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Risk Communication in Preparing Resilient Villages in North Lombok Regency

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ABSTRACT

Communication plays a crucial role in all aspects of life, including in the context of disaster management. North Lombok Regency is an area highly vulnerable to various natural disasters such as earthquakes, volcanic eruptions, landslides, and floods. The experience of the major earthquake in 2018 highlighted the critical need for an effective risk communication system to enhance community capacity in disaster preparedness. This study aims to gain an in-depth understanding of the risk communication processes in preparing Disaster Resilient Villages (*Desa Tangguh Bencana*) in North Lombok Regency. The research focuses on analyzing the roles of key actors (such as the Regional Disaster Management Agency-BPBD, village governments, NGOs, and community leaders), communication channels used, community engagement, and the challenges encountered in the risk communication process. A qualitative approach was employed in five villages (Bayan, Kayangan, Gangga, Tanjung, and Pemenang Barat) that have implemented the Disaster Resilient Village program. Data collection techniques included in-depth interviews, participatory observation, and document analysis. The data were analyzed using a descriptive qualitative method with an interpretative approach to examine emerging communication patterns. The findings indicate that risk communication at the village level has not yet been fully effective in reaching all community segments. Despite the presence of formal structures and training programs, several issues persist, such as inconsistencies in message delivery, limited disaster literacy among the population, and low community participation in simulation and training activities. This study contributes to the development of more inclusive, sustainable, and culturally grounded risk communication strategies as a key element in building truly disaster-resilient communities.

Keywords: Risk Communication, Disaster Resilient Village, Disaster Risk Reduction, Community Participation.

INTRODUCTION

North Lombok Regency (KLU) in the Province of West Nusa Tenggara is one of the regions with a high level of disaster vulnerability. The earthquake that struck the area in 2018 caused severe infrastructure damage, fatalities, and deep psychological trauma for the local communities. In response to this situation, the government, in collaboration with various stakeholders, initiated the *Desa Tangguh Bencana* (Disaster Resilient Village) program as an effort to enhance community capacity in facing and reducing disaster risks (1).

The *Destana* program aims to build communities capable of independently responding to disaster threats through local capacity building, the development of

contingency plans, and the improvement of public awareness and disaster knowledge. The implementation of this program in KLU has shown positive outcomes, such as the establishment of the Disaster Risk Reduction Forum (FPRB) in Sambik Elen Village and the strengthening of community capacities in Sama Guna Village. Non-structural efforts to address earthquakes include adapting and regulating human activities in accordance with physical mitigation strategies and other relevant measures. One critical effort involves spatial planning policies, particularly in coastal areas prone to disasters. In areas with high earthquake potential, land use restructuring is necessary. The development of settlements too close to the shoreline should be avoided. Anticipatory actions are required to minimize the potential impacts of earthquakes. Preparedness activities aim to equip communities with the capacity to respond during disasters through training for residents in disaster-prone areas, as well as education and training for government officials (1).

The success of the *Destana* program is closely tied to the effectiveness of disaster risk communication. Risk communication is the process of delivering accurate, timely, and understandable information to the public regarding potential hazards, mitigation measures, and actions to be taken before, during, and after a disaster. Studies have shown that one-way and overly technical communication is often ineffective in reaching all segments of society, particularly in regions with limited access to information and diverse cultural backgrounds (2).

Risk communication plays a crucial role in shaping disaster-resilient villages, as the success of such programs largely depends on how effectively disaster mitigation information is conveyed to the public. In this context, communication actors such as village governments, the Regional Disaster Management Agency (BPBD), non-governmental organizations (NGOs), and community leaders play a vital role in disseminating accurate and timely information to at-risk populations. However, disaster risk communication in North Lombok still faces several challenges, including damage to communication systems and infrastructure due to previous disasters (3,4).

Based on the current conditions of communities in North Lombok Regency, several key issues can be identified as follows: How is the risk communication process carried out in preparing Disaster Resilient Villages in North Lombok Regency?; Who are the actors involved in risk communication, and what roles do they play in the process?; What communication channels are used to deliver information to the community?; To what extent do communities understand and engage in the risk communication process?; What obstacles and challenges are encountered in implementing risk communication at the village level?

This study aims to: Gain an in-depth understanding of the risk communication process in preparing Disaster Resilient Villages in North Lombok Regency by examining the roles of key actors (such as the Regional Disaster Management Agency [BPBD], village governments, NGOs, and community leaders), the communication channels utilized, the level of community involvement, and the challenges faced during the risk communication process.

LITERATURE REVIEW

Risk Communication

Risk communication is a critical component of disaster management, aimed at conveying information about potential hazards and risks to communities and other relevant stakeholders. In the disaster context, risk communication not only involves disseminating information about impending threats but also includes mitigation strategies, preparedness efforts, and actions that need to be taken to reduce disaster impacts. According to Renn (5), risk communication is a two-way process involving interaction between those with

expertise on risk—such as scientists, government agencies, or relevant institutions—and communities that are vulnerable to such risks. This communication must be transparent, clear, and understandable, taking into account factors such as cultural background, education, and the community's overall risk awareness.

Bakti et al. (6) emphasize the importance of participatory-based risk communication. In this context, the community is not merely a passive recipient of information but is expected to engage in decision-making processes and mitigation actions. Therefore, risk communication should adopt a participatory approach that includes various actors such as government institutions, NGOs, media, and the community itself.

Additionally, Kasperson et al. (7) argue that risk communication must consider the social and cultural contexts in which it takes place. Factors such as public trust in government and related institutions, as well as the communication capacity of individuals and groups, can significantly affect the extent to which disaster-related information is received and understood.

Risk communication is an essential element in disaster management, particularly in preparing communities for potential disasters. According to Rabe et al. (8) risk communication is commonly defined as the exchange information about risks between experts or officials and individuals, as well as the mitigation strategies that can be applied. In disaster contexts, risk communication involves not only the dissemination of hazard information but also public education on ways to minimize the impacts.

Risk Management

Risk management involves the identification, analysis, and mitigation of potential risks within a particular area. According to Mahardhika & Pamungkas (9), effective risk management must be based on a participatory approach that involves all stakeholders, especially local communities. The process generally includes four main phases: mitigation, preparedness, response, and recovery.

Disaster risk reduction (DRR) at the village level should take into account local factors such as geographical, social, and cultural conditions. Community-based approaches are considered more effective because local residents possess knowledge of the risks and resources available for managing disasters (10).

Disaster risk management refers to a series of coordinated actions taken to reduce the impact of disasters before, during, and after an event. Samiri et al. (11) state that an effective disaster risk management approach must be integrative and involve multiple stakeholders, including the government, private entities, and community members.

Several theoretical frameworks are relevant to disaster risk management:

a. Socio-Ecological Systems Theory**:** Focuses on the roles of social and political structures in disaster mitigation. In the context of Disaster Resilient Villages, this includes the role of village governments and community participation (12).
b. Preparedness Theory**:** Centers on how well communities and governments are prepared for and capable of responding quickly and effectively to disasters (13).
c. Resilience Theory**:** Emphasizes the community's ability to remain resilient in the face of disaster impacts. The concept of resilience is crucial in developing Disaster Resilient Villages (14).

Disaster Resilient Villages

A *Disaster Resilient Village* (*Desa Tangguh Bencana*) is a community that possesses the capability to identify potential threats in its environment and can organize its resources to reduce disaster risks and recover promptly from adverse impacts when a disaster occurs. The development of Disaster Resilient Villages is part of a community-based disaster risk reduction initiative in which the local population acts

as the primary agent. Within this model, communities actively engage in assessing, analyzing, managing, monitoring, evaluating, and reducing disaster risks in their respective areas. This approach is mandated by Law No. 24 of 2007 on Disaster Management, which aims to protect citizens from disaster threats.

The concept of Disaster Resilient Villages was designed to enhance community capacity and resilience in the face of disasters. The program seeks to develop communities that are informed, prepared, and capable of taking appropriate action in disaster situations. Initiated by the Regional Disaster Management Agency (BPBD), the program aims to strengthen village-level disaster mitigation systems as a means of reducing vulnerability and increasing community resilience.

The *Destana* program consists of three core components: Individual and community capacity to recognize hazards and disaster risks; Institutional capacity to respond to disasters promptly and effectively; post-disaster recovery capacity, particularly economic and social resilience. By establishing Disaster Resilient Villages, communities are expected to be better prepared for disasters through improved knowledge, skills, and supporting infrastructure.

According to Wahyunengseh and Pamungkas (15), one of the keys to the success of Disaster Resilient Villages is the application of approaches grounded in local wisdom. This includes the involvement of community leaders and the use of local resources to facilitate education and risk communication. Such local wisdom often takes the form of traditional knowledge and mitigation practices that have proven effective in reducing disaster impacts.

Relevant theoretical frameworks in the development of Disaster Resilient Villages include:

a. Community Empowerment Theory**:** This theory highlights the importance of empowering communities to become self-reliant in managing and reducing disaster risks. Through training and capacity building, communities are encouraged to play an active role in disaster risk reduction (16).
b. Community Participation Theory**:** According to Arnstein (17), community participation in decision-making processes is vital to the success of disaster risk reduction programs. In the context of Disaster Resilient Villages, active involvement in risk identification and mitigation planning is essential for program effectiveness.

MATERIALS & METHODS

Approach and Type of Research

This study employs a qualitative approach with a descriptive research type. The qualitative approach is chosen to gain an in-depth understanding of how risk communication is implemented in the process of preparing Disaster Resilient Villages (*Desa Tangguh Bencana*) in North Lombok Regency. According to Creswell & Creswell (18), qualitative research aims to explore social phenomena from the perspective of participants by utilizing narrative and contextual data.

Informant Selection Technique

Research informants were selected using *purposive sampling*, a technique that involves choosing individuals who are considered to have the most knowledge and understanding of the research topic. Patton (19), in his book *Qualitative Evaluation and Research Methods*, states that in qualitative research, the selection of informants is not based on statistical representation, but rather on the purpose of selecting individuals who truly understand, have experienced, or are directly involved in the phenomena being studied.

The informants include: (1) Village Government (Village Head); (2) Community Leaders/Traditional Leaders; (3) Non-Governmental Organizations (NGOs) assisting the Destana program; and (4) Officials from the Regional Disaster

Management Agency (BPBD) of North Lombok Regency.

Types of informants in this study include three categories:

a. Key informants, who possess essential and core information relevant to the research;
b. Main informants, those directly involved in the social interactions under investigation; and
c. Additional informants, individuals who may not be directly involved but can provide relevant insights.

A total of 16 informants were involved from five villages, consisting of one Village Head, one Community/Traditional Leader, and one representative from an NGO in each village, along with one official from a disaster-related government institution (BPBD of North Lombok Regency). The selected villages are: 1) Bayan Village; 2) Kayangan Village; 3) Gangga Village; 4) Tanjung Village; 5) Pemenang Barat Village

Data Collection Techniques

a. In-depth Interviews
   Kvale (20), in his book *InterViews: An Introduction to Qualitative Research Interviewing*, explains that in-depth interviews are used to explore the experiences, perspectives, and subjective meanings of informants in a comprehensive manner.
b. Participant Observation
   Spradley (21), in his book *Participant Observation*, states that participant observation is a technique in which the researcher becomes directly involved in the social setting being studied in order to understand behaviors, interactions, and culture from within.
c. Document Study
   Bogdan and Sari (22), in *Qualitative Research for Education: An Introduction to Theory and Methods*, emphasize that document analysis (including documents, archives, notes, photos, and activity reports) is an important data source in qualitative research for understanding social and administrative contexts.

Data Analysis Technique

This research is descriptive in nature and aims to provide a depiction of the situations or conditions occurring by employing qualitative analysis. The descriptive qualitative analysis technique with an interpretative approach to communication patterns follows Miles and Huberman (23), in their book *Qualitative Data Analysis: An Expanded Sourcebook*. The data analysis in qualitative research involves three stages:

a. Data Reduction→ Selecting, simplifying, and organizing raw data to make it more manageable and structured.
b. Data Display→ Presenting data in the form of narratives, tables, matrices, charts, or visual models to enhance readability and meaning extraction.
c. Conclusion Drawing and Verification→ Interpreting the data, identifying patterns and relationships, and drawing conclusions that are continually verified throughout the research process.

Data Validation

Data validity is essential to ensure the credibility of the findings. This study employs the *member check* technique, which involves confirming the interview results with the informants to ensure that the researcher's interpretations align with their intended meanings (24).

RESULT AND DISCUSSION

General Overview of the Research Site

North Lombok Regency (*Kabupaten Lombok Utara* or KLU) is a regency located in the Province of West Nusa Tenggara (Nusa Tenggara Barat), Indonesia. Its capital is Tanjung. The regency was established under Law No. 26 of 2008 as a result of the administrative division of West Lombok Regency. As the youngest regency in West Nusa Tenggara, North Lombok covers an area of 776.25 km² and is

geographically situated on the northern slopes of Mount Rinjani.

Administratively, North Lombok Regency consists of five districts (*kecamatan*): Bayan, Kayangan, Gangga, Tanjung, and Pemenang, encompassing a total of 43 villages (*desa*). Among these, Bayan District is the largest in terms of land area, covering 329.10 km², while the smallest is Pemenang District with an area of 81.09 km².

North Lombok Regency is one of ten regencies/municipalities in West Nusa Tenggara Province. It is located on the northern part of Lombok Island and is bounded by: **North**: Java Sea; **East**: East Lombok Regency; **South**: West Lombok and Central Lombok Regencies; **West**: Lombok Strait and West Lombok Regency.

Risk Communication Process

The dissemination of disaster-related information in villages is carried out through both formal and informal channels. Formally, information is typically conveyed through the following means: Regular village meetings (such as village deliberations or hamlet-level gatherings), where the village head or village officials deliver information related to disaster potential, contingency plans, or preparedness programs; Notifications from the Regional Disaster Management Agency (BPBD) delivered via village authorities, in which BPBD provides initial alerts to the village government, which are then forwarded to the community through oral announcements or mosque loudspeakers; Local communication media, such as banners, pamphlets, billboards, and information boards at the village hall or hamlet office.

Informally, information often spreads through: Community or traditional leaders, who are trusted sources for villagers and hold social influence in conveying important messages; Social media and messaging applications, such as WhatsApp groups at the neighborhood (RT/RW) or village level, which are increasingly used by some villagers and village officials.

The forms of risk communication activities that have been implemented include: Socialization and public outreach, carried out by BPBD, NGOs, and village governments through educational sessions or disaster-related dialogues. Topics typically cover types of disasters, early warning signs, and evacuation procedures; Disaster preparedness training**,** including training on risk mapping, emergency post management, and first aid; Disaster simulations, conducted several times a year, particularly during the National Disaster Preparedness Day. These simulations include scenarios such as earthquakes, floods, or evacuation to safe zones; Participatory mapping, where the community is directly involved in identifying and mapping disaster-prone areas; Disaster Preparedness School Education (Sekolah Siaga Bencana or SSB)**,** which has been implemented in several villages as part of disaster education programs for children.

An emergency communication system has been developed, although it has not yet been optimally implemented in all villages. This system includes: Mosque loudspeakers or traditional wooden slit drums (kentongan**)**, used to deliver early warnings rapidly to the community; Evacuation signs and routes**,** available in several villages to guide residents during disaster events; Radio communication and handheld transceivers (HTs), utilized by village volunteer teams or the Disaster Resilient Villages (Destana) to coordinate across emergency posts; Early Warning Systems (EWS), installed in some disaster-prone areas, although not all are fully functional; Direct coordination between BPBD and village heads, which serves as the main channel for delivering official information regarding disaster status.

Overall, the risk communication process in villages within North Lombok Regency is operational but has yet to reach all segments of the community evenly. Multiple

communication channels—both formal and informal—are present, though not fully integrated into a responsive and adaptive system that meets the needs of the population. Communication activities such as outreach, training, and simulations have been carried out, yet require greater frequency, sustainability, and broader active community involvement.

The Role of Communication Actors/Agents

The dissemination of disaster-related information in North Lombok Regency involves a range of cross-sectoral actors, including government bodies, community members, and non-governmental organizations. Key actors frequently mentioned by informants include:

a. The Regional Disaster Management Agency (BPBD) of North Lombok, as the primary technical agency responsible for disaster management;
b. Village Government, particularly the Village Head and officials who hold strategic positions in reaching local residents;
c. NGOs, such as Konsepsi, SiapSiaga, and other local organizations that facilitate the Disaster Resilient Village (Destana) programs;
d. Community leaders, including religious figures, traditional leaders, and youth leaders who wield significant influence within local communities;
e. Volunteers or Destana cadres, who are local residents trained through the Destana program to support disaster preparedness efforts.

The effectiveness of each actor's role is shaped by their social legitimacy and access to relevant information. A combination of structural approaches (carried out by BPBD and the village government) and cultural approaches (led by community leaders and NGOs) forms the backbone of effective risk communication. However, synchronization among these actors remains a challenge, particularly in terms of inter-sectoral coordination.

Actor involvement in training activities is largely influenced by the frequency of such initiatives**,** the perceived benefits to the community, and the communication strategies employed**.** When training sessions are participatory**,** contextually relevant, and use methods that are easily understood, community engagement significantly increases. Conversely, top-down or overly technical approaches often lead to lower levels of participation.

The role of actors in risk communication within North Lombok Regency is crucial but not yet fully optimized. The success of risk communication efforts largely depends on the synergy between governmental bodies (BPBD and village authorities), the support of NGOs, and the involvement of local leaders who bridge traditional cultural norms with formal strategies. Challenges such as coordination barriers**,** limited resources, and low community participation continue to hinder the development of effective Disaster Resilient Villages and must be addressed to strengthen disaster preparedness at the local level.

Communication Channels Used

Various communication channels are utilized in the dissemination of disaster-related information, including:

a. Mosque loudspeakers, which are widely used, especially during emergency situations or early warnings. They are considered effective due to their broad reach and the community's familiarity with them;
b. WhatsApp groups, used by village officials, disaster preparedness cadres, and youth groups. Information from BPBD or NGOs is often circulated through these groups;
c. Face-to-face meetings (village meetings/socialization sessions), which remain the primary medium for conveying structured information and fostering deep understanding;
d. Leaflets and posters, distributed by NGOs and BPBD, though often

regarded as less effective due to the tendency of residents not to read them;

e. Community radio, used in some villages such as Bayan to disseminate disaster information, although its coverage remains limited.

The majority of informants indicated that mosque loudspeakers and WhatsApp are the most accessible communication channels, especially in areas with stable mobile signal coverage.

The use of local language (Sasak) is common, particularly in oral announcements, while the use of local symbols or visual elements remains limited. Some key findings include: Mosque announcements are often delivered in the Sasak language to enhance comprehension, especially among the elderly; In training activities, technical terms are frequently re-explained using everyday language; Few posters or visual materials incorporate familiar local symbols (e.g., traditional house icons, local clothing); Some NGOs have started utilizing local folktales or references to past disaster events to contextualize risk messages within local cultural frameworks.

Overall, risk communication channels in the villages of North Lombok are relatively diverse, yet still face several challenges, including: Inclusivity, as not all residents have access to digital platforms; Message effectiveness, particularly regarding the understanding of technical information; Lack of cultural adaptation, as local languages and symbols are not optimally used; Insufficient targeting of vulnerable groups, such as children, women, and the elderly.

Therefore, risk communication strategies should be directed towards a combination of traditional and modern approaches, emphasizing face-to-face communication, the use of local language, and culturally appropriate message design that fits the context of each village.

In the context of risk communication processes in North Lombok Regency, there is a pressing need to strengthen communication strategies by: Integrating community-based and technological approaches; Utilizing local languages and more contextually relevant visual aids; Enhancing the engagement of women, children, and the elderly in both the dissemination and reception of risk messages.

Community Engagement

Community participation in disaster preparedness and simulation activities remains limited and uneven. Several informants—particularly village heads and community leaders—reported that only a small portion of the population actively engages in disaster simulation activities. The highest levels of participation typically come from traditional leaders, village youth, and local volunteer groups.

Participation tends to depend on the intensity of facilitation by NGOs or BPBD. In villages that receive active support from such agencies, residents are more likely to be involved due to persuasive approaches and non-material incentives, such as training certificates or social recognition.

Barriers to participation include: The demands of daily economic activities (e.g., farming or trading); The belief that disasters are solely “acts of God,” and therefore not something that can be prepared for; A lack of understanding about the benefits of simulation exercises.

Understanding of disaster mitigation information varies significantly: Residents who have participated in training or simulation activities generally understand basic concepts such as evacuation routes, assembly points, and the importance of safeguarding key documents; Understanding remains low among the general population. Many residents are unfamiliar with technical terms or risk narratives, especially when communication is one-way or delivered in formal language.

Effective sources of information include: Direct explanations from community leaders or village volunteers; Visual media such as posters and live simulations; Personal

stories and experiences from previous disaster events.

Challenges to comprehension include: Low literacy levels and limited formal education, especially among the elderly; The use of communication that does not always reflect local cultural contexts.

Strategies to improve community participation in the *Destana* program include adopting a community-based participatory approach. Most informants agree that the involvement of local leaders, traditional figures, and youth volunteers is highly effective in reaching the wider community. Hands-on, practice-based training is generally preferred over formal lectures.

Recommended strategies: Involving women's groups (such as PKK), youth organizations (karang taruna), and religious figures; Organizing simulations as competitions or village events to increase public interest; Using the local Sasak language and integrating local folktales or traditional wisdom; Providing symbolic incentives or recognition to active participants (e.g., certificates, awards, public acknowledgment); Emphasizing the importance of consistency and sustainability. A single Destana activity is not sufficient. Regular evaluation and ongoing capacity building are necessary to ensure that knowledge is retained.

Community engagement in the risk communication process within disaster-resilient villages in North Lombok Regency remains a significant challenge. While formal structures such as Destana volunteers exist, general public involvement remains passive and limited. Understanding of mitigation information is uneven, and risk communication has not yet been fully adapted to the local socio-cultural context.

Enhancing community participation will only be effective if pursued through inclusive, culturally grounded approaches, and by involving trusted social actors. Simulation and training activities must be designed to be engaging, continuous, and adapted to the rhythms of rural life.

Barriers and Challenges

Several key challenges in disseminating disaster-related information to the community include: Limited public understanding of technical disaster terminology. Many residents are unfamiliar with terms such as *mitigation*, *self-evacuation*, *hazard zones*, or *secondary risks*; Low community participation in outreach or simulation activities. Some residents perceive these activities as irrelevant to their daily lives or view them merely as formalities; Dependence on specific figures (top-down communication). Communities tend to remain passive, waiting for instructions from community leaders or village officials; Limited communication tools and media, especially in remote areas or isolated hamlets lacking mobile network coverage or loudspeakers; Lack of continuity in outreach programs. After external actors (such as NGOs) complete their interventions, there is often no sustained follow-up from village governments or BPBD.

These conditions reveal that the challenges in risk communication are not solely technical or media-related, but also deeply rooted in socio-cultural factors**,** risk perceptions, and linear communication patterns. To foster behavioral change, communication must be participatory and repetitive, rather than one-off or unidirectional.

In terms of linguistic, cultural, and educational barriers, it is evident that: Local languages remain dominant in everyday communication, particularly in rural areas. Many community members do not understand formal Indonesian terminology frequently used by official agencies; Local culture influences disaster perceptions. Some residents still believe disasters are a form of “fate” or “divine punishment,” making them less motivated to participate in mitigation training; Low levels of formal education. Many residents—especially the elderly or those from economically disadvantaged groups—did not complete

basic education, which affects their ability to understand written or symbolic messages.
Several strategies have been employed by key actors (village governments, BPBD, NGOs) to address these communication barriers, including: Using local language when delivering information, particularly during simulations or outreach events at the hamlet level; Involving community figures, such as traditional, religious, and social leaders as spokespersons for disaster messages, to enhance credibility and acceptance; Employing visual media and practical methods, such as evacuation drills, hazard maps displayed in community halls, and illustrated posters; Door-to-door approaches, targeting vulnerable groups such as the elderly or persons with disabilities, to provide direct and easily understood explanations; Integrating disaster messages into social and religious activities, such as prayer groups, community gatherings (*arisan*), or mutual aid events (*gotong royong*).
Risk communication barriers in North Lombok cannot be separated from the region's social, cultural, and structural contexts. Language, perceptions of disaster, limited communication infrastructure, and low disaster literacy all contribute to these obstacles. However, with adaptive strategies employing local and participatory approaches such challenges can be gradually addressed. Long-term commitment from all actors is essential to ensure the sustainability of risk communication, making it not just a project-based effort, but an integral part of everyday village life.

Recommendations and Aspirations

Several key areas require further enhancement to strengthen disaster risk communication in North Lombok, including: Increasing the frequency and continuity of risk communication efforts: Many villages have only received initial training without any follow-up. This often leads to a lack of long-term awareness and an absence of habitual disaster responsiveness within the community; Strengthening the capacity of local cadres and village volunteers: Village heads and community leaders suggested that village volunteers should receive more practical and context-specific communication training so that they can act as trusted and proactive information agents within their communities; Maximizing the use of information technology: Informants from NGOs and BPBD emphasized the importance of utilizing digital platforms such as community WhatsApp groups, early warning applications, and educational video content to engage younger generations; Simplifying communication language for broader comprehension: Traditional leaders pointed out that many residents, particularly the elderly, do not understand technical disaster-related terminology. Therefore, it is necessary to use local languages and visual symbols to enhance comprehension; Enhancing inter-agency coordination: BPBD highlighted the need for clear Standard Operating Procedures (SOPs) governing information flow between BPBD, village governments, and communities to prevent misinformation and ensure structured communication.
The following aspirations reflect a collective vision for building truly disaster-resilient villages: Establishing community-based early warning systems: Several village heads expressed their hope for the provision of early warning tools that can be directly operated by communities, such as sirens, automatic loudspeakers, or community radio stations; Integrating disaster education into school and religious activities: Community leaders proposed embedding disaster mitigation awareness into mosque teachings, school curricula, and religious study groups (*pengajian*) to ensure outreach across age groups; Conducting regular and inclusive disaster simulations: There is strong public demand for simulations to be held routinely—beyond formality or occasional events—making them part of the annual village agenda involving all residents; Increasing

government funding and support: NGO informants noted that the sustainability of the Destana program depends heavily on consistent village budgeting and local government commitment. They hope to see clearer and more consistent disaster-related budget allocations in the Village Revenue and Expenditure Budget (APBDes); Empowering women and vulnerable groups: There is a shared aspiration for greater involvement of women, children, and the elderly in planning and implementing disaster risk activities, as these groups are often the most affected during disasters.

These aspirations illustrate a collective call for a disaster risk communication system that is: a) Inclusive – involving all segments of society; b) Responsive – utilizing appropriate technology and local networks; c) Sustainable – supported by adequate funding, training, and active village leadership.

Overall, these recommendations and aspirations form a critical foundation for policy development at both the village and regency levels, aimed at building a more effective disaster risk communication system to support the realization of Disaster Resilient Villages (*Desa Tangguh Bencana*) in North Lombok Regency.

CONCLUSION

This study demonstrates that the risk communication process in preparing Disaster Resilient Villages (*Desa Tangguh Bencana*) in North Lombok Regency is carried out in a participatory manner and involves various key actors. These include the Regional Disaster Management Agency (BPBD) as the primary facilitator, the village government as the local implementer, NGOs as technical advisors, and community leaders who bridge disaster messages with local values. A variety of communication channels are utilized, such as mosque loudspeakers, WhatsApp groups, community meetings, printed leaflets, and social media. However, the effectiveness of these channels still depends on community access to information and local communication habits. Community members actively participate in training, simulations, and outreach activities, although ensuring long-term engagement remains a challenge. Some key obstacles to effective risk communication include the lack of program continuity, limited human and financial resources, differing perceptions among actors, and low levels of disaster literacy among certain segments of the population. The success of risk communication is highly dependent on synergy among actors, the selection of communication channels that are contextually appropriate, and the continuous strengthening of community capacity and participation.

Several recommendations are proposed to improve the effectiveness of risk communication in building Disaster Resilient Villages in North Lombok Regency:

a. **Strengthening the Capacity of Local Actors:** Intensive training for village officials, volunteers, and community leaders on risk communication, along with the development of community-based communication strategies.
b. **Developing Inclusive Communication Channels:** Optimizing the use of community radio, visual media, traditional theatre, and local languages to reach people of all ages and backgrounds.
c. **Enhancing Community Participation:** Utilizing participatory methods such as risk mapping, simulation competitions, or citizen forums that regularly discuss disaster preparedness and response.
d. **Formulating a Sustainable Risk Communication Strategy:** Integrating disaster education and training into the Village Development Plan (*RKPDes*), allowing for funding through the village budget.
e. **Multi-Stakeholder Collaboration and Program Integration:** Facilitating coordination between BPBD, the Ministry of Communication and Information (Kominfo), NGOs, and

village governments, as well as collaboration with schools and religious leaders to broaden the dissemination of risk messages.

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