

## Isomorphism Framework with Scenario Planning in Installing Lembang Fault Earthquake Disaster Information Board Signs

## Meilina Wulandari1\*, Nadia Yovani2 🝺

1,2 Sosiologi Pascasarjana, Universitas Indonesia, Depok, Indonesia

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#### ABSTRAK

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## A B S T R A C T

Pemasangan rambu dan papan informasi bencana di daerah rawan bencana adalah salah satu bentuk upaya meningkatkan kesiapsiagaan dan mitigasi bencana melalui edukasi bencana bagi masyarakat yang berada di daerah rawan bencana. Penelitian ini bertujuan menganalisis bentuk isomorfisme DiMaggio and Powell pada pemasangan rambu dan papan informasi bencana gempa bumi Sesar Lembang serta memberikan rekomendasi pemasangan rambu dan papan informasi bencana di Badan Penanggulangan Bencana Daerah Kabupaten Bandung Barat (BPBD KBB). Pertimbangan pemilihan kasus didasarkan pada tingginya Indeks Risiko Bencana Indonesia (IRBI) tahun 2022 di Kabupaten Bandung Barat, mencapai 14,74 (risiko tinggi untuk gempa bumi). Metodologi penelitian menggunakan pendekatan kualitatif deskriptif dengan studi kasus pada BPBD KBB sebagai koordinator dalam penanggulangan bencana di daerah. Teknik pengumpulan data melibatkan studi literatur dan wawancara mendalam. Hasil penelitian menunjukkan bahwa pemasangan rambu dan papan informasi dipengaruhi oleh isomorfisme koersif normatif. Implikasi penelitian ini mencakup rekomendasi praktis untuk perbaikan strategi pemasangan rambu dan papan informasi guna meningkatkan efektivitas mitigasi bencana di wilayah tersebut.

Installing disaster signs and information boards in disaster-prone areas is one form of effort to improve disaster preparedness and mitigation through disaster education for people in disaster-prone areas. This study aims to analyze the form of DiMaggio and Powell Isomorphism in the installation of signs and information boards for the Lembang Fault earthquake disaster and provide recommendations for the installation of signs and disaster information boards at the West Bandung Regency Regional Disaster Management Agency (BPBD KBB). The consideration of case selection is based on the high Indonesia Disaster Risk Index (IRBI) in 2022 in West Bandung Regency, reaching 14.74 (high risk for earthquakes). The research methodology uses a descriptive qualitative approach with case studies on BPBD KBB as coordinators in disaster management in the regions. Data collection techniques involve literature study and in-depth interviews. The results showed that the installation of signs and information boards was influenced by normative coercive Isomorphism. The implications of this study include practical recommendations for improving strategies for installing signs and information boards to improve the effectiveness of disaster mitigation in the region.

## 1. INTRODUCTION

The Lembang Fault is an active fault along 29 km in Lembang District, West Bandung Regency, which stretches from Padalarang to Mount Batu. Mudrik Daryono's research results found that the potential for a large earthquake on the Lembang Fault reaches 6.5 to 7.0 magnitude (Aji et al., 2018; Ambarwati et al., 2020). An earthquake of that magnitude could occur if six parts of the Lembang Fault, namely Cimeta, Cipogor, Cihideung, Gunung Batu, Cikapundung, and Batu Lonceng, move simultaneously. The Lembang Fault passes through densely populated areas and public facilities, including tourist attractions, offices, and schools. So, if this fault moves, it can cause significant loss of life and property. For this reason, educating the public regarding the Lembang Fault West Bandung Regency threat is necessary.

The author chose West Bandung Regency (KBB) as a research location based on the 2022 Indonesian Disaster Risk Index (IRBI), West Bandung Regency of 14.74 (high risk for earthquakes). In 2019,

the National Disaster Management Agency (BNPB) facilitated the installation of signs and an information board for the Lembang Fault earthquake disaster in the West Bandung Regency. Other considerations include vital objects, recreation areas, and housing in West Bandung Regency, which is passed by the Lembang Fault, including Air Force Staff and Command School (Sesko AU), Bosscha Observatory, National Police Leadership School, Graha Puspa Housing, Gunung Batu and Tebing Keraton.

Disaster education for people living in disaster-prone areas is one of the president's directions at the 2019 National Disaster Management Coordination Meeting in Surabaya. Installing disaster signs and information boards in disaster-prone areas is one form of effort to increase disaster preparedness and mitigation through disaster education for communities in disaster-prone areas (Pracoyo et al., 2023; Wahyuni et al., 2020).

Since 2014, BNPB has facilitated the installation of disaster signs and information boards in districts/cities throughout Indonesia, which are stimulative. Head of BNPB Regulation Number 7 of 2015 concerning Disaster Signs and Information Boards is a guide for installing signs and disaster information boards. Disaster Signs and Information Boards are information installed in disaster-prone areas in the form of symbols, letters, numbers, sentences, and a combination thereof, which function to provide warnings and prohibitions for everyone in disaster-prone areas (Faizana et al., 2015; Rahman et al., 2017). The results of a survey on the need for signs and information boards for the Lembang Fault earthquake disaster carried out by BNPB, BPBD supported by the National Earthquake Center in 2019, showed that there were 18 points in the KBB with details of 17 units of disaster information boards and 13 units of disaster signs. BNPB, in this case, the Directorate of Preparedness, 2019, has facilitated the installation of signs and information boards for the Lembang Fault earthquake AU T-junction and Tebing Keraton.

Since the enactment of Minister of Home Affairs Regulation Number 101 of 2018 concerning Basic Service Technical Standards in Regency/City Regional Disaster Sub-Affairs Minimum Service Standards, provisions and installation of evacuation signs and public information boards have been regulated. Installing disaster signs and information boards is the region's responsibility. However, in regional implementation, not all BPBDs have been able to install disaster signs and information boards in their areas. One of the BPBDs that has installed disaster signs and information boards using the APBD is the Cianjur Regency BPBD. From 2018 to 2021, the Cianjur Regency BPBD succeeded in installing disaster signs and information boards using the APBD. The budget provided each year helps BPBD continue to increase public awareness and Prepare for the threat of disasters. The classification of disaster signs and information boards installed is also by BNPB Perka No. 7 of 2015. In 2022, BPBD Cianjur will begin exploring collaboration with the private sector to support the installation of disaster signs and information boards in the sector to support the installation of disaster signs and information boards in the private sector to support the installation of disaster signs and information boards in the private sector to support the installation of disaster signs and information boards in the private sector to support the installation of disaster signs and information boards in its area.

Previous research states that the essence of institutional theory is that an organization is formed due to the pressure of the institutional environment, which causes institutionalization to occur (Meyer & Höllerer, 2014; Waeger & Weber, 2019). Organizations make changes to their existence. The changes carried out by organizations have a wide scope, and each organization can influence other organizational forms by adopting them (Král & Králová, 2016; Muksin et al., 2023). Isomorphism is an effort to maintain the existence of an organization by adapting to its environment. DiMaggio and Powell stated that organizations carry out three adapting processes: (1) Coercive Isomorphism, namely the process of adapting towards equality through "coercion". There is pressure in the form of political influence and legitimacy problems. Official pressure comes from government regulations for compliance; (2) Normative Isomorphism is often associated with professionalization and normative pressures in certain fields. Appropriate norms or rules for organizations come from formal education; (3) Mimetic Isomorphism, namely the process of imitating other organizations that are successful in the same field. The imitation process occurs in an uncertain environment. An organization imitates another organization to gain legitimacy.

The results of previous research state that disaster signs are a form of indirect communication from the government to the community in the context of natural disaster management (Frasetya et al., 2021; Iqbal et al., 2021). Disaster signs are a concrete form of effort made by the government to help the public know the directions and location of gathering points during the evacuation process during a disaster. Disaster signs function as a visual means to provide clear and easily understood information by the public about the location of refugee camps or gathering points when a disaster occurs (Darmadi, 2021; Kuncoro & Indrawati, 2020; Syarif & Unde, 2014). Previous research states that installing disaster signs and information boards in disaster-prone areas effectively increases awareness and Preparedness for disaster threats to minimize disaster risks (Hasan et al., 2022; Suradi et al., 2021).

Organizations have widely used scenario planning because it can help them prepare for major changes. Research that uses planning using the TAIDA method (tracking, analysis, imaging, deciding, and

action) includes Hela, Haryono, and Siswidiyanto, who used scenario planning for Natural Disaster Preparedness in the Coastal Area of Malang Regency in 2015, which describes the Preparedness that must be had by Tambakrejo Village in Sumbermanjing District, Malang Regency because of the threat of natural disasters, namely: earthquakes, tsunamis and tidal waves, the Malang Regency Government must have a plan for disaster preparedness in coastal areas. Scenario planning is a strategy used in furniture companies by determining driving forces, selecting trends, determining predetermined factors, and creating 4 (four) scenarios.

The purpose of this research is (1) to analyze the form of Isomorphism of DiMaggio and Powell's theory in 1983 from the disaster sector, namely the installation of signs and information boards for the Lembang Fault earthquake disaster. This theory is still relevant today; (2) Provide recommendations in the form of scenario planning based on isomorphism analysis. Based on the research results related to installing earthquake disaster signs and information boards as one of the earthquake disaster preparedness and mitigation efforts in the Lembang Fault Area carried out by the West Bandung Regency BPBD.

In this research, the author predicted future events by analyzing isomorphism forms in the program to install signs and information boards for the Lembang Fault earthquake disaster at the West Bandung Regency BPBD. Then, from the interviews with informants, the author determined what the driving forces were in installing signs and information boards for the Lembang Fault earthquake disaster in dealing with changes that may occur in the future by carrying out scenario planning. In installing signs and information boards for the Lembang Regency, scenario planning became a tool used to help organizations explore possibilities that could occur in the future. BPBD is the institution responsible for implementing disaster management in West Bandung Regency. It is hoped that this research can help West Bandung Regency BPBD be more adaptive, flexible, and responsive when facing changes and uncertainty in the future.

#### 2. METHODS

This research was conducted from March 2022 to May 2023, with the research analysis unit being the West Bandung Regency Regional Disaster Management Agency. The research method uses descriptive qualitative and case studies. It is hoped that this research can obtain an in-depth description and understanding of the installation of signs and information boards for the Lembang Fault earthquake disaster and can answer research questions. One of the factors supporting the success of qualitative research is the selection of informants so that the data obtained can answer the research questions. The selected informants must understand the studied topic (Denzin & Lincoln, 2011). In this study, the selection of informants was based on the informants being actively involved in installing disaster signs and information boards at the West Bandung Regency BPBD, namely: Chief Executive of the West Bandung Regency BPBD, Secretary of the West Bandung Regency BPBD, Head of Prevention and Preparedness Division of the West Bandung Regency BPBD, Head of the Program and Budget Section and Staff for Prevention and Preparedness at West Bandung Regency BPBD who were involved in installing disaster signs and information boards. Meanwhile, informants outside the BPBD were the Lembang Village Secretary, researchers, and volunteers involved in installing disaster signs and information boards in the West Bandung Regency. All informants in this study were willing to provide information on more than 1 (one) visit.

Data collection techniques in the research used primary data (interviews) and literature studies (secondary data) related to installing earthquake disaster signs and information boards at KBB. Primary data was collected using cross-sectional data from March to April 2022. Secondary data up to May 2023 included journals, news, official institutional documents, and others. The author searched on the internet to obtain secondary data. The criteria for selecting literature are official documents and scientific writings, so the validity of the data is quite strong. Atlas.ti is used as a data processing tool for interview transcripts and can help organize, code, and analyze research data in a structured and efficient manner. Each informant's coding process was carried out until coding results were obtained. Then, a network diagram was prepared showing what form of Isomorphism most influenced the program for installing signs and information boards for the Lembang Fault earthquake disaster at the West Bandung Regency BPBD.

The stages in preparing scenario planning are: (1) Determining the focal concern, which is a strategic issue of primary concern; (2) Complete and thorough identification of all driving forces that shape the future; (3). Analyze the relationship between driving forces and between driving forces and focal concerns; (4) Determine two driving forces, which results in a matrix containing four future scenarios. The determination of these two driving forces must meet three criteria, namely: the most direct influence, the most immediate impact and the most important and uncertain in influencing the future; (5) Select polar variations based on the two selected driving forces then identify the characteristics of each pole for each

selected driving force; (6) Create a matrix of vertical lines and horizontal lines obtained from the two selected driving forces; and (7) Create a scenario narrative which is the result of the interaction between the two poles, including its characteristics and give an associative name to each of the four scenarios that have been prepared.

## 3. RESULTS AND DISCUSSIONS

#### Results

Analysis of interview transcript data using Atlas.Ti, presented in Figure 1, shows two forms of Isomorphism in installing signs and information boards for the Lembang Fault earthquake disaster at the West Bandung Regency BPBD: coercive and normative.



Figure 1. Atlas.ti Analysis Results

## Discussion

### **Coercive Isomorphism**

Coercive Isomorphism, namely the process of adapting oneself towards equality through "coercion". There is pressure in the form of political influence and legitimacy problems. The results of coercive Isomorphism can be seen in Figure 2.



Figure 2. Coercive Isomorphism Results

#### **Basics of Regulation and Program Implementation Planning**

In the planning and implementation of the program for installing signs and information boards for the Lembang Fault earthquake disaster in West Bandung Regency, regulations were used: APBD, Permendagri, Strategic Plan, and Perka BNPB Number 7 of 2015 concerning Disaster Signs and Information Boards. However, its implementation still needs to be done by these regulations. It was caused by budget cuts, which resulted in installing signs and information boards for the Lembang Fault earthquake disaster in West Bandung Regency. For example, the program still needs to be implemented by installing disaster signs by the availability of the existing budget (not yet by the BNPB Perka), and there is no warning/punishment given by the center (BNPB and the Ministry of Home Affairs).

The Chief Executive (Kalaksa) of the West Bandung Regency BPBD also provided information that the West Bandung Regency BPBD in implementing its program refers to the RPJMD, and this is downgraded to the Strategic Plan which is the reference for implementing the program at the BPBD. However, it cannot be implemented according to the plan or target, one of which is due to the Covid-19 pandemic.

Input provided by Dr. Rahma Hanifa, one of the Lembang Fault researchers regarding the implementation of Minister of Home Affairs Regulation 101 of 2018 concerning Basic Service Technical Standards in the Minimum Service Standards (SPM) for Regency/City Regional Disaster Affairs, has regulated the provision and installation of evacuation signs and public information boards. He explained that every citizen has the right to receive disaster information. BPBD can invite the private sector to fulfill its duties to provide excellent public services.

#### **Program Implementation**

Forms of educational programs for the public regarding the threat of the Lembang Fault earthquake, which has been included in the regulations in the BPBD of West Bandung Regency, are installing signs, disaster simulations, and outreach. Secretary of Lembang Village, Head of West Bandung Regency BPBD Program, Meli and Nia (Volunteers) said that the location of the signs and information boards for earthquake disasters is very important because the function of signs and information boards is to provide threat information and what the community should do. Support from volunteers in installing signs and information boards and socializing during the Lembang Fault earthquake was also strengthened by the results of interviews with Nia, a volunteer representative. Due to the lack of signs and information boards, they used props (made from paper) during the simulation. It aims to inform the simulation actor about the direction and evacuation route. The Secretary of Lembang also supports the existence of simulations in Lembang village. They have also budgeted for simulations and outreach involving small groups in the community, for example, social gatherings for mothers and Posyandu services for children and older people.

#### Inter-Institutional Collaboration

Local officials, universities, the community, and related agencies were involved in installing signs and information boards for the Lembang Fault earthquake disaster in West Bandung Regency. It is confirmed by the results of interviews with the West Bandung Regency BPBD Secretary (Sekban) and the Lembang Village Secretary.

#### Normative Isomorphism

Normative Isomorphism is often associated with professionalization and normative pressures in certain fields. Appropriate norms or rules for organizations come from formal education. The normative isomorphism results are presented in Figure 3.



Figure 3. Results of Normative Isomorphism

#### **CSR** Collaboration

CSR support for West Bandung Regency disasters is minimal, especially in the pre-disaster phase. BPBD and the Lembang Village Secretary hope the role of CSR will support BPBD in the pre-disaster phase. The results of interviews with the West Bandung Regency BPBD Secretary and the West Bandung Regency BPBD Kalaksa reinforce this.

## Providing education to tourism managers and tourists

West Bandung Regency BPBD understands that the threat of the Lembang Fault is quite large for West Bandung Regency, considering that there are many tourist attractions whose locations are traversed by the Lembang Fault. Efforts to minimize the impact include outreach to tourists and tourist attraction managers. The results of an interview between the Head of Prevention and Preparedness of West Bandung Regency BPBD and Dr Rahma Hanifa reinforce this.

## Collaboration with non-government institutions

Non-Governmental Institutions include land owners where the signs and information boards will be installed. West Bandung Regency BPBD first approached land owners and local village officials. They were educated on installing signs and information boards for the Lembang Fault earthquake disaster. Other parties that need to collaborate are business institutions because they have CSR budgets in the pre-disaster phase. CSR is mostly used for the emergency response phase (when a disaster occurs). The following are the results of the interview with

#### Initial Findings of Scenario Planning Establishing Focal Concern (FC)

West Bandung Regency BPBD's efforts in implementing the program to install signs and information boards for the Lembang Fault earthquake disaster, as well as increasing the clarity of signs and information boards for earthquake disasters for public awareness. The results of the identification of Driving Forces (DF) and Driving Forces (DF) with Focal Concern (FC) are presented in Table 1.

Social	Technology	Economy	Environment	Politics
1.Increase in	1. There is	1. Property Loss	1.Natural	1. Minister of Home
Population	still a lack of	2. Loss of houses	damage	Affairs Regulation
2.Public knowledge	buildings	and damaged	2.Earthquakes	101/2018
about the threat	that follow	public	can occur at	concerning
of the Lembang	earthquake-	buildings	any time (time	Technical Standards
Fault is still	resistant	3. Collaboration	cannot be	for Minimum
minimal	structures	with the	predicted)	Service Standards
3.The Lembang	2.Lembang	private sector	3.Many tourist	for Sub-Disaster
Fault Area in	Fault		attractions	Affairs
West Bandung	information		were	2. BPBD as an
Regency is in a	can be more		damaged	implementer and
densely	easily		4.The hilly	coordinator of SPM
populated area,	accessed		geographical	for Disaster Affairs
tourist and public	through		structure of	3. BPBD as the
facilities	online and		West	responsible person,
4.The Lembang	offline		Bandung	regional disaster
Fault Area in	media		Regency is	management
West Bandung			prone to the	coordinator
Regency is in a			threat of	4. Head of BNPB
densely			subsequent	Regulation No. / of
populated alea,			uisasters, ior	2015 concerning
facilities			landelidee due	Information Roards
5 Vulnorablo			to	5 Commitment from
groups (elderly			w	s. communent from
progrant womon			eartiquakes	corry out pro
children neonle				disaster activities
with special				especially installing
needs)				disaster signs and
6 Various reactions				information boards
from the nublic				in their areas
regarding signs				6. Coordination and
and information				cooperation
boards (in front				between BPBD
				West Bandung

## Table 1. Results of Identification of Driving Forces (DF) and Driving Forces (DF) with Focal Concern (FC)

Social	Technology	Economy	Environment	Politics
of houses and				Regency and related
tourist managers)				agencies, as well as
7.Reaction of the				BPBD and other
public who need				disaster actors, in
information on				strategies for
the Lembang				installing disaster
Fault and its				signs and
threats				information boards
				7. Changes in power
				holders that can
				change existing
				policies.

Table 2. Relationship	between	DF	and	DF	with	FC
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	Awareness/Know ledge	Population/D emography	Cooperation	Budget
Socioeconomic	<ol> <li>Education level influences understanding of the threat of the Lembang Fault.</li> <li>Some tourist attraction managers refuse to install signs and information boards because it affects the number of tourists.</li> </ol>	<ol> <li>Densely populated areas</li> <li>Vulnerable groups</li> </ol>	Support from business institutions (private sector) in disaster management activities, especially in the pre-disaster phase	<ol> <li>Agencies involved in disaster management are asked to allocate a budget for disaster management.</li> <li>Budget efficiency in determining the location for installing signs and information boards</li> </ol>
Technology	Use of technology to increase public awareness/knowle dge	Socialization of the use of technology in disaster management in language that is easily understood by the public.	Collaboration with academics, private sector	
Politics	<ol> <li>Leaders who understand disaster management.</li> <li>Due to the geographical conditions of West Bandung Regency, which is prone to disasters.</li> <li>Commitment from Policy Stakeholders (high) and</li> </ol>	1. Regional spatial plans are adjusted to geographical conditions.	<ol> <li>Involving the private sector in disaster management</li> <li>Involve academics</li> </ol>	Priority of the disaster management budget, especially the pre- disaster budget

	Awareness/Know ledge	Population/D emography	Cooperation	Budget
	Understanding of the threats and risks of the Lembang Fault earthquake among disaster management actors (high) 3. Implement Permendagri 101 of 2018 4. Implement BNPB Perka No.7 of 2015			
Environment	The geographical conditions of West Bandung Regency are prone to natural disasters, including earthquakes and landslides.	Outreach to the community about disaster mitigation and Preparedness	<ol> <li>Include points of cooperation regarding protecting the environment</li> <li>Request the private sector to provide a budget to support disaster management activities, especially pre- disaster</li> </ol>	

#### Choose the Most Influential DF

Influential driving forces have the most direct relationship and the most immediate impact and are very important but also have high uncertainty. DF selection was carried out based on secondary data and primary data obtained by the author. The author chose two driving forces: (1) the commitment of policymakers to implement disaster risk reduction efforts and (2) an understanding of the threats and risks of the Lembang Fault earthquake among disaster management actors. Select polar variations from the two selected DFs and identify the characteristics of each pole. The following is an identification of the characteristics of each pole.

## Table 3. Results of Identifying the Characteristics of Each Pole

Pole	Characteristic features
Commitment of Policy Stakeholders (high) and Understanding of the threats and risks of the Lembang Fault earthquake among disaster management actors (high)	(a) Leaders have an understanding of disaster management (b) The Disaster Management Budget (PB) is not cut (it is a priority) (c) The pre-disaster budget is approved according to needs (d) The form of disaster mitigation activities is clear, approved and implemented (e) BPBD carrying out his duties as coordinator and person in charge of disaster SPM (f) Disaster mitigation and preparedness efforts between the government and other disaster management actors are running so that the risk of the Lembang Fault can be minimized (g) Support from all Disaster Management actors in installing disaster signs and information boards (business institutions, academics, public)
Commitment of Policy Stakeholders (low) and Understanding of	(a) Vulnerable to cuts to the Disaster Management budget (b) The pre- disaster budget has not been a priority (c) The form of disaster mitigation activities has not been approved, prioritizing the budget during disaster

Characteristic features
emergency response (d) BPBD has not been able to carry out its duties by Law no. 24/2007 to the maximum (e) Disaster mitigation and preparedness efforts run in the community only (minimal support from the government). (f) Installation of signs has been carried out but not by the regulations (only by available funds)
<ul> <li>(a) Disaster Management Budget is not a priority (b) There is no education/socialization about the threat of the Lembang Fault</li> <li>(c) Activities to install signs and information boards are not carried out</li> </ul>
<ul> <li>(a) Priority Disaster Management Budget (b) Disaster Management Budget exists but has not been supported by other Disaster Management actors in disaster mitigation activities</li> <li>(c) The government has carried out its duties by conducting outreach, but the public's response has been very poor.</li> <li>(d) The government provides a fairly large emergency response budget due to the lack of understanding of other disaster management actors regarding DRR efforts</li> </ul>





#### **Developing Scenarios**

Each scenario has an associative name from the four existing scenarios. There are four scenarios formed from the correlation of the two driving forces that have the most influence on the installation of disaster signs and information boards, namely:

## First Scenario: Independence and Sustainability Installation of Signs and Information Boards for the Lembang Fault Earthquake Disaster.

Independence and sustainability in installing signs and information boards regarding the Lembang Fault earthquake disaster are crucial in increasing community awareness and Preparedness. This initiative emphasizes the importance of independence in protecting oneself and the environment from potential natural disasters. By involving authorities such as the National Disaster Management Agency (BNPB), the installation of signs and information boards is not only informative but also contributes to the formation of a culture of disaster awareness among local communities (Badrujamaludin et al., 2021; Prima et al., 2020; Sukamto et al., 2021). The continuation of this project is the basis for ensuring that current and accurate information continues to be available to the public. This project can run sustainably through the

involvement of related parties, including local governments and disaster management institutions (Badri, 2018; Istiyanto, 2020). These steps include regular maintenance, updating information, and improving the quality of signs and information boards. The importance of independence and sustainability is not only in the context of prevention but also in forming resilient communities ready to face disaster challenges with local resources (Rahmawati et al., 2021; Ulum, 2014). Thus, efforts to install signs and information boards are not only a short-term project but also a long-term investment in the safety and resilience of the community against potential earthquake disasters in the Lembang Fault area.

# Second Scenario: The program to install signs and information boards for the Lembang Fault earthquake disaster has been implemented but does not comply with the regulations.

Even though the program for installing earthquake disaster signs and information boards on the Lembang Fault has been implemented, applicable regulations still have inconsistencies (Kurniati et al., 2019; Ramadhan et al., 2021). The successful implementation of this program is a positive first step in efforts to increase community preparedness to face potential disasters (Rimbawan, 2023; Wibowo et al., 2020). However, an in-depth implementation evaluation must be carried out to comply with the guidelines and regulations set by the National Disaster Management Agency (BNPB) and other authorities. The importance of compliance with regulations not only ensures compliance but also increases the effectiveness of programs in conveying accurate and relevant information to the public. This evaluation may include reviewing the installation location, the content of the information conveyed, and selecting appropriate types of signs and information boards. In this way, this program can be more efficient and effective in increasing public awareness and Preparedness for the risk of earthquakes in the Lembang Fault area.

#### Third Scenario: Installation of Signs and Information Boards cannot be Carried out at All

This scenario will occur if the driving forces' understanding of threats and risks is low and policymakers' commitment is low. There is no effort at all to reduce disaster risks regarding the threat of the Lembang Fault earthquake. None of the disaster management actors understand or care about the threats and risks of the Lembang Fault. Even though the aim of installing signs and information boards was carried out, significant obstacles were encountered, and the project could not be implemented (Kurniati et al., 2019; Ramadhani & Hilman, 2022). These obstacles can come from limited resources, complex regulations, or a lack of coordination between the parties involved. This condition indicates the need for a thorough evaluation of planning and implementation strategies to ensure compliance with applicable regulations and the effectiveness of the sign and information board installation program. By identifying and overcoming these obstacles, it is hoped that this program can be implemented successfully to increase community awareness and Preparedness for potential earthquake disasters in the Lembang Fault area.

#### Fourth Scenario: The Program for Installing Signs and Disaster Information Boards Runs Partially

This scenario will occur if the driving forces' understanding of the threats and risks of the Lembang Fault is low, but policymakers' commitment is high. The local government continues to install signs and information boards, but there is no effort to maintain, care for, and maintain them. Although the Program for Installing Disaster Signs and Information Boards has been initiated, unfortunately, its implementation is only running partially. It may be caused by several factors, including limited resources, technical obstacles, or a lack of coordination between parties implementing the program. In this context, it is necessary to conduct an in-depth evaluation to identify these obstacles and design an effective strategy to ensure the smoothness and success of the disaster sign and information board installation program. Full successful implementation of this program will increase community preparedness for potential disasters and provide great benefits in disaster management efforts.

The first implication is an increased understanding of the complexity of Isomorphism in earthquake disaster mitigation planning. Thus, this research contributes to recognizing isomorphism patterns that can be optimized to increase the effectiveness of mitigation planning. However, this research has limitations, such as data coverage or certain analysis methods. Therefore, it should be acknowledged that the findings may not fully cover all complex aspects of mitigation planning. As a recommendation, the study supports the need for further research to expand data coverage and test the validity of Isomorphism in more complex mitigation scenarios. Future research could also consider dynamic factors that may influence the effectiveness of disaster signage and information boards. Thus, this research can be a starting point for further, more holistic, in-depth research in the Lembang Fault area earthquake disaster mitigation.

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#### 4. CONCLUSION

The conclusions of the results of data analysis with Atlas.Ti and the initial findings of scenario planning in the Program for Installing Signs and Information Boards for the Lembang Fault Earthquake Disaster are (1) Two forms of Isomorphism, namely coercive and normative. Coercive Isomorphism consists of the Basics of Regulation and Program Planning and Implementation, Institutional Cooperation and Program Implementation; Normative Isomorphism consists of CSR cooperation, providing education to tourism managers and tourists, and cooperation with non-government institutions; (2) Four scenarios formed from the correlation of the two most influential driving forces poles, namely: Independence in the Sustainability of the Program for Installing Signs and Information Boards by Regulations; The program to install signs and information boards for the Lembang Fault earthquake disaster has been implemented but is not yet by the regulations; Installation of signs and information boards cannot be carried out at all; The Program for Installing Signs and Disaster Information Boards is Running Partially.

#### 5. REFERENCES

- Aji, R. P., Prasetyo, Y., & Awaluddin, M. (2018). Studi Sesar Lembang Menggunakan Citra Sentinel-1a Untuk Pemantauan Potensi Bencana Gempa Bumi. *Jurnal Geodesi Undip*, 7(4), 304–313. https://doi.org/10.14710/jgundip.2018.22435.
- Ambarwati, I. W., Feranie, S., & Tohari, A. (2020). Analisis potensi likuifaksi di wilayah Cekungan Bandung dengan menggunakan metode uji penetrasi konus. *Ris. Geo. Tam*, 30(1), 21–37. https://doi.org/10.14203/risetgeotam2020.v30.1038.
- Badri, M. (2018). Sistem Komunikasi Dalam Pembangunan Sosial Pasca Bencana. *Jurnal Dakwah Risalah*, 29(1), 66–80. https://doi.org/10.24014/jdr.v29i1.6574.
- Badrujamaludin, A., Ardiansyah, D., Apriany, D., Hastuti, D., Ropei, O., & Kumala, T. F. (2021). Kurangi Dampak Bencana Melalui Kematangan Mitigasi Bencana Berbasis Masyarakat Di Kelurahan Utama Kota Cimahi. Jurnal Kreativitas Pengabdian Kepada Masyarakat (PKM), 4(1), 122–128. https://doi.org/10.33024/jkpm.v4i1.3514.
- Darmadi, D. (2021). Komunikasi Pemerintahan dalam Penanggulangan Bencana Banjir Bandang di Masamba Kabupaten Luwu Utara. *Jurnal Ilmu Komunikasi, 11*(1), 48–63. https://doi.org/10.15642/jik.2021.11.1.48-63.
- Denzin, N. K., & Lincoln, Y. S. (2011). The Sage handbook of qualitative research. sage.
- Faizana, F., Nugraha, A. L., & Yuwono, B. D. (2015). Pemetaan risiko bencana tanah longsor Kota Semarang. *Jurnal Geodesi Undip*, 4(1), 223–234. https://doi.org/10.14710/jgundip.2015.7669.
- Frasetya, V., Corry, A., Trenggono, N., & Putra, P. (2021). Komunikasi Mitigasi Bencana Kota Bandar Lampung. *KOMUNIKA*, 4(1), 1–18. https://doi.org/10.24042/komunika.v4i1.8624.
- Hasan, E. S., Hasria, H., Masri, M., Haraty, S. R., Okto, A., & Hamimu, L. (2022). Pengurangan Risiko Bencana Bagi Masyarakat Desa Tumbu-tumbu Jaya, Kabupaten Konawe Selatan, Sulawesi Tenggara. Jurnal Abdidas, 3(5), 838–847. https://doi.org/10.31004/abdidas.v3i5.656.
- Iqbal, M., Rahiem, V. A., Fitrananda, C. A., & Yusuf, Y. M. (2021). Komunikasi Mitigasi Bencana: Studi Kasus Mitigasi Bencana Badan Penanggulangan Bencana Daerah Provinsi Jabar dalam Menghadapi Bencana Alam Gempa Bumi Akibat Sesar Lembang. *Linimasa: Jurnal Ilmu Komunikasi*, 4(2), 186– 194. https://doi.org/10.23969/linimasa.v4i2.4189.
- Istiyanto, S. B. (2020). Komunikasi pemerintah daerah dalam program pembangunan daerah wisata pantai pascabencana. *Jurnal Ilmu Komunikasi*, 9(1), 16–27. https://doi.org/10.31315/jik.v9i1.3412.
- Král, P., & Králová, V. (2016). Approaches to changing organizational structure: The effect of drivers and communication. *Journal of Business Research*, 69(11), 5169–5174. https://doi.org/10.1016/j.jbusres.2016.04.099.
- Kuncoro, D., & Indrawati, I. (2020). Proses Komunikasi Dalam Implementasi Kebijakan Mitigasi Bencana Di Kawasan Pesisir Selatan Kabupaten Bantul. Jurnal Mutakallimin: Jurnal Ilmu Komunikasi, 2(2). https://doi.org/10.31602/jm.v2i2.3513.
- Kurniati, T., Yosritzal, Y., & Yuweti, A. (2019). Penyusunan Prosedur Tetap dan Pemasangan Rambu Evakuasi Gedung Pasar Tradisional dalam Rangka Mitigasi Bencana Gempa. *Warta Pengabdian Andalas,* 26(3), 141–150.

http://wartaandalas.lppm.unand.ac.id/index.php/jwa/article/view/341.

- Meyer, R. E., & Höllerer, M. A. (2014). Does Institutional Theory Need Redirecting? *Journal of Management Studies*, *51*(7), 1221–1233. https://doi.org/10.1111/joms.12089.
- Muksin, A., Ridwansyah, P., Anggriawan, E. D. P., Agustina, R., Putri, V. A., & Anggara, A. D. (2023). Komplekstisitas organisasi dalam mengatasi masalah organisasi: tinjauan dimensi perilaku, struktur, dan manajemen perubahan. *Triwikrama: Jurnal Ilmu Sosial*, 2(1), 131–140.

https://doi.org/10.6578/triwikrama.v2i1.774.

- Pracoyo, A., Kusumah, I. F., Agustina, E., Sumiati, S., Fikri, A., Kurnita, N., & Magfira, B. N. R. (2023). Upaya mitigasi bencana non-struktural di daerah rawan bencana melalui program kuliah kerja nyatapemberdayaan masyarakat desan belanting, kecamatan sambelia. *Jurnal Wicara Desa*, 1(5), 839– 849. https://doi.org/10.29303/wicara.v1i4.3450.
- Prima, F. K., Gusmareta, Y., Abdullah, R., Rifwan, F., & Zola, P. (2020). Edukasi Konsep Tagana (Tanggap Siap Bencana) Untuk Anak Usia Sekolah Di Daerah Rawan Bencana Kabupaten Solok Selatan Sumatera Barat. *CIVED*, 7(2), 58–62. https://doi.org/10.24036/cived.v7i2.107184.
- Rahman, F., Sukmono, A., & Yuwono, B. D. (2017). Analisis kekeringan pada lahan pertanian menggunakan metode nddi dan perka bnpb nomor 02 tahun 2012 (Studi kasus: Kabupaten kendal tahun 2015). *Jurnal Geodesi UNDIP*, 6(4), 274–284. https://doi.org/10.14710/jgundip.2017.18152.
- Rahmawati, Y., Anugrah, F. F., Hati, E. M., & Roziqin, A. (2021). Kampung Tangguh: Wujud Kolaborasi antar-Stakeholder dalam Merespons Pandemi COVID-19. *Journal of Social Development Studies*, 2(1), 39– 51. https://doi.org/10.22146/jsds.1020.
- Ramadhan, F. F., Asyiawati, Y., & Nasrudin, D. (2021). Manajemen Risiko Bencana terhadap Ancaman Sesar Lembang. *Prosiding Perencanaan Wilayah Dan Kota*, 7(2). https://doi.org/10.29313/pwk.v0i0.31300.
- Ramadhani, S. S., & Hilman, Y. (2022). Startegi BPBD Kabupaten Pacitan dalak upaya penanggulangan bencana banjir dan tanah longssor. Jurnal Riset Inossa: Media Hasil Riset Pemerintahan, Ekonomi Dan Sumber Daya Alam, 4(1), 24–37. https://doi.org/10.54902/jri.v4i1.65.
- Rimbawan, I. P. D. (2023). Tingkat partisipatif masyarakat dalam kebijakan pelaksanaan hari simulasi bencana di provinsi bali. *Journal of Scientech Research and Development*, 5(2), 120–131. https://doi.org/10.56670/jsrd.v5i2.171.
- Sukamto, F. I., Nurhidayat, S., & Verawati, M. (2021). Pelatihan Siswa Tanggap Bencana sebagai Upaya Mitigasi Bencana di Ponorogo. Amalee: Indonesian Journal of Community Research and Engagement, 2(1), 15–22. https://doi.org/10.37680/amalee.v2i1.178.
- Suradi, S., Nainggolan, T., Sugiyanto, S., Sumarno, S., Murni, R., Erwinsyah, R. G., & Aeni, A. (2021). *Peranan Kawasan Siaga Bencana dalam Meningkatkan Kesiapsiagaan Masyarakat Menghadapi Bencana Alam*. Puslitbangkesos & P3KS Press.
- Syarif, A., & Unde, A. A. (2014). Pentingnya komunikasi dan informasi pada implementasi kebijakan penyelenggaran penanggulangan bencana di Kota Makassar. *KAREBA: Jurnal Ilmu Komunikasi*, 3(3), 142–152. https://doi.org/10.31947/kjik.v3i3.583.
- Ulum, M. C. (2014). Manajemen bencana: Suatu pengantar pendekatan proaktif. Universitas Brawijaya Press.
- Waeger, D., & Weber, K. (2019). Institutional Complexity and Organizational Change: An Open Polity Perspective. Academy of Management Review, 44(2), 336–359. https://doi.org/10.5465/amr.2014.0405.
- Wahyuni, S., Ciciria, D., Zuhad, M. A., Mahya, M. N., Ayyuhda, C., Naim, M. H., & Janah, M. (2020). Pemberdayaan masyarakat Pekon Negeri Ratu Tenumbang dalam mewujudkan wilayah tanggap bencana. Jurnal Pendidikan Dan Pemberdayaan Masyarakat, 7(2), 135–146. https://doi.org/10.21831/jppm.v7i2.31223.
- Wibowo, Y. A., Dewi, R. P., Ronggowulan, L., Anjarsari, R. Y., & Miftakhunisa, Y. (2020). Penguatan Literasi Mitigasi Bencana Angin Puting Beliung untuk Peningkatan Kapasitas Masyarakat Desa Munggur, Kabupaten Boyolali, Jawa Tengah. Warta LPM, 23(2), 165–179. https://doi.org/10.23917/warta.v23i2.10571.