and impact in Samarinda City and tended to increase until 2020.

Priority disasters in Kota Samarinda need to be prioritized in the implementation of disaster management. The types of disasters that have the potential to occur in Kota Samarinda, namely floods, forest and land fires, extreme weather, droughts, and landslides, are priorities in disaster management. Meanwhile, the mapping of disaster-prone areas, especially floods, which has been carried out by the DBPB of Samarinda City, states that the map of the location of floods in Samarinda City.

If detailed, there are several flood subscriptions points, namely in Sungai Pinang Subdistrict, which consists of 1.

Gunung Lingai Village: Jalan Panjaitan, 2. Mugirejo Village: Mugirejo Street, 3. Sungai Pinang Dalam Village: Jalan Gerilya. And North Samarinda Sub-district consists of 1. Tanah Merah Village: Jalan Talang Sari Regency and Jalan Citanduy, 2. Kelurahan Sempaja Selatan: Jalan Wahid Hasyim 1 and Jalan Wahid Hasyim 2, 3. Lempake Village: Jalan Gunung Kapur, 4. East Sempaja Village: 15 RTs. As well as in Kecamatan Samarinda Ulu which consists of 1. Air Hitam Village: Juanda Street under the Fly Over and AW Syahrani Street, 2. Sidodadi Village: Dr. Sutomo Street, 3. Gunung Kedua Village: Pramuka Street. With the mapping of these areas, mitigation carried out by the government through BPBD in protecting and serving the community can be maximized based on physical or infrastructure improvements and training of the community in dealing with flood disasters.

**Monitoring in Disaster Prone Areas**

The government and local governments are fully responsible for

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community protection. As stated in the General Guidelines for Disaster Resilient Villages in the Head of BNPB Regulation No. 1/2012. Article 4 of Law No. 24/2007 on Disaster Management states that disaster management aims to protect communities from disaster threats. Head of BNPB Regulation No. 3/2008 on Guidelines for the Establishment of Regional Disaster Management Bodies stipulates that local governments are responsible for protecting communities from the threat and impact of disasters. The village government includes the village head and village officials.

Based on the above, there is a mapping of disaster-prone areas, especially floods in Samarinda City. The policy carried out by the local government is to monitor vital and strategic areas, especially in urban villages/sub-districts that are often 'subscribed' to flooding in Samarinda City. Efforts to monitor vital and strategic areas are carried out in several flood-prone areas, especially in urban villages/sub-districts that are often 'subscribed' to flooding in Samarinda City and have been carried out by establishing several posts spread across 11 points in disaster-prone areas. In the realization of this implementation, 12 disaster preparedness posts have been built that work fully for 1x24 hours.

The actualization is that 11 posts that have been established are already in operation, in addition to the official establishment of a unit as planned as the Disaster Management Data and Report Center (Pusdalop), which is an operational implementing element at the central and regional governments, which is tasked with facilitating operational control and organizing disaster management

information and communication systems. The existence of disaster preparedness posts built by the Samarinda City government and scattered at several points prone to flooding can reduce the impact of disasters, especially as a measure to anticipate casualties.

### **Socialization and Information Dissemination**

The dissemination of information to the public is an important thing needed by the community in various situations, based on Law Number 14 of 2008 concerning Public Information Disclosure, it is explained that information is a basic need of everyone for personal development and their social environment and is an important part of national resilience. Moreover, the right to obtain information is a human right and public information disclosure is one of the important characteristics of a democratic state that upholds the sovereignty of the people to realize good state administration.

In connection with the socialization and dissemination of information by BPBD Samarinda City in dealing with flood disasters, it is aimed at the government itself and the community through various media. As a form of government responsibility in educating the people of Samarinda City related to how to recognize, prevent, increase awareness, and handle flood disasters.

Actualization in the field in flood disaster mitigation efforts in Samarinda City. The government makes efforts to disseminate information and socialization through the distribution of leaflets or pamphlets to all agencies, villages, and sub-

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districts with the hope that they can be forwarded or conveyed to the wider community. The leaflets contained procedures (efforts) for prevention and what the community should do when flooding occurred. In addition to leaflets, information is also provided through the production of calendars and billboards, especially in flood-prone areas.

More than just disseminating information through the media, BPBD at one time also conducted socialization activities by going around visiting communities that had been gathered in flood-affected subdistricts in Kota Samarinda. These socialization activities contained counseling on all aspects of disaster, especially flood disasters, and were carried out to the community at large, although the community response was not enthusiastic enough to participate in these activities.

With the dissemination of public information, the community directly knows the direction of the government's objectives in minimizing the widespread impact of floods. The existence of this information disclosure is expected to align the goals of the government with the wider community, in addition to confirming that the local government through BPBD has guaranteed the rights of citizens to know public policy-making plans, public policy programs, and public decision-making processes, as well as the reasons for making a public decision.

These conditions directly impact community participation in the process of increasing the active role of the community in public policy making and good management of Public Bodies. In line with Effendy's statement (2011) that

socialization is the provision of sources of knowledge that enable a person to act and behave as an effective member of society, which causes him to be aware of his social function so that he can be active in society. More than that, the government through socialization has provided and taught the knowledge of how people behave according to existing values, and act as members of society effectively (Cangara, 2008).

### **Local Government Coordination**

Coordination between local government agencies and elements of society is a vital thing that should ideally be well organized. Coordination on all aspects of a disaster, especially flood disasters within the BPBD agency of Samarinda City, field officers, between SKPDs, and the community at large is needed to facilitate flood disaster mitigation efforts in Samarinda City. The coordination that works well as a form of commitment from the Samarinda City Government in organizing disaster management is the preparation of a disaster management plan. This is also a form of Kota Samarinda's participation in supporting the implementation of national disaster management.

As a regional planning document, the RPB is one of the important inputs for agencies within Samarinda City in making or revising strategic plans in Samarinda City Government Agencies. The implementation of the Samarinda City Disaster Management Plan is a shared responsibility with the government as the main responsible party. In the Samarinda City Disaster Management Plan Document



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2013-2017, the roles, and functions of SKPDs and government agencies in Samarinda City as well as vertical agencies in Samarinda City are known in disaster management efforts in Samarinda City.

Based on the results in the field, coordination between agencies is still not going well. Many agencies are considered less serious about disaster management, such as during institutional strengthening activities that handle disasters that should be attended by leaders from various regional work units (SKPD), but, sometimes SKPD only sends SKPD staff as representatives of these activities, the actual staff who attend do not have the capacity of authority in decision making. In addition, the BPBD of Samarinda City still receives little attention; this condition can be seen in the social emergency response activities that failed to be realized due to the absence of a budget.

Indeed, disaster-related issues are a shared responsibility, as there are seven types of disasters in Samarinda City for which a disaster risk assessment was conducted in 2019. These include floods, landslides, fires, extreme weather, drought, social conflicts, and disease epidemics. Floods and landslides in 2019 occurred in Samarinda City. Major flooding occurred June 10-21, 2019 and resulted in 5 sub-districts and 13 urban villages being submerged with 17,485 households, and 56,123 people affected. Seeing the widespread of the flood disaster, coordination is a crucial matter that should ideally receive the attention of all agencies and all elements of society.

Another problem faced by the BPBD of Samarinda City is that there is no

relevant regulation in the form of a Regional Regulation that specifically regulates disaster issues in Samarinda City, making coordination still difficult in its realization. To be able to form these regulations, a university study must be done first, so this adds to the constraints related to budgeting. In fact, it is hoped that the draft regulation can contain the entire series of activities from the beginning before a disaster occurs until after the disaster takes place, including also regulating clarity regarding the responsibilities of each authorized agency. So far, the BPBD of Samarinda City, in performing its duties, has relied solely on higher regulations, such as Laws, Government Regulations, and Regulations on the Establishment of BPBDs themselves, so they are considered weak in terms of regulation.

### **Education and Training**

The role of the government in carrying out disaster mitigation is not enough to prepare physical equipment, more than that, education, and training in flood disaster mitigation in Samarinda City is an important aspect of the government's success in protecting the community from the threat of disaster. Training and education related to evacuation and rescue procedures in the event of a flood disaster need to be provided by BPBD Samarinda City, not only for field officers and technical officials but also for the community to succeed in flood disaster mitigation efforts in Samarinda City.

In connection with the above, the knowledge and skills of flood disaster mitigation are important to be improved.

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This is because knowledge is one of the important aspects to be able to solve various environmental problems (Ichsan & Rahmayanti, 2020; Vidergor, 2018). After knowledge is possessed, the next step is to implement it in the form of disaster mitigation skills or behavior. The adverse impact of flooding in Samarinda City makes flood disaster mitigation skills important in overcoming the problems of natural disasters that occur. These disaster mitigation skills need to be owned by the community because to overcome a disaster it needs to be done together (Lin et al., 2010; Storr et al., 2017; Sutter & Smith, 2017; Takahashi & Selfa, 2015).

More intensive efforts must be made by various parties so that people become more aware of the environment. Efforts such as creating advertisements to prevent flooding, campaigning through social media and making flooding topics into subjects. This can directly help the community to be more concerned. In addition to the above efforts, sanctions can also be given to those who damage the environment. Of course, these efforts must work together and support sustainable development efforts (Choudri et al., 2016; Sennes et al., 2012).

Training and education efforts related to evacuation and rescue procedures in the event of a flood disaster for BPBD Samarinda City, field officers, technical officials and the community are very important, but realization in the field is still very limited. This condition is due to the limited budget that can be allocated to carry out training. At present, education and training organized by BNPB as well as by the Ministry, the National Police, and other

related institutions is also still limited, especially certified disaster training to improve the professionalism of BPBD personnel in disaster management.

This means that in Samarinda City itself, mitigation for the community by focusing on education and training is still very minimal. It can be said that budget problems are a major obstacle faced by the BPBD of Samarinda City in realizing various activities that should ideally become mandatory tasks. For example, education, training, and socialization activities for employees to the community level require an adequate budget. The cuts in the Regional Revenue and Expenditure Budget (APBD) given to BPBD Samarinda City over the past two years have limited the space for BPBD Samarinda City to maximize its duties.

### **Early Warning**

Early warning to the community is carried out through the BPBD of Samarinda City to provide public awareness in avoiding disasters, especially floods. Efforts to provide early warnings to the community are still carried out using an information system sourced from the province. This is because the official establishment of a unit designated as the Disaster Management Data and Report Center (Pusdalop), which is an operational implementing element at the central and regional governments, whose task is to facilitate operational control and organize disaster management information and communication systems, has not yet been realized. The Pusdalop has not yet been established due to the limited budget available for its establishment.

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In addition, the current condition related to early warning systems for the community is that the community does not have or know thoroughly about disaster early warning systems, both locally and modernly. Therefore, the government needs to socialize the existing early warning systems, both those that will be developed and the local wisdom that already exists in Kota Samarinda. In addition, the government needs to encourage the community to develop a disaster early warning system in accordance with the local wisdom that exists in the community, so that the community can recognize the signs of a disaster.

## CONCLUSION

Local government is a vital organ that has a big role in the benefit of the life of the nation and state, one of which is carried out through fulfilling a sense of security, one of which is through BPBD in carrying out flood disaster mitigation to minimize the impact of property and casualties. The realization of the role of the government through BPBD Samarinda City based on the aspect of Mapping Disaster Prone Areas can be done well through mapping in accordance with the location of floods in Samarinda City, then

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based on the aspect of monitoring in disaster-prone areas has gone well, it can be seen that there are eleven disaster alert posts built by the Samarinda City government and scattered at several points prone to flooding that can reduce the impact of disasters, especially as a step to anticipate casualties.

Furthermore, based on the aspect of socialization and information dissemination, it can be done through various mass and electronic media as well as by going directly to flood-prone sub-districts. Meanwhile, related to the coordination of the Regional Government, it is still not well implemented, it can be seen from the fact that many agencies are not serious about disaster management, such as during institutional strengthening activities that handle disasters that should be attended by SKPD leaders, only attended by staff as representatives. Moreover, education and training are still severely limited by the lack of budget, and early warnings still rely on information systems from the province because the Disaster Management Data and Report Center (Pusdalop) in Samarinda City has not yet been realized.

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