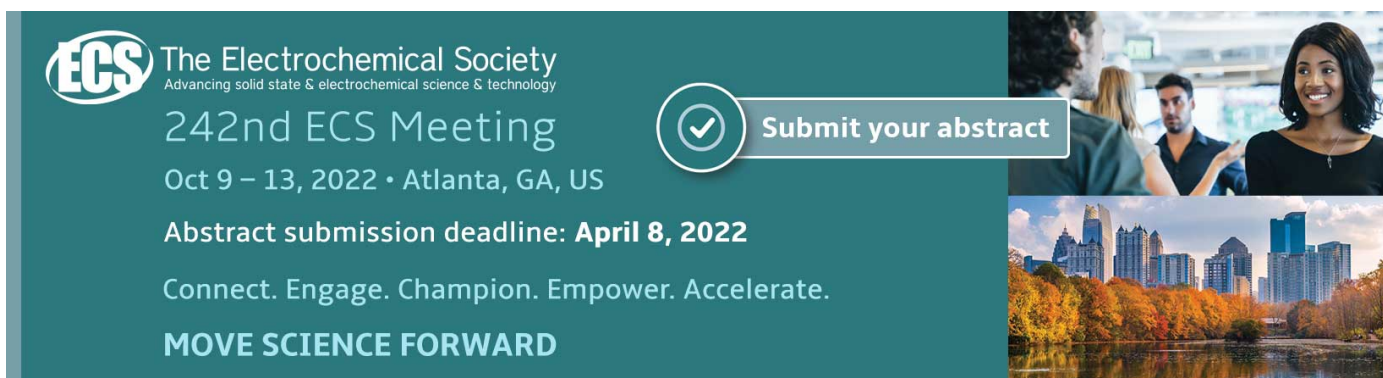


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Protection of the elderly in disaster situations in Indonesia

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Abstract. The territory of Indonesia is an area that is prone to disasters, both natural, non-natural and social disasters. Thus, the elderly in Indonesia live in a situation of threat of disaster. This study uses a secondary data research method with locus is focused on areas of Indonesia where disasters have occurred in the last five years from 2016 to 2020, namely; earthquake in Pidie Jaya, earthquake and tsunami in Lombok, earthquake and tsunami in Palu, social disaster in Mempawah-West Kalimantan, flash floods in Garut, and the Covid-19 disaster. The data collected was then analyzed using document analysis techniques.

Our analysis result concluded that the absence of caregiver who specifically provide programmed assistance, makes the elderly feel lonely, stressed and traumatized. Social workers contribute to the handling of the elderly in disaster locations focused on psychosocial support, and advocacy of legislative policies.

1. Introduction

Population aging is one of the issues faced by many countries in the world today. In 2015, the number of elderly people in Indonesia reached 21.6 million. This number will increase to 28.7 million, 49.6 million, and 61.4 million in 2020, 2035, and 2045 respectively (BPS: 2015-2025). The geographic location of the Indonesian territory which is between the Eurasia-Australia Plate, with the plate rate is 52 mm /year indicating the area with the plate; fractures, folds, and ridges. As a result, Indonesia is prone to earthquakes, tsunami, volcanic eruptions and landslides.

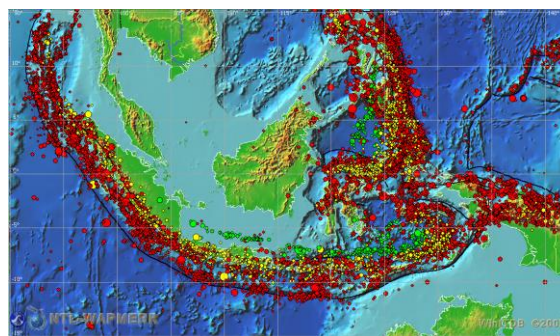


Figure 1. map: Indonesia is prone to disaster

The earthquake and tsunami that occurred at the end of 2004 in Nanggroe Aceh Darussalam, the eruption of Mount Merapi in Central Java (2010), the earthquake in Pidie Jaya Aceh (2016), the earthquake which was accompanied by the tsunami in Lombok (2017), The earthquake and tsunami disaster in Palu (2018) was a national scale natural disaster that occurred in the territory of Indonesia.



The occurrence of various disasters in Indonesia resulted in casualties and property, including the elderly. The disaster victims who survived were forced to flee to a safe place. They occupy Internally displaced persons (IDPs) camps with limited clothing, assets and food. The opportunity to fulfill their basic needs is very limited. In addition, some elderly refugees also experienced traumatic conditions as a result of the disaster which was seen as a devastating event, namely with life and death, which may still leave a profound mark on the psyche. Table 1 below is an overview disasters in Indonesia over the last 5 years

Table 1. Number of disasters victims in Indonesia last 5 years

Year	Location and type of disaster	Number of Deaths	Number of survivors / IDPs
2016	earthquake in Pidie Jaya – Aceh	104	43.529
2016	flash floods in Garut district	41	6.361
2016	social conflict of Gafatar in West Kalimantan	-	1,124
2017	earthquake and tsunami in Lombok	436	352.793
2018	earthquake, tsunami and liquefaction in Palu –Central Sulawesi	2.073	82.775
2020	non-natural disasters Covid-19	2.138 (16,5%)	october, 2020

Source: results of study, 2020

In social work research, disasters are seen as a type of collective stress situation, in which many individuals fail to have their needs met through societal processes [15]. Disasters are distinguished from other types of collective stress because, first of all, disasters are crisis situations [15]. In the social work perspective, the environment is included among the physical, biological and social factors influencing the welfare of individuals, groups, and populations. Since the late nineteenth century social workers have intervened in the microenvironments of people to improve their health status, residential living environment, workplace conditions, and social and psychological functioning [15].

There is a lack of studies explaining assistance for elderly people in disaster situations in Indonesia. Therefore, this study will contribute to the development of literature so that the literature gap on disasters and elderly people will be small. In the topic of research on the protection of the elderly in disaster situations, social workers can have a significant role both in policy advocacy and in developing methods and techniques for psychosocial support so that the elderly in disaster situations can still carry out their social functions. The purpose of this research is to broaden knowledge about the protection of the elderly in disaster situations, and the role of social workers in providing assistance to the elderly, especially during their time of displacement. This study explores the contribution of social workers to assisting the elderly in obtaining fulfillment of basic needs which include food, clothing and shelter needs, health services, and psychosocial support. The main research question is how the role of social workers in protecting the elderly in disaster situations.

2. Literature Review

2.1. Elderly in a biopsychosocial-spiritual perspective

Old age is one of the main events in a person's life span. Age 65 years is generally the middle age between middle age and old age [10]. Gerontologists who specialize in medical care for the elderly, divide old age into 2 groups, namely middle old age (65-74 years) and old age (75 years and over). The biopsychosocial-spiritual is the perspective most used and accepted in various professional humanitarian service activities, especially social work (Hooyman and Kiyak (1999) cited by Adi Fahrudin (2000) [1]. To understand humans as a whole; thoughts, behavior, feelings, hopes, aspirations, desires, needs, illnesses, disturbances, it is necessary to understand the human being in the context of the situation / environment in which he is in the past and present Hooyman and Kiyak (1999) cited by Adi Fahrudin (2000) [1].

The biological aging process is a physical change that reduces the efficiency of the human organ systems, such as the heart and the circulatory system. Some physical signs of old age are changes in physical form such as; slow response, loss of motor and sensory functioning, tendency to more rapid fatigue, decreased energy and some or all. This is sometimes combined with chronic or progressive diseases due to a trait of disability. The psychological aging process refers to changes in sensory processes, perceptual processes and mental functioning (such as memory, learning and intelligence), adaptive capacity, and personality. The behavior of older people is often compared to younger individuals. The difference that appears between the two groups is seen in the psychological aspects of the elderly in such aspects as their intellectual ability to learn, solve problems and be creative. Presumably, each age group has different events and different social situations. This suggests that intellectual acceptance is more related than the illness and disease of the elderly.

Like the biological and psychological aging processes, social aging process their social role and their relationships also diminish. Most people who lived in the last century through the fourth decade of life, and because their lives are rooted in an economic system that depends on the family as the unit of life, there is always a place of old age in family and community life, including as parents and grandparents, grand mother. However, with the changes taking place through organization and industrialization, there have been family breakdowns. As a production unit. With the increasing number of people living into the next decades of life, there has been a change in the age structure of a society.

Physiological, psychological and social changes contribute to changes in the religious dimension. Older people who can accept the essence of their aging consider old age an opportunity to fill with religious life. But not a few of them, especially the drastic physiological, psychological and social changes caused them to lose faith in their God. This also has implications for changes in aspects of their life expectancy. Their life motivation also changes. In the religious dimension, important factors that need to be understood by social workers are how the philosophy of life, peace in life, meaning of life, life goals, the spirit of life in the elderly and how strong the faith they show when facing trials in their lives [1].

2.2. Protection of the elderly in disaster situations

International conventions in the Vienna International Plan of Action on Aging discuss health and nutrition, protection of the elderly, housing and environment, family, social welfare, income and employment security, education, as well as research data collection and analysis. In the United Nations Principles for Older Persons (United Nations, 1998), there are important things for the elderly, which are related to independence, participation, treatment, self-fulfillment and dignity. Likewise with the Madrid International Plan of Action on Aging (United Nations, 2008) which emphasizes on improving the health and well-being of the elderly, and increasing the capacity and support of the environment.

Zakour argues that social work disaster research has contributed new findings on the uses and effectiveness of debriefings, disaster volunteers and service delivery, vulnerable populations in disasters, organizational and interorganizational behavior in disasters, environmental disasters, cross-cultural and international aspects of disaster response, and improved measurement and theory. The scope of these contributions reveals a generalist approach to disaster response, such that social work research and intervention focuses on systems of various sizes and levels of abstraction. Improved measurement and theory has resulted from research on volunteerism, organizations, interorganizational networks, communities, and vulnerable populations [15].

In an emergency situation due to a disaster, Law no. 24 of 2007 concerning disaster management, in particular Articles 48 and 55 have emphasized that in carrying out disaster management it is necessary to protect vulnerable groups such as children, persons with disabilities, and the elderly. Protection for the elderly in a disaster emergency situation includes:

- a) Rescue and evacuation of elderly disaster victims to temporary shelters by emphasizing efforts to save and protect

- b) Recovery of physical conditions in the form of providing food and side dishes, and clothing. Food assistance and physical care are urgently needed by elderly people who experience physical, mental, physical and / or mental wounds for ease of activity and efforts to improve their physical and psychological abilities,
- c) Recovery of elderly psychological conditions, through counseling, psychosocial and trauma healing.

2.3. Social work with the elderly in disaster situations

The International Federation of Social Work (IFSW) defines social work as follows: “The social work profession promotes social change, problem solving in human relationships and the empowerment and liberation of people to enhance well-being. Utilising theories of human behaviour and social systems, social work intervenes at points where people interact with their environments. Principles of human rights and social justice are fundamental to social work.”(IFSW, 2000). Therefore, Social work is a profession that provides help to people who have difficulty carrying out their life tasks. As the incidence of natural disasters particularly earthquakes, has increased in the last two decades, studies on disaster have began to emerge and expand (Seroka, C.M., Knapp, C., Knight, S., Siemon, C.R., and Starbuck, S., 1986; Dufka C.L., 1988; Banerjee & Gillespie, 1994; Webster, 1995; Dodds and Nuehring, 1996). These early studies mainly focused on the roles and functions of social workers in the rescue stage. After the earthquake in Iran, Mohammad Reza Iravani listed techniques social workers can apply in the disaster relief including situational support, creating hope, consoling, assuring, concentrating and solution developing.

Meanwhile, Barush, Amanda (2011:348) say that physical aging and social indifference increase the physical vulnerability of elders, they may be more resilient than young adults to the psychological effects of disaster. Following his extensive review of literature in the area, Ehren Ngo described the “protective effect of older age on psychological health in the event of disaster exposure ...” (p. 83), citing studies that found elderly disaster victims report less anxiety, show less stress, are less anxious, and are less likely to suffer from long-term mental health problems than younger victims (Ngo, 2001). Of course, it is also possible that older adults manifest their emotional reactions in ways that are less easy to detect. Furthermore, Amanda Barush (2011:349) say that social work practitioners also contribute to disaster response efforts to provide housing assistance or emergency food, as well as counseling and mental health care [3]. The latter may be less relevant to the needs of older adults, who may be inclined to cope independently with disasters’ psychological sequelae. There is some evidence to suggest that in the aftermath of disaster, older adults are as willing as younger groups to receive tangible assistance, but less willing to access mental health services. This preference has been attributed to stigma associated with counseling, as well as concerns about loss of autonomy, both of which should be taken into account in disaster response (Huerta & Horton, 1978)

Wong HC Johnston (2014:9) say that in Asia and the Pacific Region, The Kobe earthquake on Jan 17, 1995 and the 921 earthquake in Taiwan that occurred in 1999 sparked a number of studies on the roles and functions social workers play in restoring survivors mental health [14]. The need to develop work manuals was recognized and the danger of inappropriate assessments of the mental states of the survivors by untrained volunteers was raised. Social work practitioners and educators have also tried to develop post disaster actions guidelines from rescue stages to reconstruction stage. The need of an action model to guide disaster social work, which was fully recognized by the social work profession after the 911 incident, was addressed by Albert R Roberts who outlined social work tasks and methods in great details in his article “The Assessment, Crisis intervention and Trauma Treatment: the Integrative ACT Intervention Model” (2002).

Table 2. The Albert Robert's ACT Model

A	Assessment - Assessment/Appraisal of Immediate Medical Needs, Threats to public safety and property damage - Triage Assessment, Crisis Assessment, Trauma Assessment and Biopsychosocial and Cultural Assessment
C	Crisis Intervention - Connecting to support groups, the Delivery of Disaster Relief and Social Services, and Critical Incident Stress Debriefing (Mitchell & Everly's CISD Model) Implemented - Crisis Intervention (Roberts' Seven-Stage Model) Implemented, Through Strengths Perspective and Coping Attempts Bolstered
T	- Traumatic Stress Reaction, Sequelae, Posttraumatic Stress Disorders (PTSD) - Ten Step Acute Trauma and Stress Management Protocol (Lerner & Shelton) - Trauma Treatment Plan and Recovery Strategies Implemented (Brief Treatment and Crisis Intervention/ 6:1, Spring 2002)

His ACT Model is consistent with the Zunin and Myers' Phases of Disaster which is widely adopted in the mental health profession. Unfortunately Robert has left two key questions unanswered. Both Roberts and Myers are concerned about how to help the victims and survivors at the Impact stage and the Disillusionment stage. However, what differences are there between the roles of social workers and mental health professionals? Another question concerns the reconstruction phase. Roberts has only focused on treatment. What roles are there for social workers to play then in the redevelopment of the disaster sites and the prevention of future disasters?

3. Methods

The research was conducted using secondary data research methods. Heaton which is followed by Andrews, et.al., (2012:12) states that: "secondary data research method is a research strategy that utilizes existing quantitative or qualitative data to find new problems or test the results of previous research". In this study, the researcher aims to collect a number of data from various parties regarding disaster events in Indonesia in the last 5 years from 2016 to 2020 and victims affected by disasters, including the elderly, for analysis so that conclusions. As for the secondary data research steps are as follows; determine the data source, collect data that is already available, data normalization, and data analysis [13].

The data source of this research is based on social facts that in the last five years, natural disasters have occurred in Indonesia, namely; earthquake disaster in Pidie Jaya-Aceh (2016), earthquake and tsunami disaster in Lombok-West Nusa Tenggara (2017), earthquake and tsunami disaster in Palu-Central Sulawesi (2018). Furthermore, a social disaster was in the form of displacement of ex Gafatar families in Pontianak-West Kalimantan (2016). Local scale natural disasters such as those that occurred in flash floods in Garut Regency (2016), and non-natural disasters, namely Covid-19 (2020). Secondary data from the areas where the disaster occurred can illustrate how the elderly live in disaster situations.

The data collected was then analyzed using document analysis techniques, namely analyzing data from various documents to answer questions about the protection of the elderly in disaster situations from the aspect; fulfillment of basic needs, health, and psychosocial support services.

4. Results and Discussion

4.1. The problems of the Elderly in disaster

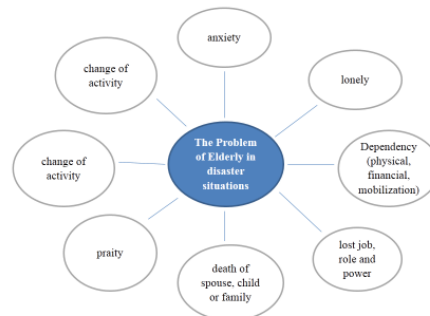


Figure 2. The problems of elderly in disaster situation

The problems of elderly in the six disaster locations, namely in Pidie Jaya, Garut, West Kalimantan, Lombok, and Palu-Central Sulawesi include; anxiety, loneliness, physical dependence, financial and mobilization, loss of job, role and power, death of spouse, children or family, praity, changes activity, and absence of caregiver.

4.2. The fulfillment of basic needs of the disaster survivor

Table 3. Fulfillment of basic needs for disaster survivors

Year	Location and type of disasters	fulfillment of basic needs
2016	earthquake in Pidie Jaya – Aceh	<ul style="list-style-type: none"> • Food, tent post 10 pieces, genset / 2,800 watts 10 units, • family kit, community donators in the form of: food aid, snacks, drinking water, clothing. • Assistance comes from the Ministry of Social Affairs, BNPB, BPBD, NGOs and donations from the community. Data source: <ul style="list-style-type: none"> • Tribune News.com: 08/12/ 2016 • Muksalmina Fadri and M. Zuhri: Syiah Kuala Banda Aceh University
2016	flash floods in Garut	Ready meals, communal kitchen, Data source: https://www.liputan6.com VIVA.co.id. 09/22/2016
2016	social conflict of Gafatar in West Kalimantan	Food, tent, bedding, communal kitchen Data source: Sindonews, 01/20/2016
2018	earthquake and tsunami in Lombok	Ready meals, communal kitchens, foodstuffs in the form of rice and side dishes, tents. Data source: <i>Antara news</i> 12/10/ 2018 Ragam Institute
2018	earthquake, tsunami and liquefaction in Palu – Central Sulawesi	Food, communal kitchen, foodstuffs in the form of rice and side dishes, tents. Data source: Kompas.com, 09/10/2018 Ragam Institute, 30/10/2019
2020	non-natural disasters Covid-19	Bantuan sosial berupa bahan makanan Source: Ministry of Social Affairs, December 2020

Table 4. Health services for disaster survivors

Year	Location and type of disasters	Forms of healthcare
2016	earthquake in Pidie Jaya – Aceh	<ul style="list-style-type: none"> • psychiatric specialists, medical personnel, • assistance with medicines, • medical examination, treatment of injured Data source: BPBD Pidie Jaya, Liputan6.com, 12/13/2016
2016	flash floods in Garut district	<ul style="list-style-type: none"> • Handling of injured • health services through mobile health centers in the camp
2016	social conflict of Gafatar in West Kalimantan	<ul style="list-style-type: none"> • medical examination of survivors • prepare a number of medicines • mosquito repellent lotion
2017	earthquake and tsunami in Lombok	<ul style="list-style-type: none"> • Health services for severely injured, postoperative, outpatient patients • health checks and data collection of disease history of disaster victims during the evacuation • provision of clean water and sanitation
2018	earthquake, tsunami and liquefaction in Palu – Central Sulawesi	<ul style="list-style-type: none"> • health services at evacuation posts for survivors including 18,634 elderly, • physiotherapy of 551 people • supplementary feeding for pregnant women and toddlers • tracking cases of malnutrition at evacuation posts
2020	non-natural disaster Covid-19	<ul style="list-style-type: none"> • prevention of transmission for the elderly at the community level • health services for the elderly in health facilities • blood pressure test and blood sugar test

Table 5. Psychosocial support for survivors

Year	Location and type of disasters	Forms of psychosocial support
2016	earthquake in Pidie Jaya – Aceh	<ul style="list-style-type: none"> • religious lectures, targhib (encouraging) for disaster survivors • psychosocial support services by the community service center team of the Bandung College of Social Welfare (STKS) in the form of; rapid assessment in biopsychosocial perspective, psychosocial interventions with various techniques including catharsis, initial psychological assistance, support, life review therapy
2016	flash floods in Garut district	STKS team and other volunteers conduct of psychosocial support
2016	social conflict of Gafatar in West Kalimantan	<ul style="list-style-type: none"> • The Ministry of Social Affairs Psychosocial Support Team conducts psychosocial support especially for children to restore psychological and social conditions • The psychosocial support team of The Bandung College of Social Welfare (STKS) in collaboration with HIMPSI West Kalimantan conducts psychosocial support, starting with rapid assessment and psychosocial inrvence with various techniques including social conversation, counseling, emotion freedom technique
2017	earthquake and tsunami in Lombok	<ul style="list-style-type: none"> • Psychosocial support in the form of medikasi and psychotherapy include cognitive and behavioral therapy, body-based interventions, eye movement desensitization and reprocessing (EDMR) Source: Zurriyatun Thoyibah, Dewi Nur Sukma Purqoti, Elisa Oktaviana (2019) • The psychosocial support team of The Bandung College of Social Welfare (STKS) in collaboration with HIMPSI West Kalimantan conducts psychosocial support, starting with rapid assessment and psychosocial inrvence with various techniques including social conversation, counseling, emotion freedom technique
2018	earthquake, tsunami and liquefaction in Palu – Central Sulawesi	<ul style="list-style-type: none"> • The Indonesian Red Cross (PMI) has conducted trauma recovery for vulnerable groups in accordance with the results of a quick review. Then do psychological first aid, psychoeducation on things that are considered to have a negative impact on the affected communities • STKS Bandung team conduct psychosocial supprot, starting with rapid assessment and psychosocial inrvence with various techniques such as social conversation, counseling, emotion freedom technique
2020	non-natural disasters Covid-19	<ul style="list-style-type: none"> • The Ministry of Health conducts mental health guidance for the elderly • The Ministry of Social Affairs through the center of social rehabilitation of the elderly conducts psychosocial guidance for the elderly both in the elderly and those in the community.

Researchers when they came to disaster sites in Pidie Jaya (2016), Garut (2016), West Kalimantan (2016), and Palu-Central Sulawesi (2018), provided psychosocial support to the elderly through several techniques including; ventilation, therapeutic communication, social conversation, emotional freedom techniques (EFT), and other techniques. However, the researchers saw firsthand that the elderly in the disaster area did not receive intensive assistance from volunteers, they saw that the elderly had received assistance of basic needs and health services. Volunteers are more focused on providing psychosocial support for children.

Regarding the 2020 Covid-19 pandemic specifically for the elderly as the group most at risk, researchers did not have the opportunity to do further research considering the limited access due to the social distancing and physical distancing policy. What researchers can do is study the number of elderly people who died until October 2020 as many as 2.138 people (16.5%) of the total deaths, and government policies in handling covid-19 for the elderly. The Ministry of Health has issued Guidelines for Elderly Health Services in the 2020 Covid-19 Pandemic Era. This guide to be a reference for health workers in health facilities in carrying out health services for the elderly. The Ministry of Social Affairs has implemented programs and activities to deal with the impact of Covid-19 for the Elderly in the form of; food assistance, temporary shelter equipment such as blankets, cooking utensils, kits for the elderly, and psychosocial support services.

4.3. Discussion

Disasters, both natural disaster, non-natural disasters and social disasters have prompted various parties to be involved in paying attention, mobilizing aid, handling emergency and post-emergency operations. In the last five years, earthquakes in Pidie Jaya (2016), earthquakes and tsunamis in Lombok (2016), earthquakes, tsunamis and liquefaction in Palu, Central Sulawesi, local scale disasters such as flash floods in Garut (2017), and social disasters in the form of social conflicts between community members and the Gafatar community in West Kalimantan (2016).

Various central government agencies and local governments, the world of education, business institutions to various community organizations are moving to help disaster victims, either directly or indirectly. Handling and assistance for disaster victims can be in the form of; fulfillment of basic needs which include food, clothing, and shelter, then health services, and psychosocial support services or trauma healing.



Figure 3. Researcher: Tukino at Pidie Jaya

Based on the results of the secondary data study as described above, the handling and assistance of disaster victims for the elderly is still very limited, especially services to deal with social and psychological impacts.

The results of observations by researchers in the field, volunteers or caregivers who came to disaster locations were more focused on children, and did not pay special attention to the elderly. Thus, it can be said that the elderly in the disaster area did not receive assistance from the volunteers. Though, like children, the elderly also need a touch of the soul as long as they are in a disaster situation, so that the elderly can feel safe, comfortable, and still have fun.

5. Conclusion

Efforts to protect the elderly as a vulnerable group in disaster situations are still not optimal. The implementation of Article 55 paragraph 2 of Law Number 24 of 2007 concerning Disaster Management which provides protection for vulnerable groups, does not seem to have been done by the government, both central and regional, even volunteers. The elderly as a vulnerable group have not become a priority in disaster management.

This paper recommends incorporating specific materials about the elderly in disaster situation into the draft amendments to the law on the elderly that is being drafted. Disaster material in the draft law or in the future the new law on the elderly, will strengthen the mainstreaming of the elderly in disaster management. Mainstreaming the elderly in disasters should also target sustainable social protection programs for disaster victims so that they do not fall into poverty due to disasters. Other things that must also be included in the bill are gender issues, attention to elderly women as well as issues of empowerment and protection of the elderly which were previously not explored in the current law, namely Law Number 13 of 1998 concerning Elderly Welfare.

Finally, the authors hope that the new law on the elderly adopts a human rights approach (right-based approach) that encourages the obligation holders, namely the state, to carry out their obligations to fulfill and protect vulnerable groups. In the context of disaster management, these obligations include providing special treatment to the elderly during disaster situations, both pre-disaster, during disaster, and post-disaster.

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