



Optimization of Disaster Management by the Rapid Response Team at The Gorontalo Province Regional Disaster Management Agency

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ABSTRACT

The objectives of this research are: (1) to determine and analyze the Optimization of Disaster Management by the Rapid Response Team at the Gorontalo Province Regional Disaster Management Agency. (2) knowing and analyzing the Inhibiting Factors for Optimizing Disaster Management by the Rapid Response Team at the Gorontalo Province Regional Disaster Management Agency. This research uses descriptive research with a qualitative approach. The data consists of primary data obtained from in-depth interviews with informants as well as secondary data originating from various sources. The results of this research indicate that: a) Coordination needs to be improved through investment in information technology, the preparation of clear procedures, and increased coordination forums; b) Budget management needs to be reviewed by increasing allocations for equipment procurement, IT development and human resource training; c) Information technology support needs to be improved through the provision of modern infrastructure, system integration and IT utilization; d) Transparency and accountability need to be increased by maximizing community participation and the application of information technology; e) Availability and readiness of infrastructure requires an increase in the periodic maintenance and procurement budget; f) Increasing human resource capacity can be carried out through optimizing competency-based training programs, certification, internships and collaborative training between related institutions; g) Coordination between related agencies needs to be improved through the preparation of joint procedures; h) Increasing responsiveness in handling health problems requires the preparation of integrated responsive procedures, strengthening health logistics and cross-sectoral coordination; i) Overall, improving performance requires systemic improvements in aspects of information technology, budget, human resources, cross-agency coordination, and logistics through collaborative steps to optimize TRC's readiness and capability in disaster management.

Keywords: Optimization, Inhibitors, Disaster Management, Rapid Response Team

1. Introduction

A disaster is an event that can cause major losses [1], in the form of physical [2], social [3], and economic damage [4]. Disasters can be classified into three main categories, namely natural disasters, non-natural disasters, and social disasters [5]. Natural disasters are events caused by natural forces such as earthquakes, tsunamis, floods, landslides, forest fires, and storms [6]. Natural disasters often occur suddenly and can cause environmental damage and threaten human and animal life. One of the special roles of the Gorontalo Province Regional Disaster Management Agency is to design a comprehensive disaster mitigation plan. In this task, they carefully map the disaster risks that exist in this region. A deep understanding of these potential risks allows them to identify areas that are most vulnerable to various types of disasters, including natural and non-natural disasters. With this data, they can develop appropriate strategies to reduce possible impacts on society and the environment. The Gorontalo Province Regional Disaster Management Agency is also actively involved in preparing local communities to face disasters. They organize training, outreach, and simulations designed to increase public awareness and preparedness. This includes education about actions to be taken when a disaster occurs, understanding evacuation routes, and familiarization with equipment and resources that can be used in emergencies. This effort is very important in reducing the level of community vulnerability to various types of disasters [7]. Increasing the capacity of the Gorontalo Province Regional Disaster Management Agency to carry out its duties in disaster management has resulted in various strategic steps, one of which is the formation of a Rapid Response Team based on Decree Number 177/32/V/2022. Rapid response teams have a very vital role in improving post-disaster response and recovery. Through this decree, a rapid reaction team was established as an entity that is trained and ready to act in emergencies. Rapid response team members are selected based on the criteria of toughness, skills, and dedication in disaster management. They undergo rigorous training to ensure their preparedness in responding to various types of disasters, from natural disasters such as earthquakes and floods to non-natural disasters such as industrial accidents or environmental pollution.

The rapid response team acts as the spearhead in responding to disasters. They mobilize resources, assist in the evacuation and rescue of victims, and provide first medical services to those in need [8]. Apart from that, they also coordinate with the Gorontalo Province Regional Disaster Management Agency and other related parties to ensure an efficient and coordinated response. The formation of a rapid reaction team based on Decree Number

177/32/V/2022 is a proactive step that shows the seriousness of the Gorontalo Province Regional Disaster Management Agency in dealing with potential disasters. With this team, it is hoped that responses to disasters can be faster and more effective, which will ultimately reduce losses that may be caused by the disaster. The Rapid Response Team (TRC) which was formed based on Decree Number 177/32/V/2022 has very important duties and functions in carrying out disaster management missions. They are the main pillars of efficient emergency response and post-disaster recovery in Gorontalo Province. One of the main tasks of a rapid response team is to mobilize resources and personnel when a disaster occurs. They must be ready at a moment's notice to respond to emergencies. This includes organizing a fast and safe evacuation, ensuring the safety of affected residents, and providing first medical aid to victims. The speed and precision of their actions are key in saving lives and reducing physical losses [9]. In addition, the rapid response team is also responsible for ensuring efficient coordination in the implementation of disaster response. They collaborate with the Gorontalo Province Regional Disaster Management Agency as well as various related parties, such as non-profit organizations, volunteers, and the private sector. Good coordination enables more precise and coordinated use of resources, avoids overlap, and increases the effectiveness of response efforts. Rapid reaction teams also have an important role in monitoring and evaluating the situation during a disaster. They collect data about the impact of disasters, the number of victims, and urgent needs. This information is used to make wise decisions in resource allocation and in providing necessary assistance.

Boalemo Regency has a total of 16 members of the rapid reaction team, with details of four members from the Regional Government, three members from the Army and Police, five members from Community Volunteers, and four members from Health Workers. Meanwhile, the rapid reaction team for Gorontalo Province, especially Bone Bolango Regency, has a total of 19 rapid reaction team members, with details of five members from the Regional Government, four members from the Army and Police, seven members from Community Volunteers, and three members from Health Workers. The rapid reaction team for Gorontalo Province, especially Gorontalo Regency, showed the participation of 16 members of the rapid reaction team, consisting of four members of the Regional Government, three members of the Army and Police, six members of Community Volunteers, and three members of Health Workers. North Gorontalo Regency has a total of 19 members of the rapid reaction team, with details of four members from the Regional Government, three members from the Army and Police, seven members from Community Volunteers, and five members from Health Workers. Pohuwato Regency, the region with the highest number of rapid reaction team members, reached a total of 42 members. The details include 11 members from the Regional Government, nine members from the Army and Police, 15 members from Community Volunteers, and seven members from Health Workers. Gorontalo City, part of this province, has a total of eight members of the rapid reaction team, with details of two members from the Regional Government, three members from the Army and Police, and three members from Health Workers. Overall, Gorontalo Province has a total of 120 members of the rapid reaction team, with details of 30 members from the Regional Government, 25 members from the Army and Police, 40 members from Community Volunteers, and 25 members from Health Workers. This data provides an overview of the distribution of rapid reaction team members in each region, shows differences in participation between member classifications, and facilitates understanding of the capacity and potential in optimizing the rapid response team in Gorontalo Province.

Based on initial research observations, although the Rapid Response Team has a crucial role in disaster management in Gorontalo Province, there are several problems related to organizational professionalism that need to be addressed. First, delays in the disaster management process at the Regional Disaster Management Agency of Gorontalo Province affected response time and coordination between rapid reaction teams, as happened in the natural fire disaster which occurred simultaneously at several points in Gorontalo some time ago. Forest fires that occurred at several points in Gorontalo province, especially in Boalemo and North Gorontalo regencies, should have been handled more quickly if coordination between the rapid reaction teams had gone well. However, it took more than 3 hours for the fire brigade to arrive at the scene. Apart from that, the social disaster in the form of demonstrations and demonstrations by a group of residents in Boalemo Regency which ended in chaos with the Regent's office burning down also shows the weak coordination between the rapid reaction teams in handling problems. The rapid response team from the police and fire brigade was not deployed quickly enough to secure and extinguish the fire at the Regent's office. The lack of good coordination between rapid reaction teams greatly affects the effectiveness and speed of disaster management, both natural disasters and social disasters. Therefore, increasing cross-sectoral coordination between rapid reaction teams needs to be a concern and priority for improvements in the disaster management system in Gorontalo Province. The inefficiency and ineffectiveness of the budget allocation for the needs of the Rapid Reaction Team (TRC), which can be seen from the pattern of budget allocation so far, has been used more for the team's routine operational costs than for the procurement of more urgent disaster management equipment and logistics. This has an impact on limited logistical resources and equipment when needed in the field during disaster management. For example, more budget is allocated for team food and transportation costs than for procuring fire engines and ambulances, which are very limited. This budget allocation pattern does not support the effectiveness of rapid reaction team operations in disaster management. Therefore, it is necessary to carry out a thorough evaluation of the posture and budget allocation pattern of the rapid reaction team so that it can more efficiently and effectively support operations in the field.

Inability to utilize information technology optimally to support rapid reaction team operations, even though the use of information and digital technology is very important to support coordination, monitoring, and reporting during disaster management. However, the lack of budget for the procurement of software, communications networks, and hardware results in limited use of information technology [10]. Apart from that, personnel skills and training in the use of information technology are also still low. As a result, communication problems often occur in the field due to dependence on conventional communication devices. Weak use of this technology has the potential to slow down coordination and decision-making times during disaster emergency management. Therefore, increasing budget, infrastructure, and IT capacity needs to be considered to optimize IT support for rapid reaction team operations. The lack of transparency and accountability in the activities of the rapid response team has an impact on the image and level of public trust in the team's performance [11]. So far, there has been no mechanism for reporting and evaluating the performance of the rapid reaction team that can be openly accessed by the public. The lack of community involvement also makes it difficult to know the extent of the effectiveness of the rapid response team. This weak transparency has the potential to reduce support and cooperation from external parties. Therefore, it is necessary to build a performance reporting and evaluation system that is open and involves input from various stakeholders. In this way, the transparency and accountability of the rapid

response team's operations can be increased to maintain public trust and external support. Limited equipment, facilities, and supporting infrastructure such as the very limited number of fire trucks and ambulances, lack of communication and medical aid equipment, as well as inadequate post and evacuation facilities. This limited equipment and facilities greatly hamper the mobility and effectiveness of the rapid reaction team in carrying out extinguishing, evacuating victims, and providing medical assistance during disaster emergency response. Therefore, increasing the budget for procurement and improving the operational support infrastructure for the rapid reaction team needs to be a priority so that the team can work optimally when handling disasters [12].

There are still many members of the rapid reaction team who do not have competency standard certification and who undergo routine training every year. This condition has the potential to reduce the team's readiness and capacity to handle disasters due to the lack of emergency response knowledge and skills. Routine training and competency certification are important to ensure the team's readiness and technical capability in carrying out extinguishing, medical assistance, evacuation, and coordination during disaster management. Therefore, increasing the budget for regular training and personnel certification is crucial to increasing the capacity of the rapid reaction team. There is still weak coordination between related agencies such as the fire brigade, police, health service, Regional Disaster Management Agency, and disaster preparedness volunteers. This weak coordination has the potential to lead to overlapping tasks, delays in response, and inefficiency in the deployment of resources during disaster emergency response. A clear coordination mechanism between agencies and readiness to carry out joint simulations is urgently needed to increase effective cooperation and coordination in the field. With good coordination and collaboration, it is hoped that disaster emergency response can be carried out quickly and efficiently. team in anticipating potential disasters in its area is still low, as can be seen from the slow mobilization time for personnel and equipment when a real disaster occurs. This low level of preparedness has an impact on delays in handling disaster events and the failure of efforts to mitigate the risk of disaster escalation. Therefore, increasing preparedness through the formation of a standby team that is always on standby 24/7, routine simulation training, and preparing emergency response procedures is very important. With high preparedness, it is hoped that the rapid reaction team can immediately respond and handle disasters effectively.

2. Methods

This research is qualitative research with a case study approach [13]. This research aims to explore in depth the aspects that influence and understand the context and complexity related to the Professionalism of the Rapid Response Team in the context of the Gorontalo Province Regional Disaster Management Agency. The case study approach was chosen because it allows the researcher to carry out an in-depth analysis of the phenomenon being studied. Researchers will use interviews, observations, and document analysis to collect the data needed for this research. A qualitative approach is very relevant in the context of this research because it allows researchers to understand the problem more comprehensively, explore various points of view, and identify factors that influence the professionalism of the rapid response team. in disaster management in Gorontalo Province. This research will use a qualitative research design with a case study approach. The case study approach was chosen because this research aims to analyze in depth the factors that influence TRC professionalism in disaster management in Gorontalo Province. This research will focus on exploring in-depth information about various aspects that influence the quality of rapid response team services, including task implementation, facilities and infrastructure, training, access to technology, and individual and team capacity development. Data will be collected through in-depth interviews with various related parties, such as members of the rapid response team, related parties at the Gorontalo Province Regional Disaster Management Agency, and communities involved in disaster response. Apart from that, analysis of documents related to disaster management regulations and policies will also be an important part of data collection.

Data analysis will use an inductive approach [14], where the findings that emerge from the data will be interpreted to understand the dynamics and factors that influence the professionalism of the rapid response team. With this research design, it is hoped that an in-depth and comprehensive understanding of the challenges and opportunities in efforts to improve disaster response through the professionalism of the rapid reaction team in Gorontalo Province will be obtained. The research location for this research is the Gorontalo Province Regional Disaster Management Agency Office. The Gorontalo Province Regional Disaster Management Agency Office is the center for coordinating and implementing disaster management policies and programs at the provincial level. This office is located in the Gorontalo Province area. This research location was chosen because the Gorontalo Province Regional Disaster Management Agency Office is an entity that has a central role in disaster management at the provincial level. As an institution that has important tasks in responding to disasters, managing disaster risks, and coordinating related agencies, the Gorontalo Province Regional Disaster Management Agency Office is the relevant policy and operational center for this research. This research is planned to be carried out in the period from September to November 2023.

This research will use two main types of data, namely primary data and secondary data. Primary data will be obtained through various methods, including participatory observation at the Gorontalo Province Regional Disaster Management Agency Office, in-depth interviews with members of the Rapid Response Team (TRC) and Regional Disaster Management Agency officers, as well as questionnaires that will be distributed to respondents regarding disaster management. Participatory observation will be used to understand the daily activities, dynamics, and challenges faced by TRC in responding to disasters. In-depth interviews will provide direct views from actors who play a role in disaster management, including officers, volunteers, and related personnel. Questionnaires will be distributed to relevant respondents, such as TRC members, to gather their views on the disaster management process in the region. Primary data in this research will be obtained through interviews and direct observation with various parties involved in disaster management. Primary data collection methods will include the Head, Head of Finance, Head of IT, Head of Logistics, Head of Human Resources for the Regional Disaster Management Agency, Representatives of related agencies (government, police, health, volunteers), and Head of the Emergency Preparedness Team. So, the total number of sources that researchers will examine is 7 sources. Secondary data in this research will be obtained from

various sources that are not collected directly by researchers, but have high relevance in understanding the context of disaster management in the region. Secondary data has an important role in enriching researchers' understanding of the dynamics and trends related to the quality of TRC services in disaster management. One significant source of secondary data is records and reports related to previous disaster management kept by the Regional Disaster Management Agency of Gorontalo Province. This data includes disaster response reports, evaluations of previous responses, as well as statistical data regarding the types of disasters, losses caused, and steps taken by the TRC. Apart from that, secondary data will also be obtained from scientific literature and previous research that is relevant to this research topic. References from previous research provide a theoretical basis and understanding of the factors that influence TRC professionalism in carrying out disaster management at the regional level. This secondary data will be used to compare research findings with previous situations, identify long-term trends in disaster management, and support a more comprehensive analysis of disaster management efforts in Gorontalo Province. This data will provide the necessary context to understand the extent to which TRC has developed and played a role in disaster management in the region. The data analysis technique that will be used in this research is the Milles and Huberman analysis method. According to Miles & Huberman (Sugiyono 34:2018), the analysis consists of three streams of activities that occur simultaneously, namely: data reduction, data presentation, and concluding/verification.

3. Results

1. Optimization of Disaster Management by the Rapid Response Team at the Gorontalo Province Regional Disaster Management Agency

a. Rapid Response Team Coordination

The finding that coordination between teams The Rapid Response Team at the Gorontalo Province Regional Disaster Management Agency still relies on regular meetings, indicating that the use of information technology is not yet optimal. Real-time communication is needed to maintain consistency and speed of response. Therefore, investment in information technology such as collaboration software and situational awareness needs to be a priority for the Gorontalo Regional Disaster Management Agency so that the coordination of the Rapid Response Team is more effective. The study findings identified that the coordination and preparedness of the Gorontalo Province Regional Disaster Management Agency's Rapid Response Team still faced various systemic obstacles. The biggest challenges lie in the lack of information technology support, budget limitations, and weak coordination between agencies. This condition is in line with previous studies which examined similar aspects in the Indonesian context. Thus, it can be concluded that improving the coordination and preparedness of the Gorontalo Regional Disaster Management Agency's Rapid Response Team requires breakthroughs in the fields of information technology, budgeting, logistics, and human resource development. Strengthening coordination between agencies and harmonizing permanent emergency response procedures is also crucial. It is hoped that the implementation of these recommendations can optimize the performance of the Rapid Response Team for the effectiveness of disaster management in the Gorontalo region.

b. Budget

Overall, the study findings identify that there are still various shortcomings in the allocation and use of the Gorontalo Regional Disaster Management Agency's budget to support the Rapid Response Team. This budget challenge is in line with previous studies regarding emergency response agencies. Therefore, better budget management by increasing allocations for capacity development is the key to improvement. Optimizing the performance of the Rapid Response Team at the Gorontalo Regional Disaster Management Agency requires a review of budget allocations with an increase in the budget portion for procurement of modern equipment, information technology development, human resource training, and supporting logistics. Increasing budget allocations in this area could be a solution to overcome the various deficiencies currently found.

c. Information Technology

Overall, the study findings identify that there are still many shortcomings in the use of information technology to support the operations and coordination of the Rapid Response Team. This challenge is in line with the results of research on emergency response institutions in various regions in Indonesia. Increasing investment and innovation in the field of information technology through budget optimization and collaboration with related institutions is the key to improvement. At the Gorontalo Province Regional Disaster Management Agency, the available communication infrastructure, such as radio communication tools and 117 call center services, shows commitment to improving responses to emergencies. The existence of this communication tool allows the public to quickly and easily contact the Regional Disaster Management Agency, so that responses from the Gorontalo Province Rapid Response Team can be provided efficiently. The use of this technology is one aspect that needs to be evaluated in the context of this research. Evaluations may include the extent to which the community can access these communication tools, how effective the response provided by the Rapid Response Team is, and whether there are any particular challenges or barriers that need to be overcome. The results of this evaluation can provide further insight into the readiness of the Gorontalo Province Regional Disaster Management Agency to use communication technology to improve coordination and response to disasters. Optimizing information technology support for the Rapid Response Team at the Gorontalo Regional Disaster Management Agency requires increasing the budget, procuring modern infrastructure and software, integrating information systems, as well as optimizing the use of information technology for logistics, human resources, and coordination between agencies. With these improvements in the field of information technology, it is hoped that the Rapid Response Team can increase efficiency and effectiveness in handling emergency responses.

d. Transparency and Accountability

Overall, optimizing the performance of the Gorontalo Province Regional Disaster Management Agency's Rapid Response Team in disaster management requires various systemic and integrated improvements in aspects of coordination, budget, information technology, as well as transparency and

accountability. Coordination of the Rapid Response Team needs to be improved through investment in the latest information technology, the preparation of jointly responsive procedures, and regular cross-agency coordination forums. The Rapid Response Team's budget allocation must also be reviewed by increasing the percentage for equipment procurement, information technology development, and human resource training. Adequate information technology support is necessary through the provision of modern infrastructure, integration of information systems, and the use of information technology for logistics and coordination. The transparency and accountability of the Rapid Response Team can be increased by maximizing community participation and the application of information technology for information transparency and public oversight. With comprehensive improvisation on these important aspects, it is hoped that the capacity and performance of the Gorontalo Province Regional Disaster Management Agency's Rapid Response Team in disaster management can be optimal for the effectiveness of emergency response implementation.

2. Inhibiting Factors for Optimizing Disaster Management by the Rapid Response Team at the Gorontalo Province Regional Disaster Management Agency

a. Facilities and infrastructure

Overall, the study findings identify various weaknesses in the availability, maintenance, and procurement of Rapid Response Team infrastructure, which is in line with studies on public institutions in Indonesia. Increasing the maintenance budget and periodic procurement is key, supported by collaboration with related institutions. Improving the quality and quantity of infrastructure for the Rapid Response Team at the Gorontalo Regional Disaster Management Agency requires optimizing the maintenance and procurement budget, regular audits, revitalizing the asset management system, as well as coordinating with related institutions to ensure the availability of reliable emergency response infrastructure.

b. Human Resource Capacity

Overall, the study findings identify that the human resource capacity of the Rapid Response Team is still weak in terms of quantity and quality of training. Increasing cooperation with relevant external institutions is one of the main solutions. Increasing the human resource capacity of the Rapid Response Team at the Gorontalo Regional Disaster Management Agency requires optimizing competency-based training programs, certification in collaboration with professional institutions, and collaborative training between related institutions to obtain reliable emergency response human resources.

c. Coordination between agencies

Overall, the study findings identify that there is still weak coordination between agencies involved with the Rapid Response Team, both in terms of procedures, budgets, information systems, logistics, and understanding of roles. Alignment across agencies is the key to improvement. Increasing coordination between agencies related to the Rapid Reaction Team requires the preparation of clear and mutually agreed Fixed procedures, harmonization of regulations and budgets, integration of information systems, cross-agency training, and holding joint emergency response simulations to harmonize collective perceptions and actions.

d. Responsiveness

Overall, the study findings identify that the responsiveness of the Rapid Response Team and related agencies is still weak in handling health emergency responses. Harmonization of fixed procedures, logistics, and cross-sectoral coordination is the key to increasing joint responsive capabilities. Increasing the responsiveness of the Rapid Response Team in handling health problems, including developing integrated procedures, strengthening health logistics, personnel training, and cross-sectoral coordination. Overall, optimizing the performance of the Gorontalo Province Regional Disaster Management Agency's Rapid Response Team in disaster management still faces serious challenges in terms of availability and readiness of infrastructure, human resource capacity, coordination between agencies, and responsiveness. The lack of budget for periodic maintenance and procurement is the main obstacle to the readiness of the Rapid Response Team's infrastructure. Human resource capacity development through competency-based training and collaboration with related institutions is also still limited. Weak coordination between related agencies, both in terms of joint protocols, information systems, and understanding of roles, hampers the effectiveness of collective mobilization. The responsiveness of handling public health problems by the Rapid Response Team is also still hampered by the lack of integrated emergency procedures, health logistics, and cross-sectoral communication. Therefore, increasing the capacity of the Rapid Response Team in various important aspects through a collaborative and systemic approach is urgently needed so that disaster emergency response can be optimal.

4. Conclusion

Theoretically, this study contributes to the development of a rapid reaction team coordination model in disaster management by identifying key factors that influence the effectiveness of TRC coordination based on the context in Indonesia. The study findings show that aspects of information technology, human resources, budget, logistics, and inter-agency coordination have a vital role in determining the success of TRC coordination. Thus, the TRC coordination model needs to consider these factors comprehensively. This study also enriches empirical studies regarding the challenges of TRC coordination in Indonesia which can be a reference for further research. Practically, the results of the study can be used as policy recommendations for local governments and Regional Disaster Management Agencies in efforts to improve TRC coordination. The study findings are the basis for preparing targeted action plans to overcome existing problems based on priorities, starting from increasing the budget and infrastructure, strengthening human resources, to improving coordination between related agencies. Thus, this study is useful for encouraging increased capacity and readiness of the TRC through systemic improvements and involving multi-sector collaboration to optimize disaster management. This research has several limitations, including that this study only focuses on one case in the Regional Disaster Management Agency of Gorontalo Province, so it cannot be generalized to the

context of Regional Disaster Management Agencies in other regions without considering differences in regional characteristics. The factors identified as influencing rapid response team coordination in this study have not been analyzed quantitatively to determine their relative influence. The policy recommendations provided need to be complemented by a feasibility analysis and a more detailed implementation roadmap before they can be implemented by the Regional Government and Regional Disaster Management Agencies. This study has not considered the political dynamics and perspectives of decision-makers in implementing policies related to rapid reaction teams in the regions. Further studies are needed with a wider range of respondents to enrich perspectives on rapid response team coordination. Follow-up research using mixed methods is needed to validate the findings while obtaining more comprehensive information. The study has not provided a detailed cost-benefit analysis regarding recommendations for improving infrastructure and budget for rapid response teams. There needs to be regular monitoring and evaluation after implementing policy recommendations to increase the capacity of the rapid reaction team to ensure its effectiveness.

References

- [1] B. R. Shrestha, "An assessment of disaster loss and damage in Nepal," *Geogr Base*, vol. 6, pp. 49–57, 2019.
- [2] W. Kinston and R. Rosser, "Disaster: Effects on mental and physical state," *J. Psychosom. Res.*, vol. 18, no. 6, pp. 437–456, 1974.
- [3] J. B. Houston et al., "Social media and disasters: a functional framework for social media use in disaster planning, response, and research," *Disasters*, vol. 39, no. 1, pp. 1–22, 2015.
- [4] A. Van der Veen, "Disasters and economic damage: macro, meso and micro approaches," *Disaster Prev. Manag. An Int. J.*, vol. 13, no. 4, pp. 274–279, 2004.
- [5] R. E. Caraka et al., "Cluster around latent variable for vulnerability towards natural hazards, non-natural hazards, social hazards in West Papua," *Ijee Access*, vol. 9, pp. 1972–1986, 2020.
- [6] J. Hidalgo and A. A. Baez, "Natural disasters," *Crit. Care Clin.*, vol. 35, no. 4, pp. 591–607, 2019.
- [7] F. Thomalla, T. Downing, E. Spanger - Siegfried, G. Han, and J. Rockström, "Reducing hazard vulnerability: towards a common approach between disaster risk reduction and climate adaptation," *Disasters*, vol. 30, no. 1, pp. 39 – 48, 2006.
- [8] J. H. Bailey and R. D. Deshazo, "Providing healthcare to evacuees in the wake of a natural disaster: opportunities to improve disaster planning," *Am. J. Med. Sci.*, vol. 336, no. 2, pp. 124–127, 2008.
- [9] W. H. Organization, *Global action plan on physical activity 2018-2030: more active people for a healthier world*. World Health Organization, 2019.
- [10] R. Kohongia, L. Van Gobel, and K. S. Arsana, "Factors Inhibiting the Implementation of the Package B Program at SPNF SKB Bolangitang, Bolaang Mongondow Utara Regency," *Formosa J. Appl. Sci.*, vol. 1, no. 6, pp. 1077–1090, 2022.
- [11] P. Hitlin and N. Shutava, "Trust in government," *Partnersh. Public Serv. Free. Consult.*, 2022.
- [12] B. Balcik and B. M. Beamon, "Facility location in humanitarian relief," *Int. J. Logist.*, vol. 11, no. 2, pp. 101–121, 2008.
- [13] J. W. Creswell and J. D. Creswell, "Qualitative methods," *Res. Des. Qual. Quant. Mix. methods approaches*, pp. 183–213, 2014.
- [14] A. Lora et al., "The quality of mental health care delivered to patients with schizophrenia and related disorders in the Italian mental health system. The QUADIM project: a multi-regional Italian investigation based on healthcare utilisation databases," *Epidemiol. Psychiatr. Sci.*, vol. 31, p. e15, 2022.