


## Utilization of Social Capital of Persons with Disabilities in Disaster Mitigation in the Lembang Fault Area

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| Article Info   | ABSTRACT   |
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| <b>Keywords:</b><br>Empowerment,<br>Utilization,<br>Inclusive Social Capital,<br>Persons with Disabilities,<br>Disaster Mitigation,<br>Lembang Fault.            | The Lembang Fault stretches 29 kilometers from Ngamprah Padalarang in West Bandung Regency to Palintang Pasirwangi Ujung Berung in Bandung City. Although the last earthquake occurred in the 15th century, approximately 500 years ago, this fault remains active and has the potential to cause future earthquakes. The urgency of this research is to understand and increase the involvement of the entire community in reducing disaster risk in the Lembang Fault area by utilizing inclusive social capital. Furthermore, a problem arises from the lack of a disaster mitigation planning process for people with disabilities. The purpose of this study is to determine how to early predict the decline or improvement of corporate image through employee satisfaction and performance. This research method uses a qualitative approach. This approach was chosen because this study seeks to describe the empowerment and inclusive use of social capital in disaster mitigation in the Lembang Fault area. Qualitative research relies on responses that describe the experiences, meanings, and perspectives of the research subjects. These research subjects, in general, are those deemed relevant to the issue or topic being studied. To gather the required data, researchers sought detailed information and data through observation, in-depth interviews, and documentation studies. The output will be publications in reputable international journals. |
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### INTRODUCTION

When natural disasters such as earthquakes or floods strike, persons with disabilities are at a significantly higher risk of becoming victims and experiencing severe impacts [1] [2]. Their physical access limitations present a major barrier to self-rescue efforts, which in turn can worsen both their physical and mental conditions. They face additional challenges in dealing with disaster threats, especially because evacuation infrastructure and facilities may not be fully disability-friendly [3] [4]. Furthermore, it should not be overlooked that natural disasters have the potential to increase the number of people with disabilities. The severe impacts of such disasters, whether in the form of physical injuries or the development of new disability conditions, can result in an increased population of persons with disabilities [5] [6].

Research from UNDRR (2020), which compiled information and data related to disabilities, revealed facts that highlight the significant challenges faced by persons with disabilities [7]. It was found that 15% of the global population has a disability, which is

equivalent to 5% of Indonesia's total population. Alarmingly, 71% of them do not have an individual preparedness plan, and 13% receive no assistance during disaster evacuations. Furthermore, about 85% of people living with persons with disabilities have never participated in disaster risk reduction communities, creating a significant gap in involvement. Only 20% of persons with disabilities feel capable of evacuating themselves when a sudden disaster occurs [7].

Disaster mitigation planning processes have so far shown a lack of inclusiveness, especially in considering the disabled community [8] [9]. The limited support and attention to their special needs in disaster mitigation plans can lead to inequality in response to disaster threats [10] [11]. Persons with disabilities are often overlooked in risk identification and strategy development, resulting in greater potential vulnerability when disasters occur [12] [13]. Proactive steps are needed to ensure disaster mitigation planning becomes more inclusive, taking into account the diverse needs of the community, including persons with disabilities, to ensure better protection and support for this group during and after natural disasters [14] [15].

The Lembang Fault stretches approximately 29 kilometers from Ngamprah Padalarang in West Bandung Regency to Palintang Pasirwangi Ujung Berung in Bandung City [16] [17]. Although the last recorded earthquake occurred in the 15th century—around 500 years ago—the fault remains potentially active and could cause future earthquakes [17] [18]. The Lembang Fault is said to be capable of generating earthquakes with magnitudes of 6.5 to 7 on the Richter scale. The average fault movement pattern is left-lateral strike-slip, but in the eastern part, it shifts to a normal-oblique movement [19] [20]. Currently, the Lembang Fault is in an energy release phase, with shifts ranging between 3 and 5.5 mm/year. Nevertheless, researchers are not yet able to predict when an earthquake will occur along the Lembang Fault [21] [22]. Although it is not among the most active faults, the Lembang Fault's proximity to densely populated areas makes its movement potentially very dangerous [23] [24].



**Figure 1** Lembang Fault

Learning from these data, in mitigating earthquakes that can occur due to the shifting of the Lembang Fault, it emphasizes the importance of utilizing and empowering social capital in mitigation efforts [23] [24]. According to Fukuyama [25] the concept of social capital can be understood as a collection of informal values or norms that are shared by members of a group, functioning as a facilitator of cooperation between them. Key elements of social capital, from Fukuyama's perspective [26], involve trust, norms, and networks. Trust creates the basis for mutual trust relationships, which strengthen cohesion within a community [27]. Norms, both written and unwritten, form a shared ethical framework that guides individual and group behavior [28]. Meanwhile, networks refer to social connections and relationships that build integration among community members [28]. These elements are important factors that must be present in every disaster-prone area, especially after an earthquake or before a disaster occurs [29] [30]. Because with the utilization and empowerment of social capital in an inclusive manner, it can help communities, especially people with disabilities, mitigate the impact of the earthquake disaster and become a disaster-aware community. Social capital empowerment for earthquake disaster mitigation due to the Lembang Fault shift, with an inclusive focus on people with disabilities, adopts the empowerment concept according to Jim Ife [31]. This approach is based on providing resources, opportunities, knowledge, and skills to people with disabilities with the aim of increasing their capacity to determine their future and actively participate in shaping community life [32]. By providing access to information and training, building support networks, and strengthening the self-confidence of people with disabilities, social capital empowerment becomes a key instrument in increasing their resilience to earthquake disaster risks [33]. Thus, this strategy not only empowers individuals but also stimulates their involvement in the overall mitigation process, creating an inclusive and resilient society against disaster threats [34].

This research is crucial given the limited involvement of relevant parties in incorporating social capital aspects into disaster mitigation efforts, particularly for people with disabilities. People with disabilities are often a vulnerable and neglected group in the planning and implementation of disaster mitigation programs. Therefore, this research not only contributes to the understanding of how empowerment and utilization of social capital can improve community preparedness in general, but also specifically identifies the needs and challenges faced by people with disabilities.

## METHOD

This study uses a descriptive qualitative research method that focuses on an in-depth analysis of a phenomenon that occurs. Descriptive qualitative tends to use inductive analysis techniques, namely the process of drawing conclusions from empirical data collected in the field [35]. The descriptive analysis method allows researchers to comprehensively understand the problems being faced, in this case related to the empowerment and inclusive use of social capital in disaster mitigation efforts in the Lembang Fault area. In the data collection process, data collection techniques are certainly needed to facilitate the researcher in the data collection process. The data used in this study include primary data and secondary data. Primary data was collected through observation, interviews, and documentation. Secondary

data was collected through literature studies. The data obtained will be organized in tabular form and analyzed using a qualitative descriptive approach. The results of the analysis are compiled and presented in narrative form that is appropriate to the issue being discussed.

## RESULT AND DISCUSSION

### **Inclusive Social Capital Empowerment in Disaster Mitigation in the Lembang Fault Area to Assist Persons with Disabilities**

Empowering social capital in the context of disaster mitigation in the Lembang Fault area plays a crucial role in improving community preparedness, especially for persons with disabilities. Social capital, which includes elements such as trust, norms, and social networks, provides a foundation for communities to support one another and work together in facing disasters. In this regard, persons with disabilities—who are often among the most vulnerable in disaster situations—are given the opportunity to actively participate in mitigation planning and evacuation actions.

One form of social capital empowerment involves building inclusive communication and coordination networks that consider the accessibility needs of persons with disabilities. In disaster mitigation efforts in the Lembang Fault area, this is achieved through disability-friendly evacuation drills, planning safe evacuation routes, and strengthening the capacity of persons with disabilities to understand and engage in existing mitigation policies. Inclusive social capital ensures that no individual is left behind in disaster preparedness, allowing persons with disabilities to be part of a resilient community capable of facing disaster threats.

Furthermore, this empowerment includes raising awareness and knowledge among the general public about the important role of persons with disabilities in disaster mitigation. This is done through joint education involving persons with disabilities, their families, and the surrounding community, to increase their confidence and skills in facing disasters. With empowerment based on social capital, persons with disabilities can serve as agents of change in the community, actively participating in disaster mitigation efforts in earthquake-prone areas.

Empowering persons with disabilities in disaster mitigation in the Lembang Fault area is crucial given the high potential for natural disaster threats such as earthquakes, which can significantly impact public safety, especially for persons with disabilities. In this context, empowerment is carried out through various educational programs, training, and capacity-building initiatives focusing on disaster preparedness.

Disability-friendly education and training are critical in preparing persons with disabilities to handle emergency situations, particularly evacuation. Emergencies often involve anxiety, confusion, and stress, which can be further aggravated by the physical or mental limitations experienced by persons with disabilities. Therefore, evacuation training tailored to the specific needs of individuals with visual impairments, physical disabilities, or mental disabilities must be carefully designed, taking into account various aspects of accessibility and comfort. Disability-friendly training programs not only teach basic evacuation techniques—such as how to exit buildings or reach safe zones—but also provide in-depth knowledge on how persons with disabilities can access specially designed evacuation routes. For example,

persons with visual impairments require training to recognize signage or guiding paths that can help them navigate safely in unfamiliar environments. This training may involve the use of voice guides, cane-assisted mobility techniques, or even modern technology such as voice-navigation apps that direct them to designated evacuation routes.

For individuals with physical disabilities, training should consider the arrangement of evacuation routes that accommodate wheelchairs or other mobility aids. These routes must be obstruction-free, include accessible elevators, and offer temporary shelters with adequate support facilities. Training programs should also teach persons with physical disabilities how to adapt to potentially inaccessible environments, such as stairs or narrow doors. For those with mental or cognitive disabilities—such as individuals with autism spectrum disorder or severe anxiety disorders—training approaches must be structured and visual-based. The use of images or videos showing clear, repetitive evacuation steps can help them better understand procedures and feel more at ease when taking action in emergencies. Additionally, interaction with patient instructors who can adapt the training to participants' abilities is essential for fostering a sense of safety and confidence.

In addition to training, one of the key components in preparing persons with disabilities for emergency situations is ensuring that evacuation routes are truly accessible to all individuals, without exception. These routes must be carefully designed to accommodate various types of disabilities—physical, sensory, or cognitive. For persons with visual impairments, evacuation paths should include sound cues or floor textures that guide them safely. For individuals with physical disabilities, ramps or accessible lifts should be provided, and the routes should be obstacle-free so they can exit buildings quickly and safely. Supporting facilities such as clear directional signage, bright emergency lights, and audible alarms for those with hearing impairments should also be included. Providing multiple options for communicating emergency situations—such as visual alarms (strobe lights), text messages on screens or mobile devices, or clearly audible announcements—will enhance the ability of persons with disabilities to respond promptly and appropriately.

Not only should evacuation routes be optimized, but also the tools and facilities used in emergencies, such as emergency doors, fire extinguishers, or rescue equipment. Persons with disabilities need training on how to use these tools in ways that suit their needs. For example, individuals with visual impairments may require specific instructions on how to recognize and use fire extinguishers with tactile grips or buttons. Similarly, people with physical disabilities should know how to operate automatic emergency doors or wheelchair transport devices available in evacuation areas. Additionally, rescue tools used by response teams, such as rescue ladders or other assistive devices, must also be accessible and usable by persons with disabilities. Training on these tools should be conducted thoroughly, ensuring that every individual knows how to access and use them safely. With this inclusive approach, persons with disabilities can face emergencies more confidently and safely, maximizing their potential for survival.

Empowering persons with disabilities in disaster mitigation is not only about ensuring accessible facilities and disability-friendly training, but also about involving them actively in the planning process of disaster mitigation itself. Their participation is crucial because persons

with disabilities have firsthand experience and can provide deeper, authentic insights into the challenges they face during emergencies. For example, a person with a disability can explain in detail the difficulties they encounter navigating non-accessible evacuation routes or how reliance on certain assistive devices can hinder movement in panic situations. This perspective is invaluable for ensuring that proposed disaster mitigation policies and strategies are effective, realistic, and practically applicable in the field.

Active participation of persons with disabilities in designing disaster mitigation policies also gives them a stronger role in society and promotes a sense of empowerment. Involving them in this process makes planning more inclusive, as resulting policies consider the needs and comfort of all stakeholders—especially those often marginalized. This process is not just about giving space for persons with disabilities to contribute, but also about building a culture that sees them as equal partners in developing disaster resilience. It fosters a sense of ownership over existing policies and enhances the effectiveness of implementation, as inclusively designed policies are more easily adopted by the broader community.

One of the key aspects that supports the empowerment of persons with disabilities in disaster mitigation is the establishment of inclusive social networks involving both persons with disabilities and the wider community. In regions such as the Lembang Fault—located in a disaster-prone seismic zone—a strong and inclusive social network is essential in disaster preparedness efforts. Such networks enable persons with disabilities not only to support each other and share experiences regarding disaster readiness, but also to collaborate with other community members, both with and without disabilities. These networks function as platforms to enhance communication and cooperation among community members, creating a support system that can act quickly and effectively when a disaster strikes.

In the Lembang Fault area, these social networks can be built by involving various stakeholders, such as disability organizations, local government, and the general public, in forums or working groups focused on disaster mitigation planning and implementation. In this context, it is crucial to cultivate a strong sense of solidarity among all community members so that persons with disabilities do not feel isolated or marginalized during disasters. These social networks can also be developed through various means, such as joint outreach programs, evacuation simulations, or disaster preparedness training involving all community layers, including persons with disabilities. Through this approach, not only do persons with disabilities become better prepared for disasters, but the general community also gains a deeper understanding of the challenges faced by persons with disabilities in emergency situations.

Moreover, having an inclusive social network provides persons with disabilities with vital emotional support. One of the main challenges often faced by persons with disabilities in emergencies is a sense of insecurity and dependence on others. A strong social network can help reduce this dependence by providing a sense of security and ensuring that persons with disabilities do not feel alone or marginalized. If a person with a disability finds themselves in a difficult situation, other members of the social network can respond immediately to assist or guide them to a safe evacuation route.

The empowerment of persons with disabilities in disaster mitigation also involves enhancing the community's capacity to work together in overcoming potential disasters, without neglecting the specific needs of persons with disabilities. Therefore, it is crucial to create space for them to voice their concerns and needs, as well as to help design mitigation strategies that are more responsive to the challenges they face. In this way, the participation of persons with disabilities in disaster mitigation not only enriches the planning process but also fosters a sense of togetherness, solidarity, and equality that is essential for creating a more resilient and inclusive community.

Additionally, these social networks can facilitate coordination and aid distribution processes, ensuring that persons with disabilities receive the attention and support they need during critical moments. These networks can assist in mapping the locations of persons with disabilities, preparing trained volunteers to provide assistance, and ensuring that they have proper access to evacuation shelters and other facilities. Close collaboration between the disability community and the general public is key to building comprehensive and inclusive disaster preparedness.

Accessibility and disability-friendly infrastructure play a vital role in supporting the empowerment of persons with disabilities in disaster mitigation, particularly in disaster-prone areas like the Lembang Fault zone. Infrastructure that is accessible to persons with disabilities not only ensures their safety during emergencies but also fosters a sense of security and enhances their participation in both planning and implementing disaster mitigation efforts. Therefore, it is important to design infrastructure that meets the needs of persons with disabilities—such as wider evacuation routes, easily accessible shelters, and public facilities that support their mobility under stressful conditions.

One of the most fundamental aspects of disability-friendly infrastructure is a safe and accessible evacuation route. In disaster-prone areas like the Lembang Fault, well-designed and easily accessible evacuation routes for persons with disabilities are a key component in enhancing their safety. These routes should be wider, obstacle-free, and smooth enough to facilitate the movement of individuals who use wheelchairs or other mobility aids. The availability of wide ramps, clear markers accessible to the visually impaired, and large, brightly lit directional signs can help ensure they can safely follow the evacuation path.

Moreover, evacuation points—such as emergency exits or escape routes—must be equipped with adequate mobility aids, such as wheelchairs, transport equipment for those with walking difficulties, or even trained personnel to assist persons with disabilities during evacuation. In this context, it is also important to ensure that evacuation routes are accessible to various types of disabilities, including physical, sensory, and cognitive disabilities. For individuals with hearing impairments, evacuation routes should be equipped with strobe lights or visual signs indicating evacuation status, while those with visual impairments may need voice guidance or tactile markers.

In addition to evacuation routes, shelters must be designed to meet the needs of persons with disabilities. These shelters should offer appropriate sleeping areas that are easily accessible to individuals who use wheelchairs or other aids. Well-organized and accessible sleeping spaces help persons with disabilities feel more comfortable during

evacuation periods. Additionally, the provision of wheelchair-accessible bathrooms is another critical factor. Bathrooms should be equipped with handrails, spacious layouts to accommodate wheelchair movement, and other features that support their mobility.

Evacuation shelters must also consider disability-friendly communication systems. Individuals with hearing impairments need bright visual alarms or alerts in the form of text messages or images. For the visually impaired, accessible voice communication systems—such as audio announcements about evacuation instructions or emergency conditions—are vital. Installing easily reachable emergency buttons and voice alert systems throughout the facilities can also help persons with disabilities respond quickly when conditions change.

A major challenge in developing disability-friendly infrastructure in disaster-prone areas like the Lembang Fault is budget limitations and geographical obstacles that affect accessibility. The development of inclusive infrastructure requires significant investment, from planning and design to the maintenance of existing facilities. In many regions—especially those with difficult topographies like the Lembang Fault—providing disability-friendly facilities is often hindered by rough terrain or challenges in sourcing appropriate construction materials. This can result in a failure to meet necessary accessibility standards, which in turn may hinder the effectiveness of evacuation and shelter efforts for persons with disabilities.

Furthermore, many existing facilities in disaster-prone areas are still not fully disability-friendly in terms of design or amenities. Buildings or shelters may lack adequate access for individuals with physical disabilities, such as wheelchair users, or lack clear markers for those with visual impairments. If these facilities do not meet accessibility standards, it will limit the ability of persons with disabilities to safely access evacuation routes, potentially increasing the number of casualties during a disaster.

To address these challenges, the development of more inclusive infrastructure—based on the principles of universal design—must become a top priority in disaster mitigation efforts in this area. Universal design is a concept that promotes the creation of facilities accessible to all people, without exception. By applying this principle, every infrastructure component—whether evacuation routes, shelters, or public facilities—can be designed to meet the needs of all segments of the community, including persons with disabilities.

The implementation of universal design in developing disability-friendly infrastructure includes the use of disaster-resilient and environmentally friendly materials, the adoption of advanced technologies such as voice-based navigation systems for the visually impaired, and the provision of various types of support facilities such as wheelchair-accessible toilets and spacious sleeping areas. Implementing universal design will not only enhance the ability of persons with disabilities to cope with disasters but will also benefit all members of society, including those who may face temporary mobility limitations, such as pregnant women, the elderly, or the injured.

### **Inclusive Utilization of Social Capital in Disaster Mitigation in the Lembang Fault Area to Help the Disability Community Respond to Disasters**

The inclusive utilization of social capital in disaster mitigation in the Lembang Fault area has yielded significant results in improving community disaster preparedness, particularly in involving persons with disabilities. Through inclusive social capital, the social networks

formed between persons with disabilities and other community members have strengthened collaboration in disaster mitigation efforts, both in the planning and implementation stages. One of the main outcomes identified is the increased involvement of persons with disabilities in decision-making related to disaster mitigation, such as determining accessible evacuation routes and providing disability-friendly facilities at evacuation points.

In addition, the strengthening of social norms that support inclusiveness has also proven effective in raising community awareness of the importance of the role of persons with disabilities in disaster mitigation. Training programs involving persons with disabilities provide them with practical skills that can be used in disaster situations, such as survival techniques and the ability to recognize warning signs. This not only gives persons with disabilities a greater role in disaster mitigation efforts but also reduces their vulnerability in facing potential disasters.

Another result is the development of a stronger sense of togetherness and solidarity among community members, which enhances the overall disaster response. Through collaboration between persons with and without disabilities, mutual understanding and appreciation for diversity are fostered, accelerating post-disaster recovery processes. This inclusive social capital enables the community to become more self-reliant in dealing with disasters, reduces dependence on external aid, and speeds up adaptation to post-disaster situations.

Overall, the inclusive utilization of social capital in the Lembang Fault area, especially in disaster mitigation programs, results in a more equitable increase in community resilience. This success demonstrates that involving all elements of society, including persons with disabilities, in the planning and implementation of disaster mitigation not only strengthens disaster response but also builds more lasting social resilience. Thus, the community in the Lembang Fault area, through an inclusive social capital approach, becomes increasingly prepared and empowered to face potential threatening disasters.

In the Lembang Fault area, known for its high earthquake risk potential, utilizing social capital to improve disaster preparedness for the disability community becomes crucial. The Lembang Fault, with its significant seismic activity, requires special attention in designing inclusive disaster mitigation strategies, especially for persons with disabilities. In this context, social capital—which includes trust, social norms, and social networks—plays a vital role in building more effective and accessible disaster resilience for all segments of society, including persons with disabilities.

Social capital, particularly in the context of disaster mitigation, functions as a glue that connects the community and persons with disabilities in a mutually supportive network. The trust established between persons with disabilities and the broader community in the Lembang Fault area is essential for creating harmonious collaboration. This trust allows the community to work with persons with disabilities in designing and implementing disaster mitigation policies and improving accessibility throughout evacuation and post-disaster recovery processes. For instance, persons with disabilities who have direct experience with challenges during emergencies can share more accurate insights and input in developing policies that are responsive to their needs.

Social norms in the Lembang Fault area also play an equally important role. Norms that prioritize inclusiveness and equality facilitate the acceptance of persons with disabilities as integral parts of disaster mitigation efforts. This involves recognizing the rights of persons with disabilities to receive equal treatment in disaster mitigation planning and implementation. Programs in this area must be designed with diverse needs in mind, ranging from accessible evacuation routes to adequate facilities during disasters. In this context, persons with disabilities should not only be seen as recipients of aid but also as active contributors to the mitigation process, which will enhance disaster resilience for everyone.

Moreover, social networks in the Lembang Fault area serve as channels for communication, collaboration, and vital information dissemination during preparedness and evacuation phases. These social networks include relationships among persons with disabilities as well as between them and the broader community. The presence of strong social networks enables effective dissemination of information about evacuation procedures, shelters, and available aid during disasters. With such supportive networks, persons with disabilities will not feel isolated but instead feel safer and better prepared to face emergency situations.

An important aspect of social capital utilization is the active participation of persons with disabilities in disaster mitigation planning. Persons with disabilities, who often have firsthand experience with the challenges in emergency situations, should be involved at every stage of disaster mitigation policy planning and implementation. They should not merely be objects of policy but also subjects with the right to provide input, suggestions, and deeper perspectives on the barriers they face in disaster situations.

By involving persons with disabilities in mitigation planning, we can create more inclusive and applicable policies. For example, they can provide perspectives on the accessibility of evacuation routes, the provision of mobility aids, and safe methods for reaching evacuation points. Persons with disabilities can also share their views on the design of more disability-friendly shelters, such as sufficiently spacious sleeping areas, wheelchair-accessible bathrooms, and communication systems responsive to persons with hearing or visual impairments. All this information is crucial to ensuring that the designed mitigation policies are not only effective but also realistically implementable on the ground.

As part of inclusive disaster mitigation programs, disability-friendly evacuation training must be designed with the specific needs of persons with disabilities in mind. This training should go beyond general instructions on evacuation procedures and be designed to ensure that each person with a disability—whether physical, sensory, or cognitive—can evacuate safely and independently.

Persons with disabilities who use mobility aids, such as wheelchairs or canes, require obstacle-free and sufficiently wide evacuation routes to move smoothly. Additionally, other mobility aids like evacuation wheelchairs or special transport equipment should be provided at strategic evacuation points. The training should provide practical skills to persons with disabilities on how to use these aids and recognize safe and easily reachable evacuation routes.

Persons with disabilities must also be trained to use communication systems available in emergency situations. For example, those with hearing impairments may benefit from strobe lights or visual alerts to understand evacuation statuses. Meanwhile, for the blind, voice instructions or voice-guided systems will be very useful in directing them to the designated evacuation paths.

In the Lembang Fault area, which lies along an active fault line with a high risk of earthquakes, disaster preparedness is an urgent necessity. The Lembang Fault, with its history of significant seismic activity, is extremely vulnerable to natural disasters, particularly earthquakes. However, in addressing such threats, collaboration between the disability community and the general public becomes a key element in building inclusive and effective disaster resilience.

Natural disasters, especially earthquakes, can destroy infrastructure and disrupt life-supporting systems in a region. Yet, what is often overlooked in many disaster mitigation policies is the specific needs of persons with disabilities, who face unique challenges in evacuation and post-disaster recovery processes. Therefore, in disaster-prone areas like the Lembang Fault, it is crucial to foster collaboration between persons with disabilities and the general public so that the entire community can support one another in facing potential disasters.

One way to strengthen collaboration between persons with disabilities and the general public is through joint activities that involve both groups. In disaster-prone areas such as the Lembang Fault, activities like joint evacuation training, disaster simulations, and the formation of inclusive volunteer teams serve as bridges connecting persons with disabilities with the wider community, helping to build stronger and more supportive relationships.

Joint evacuation training in the Lembang Fault area could be one of the most effective activities. In this training, all community members—both persons with disabilities and the general public—are trained together on safe and appropriate evacuation procedures. This provides an opportunity for persons with disabilities to share knowledge about their specific needs during emergencies, such as mobility difficulties, reliance on assistive devices, or challenges in accessing evacuation routes that may not be disability-friendly. For the general public, this training increases awareness of how to assist persons with disabilities during evacuation, such as guiding them to evacuation routes or providing mobility aids at evacuation points.

The formation of inclusive volunteer teams involved in disaster preparedness in the Lembang Fault area is also essential. These teams do not only include individuals from the general public but also involve trained persons with disabilities who can actively participate in evacuation efforts. Establishing these inclusive volunteer teams enhances the community's ability to cooperate and provide more targeted assistance during emergencies.

Volunteers in the Lembang Fault area must receive specialized training to understand and address the unique needs of persons with disabilities during and after disasters. This training includes skills for assisting individuals with mobility, communication, or sensory impairments. Volunteers should learn how to use evacuation wheelchairs, guide individuals who are visually impaired, and use alternative communication tools for persons with hearing

disabilities. These well-trained inclusive volunteer teams not only provide appropriate aid but also increase the involvement of persons with disabilities in disaster mitigation processes.

In the Lembang Fault area, disaster simulations are also an excellent tool to test the preparedness of both the community and persons with disabilities in facing disasters. These simulations can involve earthquake scenarios in the region, followed by mass evacuations. During the simulation, persons with disabilities can actively participate by trying out the designated evacuation routes. Meanwhile, other community members can learn how to provide the necessary support during the evacuation process.

Disaster simulations involving persons with disabilities not only strengthen technical evacuation skills but also foster a strong sense of solidarity within the community. When members of the general public witness firsthand the challenges faced by persons with disabilities during emergencies, they gain a deeper understanding of the importance of inclusivity in disaster mitigation planning.

Solidarity among community members in the Lembang Fault area plays a crucial role in ensuring that disasters can be faced together. The success of disaster mitigation in this region depends not only on the physical strength and technical capacity of the infrastructure but also on the quality of social networks built within the community. When persons with disabilities feel valued and supported by others, they will feel more confident and better prepared to face potential disasters.

It is important to cultivate a sense of shared responsibility within the Lembang Fault community. When all community members—both with and without disabilities—feel responsible for everyone's safety, disaster preparedness becomes more effective. This solidarity is reflected in many aspects, from joint training and information sharing to collaboration in designing and implementing more inclusive disaster mitigation programs.

Inclusive disaster preparedness in the Lembang Fault area requires not only the planning of physical infrastructure that is accessible to persons with disabilities, such as wider evacuation routes, wheelchair-accessible shelters, and mobility aids at evacuation points. More than that, effective preparedness also depends on the strength of social networks and collaboration between persons with disabilities and the general public. When both groups work together in planning, execution, and response to disasters, they create a more resilient and disaster-ready community.

By focusing on inclusive collaboration and active participation from all community members, the Lembang Fault area can develop a model of disaster preparedness that not only effectively protects persons with disabilities but also strengthens community solidarity. This is what will ensure that, regardless of the type or severity of disaster, the entire community in the Lembang Fault area is ready and able to face it together.

In the Lembang Fault region, which has a high earthquake risk, the formation of an inclusive social network is crucial to ensure that persons with disabilities are not left behind in disaster mitigation efforts. The Lembang Fault is a region prone to natural disasters, especially earthquakes that can strike at any time, making disaster preparedness an urgent necessity for all residents, including those with disabilities.

A social network involving both persons with disabilities and the general public serves as a vital communication channel for disaster mitigation in the Lembang Fault area. Coordination among various parties—including the government, volunteers, persons with disabilities, and the general public—will ensure that information about evacuation, aid distribution, and safe locations can be disseminated quickly and efficiently. Without an inclusive social network, the risk of persons with disabilities being left behind during evacuations or not receiving the assistance they need will be much greater.

One of the key aspects of an inclusive social network in the Lembang Fault area is effective coordination during evacuation and aid distribution. In disaster situations, fast and clear communication is essential to ensure that information regarding evacuation routes, shelter locations, and aid delivery reaches all members of the community, including persons with disabilities.

An inclusive social network serves as the main channel for disseminating this information, ensuring that persons with disabilities have equal access to assistance and shelters. When an earthquake occurs in the Lembang Fault area, information about disability-friendly evacuation routes must be delivered quickly to persons with disabilities, including those who use mobility aids like wheelchairs or hearing devices. Through effective coordination among members of the social network, the specific needs of persons with disabilities can be prioritized and met promptly.

In addition, the distribution of essential needs—such as food, water, medicine, and mobility or hearing aids—must reach persons with disabilities equally. Those who are isolated due to the earthquake must receive timely and targeted assistance, without discrimination.

An important element in building an inclusive social network in the Lembang Fault area is ensuring the availability and accessibility of disability-friendly shelters for all members of the community. In earthquake-induced disasters, shelters must not only be safe from seismic hazards but also inclusive and accessible for persons with disabilities.

Inclusive social networks play a critical role in facilitating coordination between persons with disabilities, volunteers, and shelter staff. Volunteers involved in the network should be trained to assist persons with disabilities in accessing the designated shelters, such as by providing accessible sleeping areas for wheelchairs, bathrooms that meet accessibility standards, and spacious, barrier-free shelter areas.

With an inclusive social network in place, persons with disabilities in the Lembang Fault area will feel safer, knowing they have full access to all the facilities they need during displacement. In emergency situations like earthquakes, this is crucial to ensure their well-being and protection while in shelters.

Beyond communication and accessibility, solidarity and empathy among community members are essential elements strengthened through inclusive social networks in the Lembang Fault area. When the entire community—both persons with disabilities and the general public—works together with a spirit of mutual cooperation, disaster preparedness becomes more effective. This solidarity fosters a sense of togetherness and concern, ensuring that persons with disabilities do not feel isolated or neglected in emergency situations.

The general public in the Lembang Fault area supports one another by spreading information, providing physical assistance to persons with disabilities, and ensuring that they receive equal access to all available aid. In disasters such as earthquakes, this sense of solidarity is crucial to ensure smooth evacuation processes where no one—including persons with disabilities—is left behind.

The resilience of the community built through inclusive social networks is also vital in facing disasters in earthquake-prone areas like the Lembang Fault. This resilience does not only depend on physical infrastructure or resources, but also on the community's capacity to collaborate in overcoming challenges arising from disasters. When persons with disabilities feel respected and empowered at every stage of disaster mitigation, they are more prepared to contribute to strengthening community resilience. In this context, inclusive social networks ensure that all members of society can move forward together to face disasters with a shared sense of responsibility.

Efforts to develop and utilize social capital for the disability community in the Lembang Fault area continue to be strengthened. One such effort is by providing further training to enhance the disaster preparedness skills of persons with disabilities. This training could include knowledge of disability-friendly evacuation routes, how to use assistive devices, and safety procedures that must be followed. Furthermore, increasing public awareness of the important role of persons with disabilities in disaster mitigation is essential. Broader disaster preparedness campaigns must emphasize the importance of including persons with disabilities in every stage of planning and implementation.

Lastly, the development of more inclusive policies that accommodate the needs of persons with disabilities should become a priority for local governments in the Lembang Fault area. Such policies will help create more accessible infrastructure, provide more targeted training, and enhance both social and financial support to ensure that persons with disabilities are not only protected but also empowered to face disasters more effectively. In this way, the Lembang Fault can become a model for other regions in terms of inclusive and sustainable disaster preparedness.

## CONCLUSION

Based on the research findings, it can be concluded that empowering and utilizing social capital in an inclusive manner is a vital and strategic instrument for improving the preparedness and responsiveness of the disability community to disaster threats in the Lembang Fault area. This region, with its high potential for earthquake risk, demands a mitigation approach that is not only technically comprehensive but also socially profound, ensuring that no group is marginalized in self-protection efforts. This demonstrates that social capital, which encompasses fundamental elements such as trust, inclusive norms, and solid social networks, serves as an essential community glue in the empowerment process. Through the development of an inclusive communication and coordination network, people with disabilities can not only support each other and share experiences regarding disaster preparedness but also collaborate effectively with other community members, both disabled and non-disabled. This network is crucial for ensuring that vital information regarding

evacuation, aid distribution, and safe locations can be disseminated quickly and efficiently, so that people with disabilities do not feel isolated or marginalized during a disaster. Strengthening social norms that support equality has also proven effective in raising public awareness of the importance of the participation of persons with disabilities in disaster mitigation, shifting their perception from mere recipients of aid to active contributors. The active participation of persons with disabilities in every stage of disaster mitigation planning and implementation, such as determining accessible evacuation routes and providing disability-friendly facilities at evacuation points, provides invaluable, authentic perspectives, making designed policies more applicable and effective in the field. Therefore, sustained and integrated efforts are needed to address the various practical challenges that still hinder the full implementation of this empowerment and inclusive utilization of social capital. Infrastructure and budget limitations that hinder the development of fully disability-friendly facilities, as well as the lack of policies that explicitly accommodate the specific needs of persons with disabilities, are significant obstacles that must be overcome. Strengthening more comprehensive policies, including universal design standards for new infrastructure and retrofitting existing facilities, along with adequate budget allocation for their implementation, will be crucial to the success of managing disaster mitigation activities equitably. Thus, through an empowerment approach and the utilization of inclusive and sustainable social capital, communities in the Lembang Fault area can create a disaster preparedness model that is not only effective in protecting people with disabilities, but also strengthens solidarity among community members as a whole, ensuring that the entire community is ready and able to face disasters together.

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