

THE IMPORTANCE OF DISASTER RISK REDUCTION THROUGH THE PARTICIPATION OF PERSON WITH DISABILITIES IN INDONESIA

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Abstract

Indonesia is a country that is prone to natural disasters. Besides having a high disaster threat, Indonesia also has a high vulnerability to disaster risk. Disasters that occur not only have an impact on casualties as well as material damage and losses, but also raise the potential for the community to become a person with a disability. Persons with disabilities in Indonesia are increasingly vulnerable due to the mismatch between disaster risk reduction efforts and the diverse needs of these groups. Therefore, it is very important to study the urgency of the participation of persons with disabilities in disaster risk reduction efforts so as to make readiness more sensitive to the needs of each type of disability. This paper uses a literature study approach. Participation of persons with disabilities in disaster management activities will further ensure the fulfillment of the needs of persons with disabilities and their handling when a disaster occurs. However, it must be realized that the involvement of persons with disabilities in disaster management efforts is not an easy task, so it requires technical skills, knowledge and goodwill from the parties involved. Mainstreaming of persons with disabilities in disaster risk reduction through effective programs and policies starting from the pre-disaster stage until after the disaster occurs according to the type or type of disability that exists.

Keywords: *Disaster; People with Disabilities; Risk Reduction.*

INTRODUCTION

Indonesia is a country that is prone to natural disasters. This condition makes Indonesia hit by natural disasters that come and go every year. Based on data held by the Indonesia National Disaster Management Agency (BNPb), it is stated that during 2019 from January 1, 2019 to September 30, 2019, there were 2,102 natural disasters throughout Indonesia. The intensity of the events with the most incidents is whirlwind disaster 725 times, landslide disaster 549 times,

flood disaster 549 times, forest and land fire disaster 248 times, the rest is divided into other disasters such as earthquake disaster 15 times, disaster tidal waves or abrasion 7 times, floods and landslides 5 times, and volcanic eruptions 4 times (BNPB, 2019). This natural phenomenon can prove that Indonesia is a country prone to natural disasters.

The various natural disasters that come and go are influenced because Indonesia is located between a subduction zone or the confluence of three tectonic plates that collide, namely the Indo-Australian plate, the Eurasian plate and the Pacific plate. When one of these plates moves, an earthquake, volcanic eruption, and tsunami will occur in Indonesia (CFE-DMHA, 2015). In addition, Indonesia is also located in the path of earthquakes and volcanoes that are considered the most devastating by the United States Geological Surveys (Utomo & Minza, 2016). The route is known as the Pacific Ring of Fire which stretches from the western hemisphere to be precise in Chile, then passes through Japan and Southeast Asia (Israel, 2010). It is also supported by Indonesia's position which is between the equator and has a tropical climate with two seasons that has the potential to cause various disasters, such as floods, landslides, hurricanes, drought, and forest and land fires (Muhammad et al., 2013). Besides having a high disaster threat, Indonesia also has a high vulnerability to disaster risk. This vulnerability has a physical vulnerability due to infrastructure development that has not fully integrated aspects of resilience and security against disaster threats, and non-physical vulnerability due to unclear socio-economic conditions (Maarif, 2013).

It needs to be understood that the impact of a disaster is not only in the form of casualties or material damage and loss. Affected communities have the potential for disability due to collapsing buildings. During the earthquake in 2006, the condition of the settlements in Yogyakarta City had buildings that were not earthquake resistant and with less quality building materials to withstand earthquake shocks (Bappenas, 2006). In addition, late or inaccurate aid actions can lead to the potential for permanent disability which eventually leads to people with disabilities (Probosiwi, 2013). Persons with disabilities are the largest minority group in the world (ILO, 2011). About 15 percent of the world's population or more than one billion people are persons with disabilities (The World Bank, 2016). Handicap International (2016) states that people with disabilities tend to be marginalized and do not appear in the system so that they are missed in disaster rescue and evacuation efforts. This fact drives researchers to the problem that the low participation and appearance of persons with disabilities is not caused by the disabilities they experience, but rather public spaces/ facilities/ services that are not designed for them.

According to data from the Center for Data and Information of the Ministry of Social Affairs (in ILO, 2011) states that people with disabilities in Indonesia in 2010 reached 11,580,117 people and most of them were victims of the 2006 Yogyakarta earthquake. The phenomenon of disability in disasters is not only found in the case of an earthquake in the Special Region of Yogyakarta Province in 2006, but also in the event that the Way Ela dam broke down in Negeri Lima Village, Moluccas Province in 2013. The description of several cases above shows that Person with Disabilities are basically a group that is very vulnerable to disasters. Persons with disabilities have characteristics and needs that can differ from one another. If individuals without disabilities feel the impact and stress that can be due to a disaster, then imagine how the pressure experienced by persons with disabilities with their limitations since the beginning.

Persons with disabilities in Indonesia are increasingly vulnerable due to the mismatch between disaster risk reduction efforts and the diverse needs of these groups. Not participating and being included by persons with disabilities in efforts to reduce disaster risk has resulted in preparations that have not been sensitive to the needs of each type of disability. In formal legality, the issue of persons with disabilities has been mentioned as one of the vulnerable groups that must be prioritized in a disaster. The Convention on the Rights of Persons with Disabilities and Optional Protocol (United Nations, 2006) states that the protection and safety of persons with disabilities is guaranteed in various conditions including disasters. One of the main principles of disaster risk reduction in the Sendai Framework for Disaster Risk Reduction is that all disaster risk reduction efforts must be integrated in various aspects such as gender, age, disability, and cultural perspectives. Law of the Republic of Indonesia Number 24 of 2007 concerning Disaster Management and Regulation of the Head of BNPB Number 14 of 2014 concerning Handling, Protection and Participation of Persons with Disabilities in Disaster Management have also stated that persons with disabilities are prioritized in disaster management efforts. However, in reality these legislation and policies are still not in line with disaster management efforts implemented in the field. Based on the description above, the authors are interested in exploring the importance of disaster risk reduction through the participation of persons with disabilities in Indonesia.

METHOD OF RESEARCH

This paper is prepared using the library research method. This library research is carried out by collecting various reading references that are relevant to the problem under study, then a careful and careful understanding is carried out so as to obtain research findings (Rahmat, 2019). The author conducted an

in-depth literature study to support this research. Literature study is a literature study by utilizing library references by collecting materials in accordance with the object of research (Rahmat et al., 2020; Zed, 2003). These references can be found in books, journals, research report articles and internet sites. The output of this literature study is the collection of references relevant to problem formulation. The aim is to strengthen the problem, as well as as a theoretical basis for conducting studies on the importance of disaster risk reduction based on the participation of persons with disabilities in Indonesia.

RESULTS AND DISCUSSIONS

Understanding the Concept of Participation

According to Mawardi & Sulaeman (2011), participation is the involvement of a person or persons in an activity. This involvement in the form of mental, emotional, and physical involvement in using all the abilities they have in all activities carried out and supporting the achievement of goals and responsibility for all involvement. In addition, Sumarto (2010) states that participation is the voluntary involvement of people without pressure and away from the government or external interests. In line with that, Handayani (2011) also states that participation is active community involvement in the entire process of activities as a medium for growing cohesiveness between communities, and also to foster a sense of belonging and being responsible for the program being carried out. From some of the opinions above, it can be understood that participation is mental involvement, thoughts, emotions, and feelings in an effort to achieve goals, as well as being responsible for the efforts concerned as a medium for growing cohesiveness between communities.

Community involvement in development can be described in several stages as follows:

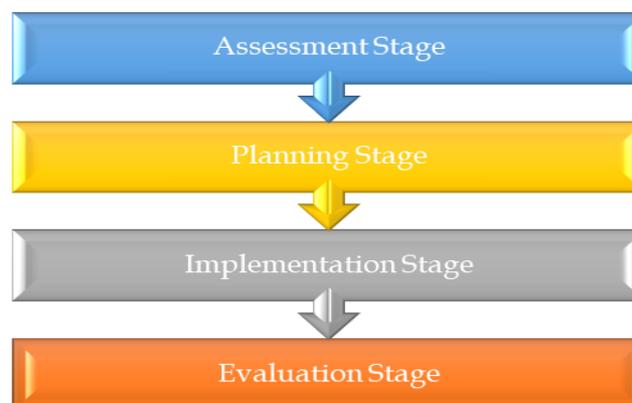


Figure 1. Stages of community involment in development

Based on Figure 1 above, it is known that there are several stages of community involvement in development which are described as follows:

- a. Assessment stage. In this stage, it is done by identifying problems and resources owned by both human resources and natural resources. Therefore, the community is actively involved to continue to feel the problems that occur.
- b. The planning stage of an alternative program or activity. In this stage, it is done by involving residents to think about the problems they face and how to overcome them.
- c. Implementation stage. In this stage, the activities carried out are in the form of programs that have been well planned so that they become the most crucial stage.
- d. Evaluation stage. In this stage, community and government supervision is carried out on ongoing programs in the form of input evaluation, process evaluation, and outcome evaluation (Rukminto, 2010).

Terminology of Person with Disabilities

Persons with disabilities consist of two words, namely persons with disabilities. In Kamus Besar Bahasa Indonesia (2008) it is stated that persons are people who bear or suffer from something. Meanwhile, disability is a borrowed word from English, namely disability which means disability or disability. According to Law Number 19 of 2011 concerning the Ratification of the Rights of Persons with Disabilities, it is stated that persons with disabilities are people who have physical, mental, intellectual, and sensory limitations for a long period of time who interact with the environment and attitudes of the community can encounter obstacles that make it difficult to participate fully and effectively based on equal rights.

According to Law Number 4 of 1997 on Persons with Disabilities, there are several types of persons with disabilities, namely mental disabilities, physical disabilities and multiple disabilities. In addition, Law Number 8 of 2016 concerning Persons with Disabilities states the types of persons with disabilities as follows:

- a. Persons with physical disabilities are impaired in their motor function, including amputation, paraplegia, cerebral palsy, stroke, leprosy, and small people.

- b. People with intellectual disabilities are impaired in their thinking function because their intelligence level is below average, including slow learning, mental disabilities, and down syndrome.
- c. People with mental disabilities are impaired in thinking, emotional, and behavior functions. In this case, the disruption of psychosocial functions such as schizophrenia, bipolar disorder, depression, and personality disorders. Meanwhile, for the disruption of development will be social interactive in the form of autism and hyperactivity.
- d. People with sensory disabilities are impaired by one of the functions of the five senses, including blind, deaf, and speech disabilities.

Introduction of Disaster Risk Reduction

In its global development, since the announcement of the international decade of disaster reduction which was followed by an international disaster reduction strategy, the term disaster risk reduction has emerged. The term disaster risk reduction gives a message to strengthen disaster management in the anticipatory, preventive and mitigative aspects.

Disaster risk reduction is a long-term activity and part of sustainable development (Rahma, 2018). Disaster risk reduction is a concept and practice in reducing the impact of disasters that will occur through efforts in a systematic way to analyze and reduce the factors that cause disasters (Pradika et al., 2018). In addition, according to Twigg (2015), disaster risk reduction is an application of policies, strategies and practices to reduce vulnerability and disaster risk in society in the form of a process using a systematic approach. Meanwhile, the United Nations International Strategy for Disaster Reduction (UNISDR) (in Twigg, 2015) explains that the definition of disaster risk reduction is the concept and practice of disaster risk reduction through systematic efforts to analyze and manage the factors that cause disasters, including through risk reduction. hazards, reducing human and property vulnerability, orderly land and environmental management and better preparedness for worst-case events. From the above definitions or definitions, the purpose of disaster risk reduction is a concept that can be implemented as a systematic effort to reduce disaster vulnerability in the community.

The concept of disaster risk reduction is influenced by the Hyogo Framework Approach 2005-2015 which was agreed upon by the member states of the United Nations at the 2th World Conference on Disaster Risk Reduction in Kobe, Japan in January 2005. This framework defines a number of main

activities and is grouped into the five main priorities in its implementation are as follows:

- a. Ensure that disaster risk reduction is a national and local priority with a strong institutional basis for its implementation.
- b. Identifying, assessing and monitoring disaster risks, and increasing early warning efforts.
- c. Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
- d. Reducing the underlying risk factors.
- e. Strengthening disaster preparedness for effective response at all levels (Twigg, 2015).

This framework has been widely used by governments and civil society organizations as well as companies tailored to their fields and jobs. The continuation of the Hyogo Framework Approach 2005-2015 is the Sendai Framework Approach 2015-2030 which was ratified in Sendai, Japan in March 2015 which raises the following four priority areas: understanding disaster risk; strengthening disaster risk governance; invest in resilience in disaster risk reduction; and prioritizing the principle of build back better in rehabilitation and reconstruction activities (Twigg, 2015). In general, disaster risk reduction is part of disaster management. The way disaster management works is through activities that exist in each work cycle, namely prevention, mitigation and preparedness, emergency response, and recovery (Nurjannah, 2013).

Inclusive Disaster Management Model: A Disability-Based Disaster Management Model

Persons with disabilities are especially vulnerable when a disaster occurs. Their socio-economic and physical vulnerability makes them more vulnerable to disasters. However, unfortunately, persons with disabilities tend to be neglected in the emergency preparedness and registration system. Persons with disabilities are often not included in emergency preparedness and response efforts. This causes them to lack awareness and understanding of disasters and how to deal with them. Due to limited physical abilities, mobility assistance or appropriate assistance, people with disabilities often lack assistance and evacuation services, easy access, good refugee locations, water and sanitation and other services. Emotional conditions and trauma due to disasters during crisis situations sometimes have fatal and long-term consequences for persons with disabilities. Misinterpretation of situations and communication problems make persons with disabilities more vulnerable in times of disaster.

The participation of persons with disabilities in planning for disaster management is important because they better know their own needs. Persons with disabilities, even though they are a vulnerable group, are entitled and deserve to be at the forefront of disaster risk reduction efforts through an inclusive and comprehensive approach to reducing disaster vulnerability.

It should be noted that natural disasters give rise to groups of persons with disabilities, namely victims of injuries or organ malfunctions who will experience disabilities if not handled properly; persons with disabilities before the disaster; and people with organ malfunctioning before the disaster who will experience disabilities if their access and health infrastructure are damaged by the disaster. This group experiences almost the same problems in a disaster situation, when the facilities and handling obtained do not match their needs so that the suffering and vulnerability experienced is multiplied when compared to victims of other disasters. Respect for the human rights of persons with disabilities must be reflected in all aspects of life, including disaster management efforts (Njelesani et al., 2012). This can be done through:

- a. Make agreements with persons with disabilities, regularly review these commitments.
- b. Involve persons with disabilities in leadership positions and in the policy formulation process.
- c. Train staff and employees in dealing with and dealing with persons with disabilities.
- d. Build as many building designs as possible with universal principles, such as ramps in public facilities such as terminals, airports, stations and other public roads.

In dealing with physical vulnerabilities, many easy and cheap ways can be done. First, by identifying the person, the type of disability, and how this can increase the risk of disasters. The next step is to increase the awareness of persons with disabilities of the risks they face and how to deal with them, improve the safety of their homes and workplaces, move them to safe places in the event of a disaster, and meet their special needs after an emergency. In dealing with disasters, the methods used especially in communicating risks and early warning systems are different for each type of disability. Based on Handicap International (2005), the specificity and complexity of each type of disability make their handling and needs specific as well. Table 1 shows a warning system adapted to common types of disabilities.

Table 1. Disabilities and their Relation to Disaster Warning Systems

Type of Disability	Need	Disaster Warning System
Visual disturbances	<ul style="list-style-type: none">- Landmarks/ directions- Hand-rails- Personal support- Good lighting- Separate queue	<ul style="list-style-type: none">- Voice based signal system- Oral announcement- A poster written in capital letters and bold colors
Hearing loss	<ul style="list-style-type: none">- Vision aids- Communication with pictures- Separate queue	<ul style="list-style-type: none">- Visual-based signal systems in the form of symbols, flags, and so on- Picture- Lights flashing signal
Physical disorders	<ul style="list-style-type: none">- Warm clothes/ blankets- Mattresses, dry places and hygienic tools- Personal support- Device- Modified public facilities- Separate queue	<ul style="list-style-type: none">- Voice based signal system- Oral announcement
Mental disorders	<ul style="list-style-type: none">- Speak softly- Simple language- Personal support- Separate queue	<ul style="list-style-type: none">- Special signals in the form of symbols, flags, and so on- A clear and complete announcement by disaster preparedness personnel

There are many things that must be considered and considered during a disaster, especially during an emergency response, including search, rescue, and evacuation of disaster victims, especially persons with disabilities.

- a. Focus on injured victims due to the risk of experiencing temporary or permanent disabilities.
- b. Persons with disabilities must be included in search, rescue and evacuation activities but with special needs.
- c. Persons with disabilities are at risk of getting injured, trapped, trapped, etc. because of their lack of ability to anticipate and react.
- d. Focusing on persons with disabilities who are alone and have not received assistance.
- e. Identifying persons with disabilities.
- f. Search, rescue and evacuation personnel must have knowledge of how to adapt search and rescue techniques to deal with persons with disabilities according to the type of disability.

Their physical limitations cause them to need special services or facilities that support their mobility in times of disaster. Disability-based building designs are needed in school buildings, offices, hospitals, parks, bridges and

public roads. For example, with a special lane for handrails, avoiding stepped roads, completing the road with directions for people with low vision or visual impairments. Training and guidance for handling persons with disabilities during and after a disaster are essential in addition to their involvement in planning disaster preparation and mitigation efforts. The involvement of persons with disabilities in disaster management systems and processes cannot of course be achieved if there is no cooperation and goodwill from all parties: the community, businessmen and the government. This is because meeting the needs and mainstreaming of persons with disabilities in good governance requires coordination from all parties. Changing the mindset and perspective towards persons with disabilities must start from small things. For examples in the development planning process, mapping needs, and solving problems in any situation, including disaster emergency situations. In addition, efforts to empower persons with disabilities are also needed through increasing knowledge and inclusive education for persons with disabilities, providing access to decent work and livelihoods, providing access to politics, and so on.

CONCLUSION

As the group most vulnerable to disasters, it turns out that people with disabilities are not handled properly due to the lack of knowledge about the handling of persons with disabilities during or after a disaster, besides that there is an underestimation of persons with disabilities as a deficient and weak group. Their limited access makes it more difficult for them to develop and participate in the development process. The vulnerability of persons with disabilities becomes a complex problem between physical limitations, low knowledge, and poverty. The participation of persons with disabilities in disaster risk reduction will better ensure the fulfillment of the needs of persons with disabilities and their handling when a disaster occurs. However, it must be realized that the participation of persons with disabilities in disaster management efforts is not easy. It takes technical skills, knowledge and goodwill from the parties involved. The mainstreaming of persons with disabilities in all aspects of social services and social welfare development programs must be realized, not only discussed. Mainstreaming is not only a matter of fulfilling human rights, but also through effective programs and policies from the pre-disaster stage to the post-disaster phase according to the type or type of disability that exists.

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