

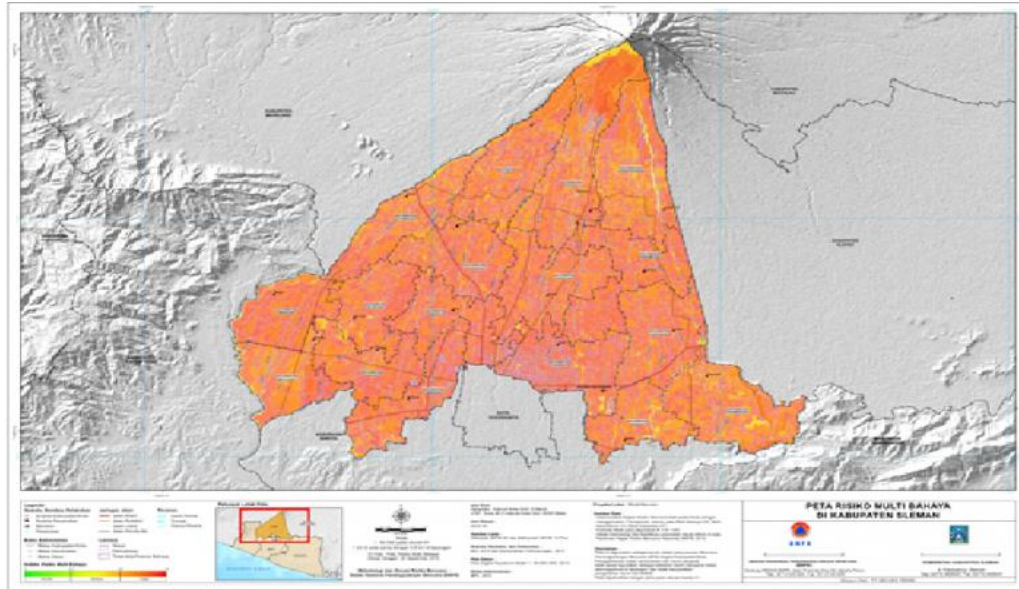
# CHAPTER I

## INTRODUCTION

### **1.1 Background**

The geographical and geological location of Sleman Regency makes this Regency rich in resource diversity. This forces Sleman Regency to be ready and swift in assessing and facing the potential and threat of future disasters. Law of the Republic of Indonesia Number 24 of 2007 explains that disasters are events or series of events that threaten and disrupt the lives and livelihoods of the community caused, both by natural factors and / or non-natural factors and human factors resulting in human casualties, environmental damage, property losses, and psychological impacts. It was recorded in disaster emergency data between 2011-2020 by the Dataku Bappeda DIY application that the percentage of disaster events in Sleman Regency was 14.5% rain lava floods; landslides 11.6%; extreme weather 65%; earthquakes 0.7%; and 8% volcanic eruptions so that with such an emergency pattern of disaster events it becomes the background for more serious disaster management efforts in Sleman Regency. The Regional Disaster Management Agency (BPBD) of Sleman Regency published a disaster risk assessment document for 2021-2025 which illustrates a multi-hazard disaster risk map in figure 1 below.

Figure 1  
Multi Hazard Risk Map of Sleman Regency



Source : BPBD Sleman Official Website ([bpbd.slemankab.go.id](http://bpbd.slemankab.go.id))

Based on figure 1, judging from the vast area of Sleman Regency, which is 57,261 Ha which is divided into 17 Kapanewon and 86 villages occupying an average dark orange color, which means that the more reddish the color at the points of the multi-hazard risk map, the greater the multi-hazard risk index in Sleman Regency. Factors that affect multi-hazard risk conditions in Sleman Regency include the level of threat, the level of vulnerability and the capacity of the target type of disaster threat. Seven classifications of types of disaster threats grouped by BPBD Sleman Regency are; extreme weather, Merapi volcano eruption, drought, forest and land fires, landslides. cold lava floods and earthquakes. The existence of a legal umbrella is an important part of

government institutions or institutions. The implementation of the provisions of article 63 and article 69 paragraph 4 of Law Number 24 of 2007 concerning disaster management is deemed necessary to then establish government regulations on funding and management of disaster relief. Then, the government decided to enact Government Regulation Number 22 of 2008 concerning Disaster Relief Funding and Management which became the minimum standard for central and regional governments in managing disaster relief in their respective regions.

The Sleman Regency Government maximizes the benefits of regional autonomy by ratifying Sleman Regent Regulation Number 56 of 2021 concerning disaster relief management. In his initial observations, the author found something interesting in this Regent Regulation. In fact, the Sleman Regency Government already has a disaster relief management scheme both large-scale and small-scale disasters so that the government does not stutter in managing disaster relief for victims who experience damage to residential homes due to private house fires, based on an interview with members of BPBD Sleman on July 21, 2021. The above is a new solution for the Bantul Regency Government and Kulon Progo Regency Government in managing assistance, especially small-scale disaster relief. This grand design needs to be appreciated because in the Special Region of Yogyakarta only Sleman Regency has a focus on small-scale aid management. (Ministry of PUPR, 2021). In the national scope, disaster relief management is carried out based on applicable laws and regulations such as Law 24 of 2007, Government Regulation Number 22 of 2008 and so on. For approximately 12 years, the guidelines were implemented

in various situations and conditions but could only accommodate the interests of disasters in general on a national scale. So that we can find innovation gaps in systems designed by regions based on the uniqueness of disasters in each region.

The Sleman Regency Government has disbursed disaster assistance totaling 447 million rupiah which was distributed to 223 residents in 14 kapanewon affected by natural disasters throughout 2022. In addition to natural disasters, the Sleman Regency Government also provides assistance to victims of small-scale disasters. BPBD Sleman Regency will continue to be committed to providing social assistance to affected communities, in this case, the Sleman Regency government has distributed 335 million rupiah to 13 victims from June to September 2022. With limited disaster relief funding, disaster relief distribution is analyzed based on a priority scale, however, the Sleman Regency Government also appealed not to levy because it is entirely the responsibility of the government. (Radar Jogja, 2022) (iNewsYogja.id, 2022)(suarajogja.id, 2022) Disaster relief management is important within the scope of disaster management which has been regulated in Government Regulation Number 22 of 2008 concerning Disaster Relief Funding and Management. Management concentrates on the process of cultivating effectively. Management procedures are a description of the transformation of inputs into outputs so that this management seeks to design, implement and perform services to the community in this case victims affected by disasters.(Chase, 2004)

This research needs to be carried out where the data looks at the vast disaster vulnerability map in Sleman Regency but on the other hand the Sleman

Regency Government presents disaster relief management solutions both large and small scale that are designed in such a way. Of course, aid management is one of the focuses of a series of activities in the disaster management process in Indonesia. Based on such a background, it becomes interesting to be discussed comprehensively where this research takes the theme of disaster relief management with the title Design of Disaster Relief Management in Sleman Regency

## **1.2 Problem Statement**

Based on the background that has been explained, management plays an important role in the next series of activities such as implementation, monitoring and evaluation. Good management comes over a comprehensive design. The management of disaster relief in Sleman Regency is seen as a reference solution for the Regency / City Government throughout DIY for problems in managing disaster relief, especially disasters that befall individuals such as private house fires. Therefore, this study asks a question: How is the design of disaster relief management in Sleman District?

## **1.3 Research Objectives**

This study aims to explain the design of disaster relief management in Sleman Regency

## **1.4 Research Benefits**

### **1.4.1 Theoretical Benefits**

Theoretically, this research is expected to contain a pilot model on disaster relief management design in Sleman Regency and provide knowledge to readers

### **1.4.2 Practical Benefits**

Through this research, it is expected to be a reference for local governments related to disaster relief management design which can then be a reference in the development of models, evaluation and monitoring materials, and solutions to related problems

## **1.5 Literature Review**

Literature Review is an activity to collect scientific data in the form of theories, methods or previous research in the form of journals, books, manuscripts, and documents. The discussion of the literature review aims to review the research topic to be carried out. In addition, knowing various concepts from previous research theories and understanding the gap problems to be studied. This study used 25 journal articles from Google Scholar as literature review.

Based on 25 journal articles, there are 5 articles that discuss disaster relief management in the point of view of disaster relief distribution models or mechanisms. The government provides the amount of assistance to disaster victims with the criterion of the level of damage to victims' assets. It is considered inappropriate that the government should provide fair assistance for the analysis of the burden borne by victims such as economic conditions, the

number of dependent family members and asset damage based on the Analytical Hierarchy Process model described in the research findings by .(M. Mustakim, 2014)

The findings are in line with research by those who recommend that the Analytical Hierarchy Process method can be developed for the distribution of disaster relief other than floods. Then, research from illustrates the integration of Agent Based Modeling (ABM) and Geographic Information System (GIS) methods in modeling a simulation of a coordination system of aid distribution by volunteers in several scenarios. This aims to evaluate the coordination system of aid distribution in a centralized manner as well as decentralization of Merapi eruption disaster management. The results found that decentralized distribution was more efficient in handling and distributing aid to barracks.(Yoga Pranata, 2022)(Fauzi Khair, 2018)

Besides The research by guiding the stages of planning, processes to accountability for comprehensive aid management so that this article can be a reference for making reviews of other local government policies and implementing policies that have been determined later. The same thing was also written by those who explained the mechanism of aid claims that distinguish the two articles, namely research by oriented public awareness will know the benefits of assistance and the importance of reporting the latest personal data.(Rivani, 2017)(Maria Prudensiana Leda Muga, 2021)(Maria Prudensiana Leda Muga, 2021)

Then, there are 18 articles that discuss disaster relief management in an implementation point of view. Research by explains that reconstruction and

rehabilitation must run after a disaster emergency with the principle of build back better. This is not spared from the analysis of the study that will be carried out by the government, the Jitu Pasma Study will guide stakeholders to present three important information elements for post-disaster recovery, namely; disaster impact assessment, disaster impact assessment and post-disaster needs assessment.(Ali Akbar, 2022)

Deep From an implementation point of view, HR problems are found in research by bringing the focus of research on the implementation of Karangasem Regent Regulation no. 14 of 2016 with the theoretical approach of Merilee S. Grindle known as Implementation as A Political and Administrative Process. In this case, there are 2 variables for the successful implementation of a public policy, namely the results of achieving a process and whether or not the implementation objectives are achieved.(Putra, 2022)

The research resulted in conclusions with case studies and variables used in the implementation of Karangasem Regent Regulation No. 14 of 2016 went well according to the corridors of the aims and objectives of the policy, however, the weakness found was the lack of civil servant human resources who were ready to be deployed in the field so that the role of the field was dominated by non-civil servants, the amount of disaster relief budget available was not commensurate with the size of disaster-prone areas and the difficulty of affairs administration of aid applications which results in the length of the aid disbursement process.

Regarding human resource issues, this finding is in line with research by which also explains the process of implementing Regent Decree Number 21 of



2010 concerning compensation and natural disaster assistance is less than optimal. Although supported by the central government's policy on regional autonomy, the implementation of the policy has not been carried out optimally with several inhibiting factors including; the length of bureaucratic processes, financial procedures, geographical location, isolation of the victim's domicile and limited human resources. Then, this finding was strengthened by research that analysed both internal and external inhibiting factors in Kediri Regency. In this regard, it is very sad when human resources from policy makers become an inhibiting factor in the effectiveness of aid distribution in terms of quantity and quality.(Megawati, 2013)(Fitrianto, 2020)

Besides HR problems, bureaucratic flows are also obstacles to the implementation of disaster relief distribution. As the research written by explained that the mechanism for managing social assistance funds is in accordance with its legal umbrella, namely Sumbawa Regent Regulation No. 04 of 2021. However, in the field review, there are still people who have not received assistance due to dual participation ownership and there are data collection errors by related OPDs.(Jayanti Mandasari, 2022)

The same thing is reinforced by research by those who argue that there is policy innovation with the issuance of Probolinggo Regent Regulation no. 41 of 2021 which is a policy reference in the management of COVID-19 social assistance provision. This study uses variables of goal achievement, integration and adaptation in the effectiveness of aid distribution implementation. Although this Regent regulation is claimed to be an innovation, in its implementation, it

is still found that the distribution of social assistance is not on target caused by population administration affairs.(Septiana, 2021)

Then the problem of unevenness and inaccuracy of disaster aid distribution targets also occurs at the implementation stage. This was stated by research which stated that uneven distribution of social assistance in Gorontalo was found, thus reducing the variable value of the effectiveness of the distribution of social assistance.(Lahaling, 2021)

The findings are in line with research by the government that recommends that the government create standards in the form of SOPs. Then the results of the recommendation were answered by research which explained that Sintang Regency already has a standard reference for minimum standards for assistance and SOPs for disaster management, but its findings brought results that this activity has not been effectively carried out supported by the absence of performance standards and audit systems applied. This finding also emphasizes that the government should be able to attach accuracy variables to its effectiveness theory such as; Ensuring the conformity of goods and needs appropriately, guaranteeing the right amount of availability, guaranteeing the right condition of goods, ensuring the distribution of goods on time and on target as well as right in financing.(Fitrianto, 2020)(Syamsudin, 2019)

Research by explaining obstacles are also present from elements / elements that do not understand the existing SOP mechanism. The same thing was also found in a study by which found that the inadequate target of social assistance recipients during the Covid-19 pandemic was due to a lack of coordination and

synergy from the government of Dolat Rayat District, Karo Regency.(Purwanto, 2020)(Rasmita Ginting, 2022)

Then research by argues that the inaccurate target of aid distribution is also the result of the absence of good synergy between government agencies so that in terms of beneficiary data, the government does not have accurate beneficiary data. This was found in research by that the grouping of prospective beneficiaries was not registered as social assistance recipient communities in the central government. The above are the biggest contributors to the inhibiting factors of aid distribution, should coordination and evaluation activities be carried out in a way that can increase the success value of the program.(Wildan Rahmansyah, 2020)(Firmansyah Putra Surbakti, 2021)(Nasrullah, 2021)

Research by also explains the problems that occur in the distribution of aid, namely the uneven distribution of aid recipients. This happened because there was no one-stop coordination with the government and donors regarding the distribution of disaster relief. However, this research offers a new solution with the presence of one-stop communication in the form of a website with a first-fit algorithm that can facilitate administration in checking the distribution of aid goods so that it is expected to answer the problem of equitable distribution of aid.(M. Rifansyah Praja Pratama, 2020)

Research by also provides answers to the problems of equity and accuracy of existing aid distribution. His findings focused on the Bantul Regency government in optimizing aid distribution with the presence of the Nearest Neighbors Algorithm Algorithm method. This method is oriented towards the duration of the timeliness of aid distribution and the detection of the distribution

map of beneficiaries. This research is also reinforced by research recommendations by explaining that with the existence of an online aid distribution information system, there are no limitations in the presentation of information and is expected to be developed with digitity mapping features and the nearest route search so as to facilitate stakeholders in carrying out their duties effectively and efficiently.(Nugroho, 2019)(Zaman, 2021)

Another problem with implementation is in terms of aid funds. The research explained in its findings that the Banjarnegara regional government has implemented green accounting where disaster relief funds have been budgeted in emergency funds but the use of the budget is consumptive or disaster logistics outside of post-disaster rehabilitation and reconstruction funds. When a post-disaster rehabilitation and reconstruction budget is needed, the local government will apply for infrastructure funds through DPU while logistic and other assistance is managed by BPPD. This is a focused integration of fund management, however, in his findings, he also explained that if the consumption of this disaster is not exhausted in its use, it must be destroyed or burned and cannot be resold to become regional treasury. It needs to be reviewed and reconsidered as a step to turn the government's financial cycle.(Ita Nuryana, 2018)

Furthermore, there are 2 articles that discuss disaster relief management in the perspective of the role of stakeholders. The role of disaster mitigation education brings value both to disaster executors in disaster management and the process of providing disaster relief. Research by confirms that disaster responsibility is not only the responsibility of the government but can be

presented from disaster volunteers by strengthening the role of disaster education which is expected to be a solution for human resources in terms of quality and quantity.(Riandhana, 2020)

With regard to the role, the research recommends that BNPB and BPBD have an authorization function for ratifying disaster relief management reports and utilizing the role of the media as a means of publication of authorization in fulfilling the principles of public verification and transparency. The description above is summarized in table 1 which displays the literature cluster review of this study(Rifaldi, 2020)

Table 1  
Literature Review

No.	Cluster	Findings
1.	Disaster relief management mechanism	(M. Mustakim, 2014) argues that the analysis of the amount of assistance should not be an indicator of the extent of damage to victims' assets but economic conditions, the size of family members' dependents and the severity of assets using the Analytical Hierarchy Process method. recommend that the Analytical Hierarchy Process method can be maximized for disasters in Indonesia. Then research by describing the model of effective aid distribution mechanism with the concept of decentralization of auxiliary posts. In contrast to the research conducted by and his research

		explains the mechanism for submitting aid claims and distributing aid(Yoga Pranata, 2022)(Fauzi Khair, 2018)(Rivani, 2017)(Maria Prudensiana Leda Muga, 2021)
2.	Implementation of disaster relief management	(Ali Akbar, 2022) directing the government to use the Pasma Accurate Study will guide stakeholders to present three important information elements for post-disaster recovery, namely, disaster impact assessment, disaster impact assessment and post-disaster needs assessment. mention the problem of ineffectiveness of distribution caused by government HR factors, bureaucratic flow of aid applications, and population administration. Strengthened by those who emphasize that the government should have a variable of accuracy in its effectiveness theory. added that obstacles are also present in governments that already have SOPs but related elements do not understand the applicable SOPs. , , and mentions that this happens because of a lack of coordination and synergy of elements. In contrast to , and which offers algorithmic technology-based detection tools that are solutions to problems of inequality and

		<p>timeliness of disaster aid distribution. However, consumptive disaster relief needs to be reviewed in the destruction of the remaining relief items in the article (Putra, 2022) (Megawati, 2013) (Fitrianto, 2020)(Jayanti Mandasari, 2022)(Septiana, 2021)(Lahaling, 2021)(Syamsudin, 2019)(Purwanto, 2020)(Rasmita Ginting, 2022)(Wildan Rahmansyah, 2020)(Firmansyah Putra Surbakti, 2021)(Nasrullah, 2021)(M. Rifansyah Praja Pratama, 2020)(Nugroho, 2019)(Zaman, 2021)(Ita Nuryana, 2018)</p>
3.	The role of disaster relief management	<p>(Riandhana, 2020) argues that the role of disaster mitigation education will strengthen the quality of non-government human resources in handling and managing disaster relief. Then, it recommends that BNPB and BPBD have an authorization function for ratifying aid management reports and utilizing the role of the media as a means of publication of its authorization in fulfilling the principles of public verification and transparency.(Rifaldi, 2020)</p>

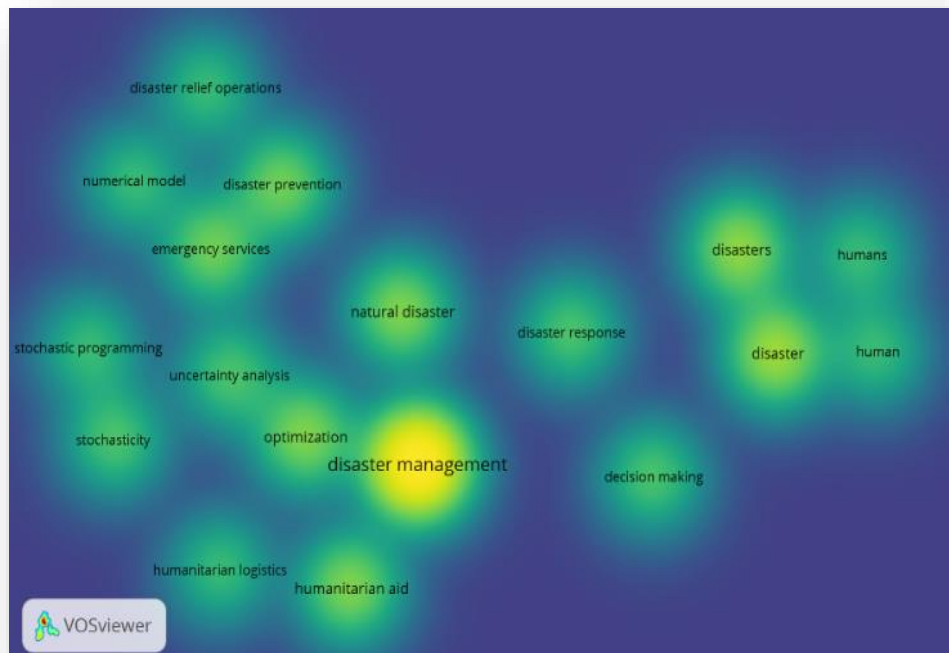
*Source : Processed by the Author, (2022)*

Based on the explanation from table 1, research on disaster relief management can be grouped into 3 clusters, namely disaster relief management mechanisms, implementation of disaster relief management and the role of disaster relief management stakeholders, but no one has comprehensively researched the design of disaster relief management. So the novelty of my research focuses on disaster relief management design. Therefore, this study will discuss the design of disaster relief management in Sleman Regency.

Then, this study also uses 85 scopus documents with the keyword disaster relief operation from 2018-2022 which will be processed with vosviewers software in visualizing review literature. Vosviewers can be a shortcut for researchers in determining research topics that are different from the studies that have been done. This software is able to map various types of bibliometric analysis and visualize bibliometric networks of journals, authors and other publication information so that, with the ease of vosviewers authors have the opportunity to get novelty in research. Figure 2 illustrates the results of bibliometric analysis on the author's novelty.

Figure 2  
Visualization of Research Density on Disaster Relief Operations





Source : VOSViewers, (2022)

Based on figure 2 Vosviewers that the more yellow the research keyword, the more research related to the keyword while the more faded the yellow keyword is, the less research has been done. The keyword disaster management shows a solid yellow area which indicates that this study is common for research. Unlike other keywords around it such as optimization, decision making, humanitarian logistics, natural disasters and so on have a yellow color with different levels of fading, this explains that the lower the keyword is studied. Then, the keyword position also has its own reading that the closer the position of the faded keyword to the solid yellow keyword then the more commonly the keyword is researched and vice versa.

Deep This is, the author takes the keyword disaster relief operation which we can know that the keyword is faded yellow and is in the outermost position away from keywords with solid yellow in vosviewers. This visual shows that

the keyword disaster relief operation is still very relevant for the novelty of current research. So that research on disaster relief management design is expected to be a new generation in research.

## **1.6 Theoretical Framework**

### **1.6.1 Disaster Governance**

#### **1.6.2.1 Definition of Disaster Governance**

System Disaster management is a process in disaster focus that is implemented with a series of disaster management activities. Looking at Indonesia's disaster-prone background, disaster management is an issue that the government works on which is usually referred to as disaster management. Disaster management is interpreted as an effort in the form of behavior or a series of processes in the implementation of activities in efforts to prevent, mitigate, preparedness, emergency response, reconstruction and rehabilitation carried out before, during and after a disaster occurs. (Law 24/2007).

The definition of disaster management system was proposed by Abrahams (2001) as a set of plans, procedures, resources, personnel and various relationships that aim to reduce the influence of hazards, emergencies and disasters faced by the community. The system is comprehensive and coordinated to accommodate elements of the government, volunteers and private sector personnel who work together to overcome various problems faced by the community.

Disaster management can also be interpreted as a series of activities designed to control the disaster cycle to reduce losses both at the level of

security, property and property, . Then on the official website (BPBD BOGOR, 2019) explained that according to the University of British Columbia, disaster management is a process of setting goals and common values to encourage the participation of various parties in order to formulate plans and attend to both potential and aquidal disasters. In addition, the definition of disaster management is also put forward by the University of Wisconsin which explains that disaster management is a series of activities designed to control disaster and emergency situations to prepare a framework to help disaster-prone people to avoid or overcome the impact of the disaster.(BPBD Bogor, 2019)

Disaster management according to is a series of processes that continue to be developed with various management functions which include planning, organizing, distributing tasks, controlling and supervising in disaster management. The process also involves many sectors such as government, private sector, non-governmental organizations (NGOs) and civil society.(Nurjanah, 2012)

#### 1.6.2.2 Purpose and Principles

Disaster management in general aims to reduce or prevent the occurrence of disasters, ensure the distribution of fast and appropriate assistance and achieve effective recovery. Thus, comprehensive disaster management will reduce the risk of losses due to disasters. Law Number 24 of 2007, describes the principles in the implementation of disaster management, namely:

- 1) Fast and precise

Meeting the logistical needs of aid must be distributed quickly and precisely which is expected to reduce the new impact that arises on disaster victims.

2) Priority

Assistance should be given to priority matters by measuring the scale such as types of commodities, vulnerable groups, affected locations.

3) Coordination and cohesiveness

The aid delivery process must be based on strong coordination and cohesiveness between several sectors, ranging from aid suppliers, warehouse centers, distribution warehouses, and other related parties to support each other

4) Efficient and Successful

The efficiency of aid logistics distribution is very helpful in achieving effective results such as designing activities that do not waste time and effort.

5) Transparency and accountability

The process of providing assistance is carried out openly so that it can be accounted for ethically and legally.

6) Partnership

The process of providing assistance must involve several related parties so that the distribution of aid becomes more effective.

7) Nondiscriminatory

The provision of assistance must be carried out solely on humanitarian grounds so that every victim can receive assistance fairly, regardless of ethnicity, race, religion, or political current.

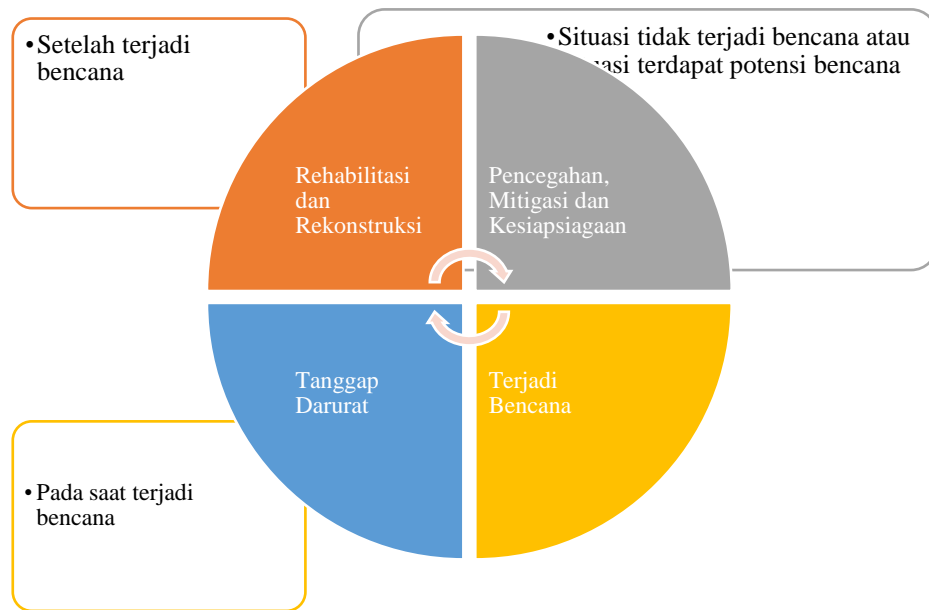
8) Nonpreoletisi

In the process of providing assistance should not be done by spreading any religion or akinan.

1.6.2.3 Disaster Management Cycle

The disaster management cycle is the turnaround of events when a disaster occurs. In responding to disasters, management design is needed that can accommodate the objectives of disaster management itself, the disaster cycle needs to be known to the public considering that Indonesia's disaster history routinely occurs with identical cycles. Disaster management is classified into 3 stages with a series of activities, namely pre-disaster, disaster response and post-disaster regulated in Law No. 24 of 2007.

Figure 3  
Disaster Management Cycle



Source : Processed by the Author, (2022)

Disaster management is a very important activity to become a national issue as an evaluation of Indonesia's disaster history. In the entire disaster management cycle, there are 3 parts of the management process carried out, including the following:

#### 1) Pre-Disaster Management

This management focuses on reducing risk before a disaster occurs, the management is carried out through disaster prevention activities; as an effort to eliminate or reduce disaster threats, disaster mitigation; by strengthening physical readiness and awareness of disaster risk and preparedness in the form of organizing through appropriate and effective measures such as providing early warning information related to the possibility of disasters.

## 2) Emergency Response Management

Emergency response focuses on reducing the number of losses both property, property and disaster victims. This management also includes rescue activities, evacuation of victims, fulfillment of basic needs, protection, evacuation management and restoration of infrastructure. According to the disaster response, it must pay attention to regional contingency planning, disaster risk maps, community-centered early warning systems, and evacuation infrastructure. (Sakir, (2023)

## 3) Recovery Management

The recovery process focuses on efforts to revive the socio-economic conditions of the community, re-function institutions and infrastructure in a planned, coordinated, integrated and comprehensive manner. This management is divided into 2 phases, namely rehabilitation and reconstruction.

### 1.6.2 Disaster Relief Management

#### 1.6.2.1 Definition of Disaster Relief Management

Disaster relief can be interpreted as a disaster logistics practice in Indonesia. Logistics can be a primary activity or skunder that is organized and used physically in the form of objects. According to BNPB regulation Number 10 of 2012, logistics is defined as a basic human need that has a form and can be used consisting of clothing, food, shelter and derivatives. In an emergency status, the management of disaster management assistance

is carried out in an integrated manner. This approach was chosen to realize the effectiveness of disaster relief management. (Irmawati, 2015)

Disaster relief, which is often carried out during and after a disaster, is a stage called response and recovery. He wrote in his article that the understanding of response and recovery efforts was put forward by McEntire (2006) and Abrahams (2001). Response is an activity during and after the event, helping communities affected by disasters and minimizing the destruction of repeated events, this stage is often known as the emergency stage. Recovery is a short-term activity that provides a standard operating life support system and a long-term activity to return to normal living conditions as before a disaster occurred.(Purnomo, 2007)

Sleman Regent Regulation No. 56 of 2021 explains that disaster assistance is a voluntary gift to disaster victims with the aim of easing the burden of disaster victims' losses and re-functioning damaged social facilities. In disaster relief management, BPBD is the person in charge during the disaster relief management process. Then, there are 2 stages of disaster relief management, namely the process of reporting disaster events and the process of providing disaster relief. Disaster assistance is divided into non-financial assistance and financial assistance that will be used in providing assistance to large-scale and small-scale disasters.

Hellingrath & Widera (2011) and Widener & Horner (2011) state in the article by explaining that infrastructure, politics and government become major challenges in logistics. The large amount of inadequate infrastructure is a major obstacle in managing disaster relief. The role of the government



and related institutions is very important in making policies and regulating the disaster management system. In addition, the role of effective coordination is also key in the success of logistics management, (Rossem and Krukkert, 2010). (Rika A., 2012)

#### 1.6.2.2 Disaster Relief Management Systems and Processes

Based on the Regulation of the Head of BNPB Number 13 of 2008 logistics management system and disaster management equipment, is a system that explains the logistics and equipment needed to overcome disasters in the pre-disaster period, during disasters and in the post-disaster. Logistics management system and disaster management equipment is a system that meets the following requirements:

- 1) Logistics and equipment needed must be on time, right place, right quantity, right quality, right needs and right on target, based on priority scales and service standards.
- 2) The transportation system requires improvisation and creativity in the field, both by land, sea, river, lake and air.
- 3) Logistics and equipment require special ways of delivery (a due to limited transportation, spread of events, isolation when a disaster occurs).
- 4) Inventory of needs, procurement, storage and delivery up to logistical and equipment responsibility to the affected requires a special management system.
- 5) Pay attention to the dynamics of the movement of disaster victims.
- 6) Coordination and priority of limited use of means of transportation.

- 7) Possible assistance from the military, police, business entities, non-governmental organizations and other relevant agencies both from within and outside the country, on the command of the authorities.
- 8) Pay attention to an effective and efficient supply chain.

Regulation of the Head of BNPB Number 13 of 2008 also explains that the process of managing logistics and equipment in disaster management includes eight stages which are overall carried out with an integrated system in the form of activities as follows:

- 1) Planning/Inventory Needs
- 2) Procurement and/or Acceptance
- 3) Warehousing and/or Storage
- 4) Distribution
- 5) Transportation
- 6) Reception at the destination
- 7) Removal
- 8) Accountability.

#### 1.6.2.3 Types of Disaster Relief

Deep In order to implement the provisions of article 63 and article 69 paragraph 4 of Law Number 24 of 2007 concerning disaster management, it is necessary to establish a Government Regulation on funding and management of disaster relief Number 22 of 2008. Funding and management of disaster relief are aimed at supporting disaster management efforts in an efficient, successful, and accountable manner. Disaster relief funding and management arrangements include:

- 1) Sources of disaster management funds
- 2) Use of disaster management funds
- 3) Disaster relief management
- 4) Supervision, reporting and accountability of disaster relief funding and management

The central government and local governments provide and provide disaster relief to disaster victims (Law 24, 2007). There are 4 responsibilities of the government in providing assistance in the form of;

- 1) Grief Compensation

Grief compensation is given to the deceased in the form of funeral expenses or condolence money. This compensation is given after data collection, identification, verification by authorized agencies or institutions coordinated by BNPB or BPBD. The compensation will be given to the heirs of the deceased.

- 2) Disability Compensation

Disability compensation is given to victims who have mental and/or physical disabilities. The process of disbursement of compensation is given after data collection, identification, verification by authorized agencies or institutions coordinated by BNPB or BPBD.

- 3) Soft loans for productive enterprises

This loan is given to disaster victims who have lost their livelihoods. This loan is provided in the form of productive business credit or capital

goods ownership credit. The series of aid disbursement processes are the same as the compensation above, which is given after data collection, identification, and verification by authorized agencies/institutions coordinated by BNPB or BPBD in accordance with their authority.

#### 4) Basic Needs Fulfilment Assistance

Assistance to meet basic needs as intended is provided to disaster victims in the form of: temporary shelter, food assistance, clothing, clean water and sanitation and health services. Disaster emergency assistance to meet the basic needs of disaster victims is provided by taking into account the minimum standards of basic needs by paying attention to priorities to vulnerable groups.

### **1.7 Conceptual Definition**

#### 1.7.1 Disaster Governance

Disaster management is an effort in the form of behaviour or a series of processes for implementing activities in efforts to prevent, mitigate, preparedness, emergency response, reconstruction and rehabilitation carried out before, during and after a disaster occurs by involving various sectors, namely government, private, non-governmental organizations (NGOs) and civil society.

#### 1.7.2 Disaster Relief Management

Disaster relief management is a series of activities by Organization based on management functions in order to meet the basic needs of disaster victims in the proses of respons and recovery.

## 1.8 Operational Definition

Operational Definition is a concept that includes measurable research variables to test perfection where this definition is abstract to facilitate the measurement of a research variable. Operational definitions in research can be used as guidelines in conducting a study. In this study, the author refers to (Abraham 2001) which is summarized in the indicators and variables below:

Table 2  
Operational Definition

Variable	Indicators	Parameters
Disaster Relief Management (Abraham)	Stakeholder	<ul style="list-style-type: none"> <li>• Role and function of stakeholders in emergency process and recovery process.</li> </ul>
	Respons	<ul style="list-style-type: none"> <li>• Reporting disaster events in emergency proses.</li> <li>• Distributing disaster relief in emergency event.</li> </ul>
	Recovery	<ul style="list-style-type: none"> <li>• Reporting disaster events in recovery proses.</li> <li>• Distributing disaster relief in recovery event.</li> </ul>

*Source : Processed by the Author, (2022)*

## 1.9 Research Methods

### 1.9.1 Types and Approaches of Research

According to Denzin and Licoln (2011: 3-4) qualitative research is a form of effort in rationalizing and interpreting the reality of life based on the researcher's point of view. Qualitative research presents a set of empirical evidence or real field data and then visualizes natural and problematic conditions and the meaning of each individual's life. Through this qualitative research, it is expected to describe the model or design of

disaster relief management in Sleman Regency comprehensively. Then, this research uses a case study approach. The research case study is BPBD Sleman in the context of disaster relief management design.(Al-Hamdi & Efendi, 2020)

#### 1.9.2 Research Location

The location of this research is located in Sleman Regency, Yogyakarta Special Region Province. The location selection was motivated by the high level of disaster threat to become one of the disaster-prone districts in Indonesia, but Sleman Regency is predicted to be a pilot district in the Special Region of Yogyakarta Province that already has and implements the disaster relief management design of Sleman Regency.

#### 1.9.3 Data Analysis Unit

The unit of data analysis is the part that is observed, recorded and considered as data such as the activities of individuals, groups, objects, or a social background as subjects then separate according to their boundaries and identify them for analysis (Akbar, 2015). The unit of analysis is the part of the content to be further researched which is then simplified. So the unit of analysis in this study are all of government institution who responsible to manage disaster relief and disaster victims.

#### 1.9.4 Data Type

In this study, researchers used primary and secondary data types. Primary data is used as the latest data to be supported and compared with secondary data regarding the same research results.

#### 1.9.4.1 Primary Data

Primary data is data obtained from original sources or sources that are directly related to research and are able to provide information by conducting interviews or filling out questionnaires (Husein Umar, 2013). In this study, the primary data was taken by conducting interviews with resource persons, in this case disaster victims or recipients of disaster assistance as well as stakeholders of aid management providers in Sleman Regency with a focus on how disaster management design on the point of view of each informant.

#### 1.9.4.2 Secondary Data

According to (Arikunto, 2010) Secondary data is data collected to support primary data obtained by means of library studies from various media such as books, documents, articles, journals, laws, and regulations that are still relevant to research. In this study, secondary research data will be obtained by reviewing various references to disaster literature, supporting documents for disaster management in Sleman Regency such as recapitulation of disaster event reports, minutes of disaster assistance provision and studies of disaster management laws and derivative presentations.

### 1.9.5 Data Collection Techniques

#### 1.9.5.1 Interview

Interview is a data collection technique by way of questions and answers or direct interviews with the aim of obtaining clearer information about the object studied. (J & M.A, 2002:135). In this study, interviews

were conducted directly by meeting resource persons and conducting discussions related to disaster relief management for victims.

Table 3  
Research Resource Person

No.	Sources	Interview Theme
1.	Head of BPBD Sleman Regency	<ol style="list-style-type: none"> <li>1. The role and function of BPBD Sleman in the implementation of disaster relief management.</li> <li>2. Disaster event reporting process</li> <li>3. The process of providing disaster relief</li> </ol>
2.	Head of Social Service of Sleman Regency	The role and function of the Sleman District Social Office in the implementation of disaster relief management.
3.	Head of Sleman District Health Office	The role and function of the Sleman District Health Office in the implementation of disaster relief management.
4.	Head of Public Works, Housing and Settlement Office of Sleman Regency	The role and function of the Public Works, Housing and Settlement Office of Sleman Regency in the



		implementation of disaster relief management.
6.	Disaster victims	The process of reporting and distribution disaster relief.

*Source : Processed by the Author, (2022)*

#### 1.9.5.2 Documentation

Technique Data collection with documentation studies is the collection of data carried out by researchers through books, journals, archives relevant to the research problem. Data sources that can also be used in documentation studies are through online media, such as news portals, YouTube, social media (Facebook, Instagram, WA) and so on (Al-Hamdi, Sakir, Suswanta, Atmojo and Efendi, 2020). Therefore, this study uses documentation studies to obtain data from online news, disaster journals, social media, and official websites of the government, private sector and volunteers relevant to the topic of disaster relief in Sleman Regency according to research needs.

#### 1.9.6 Data Analysis Techniques

Technical The data analysis used in this study is qualitative where the data is presented in the form of words both sourced from interviews, documents and observations so that the results are in the form of in-depth narratives (Nugrahani, 2014). According to data analysis, there are three activities carried out simultaneously, namely:(Ridho Alhamdi, 2020)

##### 1) Data Collection and Management

This stage researchers will collect data related to the role and function of BPBD Sleman, Sleman District Social Office, Sleman District Health Office, Dinas Public Works, Housing and Residential Areas of Sleman Regency In disaster relief management, the process of reporting disaster events and receiving disaster assistance to disaster relief recipient communities. These data are sourced from primary data and secondary data which are then used to analyze problems.

## 2) Data Selection

At this stage, researchers will group data according to categories, then the data will be re-selected in order to obtain relevant data to be used in the analysis stage related to aid management design in Sleman District.

## 3) Intervariable Analysis and Data Verification

This study will analyze and verify data between variables with three research indicators, namely stakeholders, disaster event reporting and disaster relief receipts. Then this study will also narrate the data obtained based on the research parameters that have been prepared.

## 4) Interpretation and Conclusion Drawing

Conclusion drawing is the last stage in analyzing data to verify the results of question analysis in the problem statement. Conclusions will be drawn comprehensively on how disaster management in Sleman Regency with research limits in terms of research indicators. Then, this study will also summarize recommendations and suggestions to stakeholders organizing disaster relief.