

## REGIONAL GOVERNMENT RESPONSIBILITY RELATED TO DISASTER MITIGATION THROUGH HUMAN RIGHTS-BASED SPATIAL POLICIES IN PALU CITY

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### Abstract

The 2018 earthquake in Palu highlighted the city's vulnerability. For this reason, disaster mitigation efforts were needed to reduce the impact of disaster. Disaster mitigation can take the form of formulating human rights-based spatial policies. The government is obliged to protect, respect, and promote human rights. The rights that must be protected in the formulation of spatial planning policies are the right to information, the right to participate, and the right to justice. This study aims to determine why disaster mitigation efforts through spatial planning policies are important for local governments to undertake and what form the responsibility of local governments in disaster mitigation efforts through human rights-based spatial planning policies in Palu City takes. This study used qualitative research methods. The data obtained comes from primary and secondary sources. Primary data includes excerpts from interviews with stakeholders and observations, as well as laws and regulations. Secondary data include scientific articles published in various accredited national journals and reports from relevant state agencies and institutions. The results of this study found that mitigation through spatial planning policies based on human rights is important to be done because, in addition to reducing the impact of disaster, it also ensures that people's rights are not violated. Through this spatial planning policy, the community can identify potential threats of disaster to their residential areas, allowing them to make informed decisions about their future quality of life in that area. Furthermore, active community participation in the implementation of this policy is encouraged to reduce the impact of future disasters. It is hoped that other regions, especially those prone to disaster, can also apply the concept of disaster mitigation through human rights-based spatial planning policies based on the results of this research.

**Keywords:** disaster mitigation; state responsibility; human rights; Palu City; Indonesia

### INTRODUCTION

The Sulawesi region is indeed crossed by a major active fault known as the Palu-Koro fault. This fault extends from Palu Bay to the Koro Valley and connects to the Matano Fault in the east. According to the book "Information on Disasters Caused by Natural Hazards in Central Sulawesi" published by the Central Sulawesi Regional Disaster Management Agency, there have been 31 earthquakes triggering tsunamis in the Central Sulawesi region from 1870 to 2019 (BPBD, 2021). The earthquake on September 28, 2018, caused a tsunami in the sub-districts of Lere, Talise, Tondo, and Mamboro, and liquefaction occurred in several areas of Palu City, specifically in the Balaroa and Petobo sub-districts. The National Agency for Disaster Management (BNPB) reported that approximately 2,113 people died as a result: 1,703 in Palu City, 171 in Donggala, 223 in Sigi, 15 in Parigi Moutong, 1 in Pasangkayu, and one South Korean citizen. The losses incurred were estimated at 2.89 trillion, and the damage amounted to 15.58 trillion (Geology, 2018).

By considering the geographical conditions and the vulnerability to natural hazards in

Central Sulawesi, particularly in Palu City, it is important for the government to develop spatial planning policies that prioritize disaster mitigation to reduce the impact of such hazards. In his book, Jeremy Bentham emphasizes that the government has a responsibility to ensure the greatest happiness and well-being of the majority of its citizens. Therefore, the government should implement actions, policies, and programs that aim to increase the happiness of as many people as possible (Suharto, E., 2006). According to Naser, 2021 and Khoirudin et al., 2020, responsibility can be described in terms of legal liability or political responsibility through policy implementation.

Data that provide detailed information on regional geology, as well as geological and geophysical data in the Palu City area and its surroundings, can serve as a reference for the development of spatial patterns and structures. In the formulation of regional spatial plans and detailed regional spatial layout plans, it is essential to thoroughly discuss the geological and geophysical data (Rif'an, 2019). The development efforts should prioritize sustainable development to ensure the security, comfort, and safety of the community.

In addition to the right to a good and sustainable environment, the public also has the right to get information. Disclosure of public information should be known to the public about the risks and impacts of disaster, potential disaster areas, and others. This is not only important for creating good governance, accountability, and transparency as a prerequisite for creating public participation in policy-making, but more important than that is to be saved humanity from the threat of disaster (Dr. Sutaryono, 2015).

So far, the concept of sustainable development is widely recognized as a principle that considers the environmental carrying capacity and ensures the future well-being of human life. Therefore, the application of principles such as openness, participation, and accountability holds great importance (Marpaung, 2019). As the duty bearer, the state is responsible for communicating to the entire community that openness is fundamental in minimizing environmental and disaster-related issues, particularly in terms of disaster mitigation. Local governments, therefore, bear the responsibility of implementing human rights-based spatial planning policies to mitigate the impact of natural disaster. Mitigating disaster through human rights-based spatial planning policies is expected to provide a solution for disaster-prone areas, promoting sustainable development while involving active community participation.

The purpose of this research is to examine the responsibility of the state, specifically the local government, in disaster mitigation efforts through the implementation of Human Rights-based Spatial Policies and to understand the significance of its implementation. The introduction should explain the context and key problem that the author argues and why it is important. A detailed explanation should be addressed to the purpose of the work and its significance. The key and current research findings should be cited as references and carefully reviewed. Such as, citations to unrelated works are strongly not recommended.

## Methods

This study employed an observational method involving researchers residing in Palu City. This approach was chosen to ensure that the observations conducted at the research site and on the research subjects were more specific and comprehensive. Additionally, the research team utilized data collection techniques such as interviews and document analysis, focusing on qualitative data. Descriptive data were obtained through interviews, observations, and

note-taking from various sources of information about the responsibilities of the local government regarding disaster mitigation through human rights-based spatial planning policies in Palu City, Central Sulawesi. Document analysis served as a supplementary secondary data source to complement the primary data gathered in the field. The subsequent sections will provide a more detailed explanation of how this methodology addresses the research questions and objectives.

## **LOCATION**

The research was conducted in Palu City, Central Sulawesi Province. The selection of this location was deliberate, considering that the area has been affected by various natural disaster such as earthquakes, tsunamis, and liquefaction. It is crucial to thoroughly examine all aspects of policy formulation related to disaster mitigation and spatial planning in this region, as they will serve as the primary material for analysis in this study.

## **TYPES AND SOURCES OF DATA**

Based on the research object studied, this study has two data types: primary and secondary. Primary data is obtained from primary sources, namely the results of interviews and field observations. Secondary data is obtained from the results of a review of documents or archives that are relevant to the problem and research objectives. Secondary data sources include the results of studies and scientific publications related to disaster mitigation, spatial planning, and human rights, as well as reports from government agencies and non-governmental organizations. Regional regulations and policies related to spatial planning and disaster management in Central Sulawesi

Referring to the two forms of data types mentioned in this study, namely primary data and secondary data, the data collection techniques used in this study were grouped into three categories:

### **a. Literature study**

This method was carried out by reading various literature and references related to disaster mitigation, spatial planning based on human rights, reviewing laws and regulations, regulations and decisions in the regions, and official state documents that supported the research objective.

### **b. In-depth interviews**

Interviews were conducted with stakeholders considered relevant to the research topic, namely the Regional Disaster Management Agency (BPBD) of Central Sulawesi Province, the Office of Energy and Mineral Resources (ESDM) of Central Sulawesi Province, the Palu City DPRD, the Head of the Palu City Spatial Planning Office, and the Regional Development Agency (Bappeda) Palu City. These individuals were chosen because they are involved in proposing, compiling, and having an interest in the contents of the regional regulations on spatial planning and territory. However, locating and arranging interviews with the Palu City DPRD and the Head of the Palu City Spatial Planning Office was challenging. Despite multiple attempts to schedule meetings, they were unwilling to participate. These agencies were aware that the interviews were conducted for research

purposes. To compensate for the lack of information from the Palu City DPRD and the Palu City Spatial Planning and Regional Office, the author relied on a study of academic papers on Regional Regulation No. 2 of 2021 concerning the spatial and regional planning of Palu City in 2021–2041.

### c. Observation

This field observation was conducted by directly observing the regional government's responsibilities related to disaster mitigation through human rights-based spatial policies. Observations were made in Balaroa, Petobo, along the coast of Talise and Lere, and the overall development of the city of Palu. The purpose was to determine if there were any changes in the development direction before and after the 2018 earthquake.

### DATA ANALYSIS

The data analysis in this study utilized descriptive-qualitative analysis. The analysis process involved several stages: data selection, reduction, categorization, and conclusion finding.

During the selection stage, relevant and irrelevant data were identified and sorted according to the research objectives and problem statement. The reduction stage involved filtering and discarding irrelevant data. The categorization stage included classifying the data to formulate results and findings related to government responsibilities in disaster mitigation through policy formulation, aligned with the research objectives and problem statement.

Lastly, in the conclusion-finding stage, specific aspects of policies related to disaster mitigation through regional regulations on spatial and regional planning in Palu City were examined to draw preliminary conclusions. It is important to note that these conclusions represent temporary findings based on the research objectives, problem statement, and common themes rather than the overall conclusions of the entire study.

### RESULTS

#### General Description of Palu City

Palu City is a sizable city covering approximately 395.06 square kilometers. Administratively, the city of Palu is divided into eight sub-districts and 46 sub-districts. Geographically, Palu City is situated between  $0^{\circ} 39.065'$  -  $0^{\circ} 56.844'$  south latitude and  $119^{\circ} 45.443'$  -  $120^{\circ} 2.535'$  east longitude. This positions the city of Palu just below the equator. In terms of its boundaries, the city of Palu shares the following borders:

- The northern side of Donggala Regency borders.
- The southern side of Sigi Regency borders.
- The western side of Donggala and Sigi Regency border.
- The eastern side of Parigi Moutong and Donggala Regency border.

The population of Palu City in 2021 is projected to reach 377,030 people, with a population density of approximately 954 people per square kilometer.

Palu City is situated in an elongated shape from east to west. The topography of the city comprises lowlands, undulating plains, and highlands. Based on the topography, the city area

of Palu can be divided into three altitude zones, which are:

1. Some areas on the western part of the east side, extending from north to south, as well as the eastern part heading to the north, and the northern part of the west side, extending from north to south, are considered lowland or coastal areas with an elevation ranging from 0-100 meters above sea level. In Palu, famous beaches include Talise Beach, Pantoloan Beach, and Taipa Beach.
2. The western areas of the west and south sides, along with the eastern area heading to the south and the northern part to the east, are characterized by elevations ranging from 100-500 meters above sea level.
3. There are also mountainous areas in Palu City, where the altitude exceeds 500 meters above sea level (Palu, 2022).

The origin of Palu City is commonly associated with the term "Topalu'e," which means uplifted land. This refers to the fact that the area of Palu City was originally underwater, but due to an earthquake and plate shift (Palu Koro), the seabed was uplifted and formed a valley that is now the city of Palu.

Another explanation for the origin of the name Palu City is derived from the Kaili VOLO language, where "Palu" means bamboo. Bamboo is abundant in the Tawaeli area and extends to the Sigi area. The Kaili people have a strong connection with bamboo as it is an integral part of their daily lives. Bamboo serves various purposes for the Kaili people, including as a source of food (bamboo shoots), construction material (walls, mats, etc.), daily necessities, traditional games (Tilako), and musical instruments (Lalove).

**Palu City Disaster Risk :** The movement of the Palu Koro Shear Fault on September 28, 2018, triggered an earthquake with a magnitude of 7.4 Mw. This seismic event resulted in devastating impacts along the coastal area of Palu Bay and was felt in Kalimantan and neighboring provinces. According to the National Disaster Management Agency (BNPB), the earthquake and subsequent tsunami in Central Sulawesi claimed the lives of 2,113 people (BNPB, 2019).

The incident that occurred on September 28, 2018, served as a stark reminder of the high vulnerability of Central Sulawesi, particularly the city of Palu, to natural disasters, particularly tsunamis, resulting from natural hazards. Before this event, Palu City and its surrounding areas had experienced similar natural disasters caused by earthquakes and tsunamis (Pratomo et al., 2013).

An earthquake and tsunami occurred in 1907. The earthquake originated from a fault crack perpendicular to the Palu Koro fault, spanning from Kulawi to Lindu. Two years later, a significantly larger earthquake struck, causing widespread destruction in the area.

In 1927, another earthquake occurred, accompanied by a tsunami that resulted in the loss of dozens of lives and homes. Additionally, in 1938, a devastating earthquake led to a rise in seawater, sweeping away houses along the coast of Mamboro Village, now known as the fisheries area of Mamboro Village. Furthermore, on August 10, 1968, a 7.3 magnitude earthquake occurred, followed by an earthquake in 2012. These earthquakes were significant in scale. However, smaller-intensity earthquakes also occur frequently (BPBD, 2021). Furthermore, the Tambu earthquake and tsunami occurred in 1968, and the Toli-Toli and

Palu earthquakes took place in 1996 (Daryono, 2011).

Apart from the threat of earthquakes, the city of Palu is also experiencing vulnerability to ground movement. As a result of the 2018 earthquake, ground movement in the Balaroa and Petobo areas resulted in many casualties and material losses.



Figure 1. (a). The tsunami damaged the mosque; (b) Houses sank into the ground due to liquefaction.  
Documentation by Team

The 2018 earthquake in Palu triggered liquefaction and tsunamis in various locations. Petobo and Balaroa within Palu City were most heavily impacted by liquefaction. Balaroa, situated along the Palu-Koro Fault, experienced significant changes in the land surface due to liquefaction. Some parts of the land collapsed by 5 meters, while other parts rose by up to 2 meters, resulting in houses collapsing as if being swallowed by the ground. In the Petobo area, hundreds of houses were buried under mud, reaching heights of 3-5 meters. Following the earthquake, the ground quickly transformed into mud, which caused buildings to be swiftly engulfed (Geology, 2018).

According to the report by the Geological Agency, the potential for liquefaction in the land-use areas of Palu City is relatively high. The probability of experiencing liquefaction within 50 years exceeds 54.44% in areas such as Kalukubula, Birobuli, Tatura, Sunju, Lolu, Kawatuna, Lere, and south Birobuli. These areas also have the potential for land subsidence exceeding 5 cm and lateral displacement exceeding 15 cm. Additionally, areas with shallow groundwater and potential for liquefaction include Ujuna, Besusu, Palupi, Sunju, Binangga, Sibeli, Langaleso, Kalukubula, Petobo, and Jonpoye (Geology, 2018).

#### Palu City Regional Government Policy to Reduce Disaster Risk (Disaster Mitigation)

Utilization of urban space by paying attention to aspects of protection against disaster is essential. Building and development need to move from the potential and problems possessed by, for example, the city of Palu, which has the nickname of a "five-dimensional" city and is also faced with the nickname of a "multi-hazard" city. Because of the potential possessed, this potential must also deal with various risks of disasters caused by natural hazards. With complex geological conditions, the development of the Palu City area is expected to pay very close attention to geological and geophysical data on both a regional and large scale, especially about efforts to reduce disasters risk through spatial planning.

(Geology, 2018)

The landscape potential of Palu City, which includes valleys, oceans, rivers, mountains, and bays, can be a capital for tourism development in Palu City. However, the potential for tsunamis, earthquakes, faults, liquefaction, and flooding is also a threat to investment in building tourism. For this reason, it is hoped that building plans will prioritize disaster mitigation so that the potential and challenges possessed by Palu City can go hand in hand.

The government's responsibility is not just in the scope of emergency and post-disaster response; however, what is more, important than that is pre-disaster or disaster mitigation, in which losses and casualties can be minimized. The government's efforts not only talk about investment for regional interests but also how to create safe and comfortable conditions for the community in the context of sustainable development.

Disaster mitigation is one step that can be taken to minimize the risk or impact of disasters that occur, either by reducing casualties or minimizing material and immaterial losses. Wibisono et al, 2020 and Edyanto, 2011, in their writings, said that disaster mitigation is divided into two categories, namely structural and non-structural mitigation. Structural mitigation can be carried out through appropriate development or with earthquake-resistant specifications, and non-structural mitigation can be carried out through the formulation of regulations or policies related to disaster risk reduction (Prihantini et al., 2020).

Juridically, Disaster management is regulated through Law No. 24 of 2007. According to Bayu Dwi Anggono (Anggono, 2012), disaster management no longer emphasizes only the emergency response aspects but also all aspects of disaster management, including pre-disaster, during a disaster (emergency response), and after the disaster. One of the crucial things that has received attention since the promulgation of the Law on Disaster Management is disaster risk reduction. One of the steps for disaster risk reduction is through spatial planning based on disaster management that has been accommodated in the Spatial Planning Law (UUPR) No. 24/1992, which was later revised to No. 26/2007. In the UUPR, it is explained that regional governments, both provincial and district/city, must prepare a Regional Spatial Plan (RTRW), which technically and in detail regulates spatial allocation as an effort to minimize the occurrence of natural and human disasters comprehensively and synergizes between adjacent areas. However, many regions must still include disaster aspects in their regional spatial planning regulations (Canesty, 2017). Regional spatial planning regulation plays a vital role because it will regulate spatial allocation, including the structure and spatial patterns in disaster areas, by considering the impact of disaster risk to minimize losses that disasters will cause.

To develop areas with high vulnerability to disasters caused by natural hazards, such as the city of Palu, regional development and development must be accompanied by disaster mitigation so that the impacts can be minimized (Pratomo et al., 2013). Because disasters caused by natural hazards cannot be predicted or prevented in the future, all that can be done is reduce losses and the number of victims (risk reduction).

After the September 28, 2018, earthquake, the Governor of Central Sulawesi issued Governor Regulation No. 10 of 2019 concerning post-disaster rehabilitation and reconstruction plans based on fundamental principles and general policies. It was mentioned that future policy formulation must prioritize better and disaster-risk-based rebuilding and provision of complete information and data, both historical and future projections, to

formulate regulations and implement recovery at the provincial and district levels. Regulatory adjustments also need to pay attention to the aspirations and participation of the community. Community participation in practice is carried out through a focus group discussion (FGD) mechanism and public consultation with relevant stakeholders and the community.

After the 2019 Governor Regulation, in 2021, Regional Regulation Number 16 of 2011 concerning the Palu City Spatial and Regional Plan for 2011–2030 was amended to become Regional Regulation Number 2 of 2021 regarding the 2021–2041 Palu City Spatial and Regional Plan. This change was made because the previous regional regulations were deemed irrelevant to the geographical conditions of Palu City, which are prone to disasters caused by natural hazards. Regional Regulation No. 2 of 2021 says that regional spatial planning aims to realize regional space as a Bay City and PKN based on industry, education, tourism, trade, and services that have local wisdom and are disasters resilient. Article 57 says that the zoning of disaster-prone areas consists of two categories: land movement disasters and disasters commensurate with active faults. In both regions, settlement activities are not permitted, but several activities are still permitted with conditional provisions. One is the urban infrastructure that pays attention to disaster mitigation. However, in the Geological Agency's report, active fault areas such as Petobo and Balaroa had better be free of dwellings and buildings and should be developed into a geological education park to educate about earthquake and liquefaction disasters.

The problem is that even though the RTRW has been prepared to direct regional growth, however in reality, it is tough to apply because there is too much interest to be brought, including investment interests. The government must consistently assert the determination to use areas included in disaster-prone zoning on the pretext that these areas are in urban areas. In an interview conducted by the author with informants from Regional Development Agency (Bappeda) Palu City, it was stated that:

"The coastal areas of Taman Ria and Talise, Petobo, and Balaroa cannot be settlement areas but can be used for public facilities and investment because investors will consider the vulnerability of the area so that building structures and development planning will be more maximized and will use earthquake-resistant equipment and materials, and individuals in the construction of settlements cannot fulfill this because of the high costs." Interview with Mr. Ibnu Mundzir, Regional Development Agency (Bappeda) Kota Palu, December 15, 2022

In addition, several articles govern areas prone to disasters caused by natural hazards, allotment of areas prone to disasters caused by natural hazards, several areas that are allowed to be conditional, and evacuation routes. For example, in Article 23, a disasters-prone area consists of high-ground motion disasters and an equivalent active fault in the Ulujadi sub-district, covering an area of approximately 1 hectare, and an equivalent active fault in the Palu Koro area of approximately 12 hectares in the Tatanga district. Even though the 2018 Seismic Index Analysis stated that the Mantikulore sub-district and other sub-districts also have a very high potential for soil fractures, land subsidence, and extreme liquefaction due to earthquakes (Gifvents, 2021). However, the regional regulation does not contain information on other regions with a high potential for future disasters caused by natural hazards, even though the Geological Agency has issued data related to other regions with the potential for liquefaction and land movements. This impacts people's ignorance of the potential vulnerability of their area, thereby reducing their ability to make



decisions about their lives.

Managing the impact of disasters aims to protect people and their property, health, livelihoods, and productive assets, as well as cultural and environmental assets, while promoting and protecting human rights, including the right to development, which is the elaboration of Article 28 H (paragraph) 1 and Article 28 G (paragraph) 1 of the 1945 Constitution and Economic, Social and Cultural rights, where Indonesia is one of the countries that have ratified the UN Eco-Social Covenant. (Zulfikri et al., 2022)

For this reason, spatial planning policies for areas that are vulnerable to natural disasters ought to be based on research results and refer to data from related institutions, both geological and environmental agencies, so that the resulting policies can provide a sense of security and protection for the people who live in and depend on the area for their livelihood.

## DISCUSSION

Government Responsibilities Related to Disasters Mitigation through Spatial Planning Policies Utilization of urban space by paying attention to aspects of protection against critical disasters. According to Heri Sutanta (Sutanta, 2012), disaster mitigation/Disaster Risk, Reduction-based spatial planning aims to create regional disaster resilience. Spatial planning can minimize disaster risk at the pre-disaster stage, which will be more effective in terms of savings in terms of financing compared to the rehabilitation and reconstruction stages (Yuniartanti, 2021). Therefore, the government's responsibility is to formulate public policies by the needs of the people. However, these policies should have a spirit of service, be participatory, have the value of justice, and be consistent and severe in making and implementing policy.

The government's responsibility in the context of policy formulation is responsibility in the sense of politics or responsibility—the responsibility to the community to formulate policies according to regional needs and the interests of the community. Considering that the city of Palu is in an area prone to disasters caused by natural hazards, the policies made should prioritize disaster mitigation to minimize the impact of disasters that occur both in terms of material and immaterial.

In Law Number 26 of 2007 concerning Spatial Planning, the government carries out spatial planning by involving various elements of society, such as the private sector, the business world, professional groups, NGOs, and what is from now on referred to as "community participation."

Community participation is essential in spatial planning because, in the end, the results of spatial planning are for the benefit of all levels of society and to achieve the objectives of spatial planning, namely the implementation of environmentally sound spatial use, the implementation of arrangements for the spatial use of protected and cultivated areas, and the achievement of quality spatial use (Abubakar, 2019).

Disasters mitigation is the first step in the policy agenda; it requires commitment from the government and stakeholders in its formulation and community participation so that all elements of society can implement it. By including the issue of disaster mitigation at the policy agenda stage, the following policy process is in the form of formulation,

implementation, and evaluation that participates in realizing programs to reduce disaster risk at the local government level.

Explicitly, when a policy wants to adopt specific disaster mitigation actions, the focus of the actions that must be taken includes implementing or mitigating actions and looking at the reactions of community groups affected by disasters, for example, in the social sector. Additionally, seeing the unwanted consequences of disaster mitigation is a factor that needs further consideration (Faturahman, 2018).

By looking at the fact that the territory of the State of Indonesia is an area that has a high potential for occur disasters caused by natural hazards, so spatial planning through Law No. 26 of 2007 concerning spatial planning and Government Regulation No. 26 of 2008 concerning national territorial spatial plan, have contained substances related to disaster mitigation directives so that disaster mitigation in spatial planning can become a guideline managing areas in the context of sustainable development.

Disaster mitigation efforts through spatial planning can be carried out as an anticipatory measure, so spatial planning aims to create a comfortable environment and a space capable of anticipating potential disasters through disaster mitigation efforts and strategies.

It is hoped that future development planning for Palu City will be based on disaster mitigation by incorporating disaster management into the development process through measures to provide zoning for areas in Palu City, for example, areas of high vulnerability where no development is permitted, either for housing or public facilities, as well as social facilities. It may only become "green open space" (RTH) areas.

Spatial planning is related to planning and utilizing space and controlling spatial use, including control over possible disasters to reduce disaster risk. This can be done through accommodating studies and mapping disaster zones as one of the bases for formulating spatial structures and patterns in regional spatial planning (RTRW). Not just placing disaster-prone areas as one of the zones but also placing cultivation areas by considering the possibility of disaster occurring in the area.

The utilization of urban space contained in the city spatial plan should guarantee a comfortable and safe urban environment for the community. Creating a conducive urban environment (planning and design for a safe city), not only producing "beautiful" planning and design but also have to be able to anticipate the impact of disaster through mitigation plans, especially for cities located in disaster-prone areas. (Wikantiyoso et al., 2010)

Efforts to mitigate the impact of disasters must be supported by a set of government regulations and policies relating to community protection. The main objective of community protection is to reduce fatalities, injuries, loss of property, environmental damage, and social and economic disturbances as a result of disasters caused by natural hazards.

The urban planning and arrangement process must be carried out community-based by considering the potential of local wisdom, regional conditions, and the community's needs to ensure that planning products as public policies will be easily implemented.

Spatial planning should start with identifying areas that must be saved (protected areas) to ensure environmental sustainability and areas that are naturally vulnerable to disasters caused by natural hazards such as earthquakes and tsunamis.

### **Human Rights-Based Disaster Mitigation**

Protecting human rights in disaster mitigation is closely related to the environmental sector. Implementation of government functions in the field of environment, one of which is through spatial planning policies as a form of sectoral government, and is given authority in its implementation through a legal framework (Budiman, 2017).

In addition, human rights issues are also very relevant in disaster management because human rights violations lead to ineffective disaster management policies during pre-disaster, emergency response, and post-disaster events. Human rights violations occur due to intention, waiver, or unintentional negligence.

In its statement, the National Disaster Management Agency acknowledged several things that hindered the effectiveness of disaster management in Indonesia, namely the lack of government capacity and knowledge, being too oriented towards emergency response rather than prevention and disaster risk reduction, the dominance of state and non-state actors at the central level, weak coordination and a not quite a sufficient emergency response, and rehabilitation and reconstruction, which neglected local knowledge (Hartono, 2015).

“The Office of the United Nations High Commissioner for Human Rights (OHCHR) confirms the close link between human rights and disaster. Disaster impact increasing vulnerability in society and reduce conditions for the enjoyment of human rights, such as education, health, housing, and clean water. Therefore, human rights are fundamental in every stage of disaster management, from mitigation, rescue, recovery, and reconstruction. Human rights are important not only for fulfilling basic rights, such as water, food, shelter, and medicine, but also for protecting people from all forms of human rights violations, such as preventing disaster victims from becoming victims of human trafficking, sexual harassment, discrimination, and the neglect of participation and access to information. “a human rights-based approach is an explicit recognition of a legally binding normative framework relating to rights, duties, responsibilities, and accountability that integrates human rights norms, standards, and principles into development plans, policies, and processes” (Hartono, 2015).

One of the international instruments ratified by the Government of Indonesia regarding disaster mitigation or Disaster Risk Reduction (DRR) is the Hyogo Framework which was later changed to the Sendai Framework 2015 – 2030.

The Sendai Framework for Disaster Risk Reduction 2015–2030 was inaugurated at the United Nations Third World Conference in Sendai, Japan, on March 8, 2015. This framework is the result of consultations among stakeholders whose implementation began on March 12, 2012, as well as negotiations between countries that were held from July 2014 to March 2015, supported by the United Nations Office for Disaster Risk Reduction (UNISDR) at the request of the UN General Assembly. (BNPB, 2016)

The Sendai Framework identified that the most critical change in the framework was no longer disaster management but disaster risk management. In addition, there are several global targets for disaster risk reduction, including preventing the emergence of new risks, reducing existing risks, and strengthening resilience, as well as several guiding principles, including state responsibility in preventing and reducing disaster risk and involvement of all community and state institutions.

Even more so, it is critical to strengthen good management in disaster risk reduction strategies at the national, regional, and global levels, improve national preparedness and coordination for disaster response, rehabilitation, and reconstruction, and use post-disaster recovery and reconstruction to "Build Back Better."

From the Sendai framework, it has been explained that the most crucial thing in disaster management is efforts to reduce disaster risk or impact, and one of the efforts to reduce the impact of disaster is through spatial planning. On the agenda for formulating spatial planning policies, local governments must use a human rights- based approach.

A human rights-based approach is carried out by building the capacity of the community to claim their rights and the ability of the government to carry out its duties to fulfill its obligations, as well as facilitating the empowerment process for the most vulnerable affected communities, both because their homes are in disaster-prone areas, because of their economy and marginalized groups. A human rights-based approach is a process for changing power relations by creating conditions that enable people to know better and assert their rights and to use effectively their knowledge, resources, and abilities to be involved in decision-making processes that impact their lives so that they can live in a more dignified manner. (Hartono, 2015)

The rights the government should pay attention to in the policy formulation agenda related to spatial planning and disaster mitigation are the right to information, participation, and justice. In Law No. 14 of 2008 concerning Public Information Disclosure (UU KIP), one of the goals is that the right of every citizen to obtain public information is to realize community participation in the development process. (Fauzin, 2011)

Law No. 24 of 2007 concerning disaster management regulates the community's rights in more detail. Article 26, paragraph 1 mentions that the Indonesian people are entitled to social protection and a sense of security. Furthermore, this article 26 also gives more particular attention to disaster-prone groups of people.

In addition, Article 26 of the Law on Disaster Management also provides space for the public to participate in decision-making regarding disaster management activities. In those terms, the public has the right to receive education, skills, and training, as well as information both orally and in writing regarding implementing disaster management policies.

The right to information is very important for creating transparent and accountable policies. The 1945 Constitution in Article 28(f) and Law No. 39 of 1999 concerning Human Rights in Article 14 guarantees the right to information. The public has the right to know every public policy that will affect their lives and future. Therefore, the state must provide information and consult with the public in every policy-making process. The public has the right to know and is consulted because the policy results in lifestyle changes and impacts people's lives and future.

In Law No. 26 of 2007, concerning spatial planning, Article 11, it is said that regional governments have the authority to disseminate general and detailed spatial plans in the context of implementing district or city spatial planning. In spatial planning, everyone has the right to know the spatial plan (Article 60).

In addition, the state must develop a policy agenda based on substantial and meaningful public participation in every step of the policy formulation process. Community

participation will create a strong sense of ownership of a public policy because the community contributes to and decides on the policy, so they are responsible for implementing, monitoring, and evaluating it.

The participatory approach has become a government policy in urban spatial planning. In Government Regulation (PP) No. 68 of 2010 concerning forms and procedures for community participation in spatial planning, matters relating to the implementation of community rights and obligations, forms of community participation, procedures for community participation, and fostering community participation are regulated based on the levels of the government hierarchy, from the national level, the provincial level and the reGENCY or city level. This PP also stipulates the community's role in planning, utilizing, and controlling spatial use.

## CONCLUSION

From the results and discussion, Palu City, a "multi-hazard" city with various threats of danger, is also a city with a five-dimensional view. In addition to its promising tourism opportunities, however, disaster risks are always lurking. For this reason, the local government must be serious and consistent in preparing a spatial planning policy and be oriented toward disaster mitigation. The current level of vulnerability partly determines the risks and potential occurrence of disasters related to natural hazards. Therefore, the state and government must realize this condition to carry out disaster mitigation measures to the fullest, one of which is through the revision of Regional Regulation No. 2 of 2021 concerning the Spatial Plan for the City of Palu 2021–2041 in order to contain areas that also have the potential to experience the most significant losses (tsunami and liquefaction) in the event of an earthquake.

As duty bearers, local governments are responsible for protecting human rights, especially in areas prone to disaster caused by natural hazard. The formulation of policies must be oriented towards disaster mitigation based on human rights. Protection of human rights in disaster-prone areas is not only an emergency or post-disaster response phase. However, it is more urgent in pre-disaster conditions, where the government formulates policies to reduce the impact of disaster by considering aspects of the right to information, participation, and justice so that the community can determine its destiny.

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