

Strategies and Interventions for Humanitarian Shelters for Natural Disasters during the Covid-19 Pandemic

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ABSTRACT: Indonesia is one of the countries with a high threat of disaster risk. When a disaster occurs, directly or indirectly, the destruction of houses and public facilities makes the need for shelter the greatest and most urgent need. Therefore, shelter interventions need to be integrated with other interventions such as clean water and sanitation, child protection, protection of women's rights, disabilities, and other vulnerable groups, recovery, health, livelihoods, and other sectors in the national disaster management cluster. The novelty of this research is the Strategy and Intervention of Humanitarian Shelters for Natural Disasters During the Covid-19 Pandemic by integrating aspects of the risk of Covid-19 transmission. This study uses a qualitative research method with a descriptive approach with secondary data sources in answering research problems. Research answers will be described based on the data and facts obtained in the data collection process, which will then draw conclusions based on the results of the analysis that has been carried out. The data analysis used is the data analysis technique developed by Miles, Huberman, and Saldana (2014), which consists of data collection activities, data reduction, data presentation, and data verification or concluding. The results of this study indicate that strategies and interventions for humanitarian shelters for natural disasters are needed during the Covid-19 pandemic. These strategies or interventions include shelter needs that are following the needs of the community,

KEYWORDS – Strategy and Intervention; Humanitarian Shelter; natural disasters; Covid-19 pandemi

I. INTRODUCTION

As a consequence of Indonesia's geographical and geological location, apart from giving this country a source of natural wealth, it is also prone to disaster threats (Maarif & Theresya, 2017). Geologically, Indonesia is a meeting country of active tectonic plates which makes it prone to volcanic disasters, earthquakes and tsunamis. On the other hand, Indonesia's geography with a tropical climate that is located between two continents and oceans makes it prone to multiple natural disasters such as earthquakes, tsunamis, floods, landslides, and other natural disasters.

This geographical and geological condition has the consequence that there are no districts or cities that are free from the threat of disasters in Indonesia (National Agency for Disaster Management, 2021). It is Indonesia's obligation to protect its citizens from the threat of disaster. This is stated in the fourth paragraph of the mandate of the 1945 Constitution. In addition, the affirmation of protection against the threat of disaster is reaffirmed in Law 3/2002 on national defense (Indonesia, 2002; RI, 1945). Disaster is a non-military threat (Yuliato et al., 2021) which if

underestimated will have an impact on the paradigm that disaster is a threat that cannot be overcome or even resisted and eliminated (Maarif, 2012).

Throughout January 2021 to December 28, 2021, 3058 disaster events occurred throughout Indonesia, dominated by floods, followed by extreme weather, landslides, and forest and land fires. The impact of natural disasters on society in this period was very diverse, at least more than 141 thousand houses were damaged, and thousands of other public facilities were damaged (BNPB, 2021). In addition to natural disasters, during this period, the Government of Indonesia declared the spread of Covid-19 as a non-natural national disaster (Ponangsera, Apriyadi, Hartono, & Wilopo, 2021).

Natural disasters that occur during the Covid-19 pandemic directly or indirectly increase the risk of spreading Covid-19 (Apriyadi & Amelia, 2020) in the natural disaster humanitarian cluster. This paper, in addition to aiming to describe the disaster conditions during the Covid-19 pandemic, but also analyzes the strategies and interventions for humanitarian shelters for natural disasters during the Covid-19 pandemic. The significance of writing in this research is important to be implemented immediately, considering the cycle of natural disasters that befell Indonesia. The results of the analysis of strategies and interventions for humanitarian shelters for natural disasters during the Covid-19 pandemic are a database and input material in the implementation of preparedness strategies and preparedness actions in dealing with natural disasters in Indonesia.

II. RESEARCH METHODS

This study uses a qualitative descriptive method using case studies of natural disasters that occurred in Indonesia. The source of research data comes from secondary data collected through observations of books, journal publications, Regulations of the Head of the National Disaster Management Agency, and Indonesian publications in 2021 numbers in answering research problems. Answers to research in the form of strategies and interventions for natural disaster humanitarian shelters during the Covid-19 pandemic will be described based on the data and facts obtained in the data collection process, which will then draw conclusions based on the results of the analysis that has been carried out. The data analysis used is data analysis techniques consisting of data collection activities, data reduction, data presentation, (Miles, Huberman, & Saldana, 2020).

III. RESULTS AND DISCUSSION

In the results and discussion section, researchers present 7 strategies and interventions for natural disaster humanitarian shelters during the Covid-19 pandemic that can be done, namely conformity to community needs, conformity to local context and culture, providing options or options to support the transition to a better life. , considering the risk of Covid-19 transmission for each intervention option that will be given, active community involvement, strengthening local capacities, use of harmless building materials/materials in the construction of humanitarian shelters for natural disasters, and preparedness strategies for natural disasters during the Covid-19 pandemic. , as well as action for preparedness and handling of natural disasters during the Covid-19 pandemic

3.1 Conformity to the needs of the community

The development that has been or will be carried out should not be oriented solely to the wishes of the community, therefore planning is needed in every program and activity whose orientation is the needs of the community affected by natural disasters, especially during the Covid-19 pandemic.

At the time of a disaster emergency, it usually requires efforts through a series of programs whose implementation must be carried out immediately at the time of the disaster to minimize the impact caused by a disaster, including activities such as only the rescue and evacuation of victims or search and rescue (SAR) programs, property , fulfillment of basic needs (emergency assistance), protection, management of refugees (refugees), rescue, and immediate restoration of vital infrastructure and facilities. (Subagyo & Rusfiana, 2018). Therefore, up-to-date data-based information is needed that is officially submitted and according to needs and targets

3.2 Adaptability to the local context and culture

Conformity to the local context and culture is one of the ways and strategies developed by community members, this conformity to the local context and culture basically grows from the community's knowledge of

the problems that exist in life and the environment for generations, or commonly known as local wisdom.(Alhadi & Sasmita, 2014). Local wisdom is basically created and developed by the community itself whose dissemination is not done formally, but collective ownership is in the community. The development of local wisdom is developed directly by many elements and generations of a community so that the adaptation of its implementation feels easy to implement and can be implemented through social activities as one of the community's strategies in maintaining their lives.(Suparmini, Setyawati, & Sumunar, 2014).

The following are 4 reasons why it is important to include elements of local wisdom in the strategy and intervention of humanitarian shelters for natural disasters during the Covid-19 pandemic, the first is because various implementations of local community capacities illustrated through local wisdom have been able to save communities in facing natural disaster risks in a sustainable and sustainable manner. it is possible to be adopted by other communities in overcoming the same problem related to disaster risk reduction based on local wisdom.

The second reason is that the combination of local wisdom in every program and strategy implementation will basically maximize the participation and empowerment of community groups to have their participation in any disaster risk reduction efforts in Indonesia. The next core reason is that there is implied or explicit data and knowledge through local wisdom that can be used to maximize the implementation of each disaster risk reduction activity through the local context and culture. The last reason is the informal way of disseminating local wisdom that can optimize efforts in every program related to disaster risk reduction.

3.3 Giving Options Or Choices Supports The Transition To A Better Life.

When a disaster occurs, the need for shelter is one of the basic needs that has a high urgency to be fulfilled immediately. Therefore, shelter interventions need to be integrated with other interventions such as clean water and sanitation, child protection, protection of women's rights, disabilities, and other vulnerable groups, recovery, health, livelihoods, and other sectors in the national disaster management cluster, as described above. can be seen in Figure 1.

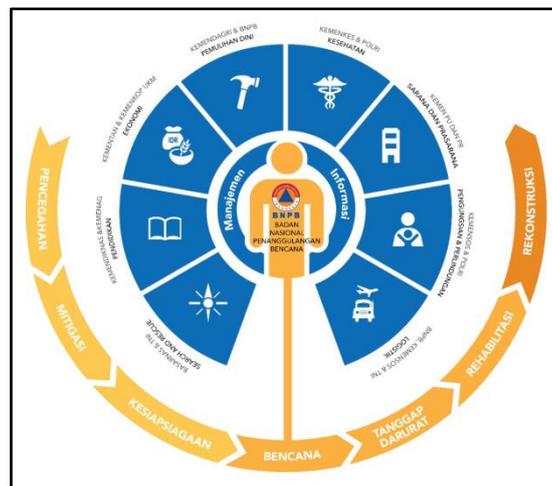


Figure 1. National Disaster Management Cluster

Figure 1. Explains that the national disaster management cluster consists of 8 clusters, namely health cluster, search and rescue cluster, logistics cluster, refuge and protection cluster, education cluster, facilities and infrastructure cluster, economic cluster, and early recovery cluster, with the shelter sector how much humanity in the refugee and protection cluster.

This is in accordance with the legal basis in the form of Minister of Social Affairs Regulation Number 26 of 2015 concerning Guidelines for Coordination of Refugee and Protection Clusters which explains that it is necessary to implement safe, comfortable, and dignified shelter programs and support a smooth transition to recovery, in accordance with humanitarian standards.(Fernandez & Ahmed, 2019; Imperiale & Vanclay, 2020).

Some of the things that became problems and became lessons learned for previous shelters were the many people and institutions that provided a form of shelter support to the community, but often it was done

with very poor quality, not according to standards, did not report the goals and what they had done and sometimes support one sub shelter is misused as a solution for all disaster management problems.

Therefore, a capacity building strategy for disaster management sub-shelters is needed, such as compiling standards related to shelter, technical assistance in policy making, building coordination mechanisms between humanitarian actors, building capacity through technical guidance, encouraging changes to the shelter paradigm as a process, not a product.

The main reason for changing the shelter paradigm as a process and not a product is that poor shelter handling since the disaster emergency period will cause long-term social problems. Basically the shelter does not only provide a building with four walls and a roof.

Basically, shelter is a process of assisting disaster-affected residents in the process of providing adequate housing, where each person or family in the community has their own rights and choices in the recovery process from the impact of a disaster, which ensures that affected residents can transition to a better life with a sense of belonging, safe, comfortable and dignified, as well as providing them with protection from adverse influences (against weather and other natural conditions, disease, violence, crime and other dangers).

This explains that the shelter process means involving affected people by consulting with them to choose the most appropriate and possible options and options for each family by taking into account gender equality, an inclusive approach, as well as deliberation and consensus decision-making, because every family in communities have unique characteristics, have different needs, as well as diverse vulnerabilities and capacities.

3.4 Considering the risk of Covid-19 transmission for each intervention option that will be given.

Considering the risk of Covid-19 transmission for each intervention option that will be given, especially the selection of communal shelter options which at least have a greater potential risk. Accelerate and ensure that people who are still living in emergency shelters can quickly transition to a safer situation from the health aspect (Hadi, 2020; Saragih, Hartati, & Fauzi, 2020).

Several health protocols for handling natural disasters during the Covid-19 pandemic include separating vulnerable groups in refugee camps, continuing to apply the movement to wear masks, wash hands with soap and running water, maintain distance, stay away from crowds, and Limiting mobilization and interaction, continuing to apply COVID-19 testing (testing), tracing close contacts (tracing), and follow-up in the form of care for Covid-19 patients (treatment), shortening the emergency period while in evacuation centers, health workers and health volunteers are present. at the evacuation site and the provision of Covid-19 isolation places and their equipment (Hadi, 2020; Poli, Wibowo, & Subiakto, 2021).

3.5 Active community involvement

The active involvement of the community is basically because the community is end to end in tackling a disaster. End to end in disaster management means that from community to community (Maarif, 2012). The community is the human group who first learned about the occurrence of a disaster and who was affected by the disaster, meaning that whatever our efforts in disaster management, everything must lead to the community, namely the safety and welfare of the community from the threats and dangers of disasters.

Learning from experience, the community always has the wisest ways to fight, avoid, and adapt to disaster hazards or threats. This experience has usually been studied by the community for years and is evident in their lives. From this lesson, the community discovers a cultural strategy, which we know as community wisdom which is very specific in dealing with disasters in their respective regions. (Aprilyanto, Apriyadi, Winugroho, Widana, & Wilopo, 2021).

Therefore, active community involvement is required in every phase of activity, from planning to monitoring and evaluation. However, in specific cases such as the occurrence of natural disasters during the Covid-19 pandemic (multi-disaster), any direct discussion with the community must always be carried out by always complying with health protocols by limiting the number of participants, using masks, maintaining a safe distance and providing proper hand washing facilities. adequate, and minimize physical contact.

Disaster mitigation will be successful if it is fully implemented by the community as a subject in disaster mitigation efforts. Disaster mitigation will not succeed optimally without the will of the community itself. The failure of disaster mitigation is usually initiated by people's awareness of their position which is

threatened by danger. Increasing awareness of a hazard can be realized either through formal or non-formal education. Disaster curriculum should be applied to areas prone to disasters. In addition, dissemination of disaster information through non-formal activities in the form of folk tales, folklore performances, posters, TV media is very important to remind all elements of society of the importance of preparedness actions against hazards that threaten (Aprilyanto et al., 2021).

3.6 Strengthening the capacity of disaster-affected communities

One of the strategies and interventions for humanitarian shelters for natural disasters during the Covid-19 pandemic is to strengthen local capacities. Capacity is an important element in disaster risk reduction. The National Disaster Management Agency (BNPB) in the publication of the Indonesian Disaster Risk Index explained that disaster risk reduction can be carried out in 2 ways, namely by reducing vulnerability or strengthening capacity. (National Agency for Disaster Management, 2018, 2021).

Increasing the number and types of natural disasters in Indonesia requires an integrated disaster risk reduction strategy at all stages of disasters, starting from the stages before the occurrence of natural disasters, the stages during the occurrence of natural disasters, to the post-natural disaster stages. (Hayati, Benardi, & Zulfa, 2019; Utama, Prewito, Pratikno, Kurniadi, & Rahmat, 2020).

3.7 Use of non-hazardous building materials/materials,

The strategy and intervention for humanitarian shelters for natural disasters during the Covid-19 pandemic is the use of harmless building materials or materials in building shelters. One of the dangerous building materials or materials that is often used in building humanitarian shelters for natural disasters is the use of materials in the form of asbestos.

People who are most at risk of being exposed to this deadly asbestos are people who are involved in the asbestos mining process, the asbestos manufacturing industry, workers who work using asbestos-based products such as construction workers, mechanical, electrical and those involved in asbestos waste disposal including humanitarian workers who work in disaster areas that cause damage to buildings containing asbestos. Residents affected by disasters can also be exposed to asbestos from the surrounding environment, such as the use of materials or building materials that use asbestos. The following are some of the diseases caused by exposure to asbestos, namely Mesothelioma, Lung Cancer, Asbestosis, Pleural Plaque and Pleural Thickening (INABAN, 2017; Samara et al., 2020; Thamrin & Akhadi, 2014).

Mesothelioma is a type of cancer that is deadly and difficult to cure. In most cases, this cancer has a poor prognosis and the majority of patients suffering from Mesothelioma will die within less than 1 year after diagnosis, as can be seen in Figure 2. (INABAN, 2017; Samara et al., 2020).

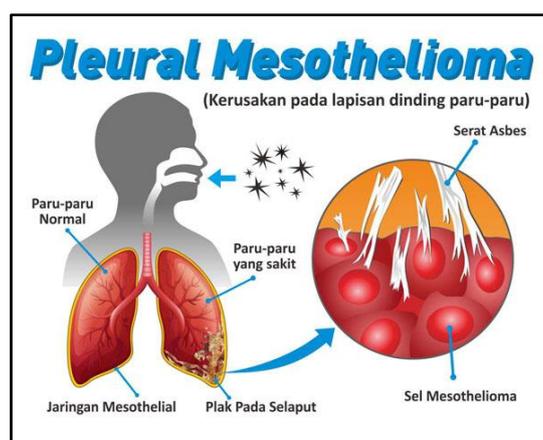


Figure 2. Pleural Mesothelioma due to exposure to asbestos.

Figure 2 illustrates that mesothelioma is a type of cancer that is indicated to occur due to exposure to asbestos for a long time, ranging from 20 years to 50 years of exposure to the use of materials or building materials in the form of asbestos, causing damage to the lining of the lung walls.

3.8 Strategy for Preparedness to Facing Natural Disasters During the Covid-19 Pandemic and Action for Preparedness and Handling of Natural Disasters During the Covid-19 Pandemic.

The next step that needs to be prepared regarding strategies and interventions for humanitarian shelters for natural disasters during the Covid-19 pandemic is a strategy for preparedness for natural disasters during the Covid-19 pandemic and preparedness and handling actions for natural disasters during the Covid-19 pandemic. The preparedness strategy for dealing with natural disasters during the Covid-19 pandemic includes increasing awareness through monitoring, access to weather information and warnings, as well as intensive coordination and communication with the Meteorology, Climatology and Geophysics Agency, increasing dissemination and public accessibility to weather information and early warning, increasing cleanliness and environmental capacity, improve and improve the quality of drainage systems, as well as watersheds,

Meanwhile, action for preparedness and handling of natural disasters during the Covid-19 pandemic can be carried out through improving coordination and monitoring of disaster threats, coordination meetings between institutions at the central and regional levels, disseminating information on weather early warnings for preparedness, compiling disaster risk identification and mapping, risk assessment analysis. disaster, preparation of contingency plans for emergency management, simulation of emergency handling, preparation of emergency Covid-19 handling facilities, strengthening public access to disaster and health services, as well as readiness to support distribution of disaster logistics.

IV. CONCLUSION

The conclusion from the results of the research that has been carried out is that shelter strategies and interventions need to be integrated with other interventions such as clean water and sanitation, child protection, protection of women's rights, disability, and other vulnerable groups, recovery, health, livelihoods, and other sectors in disaster management national cluster, especially during the Covid-19 pandemic.

Strategies and Interventions for Humanitarian Shelters for Natural Disasters During the Covid-19 Pandemic must integrate the risk aspects of Covid-19 transmission. These strategies or interventions include shelter needs that are in accordance with community needs, according to the local context or culture, providing options or options to support the transition to a better life, considering the risk of Covid-19 transmission for each intervention option that will be given, active community involvement, strengthen local capacity and use of non-hazardous building materials or materials.

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