

# Empowering Resilience: Exploring the Role of Women in Earthquake Disaster Mitigation and Preparedness (Case Study of North Lombok)

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## Summary

Indonesia is prone to disasters such as earthquakes. This occurs because Indonesia's land is geographically located in the ring of fire in the Pacific Ocean basin and is above three tectonic plates, namely, Indo-Australia from the south, Eurasia from the north, and the Pacific from the east. Based on this, it indicates the need for community preparedness to anticipate disasters. However, the role of women in Indonesia in disaster mitigation is still very lacking because there is still an imbalance in gender structure in society. The research was conducted using qualitative methods with in-depth interviews and supported by literature studies. The results of research that took a case study of the earthquake in Lombok in 2018 showed that women tend not to have access to disaster preparedness than men due to the roles and social construction they carry out. In fact, implementing disaster mitigation through a gender perspective will treat women and men fairly and equally.

**Keywords: Gender, disaster, earthquake, preparedness**

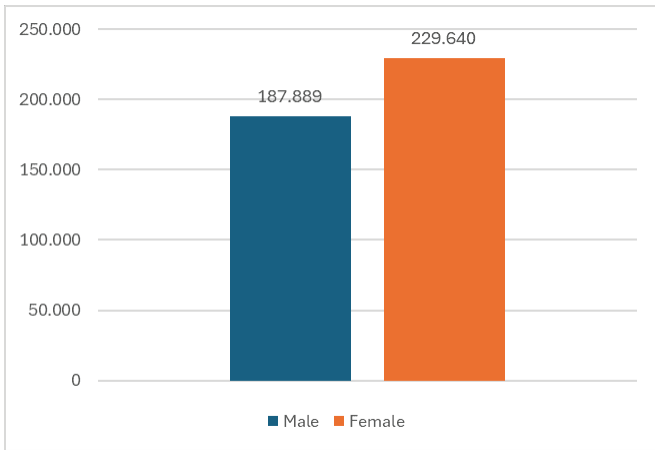
### Earthquake Disaster in North Lombok

A disaster is a serious disruption to the functioning of a community or society that results in widespread losses and impacts on people, material assets, the economy, and the environment (UNISDR, 2009). Vulnerable conditions consist of various conditions or a result of conditions (physical, social, economic, and environmental factors), or both, that have a negative impact on disaster prevention and management efforts (Bakornas PB, 2009). According to Benson and Twigg (2007), physical, environmental, social, political, cultural, and institutional factors are the causes of vulnerability. Women, especially mothers, are responsible for their families, often prioritising the safety of children over their own safety, which makes them victims of disasters. Men with advantages and social position in the family may find it easier to save themselves during an earthquake (Birkmann, 2006).

The vulnerability of disasters in women tends to be psychosocial in nature, where the incident becomes a traumatic psychiatric wound and requires attention and a long process for healing (Hidayati, 2012).

This psychosocial problem refers to social issues that have a significant impact and influence on the onset of mental disorders, or vice versa, as social problems that arise due to mental disorders (Decree of the Minister of Health of the Republic of Indonesia Number 048/Menkes/SK/I/2006). The number of victims displaced in the earthquake disaster in Lombok in 2018 was dominated by women compared to men, with a difference of 41,751 people (**Figure 1**) when viewed based on the quantity. This is because children, people aged 65 or older, pregnant women and disabled people experience situations that are physically more vulnerable than men and adults in general (Fatimah, 2010). Vulnerability can be defined as a comparison of how safe the state of an object is with the magnitude of the danger that threatens it, where one of the objects is society (Birkmann, 2006). Women are vulnerable subjects to disasters, one of which is earthquakes like the earthquake in Lombok that occurred in 2018. This incident caused the number of female victims to be higher than men because of their activities inside the house.

Women are many victims of disasters, in addition to their physical constraints, also because of social responsibilities in their families. In addition, this is due to the role and function of women in the family (Winahyu, 2008).

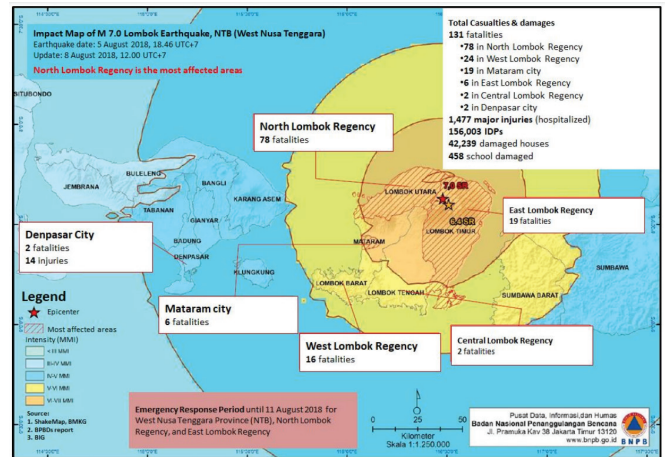


**Figure 1.** Number of victims displaced at evacuation points due to the earthquake in Lombok (Source: National Disaster Management Agency (BNPB), 2018)

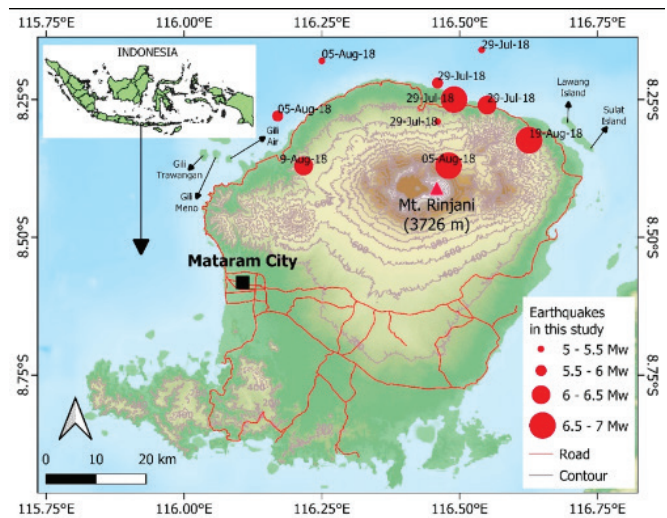
Research on gender and disasters perceives gender as a social construct that highlights power differences between men and women, reflecting the approach of social vulnerability in disaster assessment (Hidayati, 2010). According to Oxfam research (2006), women, children, and people aged 65 or older account for 60 to 70 per cent of total victims every time a disaster occurs. Therefore, disaster management must be holistic and take into account gender differences from the emergency response stage to the reconstruction stage.

This research is essential due to the frequency and high vulnerability to earthquakes in West Nusa Tenggara, especially in North Lombok, which recorded 78 casualties and extensive damage in 2018, the highest in the province (**Figure 2**). This research focuses on gender aspects in disaster preparedness and mitigation driven by the number of events and the high vulnerability of earthquakes in North Lombok.

To understand more deeply the role of gender in the context of disasters, a study entitled "Empowering Resilience: Exploring the Role of Women in Earthquake Disaster Mitigation and Preparedness (Case Study of North Lombok)" was conducted, aiming to understand disaster preparedness and mitigation efforts through a gender perspective.



**Figure 2.** Impact Map of M 7.0 Lombok Earthquake (Source: AHA Centre, 2018)



**Figure 3.** Epicentres of major earthquakes in Lombok Island (Source: Wibowo et al., 2021)

**Figure 3** showcases the epicentres of major earthquakes in Lombok. A series of earthquakes in Lombok that occurred from July 29 to August 9, 2018, have resulted in enormous damage and casualties. The highest death toll was in North Lombok Regency, with 334 victims, considering the epicentre was also in this location.

The cause of the large number of earthquake victims is thought to be due to the lack of community preparedness in facing disasters, people are less prepared and anticipate disaster events that come suddenly (Hidayati, 2012).

### **A. Gender Perspectives: Vulnerability to Disasters**

There are differences in access to information, recognised by some but dismissed by others as insignificant. Although the knowledge transfer model can be used for components of society that cannot access direct information, the reality is that this transfer process is not always effective. Women must have equal access to information directly, as they are expected to be able to transfer information to their children. However, due to their unique roles and societal constructs, women often do not have sufficient access to disaster preparedness, mitigation, and rehabilitation due to their unique roles and social constructs (Apriani, 2010).

*“The community here, especially mothers, are less involved in village-level organisations. In fact, the only people who understand what is happening in the village are these mothers. Sometimes, poor fathers understand the needs of their household. Maybe this Lombok woman can already understand a little about disasters. But this earthquake yesterday was a real surprise. It’s been a long time since there was an earthquake this big.”* (MZ, 40 year old male, community leader in North Lombok)

Women, especially homemakers, have limited opportunities to access disaster information. They are often confined to domestic roles - caring for children, cleaning the house, serving their husbands and maintaining home security.

These responsibilities often limit women's involvement in public spaces, including disaster preparedness activities. These can be seen from the interview below:

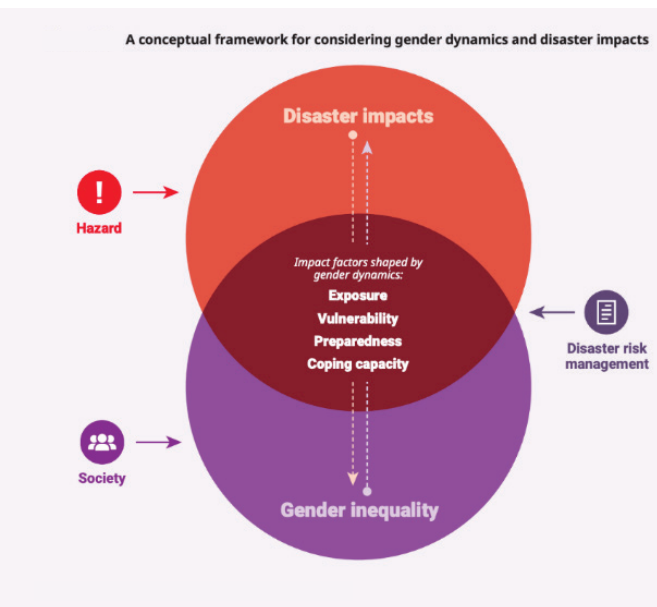
*“When the earthquake happened yesterday, I was confused about what to do. Just remember, just run. Only after this did I find out from neighbours that there was an earthquake. I had to take cover under the table. Never knew before. Just these farmers, village women.”* (PS, female 25, farmer and housewife in North Lombok)

As household regulators, women have more frequent interactions with nature, involved in water utilisation activities, management and utilisation of natural resources for food needs. This tendency makes women more sensitive to the environment, not only because most of them have traditional wisdom passed down from generation to generation. Mitigation efforts carried out by women start from the household scope. The limited role of women in disaster mitigation can result in a lack of handling of issues that arise among women during disasters. With the involvement of women in disaster management, community mobilisation to deal with disasters, especially during emergency response, can be done more effectively because women have proven to be more effective in driving emergency response. Through social networks such as social gatherings, dasawisma associations, and recitations, women can quickly form groups to meet the needs of the community when disasters occur.

### **B. The Role of Women’s Community in Disaster Preparedness**

In North Lombok, the experience and critical awareness developed through initiatives such as the Women’s School (*Sekolah Perempuan*) have empowered women to become leaders at the grassroots level.

These women have proven to be a source of resilience, particularly in facing crises, including disasters, within the region's poor and remote communities. Efforts to involve grassroots women and communities in disaster risk reduction activities have become increasingly urgent, as it has been recognised that the full and balanced participation of women and men is crucial for effective disaster risk reduction. Gender-inclusive disaster risk reduction is feasible even in rural community settings, where gender insensitivity is often pervasive. By recognising and addressing the specific gender dynamics of disaster risk and resilience, North Lombok can work towards more effective and inclusive disaster management practices. Women encounter obstacles while trying to obtain the knowledge and tools necessary to plan, react, and recover from a disaster effectively.



**Figure 4.** A concept framework for considering gender dynamics and disaster impacts (Source: World Bank 2012 and Hallegatte et al. 2017)

### C. The Role of BPBD in Creating Inclusive Gender-Based Post-Earthquake Management

Gender-based post-earthquake management in Lombok has improved through inclusive collaboration with local disaster agencies.

BPBD Lombok has begun to identify earthquake victims based on gender and age so that the number of victims from certain vulnerable groups can be known and appropriate handling can be carried out. Data on earthquake victims by gender can also help identify the type of relief needs for victims and their distribution. Through gender-based disaster management, it is hoped that female earthquake victims in Lombok can have access to women's special needs, such as sanitary napkins, underwear, and veils. Efforts to increase gender roles in earthquake disaster management are still very much needed because Indonesia is a disaster-prone area including earthquakes. Gender-based disaster management studies and policies provide several alternative ideas for improving gender roles, especially related to access and involvement of women and men, as well as policies and programs in other gender-sensitive disaster management. The need to integrate gender in disaster management is to ensure that disaster preparedness and anticipation schemes can be owned equally between genders and ages (Rijanta, 2018).

Through existing conditions, it is hoped that there will be opportunities and potentials from each group to increase capacity and resilience to disasters. Women, for example, considering their gender roles, play an important role in self-rescue for family members, especially children and people aged 65 or older. The fulfilment of women's rights in accordance with Law No. 7 of 1984 concerning the Elimination of All Forms of Discrimination Against Women must be carried out by the state. Several things must be the government's concern or foundation in an effort to build a comprehensive disaster management system (a form of implementation of Law No. 24 of 2007), namely, using a gender equality perspective. Second, disaster management is not only responsive. Third, disaster risk reduction is better than disaster risk reduction.



Through a policy of disaster management patterns that are more women's perspectives, it is hoped that there will be no more long suffering of women in disaster situations.

### **Conclusion**

Disasters provide opportunities for women to face challenges and change their gender roles in society. Many examples show that women have been actively involved in disaster management, even when having to face stereotypical views in society. Although they often face resistance, women are willing and able to take on roles that are usually considered men's duties. This can have a significant impact on changing society's perception of women's abilities. Through preparedness efforts, women can prepare action plans regardless of gender, taking into account emergency needs and identifying available resources to address the situation and reduce the negative impact of threats that have sensitive gender dimensions.

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