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Performance of the North Sulawesi Province Disaster Management Agency (BPBD) in Flood Management

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ABSTRACT

This study aims to determine the factors that inhibit the performance of the North Sulawesi Provincial BPBD in handling flood disasters in terms of the availability of infrastructure. This study uses a qualitative descriptive method approach, by describing, depicting, or explaining the condition of the object being studied as it is according to the situation and conditions when the research was conducted. Research shows that countermeasures, such as flooding by the BPBD of North Sulawesi Province, have not been optimal due to limitations in the quantity and condition of infrastructure, such as boat rubber and water pumps that are inadequate and already obsolete. Other obstacles include limited budget, slow procurement, and ineffective coordination of inter-agency. Improved equipment and equipment quality, trained personnel, and working in the same cross-sector are required to strengthen the disaster response quickly and efficiently in the future.

Keywords: Disaster Management Agency, North Sulawesi Province, Performance

INTRODUCTION

The performance of government apparatus is an important factor in public services, including disaster management. Good performance management supports training, development, and increasing organizational effectiveness. In disaster management, this performance is crucial, especially for agencies such as the Regional Disaster Management Agency (BPBD), which acts as the provincial institution at the provincial level, as regulated in Law Number 24 of 2007.

Disaster management is a shared responsibility between the government and the community. This is following the mandate of the constitution, namely to protect the entire Indonesian nation, including from the threat of natural disasters such as floods. In Presidential Instruction Number 4 of 2012, the government emphasized the importance of preparedness and a planned, integrated, and coordinated response. According to Pinontoan Although efforts That has bring results to improvement performance service public, but along with so the development is also fast needs and demands public (society) above service That alone, then highlight on quality performance service the public who do not fulfil hope the public is still complaining or voiced by the community (Pinontoan et al, 2022).

North Sulawesi is a province prone to floods, landslides, and strong winds. BPBD data shows that the impact of these disasters includes material losses, fatalities, and psychological disorders in the community. Therefore, BPBD is required to move quickly and responsively in every phase of the disaster: pre-, during, and post-disaster.

However, the results of pre-research observations and interviews (February–April 2024) showed several obstacles that affected the performance of the North Sulawesi Provincial BPBD, including limited human resources, minimal facilities and infrastructure, and the lack of an information system that supports fast and accurate information dissemination. Slow logistics distribution also caused public unrest and criticism on social media.

In addition, the low level of public awareness of disaster mitigation, such as littering, which triggers flooding, shows the need for ongoing education. BPBD also faces a high workload with limited personnel, considering its services are non-stop 24 hours a day. This condition indicates that BPBD performance still needs to be improved through management improvements, strengthening cross-sector coordination, utilization of information technology, and active community involvement in flood disaster management efforts in North Sulawesi Province.

THEORETICAL FRAMEWORK

Organizational Performance

According to Mahsun (2006), in his book Public Sector Performance Measurement, he explained about performance organization that "performance is a description of the level of achievement of implementation activities/ programs/ policies in realizing targets, goals, vision, and mission organization, that is stated in strategic planning the organization". The opinion above can be explained that performance organization is a description of the improvement a achievement of activity

organization. The level of achievement the seen from the targets, vision, and mission of the organization.

According to Steers (2003), he stated that performance organization is a level indicating how much Far implementation task can be run in a way current and mission organization has achieved. According to Dilapanga, AR (2018) Agency performance government is description about level achievement target or objective agency government as description from vision, mission and strategy of the institution the government indicated level success and failure implementation activities in accordance with established programs and policies.

Organizational performance is its substance, namely, to see how much the Far level achievement the results that have been carried out by the bureaucracy service. Performance is a concept composed of various highly variable indicators following the focus and context of its use. Performance is the result of a series of activities carried out to achieve an objective certain organization. Based on the opinion above can be explained that the definition performance organization is the performance level of a successful group. The performance can be known as his success if goals and objectives can be achieved as per what has been set. A successful performance organization influenced by planning strategy starts from the goals, objectives, vision, and mission of an organization's public service.

Disaster Flood

A flood is an incident of overflowing water that exceeds normal capacity, causing flooding in lowland areas that is around a river. This phenomenon is generally caused by rainfall Rain height that exceeds the average, so the system's water drainage, which includes rivers, child river, channel drainage, canals, artificial water reservoirs, is not capable of accommodating increasing volumes of water in a significant way. Inability system streaming is often influenced by factors like sedimentation, narrowing of river bodies, blockages caused by trash, or disturbance by others that can be sourced from human activity, man, and natural phenomena.

River, as the main element in the system of water flow, is often associated with an incident of flooding. Floods happen when the water discharge flows through cross cross-section river that exceeds its capacity, causing the water to overflow into the valley flow river. One of the main issues is the narrowing of river bodies caused by development settlements around the river bank, which reduces room for water flow. In addition, the accumulation of trash inside flow river hinders water flow, so that the power flow becomes balanced with the volume of incoming water.

In general, factors like change of land use, subsidence capacity drainage, as well as lack of public awareness of guard cleanliness and environmental conditions contribute to aggravating flood risk. Therefore, effort mitigation like river rehabilitation, improving drainage capacity, and public education about trash management is very important to reduce the frequency and impact of floods.

Indicator Organizational Performance Success in Countermeasures Disaster

A successful performance organization in countermeasures to disaster can be rated through various indicators, including good qualitative and quantitative indicators. According to Dwiyanto (2006), indicators of success include productivity, quality of service, responsiveness, responsibility, and accountability. In the context of countermeasures for disaster, the indicator can be translated as follows:

a. Productivity: Measuring comparison between input (source), human power resources, logistics, and budget. with output (number of victims helped, infrastructure restored, and needs basic requirements are met). A high level of productivity shows efficiency in the use of source power.
b. Quality Service: Refers to the public satisfaction with services provided during and after a disaster. For example, distributing proper logistics time and providing health services.
c. Responsiveness: Measuring the ability organization to recognize and respond need public needs in a fast and precise manner. Responsiveness also includes flexibility in the face of an unavoidable situation unexpected during disaster handling.
d. Responsibility: Assess how far the implementation activity follows applicable policies, procedures, and regulations. This covers the use of transparent and appropriate budget designations.
e. Accountability: Demonstrate to what extent the organization is accountable results of its activities to the public. Accountability covering report activities, evaluation results, and transparency information.

METHOD

Research Methods

This study uses a qualitative descriptive method approach. A qualitative approach was chosen because the data collected can be in the form of words, sentences, or narratives. According to Sugiyono (2016), qualitative research methods are research methods based on the philosophy of post-positivism, used to research natural object conditions where the researcher is the key instrument, and data source sampling is carried out by purposive sampling. According to Sugiyono (2010), purposive sampling is a data collection technique by selects samples that have been considered. Intending to explain a problem clearly because the representative sample has a representative value, so that the main objective of the study can be met.

Research Location

This research was conducted at the Regional Disaster Management Agency (BPBD) of North Sulawesi Province. This research was conducted for 3 months. The selection of this location was based on the following reasons: The Regional Disaster Management Agency (BPBD) of North Sulawesi Province is a regional apparatus of North Sulawesi Province which was formed to carry out tasks and

functions for disaster management and all the consequences that arise and it is expected to obtain information on BPBD performance in flood disaster management in North Sulawesi Province.

Focus and Description Focus Research

1. Research focus

The focus of this research is the performance of the North Sulawesi Province Disaster Management Agency (BPBD) in handling floods, especially regarding the availability of infrastructure.

2. Research Focus Description

a. Evaluate the availability and adequacy of facilities and infrastructure used by the BPBD of North Sulawesi Province in flood management. The main focus is to assess whether the existing facilities and infrastructure are adequate and meet the standards required for effective flood management.
b. Understanding how these infrastructure facilities are used in emergencies and whether their use is optimal in reducing the impact of flooding.
c. Identifying the needs and potential for developing flood management facilities and infrastructure at the BPBD of North Sulawesi Province.

Data collection techniques

1. Observation

Observation is a data collection tool by observing and recording in detail the things being investigated. Observation is also one of the data collection methods by reviewing in detail and directly to the field to find out directly the conditions that occur to prove its truth.

In this study, the type of observation technique used is passive participant observation, in this case, coming to the place of activity of the person being observed but not being involved in the activity. The social conditions observed in this study are:

a. Place: The research location observed was the BPBD office of North Sulawesi Province.
b. Actors: North Sulawesi Provincial BPBD staff who participated in activities during the flood disaster and understand the conditions during the flood disaster.
c. Activities: the activities of the North Sulawesi Provincial BPBD in handling flood disasters.

The observations carried out were to dig up information on the actions, behaviors, and habits that BPBD carried out in handling floods at the researcher's location.

2. Interview

Researchers conduct interviews to obtain news, facts, and data in the field. Where the process is face-to-face with the source. According to Sugiyono (2017), Interviews can be conducted in a structured, semi-structured, and unstructured manner. The types of interviews are divided into three, namely:

a. Structured Interview

Structured interviews are used as a data collection technique, when the data collector has known for sure what information will be obtained. Therefore, in conducting interviews, the data collector has prepared research instruments of several written questions whose alternative answers have also been prepared.

b. Semi-structured Interview

According to Arikunto (2010), semi-structured interviews are a form of interview in which the researcher initially asks structured questions, then, one by one, they are deepened to obtain further information. Thus, the answers obtained can cover all variables, with complete and in-depth information.

c. Unstructured Interview

In this study, semi-structured interviews were used to find out more in-depth things about participants in interpreting situations and phenomena that occurred during flood disasters.

3. Documentation

Documentation, according to Sugiyono (2009), is a record of past events. The documents used by researchers here are in the form of photos, images, and data. The results of research from observations and interviews will be more valid and reliable if supported by photos..

Determination Technique Informant

In order to obtain accurate information and data, obtained from informants and samples. According to Sugiyono (2017) states that "a sample is a portion of the number of characteristics possessed by the population".

Meanwhile, the technique used in taking samples is by using purposive sampling. Sampling technique is a sample drawing by deliberate means or directly pointing to people who are considered capable of representing the characteristics of the population. The use of this technique has certain considerations. The informants appointed or selected in this study were the staff of the Regional Disaster Management Agency (BPBD) of North Sulawesi Province, who understood the problem with the argument that they knew a lot about the phenomena that occurred in the field, while the sample was a representative of the population to be studied. So the number of samples used in this study was 4 people, as shown in the following Table 1.

Table 1. Researcher Informant Data

No	Name	Position
1	A A	Prevention and Preparedness Staff
2	BB	Logistics Staff and Equipment
3	CC	Head of Tikala Baru Sub-district
4	XX	Head of Tikala Ares Village
5	DD	Head of Tikala Sub-district Environment
6	EE	Tikala Community

Determining the informants above because these informants are considered to understand and comprehend the problem being researched, and they are the core source of valid data until this research is completed.

Analysis Techniques and Data Validity Testing

1. Data analysis

Data analysis is the process of systematically searching and compiling data from interviews, observations, and documentation by organizing the data and choosing which ones are important and which ones need to be studied to make conclusions that are easy to understand (Sugiyono, 2017). The steps taken are as follows:

a. Data Reduction

The process of combining all forms of data obtained into one writing that will be analyzed. The results of interviews, observations, documentation will be changed into written form according to the specified format. Reducing data is the main component of data analysis that emphasizes, shortens, focuses on removing unimportant things and organizes data in such a way that conclusions can be drawn.

b. Data Presentation

Data presentation is a series of information that allows for brief conclusions to be drawn into a systematic and logical story so that the meaning of the event can be understood.

c. Drawing Conclusions

At the start of data collection, we must start paying attention to things and what they mean by noting down causal rules in various proportions so that conclusions can be drawn responsibly.

Data analysis techniques are a process of simplifying data into simpler forms so that they are easier to understand and implement. Miles and Huberman explain that in data analysis activities are carried out continuously until the data is saturated (Miles and Huberman, 2009) Data analysis according to Bogdan & Biklen (in Moleong 2017) is an effort made by working with data, organizing data, selecting it into manageable units, synthesizing it, searching for and finding patterns, finding what is important and what is learned, and deciding what can be told to others. The data analysis process begins by reviewing all available data from various sources, namely from interviews, observations that have been written in field notes, personal documents, official documents, images, photos, and so on (Moleong 2017).

In this study, an analysis was conducted on an activity being studied by analyzing the results of interviews based on understanding the things expressed by informants and the results of observations made. From these results, conclusions were drawn from the results of the study.

2. Validity of Data

From the data obtained in the collection of interview data with the Preparedness Sector, Emergency and Logistics Sector, the Village Head was asked to obtain truly credible data, and a data check was carried out. In this activity, it was carried out to produce valid research data so that it could become valid data. The data validation activities used by researchers in this study are:

a. Triangulation

Wiliam Wiersma (1986) said that triangulation in credibility testing is interpreted as checking data from various sources at various times. Thus, there is source triangulation, data collection technique triangulation, and time triangulation (Sugiyono, 2007).

b. Using Reference Materials

Reference materials are the existence of supporters to prove the data that has been found. Therefore, in compiling the report, it is necessary to include authentic photos or documents so that the research results become more reliable.

RESULTS AND DISCUSSION

Based on the interview data obtained, several important points can be evaluated about availability, suitability, and use facilities and infrastructure countermeasures for flood by the Disaster Management Agency Regional Disaster Management Agency (BPBD) of North Sulawesi Province, especially in the face disaster flood.

Evaluation of Availability and Adequacy of Infrastructure Facilities Countermeasures for Flood by BPBD North Sulawesi Province

Based on an interview with BPBD staff, found that the availability of facilities and infrastructure for countermeasures to floods in North Sulawesi Province is not yet adequate and does not yet fulfill standards set by the National Agency for Disease Control and Disaster Management (BNPB). For example, only six boat rubbers, far from an ideal amount for covering all vulnerable flood areas. In addition, many old equipment and in need of rejuvenation, which has an impact on the effectiveness of handling disasters.

The main obstacles faced by BPBD are limited budget as well as a slow procurement process for equipment. Although BPBD has applied additional equipment to government provinces and works the same with non-governmental organizations, protracted procurement processes and a lack of coordination inter-agency hinder effort improvement of readiness. In this condition, working the same across sectors becomes very important for increasing the capacity of countermeasures against disaster.

Optimization Use of Infrastructure Facilities in Emergency Situations.

BPBD of North Sulawesi Province has applied clear procedures in the use of facilities and infrastructure moment situation emergency flood situations. Boat rubber is used for evacuation in flooded areas, and the water pump is used to reduce puddles. However, the obstacles appear because limited amount of equipment and several old tools, which hinder speed and effective response. For example, a boat's rubber often experiences damage and needs intensive maintenance. In addition, the water pumps available are not always strong for handle large amounts in urban areas with poor drainage.

Interview results show that other obstacles faced are the problem of coordination between agencies, which often causes delays in distribution logistics and equipment. Thus, optimization uses

facilities and infrastructure Not yet fully achieved , and required repair in system coordination as well as improvement training for personnel to be more Ready face situation emergency.

Identification Needs and Potential Development of Infrastructure Facilities

Based on the results interview with party sub-districts and communities in Tikala Ares, the main needs in development facilities and infrastructure are additional quantity and capacity equipment, especially water pumps and boat rubber. Currently, the water pumps that exist are often not strong enough to handle waterlogging in areas with large-scale floods. In addition, the quality of several equipment, such as the water pump, needs to be improved to be able to function optimally in an emergency. In addition to the problem of quality and quantity, the distribution equipment also necessary to be fixed to reduce delayed delivery to the affected location.

There is potential for the development of more carry-through improvement Work. The same with governments and donor agencies, as well as providing an adequate budget for the procurement of new equipment. In addition, it is also important to give training more carry on to BPBD personnel to be more Ready to use equipment in a way effective and efficient way. With these steps, it is expected that response countermeasures for floods can be improved in the future.

CONCLUSION

This Study aims to examine the performance of the Disaster Management Agency, Regional Disaster Management Agency (BPBD) of North Sulawesi Province in Handling disaster floods with a focus on the availability and use means infrastructure. Based on the data analysis carried out, it was found that the BPBD of North Sulawesi Province is facing various challenges that impact the effectiveness of handling floods.

1. Limited Facilities and Infrastructure

The facilities and infrastructure owned by BPBD are still Far from sufficient to handle the scale disaster floods that occurred in this area. Equipment like boat rubber, water pumps, and vehicle evacuation is not only the amount limited but also in conditions that are partial big need rejuvenation. Inadequacy means this hinders speed and effectiveness response responding to emergencies.

2. Suboptimal Logistics Distribution

System distribution BPBD logistics still shows several weaknesses. Delays in delivery to the location disaster often due to a lack of coordination between agencies and absence inefficient distribution procedure. This is to worsen the impact disaster on the affected society.

3. Capacity-Limited Human Resources

Amount trained staff at BPBD is not adequate to handle a disaster flood with a wide coverage area. In addition, the technical competence of several personnel still needs improvement, especially in using tool weight and relevant modern technology for managing disasters.

4. Low Public Awareness

The level of public awareness of the importance of management environment and preparedness face of disaster is still low. Habit bad like throwing away rubbish haphazardly into water channels becomes one of reason main floods, which worsens the situation during heavy rainfall Rain tall.

5. Inter-Stakeholder Coordination Interest

BPBD's performance is also influenced by the weak coordination between government regions, non-governmental organizations, and sectors private sector. Collaboration across sectors. Not yet running optimally, so that Lots of potential support that has not been utilized to a way maximum.

Thus, BPBD has shown significant effort in several aspects, including the implementation of simulation-responsive emergency, preparation plan contingency plans, and development of infrastructure countermeasures against floods. However, to reach the expected effectiveness, required comprehensive improvement is required in aspect technical, operational, and managerial.

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