International Journal of Education, Vocational and Social Science
https://e-journal.citakonsulindo.or.id/index.php/IJEVSS
E-ISSN : 2963 4954
IJEVSS

Building Public Awareness In Preventing Flood Disasters (Case Study Of Environmental Communication In Bumi Waras Urban Village)"

Tegar Saputra [1] *
University of Bandar Lampung, Indonesia
Wawan Hernawan [2]
University of Bandar Lampung, Indonesia
Hanindyalaila Pienrasmi [3]
University of Bandar Lampung, Indonesia

*Corresponding Author: tegarrsaputraa0400@gmail.com

Abstract

This study aims to describe how environmental communication plays a role in building public awareness to prevent flooding, focusing on Bumi Waras Village, Bandar Lampung City. This study uses a qualitative descriptive approach, with data collection techniques including in-depth interviews, field observations, and documentation analysis. The results indicate that environmental communication efforts in the area are still dominated by top-down communication patterns and have not been fully adapted to the local socio-cultural context. The level of public awareness regarding flood risks is relatively low, influenced by limited public participation and ineffective information dissemination. However, a participatory communication approach through the involvement of local leaders, neighborhood forums (RT/RW), and community activities such as mutual cooperation has proven more effective in conveying flood mitigation messages. This study concludes that an inclusive, culturally relevant, and dialogical environmental communication strategy is crucial for building collective awareness and encouraging active community participation in disaster risk reduction efforts in flood-prone areas.

Keywords: Bumi Waras, environmental communication, flood disaster prevention, participatory communication, public awareness

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

INTRODUCTION

Flooding is one of the most frequent and damaging natural disasters in Indonesia, particularly in low-lying coastal urban areas like Bumi Waras Urban Village, Bandar Lampung. Recurring floods disrupt livelihoods, damage infrastructure, and increase vulnerability among local communities. Despite technical interventions such as drainage improvements and embankments, floods continue to occur, underscoring the need for non-structural strategies like community-based awareness and preparedness programs.

Environmental communication plays a pivotal role in shaping public understanding of ecological risks and motivating behavioral change. However, existing studies (Cox, 2013; Hansen, 2011) suggest that communication efforts often fail to resonate with communities when implemented through top-down approaches that overlook local cultural and social dynamics. This research seeks to fill this gap by analyzing how environmental communication is practiced in Bumi Waras and exploring strategies that effectively engage residents in flood disaster prevention efforts.

THEORETICAL FRAMEWORK

This study integrates multiple theories to provide a comprehensive lens for analyzing communication practices in flood disaster prevention. The framework is structured into basic theory, main theories, and applied theories:

1. Phenomenological Theory (Basic Theories)

Phenomenology serves as the basic theory, providing a foundation to understand how residents subjectively interpret their experiences with floods and environmental messages. Alfred Schutz (1967) emphasizes that phenomenology focuses on *"the meaning individuals attribute to their social actions and daily life-worlds."* This perspective highlights how recurring flood experiences shape collective perceptions and environmental behaviors.

2. Environmental Communication Theory (Main Theories)

Cox (2013) defines environmental communication as *"the pragmatic and constitutive vehicle for our understanding of the environment and our relationship to the natural world."* In Bumi Waras, environmental communication influences how residents perceive flood risks and their responsibility in mitigation efforts.

3. Participatory Communication Theory (Main Theories)

Servaes (1999) describes participatory communication as *"a dialogical process rooted in local culture, where all participants actively contribute to shared understanding."* This theory

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

supports the idea that effective disaster communication should empower communities to co-create solutions rather than merely receive top-down instructions.

4. Theory of Reasoned Action (TRA) (Applied Theories)

Fishbein and Ajzen (1975) argue that individuals' behaviors are driven by attitudes and subjective norms. In Bumi Waras, environmental communication influences these components by promoting positive attitudes towards flood prevention behaviors and reinforcing community norms through local leaders' engagement.

5. Diffusion of Innovation Theory (Applied Theories)

Rogers (2003) explains how innovations, including flood prevention practices, spread within a community. The role of local leaders (*RT/RW*) as opinion leaders is crucial in accelerating the adoption of environmentally responsible behaviors.

RESEARCH METHODOLOGY

This research method uses a descriptive qualitative approach, which aims to understand in-depth the phenomenon of environmental communication in building public awareness of flood disaster prevention in Bumi Waras Village, Bandar Lampung City. This approach was chosen because the problems studied are complex and contextual, cannot be explained solely with numbers or quantitative data, but rather require a comprehensive understanding of the meaning, social relations, and dynamics of communication that occur within the local community context.

Research Location

This research is planned to be conducted after conducting a proposal seminar within a period of 3 months, ranging from April to June 2025. which is located at Bumi Waras Village, Bumi Waras District, Bandar Lampung City, Postal Code 35225.

Informants and Sampling

Informants in this study were selected using purposive sampling to ensure relevance to the research objectives. Key informants included:

- Village Heads (Lurah) and BPBD: as the primary authority figures responsible for disaster mitigation communication.
- RT/RW Heads: as opinion leaders at the community level and facilitators of local participation.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

- Community Members: involving residents from various socioeconomic backgrounds to capture diverse perspectives.

This sampling approach allowed researchers to gain insights from both institutional and grassroots perspectives on flood prevention communication.

Data Collection Techniques

Data were collected through:

- In-depth interviews using a semi-structured interview guide designed to explore participants' perceptions, experiences, and responses regarding flood disaster prevention communication.
- Field observations, documenting community reactions during flood mitigation activities, mutual cooperation (gotong royong), and environmental campaigns conducted by the local government and the Regional Disaster Management Agency (BPBD).
- Document analysis, reviewing materials such as information pamphlets, WhatsApp group messages, social media posts, village announcements, and other campaign-related materials.

All interviews were conducted face-to-face in an informal setting to encourage comfort and openness. Conversations were audio-recorded with participants' consent and later transcribed for detailed analysis.

Data Analysis

The data were analyzed using thematic analysis to identify recurring patterns, concepts, and meanings derived from the interview transcripts, observation notes, and document reviews. Coding was performed based on pre-defined and emerging themes, which were aligned with the theoretical framework, including:

- *Perceived risk and environmental awareness*
- *Credibility and trust in communicators*
- *Cultural relevance of communication strategies*
- *Community participation and behavioral responses*

To ensure validity and reliability, data triangulation was employed by cross-verifying findings from different sources (key informants, community members, and documentation). This analytical process enabled a deep understanding of how environmental communication shapes

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

public awareness and influences flood prevention behavior within the socio-cultural context of Bumi Waras Urban Village.

FINDINGS AND DISCUSSION

This section presents the findings of the study and discusses them in light of the theoretical framework. The analysis focuses on three main themes: (1) public awareness of flood risks, (2) environmental communication strategies, and (3) barriers and opportunities for participatory flood prevention efforts in Bumi Waras Urban Village.

Public Awareness of Flood Risks

Residents of Bumi Waras Urban Village generally perceive flooding as a seasonal and inevitable phenomenon due to its low-lying coastal geography. This perception contributes to passive attitudes toward disaster prevention, as illustrated in the following statement:

> *"Floods happen almost every rainy season. The water comes in but goes down quickly, so people here are used to it and don't panic,"*

This aligns with phenomenological insights (Schutz, 1967) that repeated lived experiences shape community interpretations of risk. Consequently, while there is awareness of flood risks, it has not been transformed into proactive, preventive behavior.

Moral and Ethical Interpretation

Religious leaders played a significant role in filtering political messages through ethical and spiritual values. Campaign gestures that appeared superficial or exploitative of religious symbolism were viewed with skepticism.

Environmental Communication Practices

Communication efforts regarding flood mitigation are predominantly top-down, relying on:

- RT/RW leaders and community figures as intermediaries.
- WhatsApp groups and verbal announcements to warn residents during the rainy season.
- Gotong royong (mutual cooperation) events to clean drainage systems and prepare for potential flooding.

Although these channels enable information dissemination, they lack interactive

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

engagement. Cox (2013) notes that effective environmental communication should not only inform but also build shared ecological meaning.

Participatory communication was observed in limited instances where local leaders invited residents to co-design community initiatives. These instances align with Participatory Communication Theory (Servaes, 1999), which stresses the importance of bottom-up dialogue to empower communities in decision-making.

Barriers and Opportunities

Barriers:

- Over-reliance on one-way communication methods.
- Infrastructural limitations (e.g., clogged drainage systems).
- Cultural perceptions placing flood prevention responsibility solely on the government.

Opportunities:

- Empowering RT/RW leaders as trusted communicators and agents of behavioral change.
- Embedding environmental messages in local cultural practices and community rituals.
- Utilizing multimedia campaigns (visual posters, community radio) for wider outreach.

These insights resonate with Diffusion of Innovation Theory (Rogers, 2003) and Theory of Reasoned Action (Fishbein & Ajzen, 1975), highlighting the importance of opinion leaders and normative shifts in adopting new behaviors.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study concludes that environmental communication in Bumi Waras Urban Village plays a crucial role in shaping public awareness of flood risks. However, current practices remain largely top-down and lack cultural adaptation. Residents' awareness of flood risks is moderate, often influenced by perceptions of inevitability and limited engagement in preventive actions.

Participatory communication approaches, such as engaging RT/RW leaders, mutual cooperation activities (*gotong royong*), and culturally sensitive messaging, have shown greater potential to foster proactive community involvement. To build sustainable flood resilience, environmental communication must transition from a linear information model to an inclusive, dialogic, and culturally embedded approach that empowers residents as co-creators of solutions.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

Recommendations

To enhance the effectiveness of environmental communication for flood disaster prevention, the following recommendations are proposed:

1. Strengthen Participatory Communication: Facilitate two-way dialogue by involving local leaders and community groups in designing and delivering flood prevention messages.
2. Leverage Cultural Practices: Integrate flood awareness campaigns into existing community rituals, religious gatherings, and cultural events to enhance message relevance.
3. Diversify Communication Channels: Utilize community radio, visual materials (posters, infographics), and social media platforms to reach diverse audience segments effectively.
4. Empower Opinion Leaders: Train RT/RW leaders and youth representatives as communication facilitators and agents of change within their neighborhoods.
5. Collaborate with Stakeholders: Encourage partnerships between local government, NGOs, and community organizations to coordinate inclusive and sustainable flood mitigation initiatives.

REFERENCES

Cox, R. (2013). *Environmental Communication and the Public Sphere* (3rd ed.). Sage Publications.

Servaes, J. (1999). *Communication for Development: One World, Multiple Cultures*. Hampton Press.

Ahmad, LO, Larisu, Z., & Jaya, A. (2024). ENVIRONMENTAL COMMUNICATION STRATEGY IN FLOOD RISK MITIGATION: A CASE STUDY IN THE WANGGU RIVER, KENDARI. 1(2), 209–217.

Dwivayani, K. D., & Boer, K. M. (2020). Disaster Mitigation Communication Movement in an Effort to Minimize the Impact of Disasters on the Samarinda City Community. PLAKAT (Community Service), 2(1), 1. https://doi.org/10.30872/plakat.v2i1.3816

Kurniawati, D. (2020). Komunikasi Mitigasi Bencana sebagai Kewaspadaan Masyarakat Menghadapi Bencana. JURNAL SIMBOLIKA: Research and Learning in Communication Study, 6(1), 51–58. https://doi.org/10.31289/simbollika.v6i1.3494

Lakoro, R., Sachari, A., Budiwaspada, A. E., & Sabana, S. (2021). Designing Disaster Mitigation Educational Media with a Participatory Design Approach in Bojongsoang District. ANDHARUPA: Journal of Visual Communication Design & Multimedia, 7(2), 209–223. https://doi.org/10.33633/andharupa.v7i2.4156

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License