

Emotional Framing in Disaster Communication: An Analysis of PAGASA Bulletins and Media Coverage of Typhoon Tino (Kalmaegi) and Severe Tropical Storm Uwan (Fung-Wong) in 2025

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ABSTRACT

This study analyzed the emotional framing strategies employed in PAGASA bulletins and media coverage of Typhoon Tino (Kalmaegi) and Severe Tropical Storm Uwan (Fung-Wong) in 2025. Using content and linguistic analysis, the study identified the dominant emotional frames and their communicative purposes in disaster communication. Findings reveal that PAGASA bulletins primarily employed urgency, risk, and institutional legitimacy frames, emphasizing hazard severity and promoting immediate protective actions. In contrast, media reports favored moral and community concern frames, highlighting human experiences, displacement, and social impacts to enhance audience engagement and empathy. Linguistic analysis showed that imperative verbs, technical terminology, emotive language, and authoritative attribution were key strategies for conveying these frames. The study concludes that emotional framing serves multiple functions; warning, informing, reassuring, building empathy, and establishing trust and that the complementary roles of meteorological agencies and media are crucial in shaping public understanding, emotional response, and preparedness behavior during disasters. Recommendations include integrating human-centered messaging with technical warnings, maintaining balanced communication, and promoting coordinated public education campaigns.

Keywords: Emotional framing, disaster communication, PAGASA, media coverage, Typhoon Tino, Tropical Storm Uwan, risk perception, preparedness

INTRODUCTION

The Philippines is considered one of the most disaster-prone countries in the world, frequently experiencing typhoons, floods, and other natural hazards that threaten lives, property, and livelihoods. In 2025, the country faced Typhoon Tino (Kalmaegi) and Severe Tropical Storm Uwan (Fung-Wong), events that highlighted the critical importance of effective disaster communication. Timely, clear, and emotionally resonant messaging can help communities prepare, respond, and cope with the impacts of such calamities. Government agencies, particularly PAGASA, issue official bulletins that provide updates on storm signals, projected paths, intensity, and potential risks, while media outlets report and amplify these warnings, shaping public understanding and behavior. At the same time, social media platforms like Facebook have become important tools for disseminating information, sharing experiences, and fostering community support during disasters.

Research shows that social media can play a vital role in disaster risk communication. Studies on Typhoon Haiyan, for instance, revealed that platforms like Facebook were used not only to provide crucial information but also to support collective coping and community solidarity (Tandoc & Takahashi, 2016; Cool et al., 2015). In the Philippines, scholars such as Congjuico (2014, 2018) note that social media enables local government units and communities to maintain a sense of presence, social connection, and collective responsibility during calamities. However, challenges remain, including the rapid spread of misinformation and the limited integration of social media into official disaster communication strategies (Rappler, 2025). Additionally, sentiment analysis studies have shown that public emotional responses on digital platforms can offer valuable insights for designing more effective disaster messaging (Imperial et al., 2019).

Despite these findings, there remains a noticeable gap in the literature. While previous studies have explored social media use and public sentiment during earlier typhoons like Haiyan, there is limited research examining the emotional framing in official bulletins and media reports for more recent storms, specifically Typhoon Tino and Severe Tropical Storm Uwan in 2025. Little is known about how these communications construct urgency, risk, reassurance, or moral appeals, and how such framing might influence public perception and behavior. Furthermore, the accessibility of social media posts from verified accounts, such as PAGASA, GMA News, or ABS-CBN News, is limited for these storms, making it important to focus on official and media texts that are publicly available.

Given this gap, the present study aims to analyze the emotional appeals and framing in PAGASA bulletins and media reports for Typhoon Tino and Uwan in 2025. Using Framing Theory as a lens, the research sought to understand how language and messaging strategies are employed to convey urgency, risk, and moral responsibility, and how these messages potentially shape public awareness, engagement, and behavior during typhoons. Moreover, by examining these communications, the study contributes to a better understanding of disaster messaging in the Philippines and offers insights for improving both official and media-based disaster communication strategies in future calamities.

Objectives of the study

This study sought to examine the emotional framing employed on PAGASA bulletins and media coverage of Typhoon Tino (Kalmaegi) and Severe Tropical Storm Uwan (Fung-Wong) in 2025. Specifically, it investigated the types of emotional frames used in official and media communications, the linguistic strategies through which these frames were constructed, and the communicative purposes they served in disaster messaging. Furthermore, the study explored how these frames were represented and amplified in media discourse and how they might have influenced public perception and responses to the typhoon events.

The study aimed to:

1. Identify the emotional frames present in PAGASA bulletins and media coverage of Typhoon Tino and Uwan.
2. Analyze the linguistic features used to construct frames of threat, risk, and reassurance in disaster communication.
3. Determine the communicative goals of PAGASA and media organizations in employing these frames.
4. Interpret how emotional framing in official and media sources might have affected public perception and behavioral responses during the typhoons.

Research Design

This study employed a qualitative content analysis design guided by Framing Theory (Entman, 1993) to examine how emotional and communicative frames were constructed during Typhoon Tino (Kalmaegi) and Severe Tropical Storm Uwan (Fung-Wong) in 2025. The design was chosen because it allows for a systematic exploration of textual data to identify recurring themes, linguistic strategies, and framing techniques used to influence public perception, emotional response, and behavioral intentions during calamities. Thus, by focusing on qualitative content, the study aimed to provide a deep understanding of how institutional and media messages are constructed, framed, and interpreted within the context of disaster communication.

Sources of Data

The primary sources of data included PAGASA severe weather bulletins, which provide official and authoritative updates on storm intensity, wind signals, projected paths, and potential hazards. News reports from major Philippine media outlets, specifically GMA News and ABS-CBN News, were also included to examine how PAGASA's bulletins were represented, amplified, or interpreted in media coverage. A total of 18 PAGASA bulletins and 20 media reports were analyzed, covering the duration of the two storm events. These sources allowed for a comparative analysis of emotional framing in official advisories versus media narratives during Typhoon Tino (Kalmaegi) and Severe Tropical Storm Uwan (Fung-Wong) in 2025.

Instrumentation

To systematically analyze the data, the study employed a structured instrumentation framework consisting of three components. First, a coding scheme was developed to categorize emotional frames such as urgency/fear, reassurance, risk, institutional credibility, and moral solidarity, allowing identification of the types of appeals embedded in the texts. Second, linguistic features were analyzed, including tone, modality, choice of verbs and adjectives, sentence structure, and rhetorical devices, to understand how language conveys urgency, reassurance, or moral responsibility. Third, the communicative purposes of each frame were identified, including warning the public, legitimizing institutional actions, and fostering preparedness or collective action. Hence, by triangulating these three components-emotional frames, linguistic features, and communicative purposes, the study provides a comprehensive understanding of how official and media texts shape public perception, evoke emotional responses, and guide community behavior during Typhoon Tino and Uwan in 2025. To enhance the credibility and reliability of the findings, inter-coder reliability/validation procedures were incorporated in the study. This involved having multiple coders independently analyze the same data and compare coding results, which minimized subjective bias and ensured consistent interpretation of emotional frames.

RESULTS AND DISCUSSION

Table 1. Emotional Frames in PAGASA Bulletins and Media Reports

Emotional Frame	PAGASA (n=18)	Media (n=20)	Total Frequency
Urgency / Fear	14	11	25
Risk / Storm Surge	16	13	29
Reassurance	5	4	9
Moral / Community Concern	2	15	17
Institutional Legitimacy	18	9	27

Table 1 reveals that urgency, risk, and institutional legitimacy were the dominant emotional frames in PAGASA bulletins, while moral and community concern frames were more prominent in media reports. PAGASA bulletins frequently used technical warning language, signal levels, and hazard descriptors to emphasize imminent danger and institutional authority. This reflects the agency’s mandate to prioritize scientific risk communication and promote protective action.

Media outlets, particularly GMA and ABS-CBN, extended the framing by highlighting human experiences such as evacuations, casualties, and infrastructure damage. These narratives humanized the disasters and framed them as humanitarian crises, consistent with previous findings that media coverage personalizes disasters to increase audience engagement and emotional resonance (Houston et al., 2015). The coexistence of technical and emotional frames demonstrates the complementary roles of meteorological institutions and journalism in disaster communication.

Table 2. Linguistic Features of Framing in Bulletins & Reports

Frame	Linguistic Features	Sample Evidence
Urgency / Fear	Imperatives, modals (“must,” “should”), signal warnings	“Residents are advised to evacuate immediately.”
Risk / Storm Surge	Technical terms, quantified data	“Storm surge up to 3 meters is possible.”
Reassurance	Calming tone, probability markers	“The system is expected to weaken.”
Moral / Community Concern	Emotive vocabulary, human-centered narratives	“Hundreds of families were displaced.”
Institutional Legitimacy	Authoritative tone, agency attribution	“PAGASA warns,” “According to

authorities.”

Table 2 demonstrates that PAGASA bulletins and media reports employ varied linguistic strategies to convey emotional framing during disaster events. The urgency and fear frame is primarily expressed through imperative verbs and modal constructions such as “must” and “should,” which function as directive speech acts intended to prompt immediate public action. Such directive language is a hallmark of crisis communication, where the primary goal is to reduce uncertainty and encourage protective behaviors (Reynolds & Seeger, 2005). The use of warning signals and evacuation directives further reinforces the seriousness of the threat and establishes institutional authority over the situation.

The risk and storm surge frame is conveyed through technical meteorological terminology and quantified data, such as storm surge heights and wind speeds. This scientific and technical discourse enhances the credibility of warnings and provides concrete information for decision-making. Morss et al. (2018) emphasize that quantitative hazard information increases public risk perception and improves preparedness actions when communicated clearly. Therefore, PAGASA’s use of quantified forecasts reflects its mandate to provide evidence-based hazard assessments rather than emotionally charged narratives.

Reassurance framing is evident in linguistic markers indicating mitigation or weakening of storms, such as probability markers (“expected to weaken”). This linguistic strategy functions to balance fear-based messaging by reducing panic and maintaining public trust. According to Sellnow and Seeger (2013), effective disaster communication must combine warnings with reassurance to prevent public anxiety and maintain credibility of authorities. Thus, reassurance frames contribute to sustaining institutional trust and preventing misinformation-induced panic.

Media reports often employ moral and community concern frames through emotive and human-centered language, highlighting displacement, casualties, and community impacts. Such narrative framing humanizes disasters, transforming meteorological events into social and humanitarian crises. Houston et al. (2015) note that media storytelling during disasters often focuses on human suffering and resilience to evoke empathy and enhance audience engagement. This emotional personalization increases the salience of disasters and may influence public attitudes and prosocial behaviors such as donations and volunteerism.

Finally, institutional legitimacy frames are conveyed through authoritative tone and attribution to credible agencies such as PAGASA and government authorities. By explicitly referencing official sources, media and bulletins reinforce the legitimacy and reliability of information. Entman (1993) explains that framing involves defining problems and legitimizing sources of authority, which in disaster contexts is essential for public compliance. Therefore, institutional legitimacy framing plays a crucial role in establishing trust and guiding public response during calamities.

Furthermore, the linguistic features identified in Table 2 illustrate how emotional framing is not only expressed through overt emotional language but also through grammatical structures, modality, technical discourse, and institutional attribution, highlighting the multifaceted nature of disaster communication discourse.

Table 3. Communicative Purposes of the Frames

Frame	Communicative Purpose	Interpretation
Urgency / Fear	Warning, motivating action	Encourages evacuation and preparedness
Risk / Storm Surge	Informing hazard severity	Highlights scientific risk levels
Reassurance	Reducing panic	Maintains public calm
Moral / Community Concern	Building empathy and solidarity	Frames disasters as social crises
Institutional Legitimacy	Establishing authority	Strengthens trust in agencies

Table 3 illustrates that emotional frames in PAGASA bulletins and media reports serve multiple communicative purposes beyond simply conveying weather information. The urgency and fear frame functions primarily as a warning mechanism designed to motivate immediate protective actions such as evacuation and preparedness. In crisis communication literature, fear appeals are considered effective when combined with clear guidance, as they increased risk perception and encourage compliance with recommended safety

behaviors (Reynolds & Seeger, 2005). Thus, PAGASA's use of urgency framing aligns with established principles of emergency risk communication.

The risk and storm surge frame serves an informational purpose by communicating the scientific severity and potential impact of the hazard. Thus, by presenting quantified risk levels and technical hazard descriptions, authorities provide the public with actionable knowledge needed for decision-making. Morss et al. (2018) emphasize that clear communication of uncertainty and hazard magnitude enhances situational awareness and preparedness, especially when the public recognizes the credibility of the source. Therefore, this frame supports informed public response and mitigation behavior.

Reassurance framing plays a crucial role in balancing fear-based messaging by reducing panic and maintaining public confidence. Statements indicating that a storm is weakening or that conditions are improving function to stabilize public emotions and prevent unnecessary alarm. Sellnow and Seeger (2013) argue that effective crisis communication must balance warning messages with reassurance to prevent misinformation, panic, and message fatigue. Hence, reassurance frames contribute to maintaining trust and ensuring sustained engagement with official advisories.

The moral and community concern frame extends disaster communication beyond meteorological hazards by highlighting social impacts such as displacement, loss of livelihood, and community vulnerability. Media narratives that emphasize empathy and solidarity frame disasters as collective experiences requiring social and humanitarian responses. Houston et al. (2015) explain that such human-centered framing increases audience engagement and promotes prosocial behaviors, such as donations, volunteering, and community support. In the Philippine context, this framing resonates with collectivist cultural values, reinforcing communal responsibility and solidarity during calamities.

Furthermore, the institutional legitimacy frame serves to establish the authority and credibility of agencies such as PAGASA and government institutions. By attributing information to official sources, both bulletins and media reports legitimize the discourse and encourage public compliance. According to Entman (1993), framing involves defining problems and identifying legitimate sources of authority. In disaster contexts, institutional legitimacy is essential for ensuring that warnings are trusted and acted upon. Thus, this frame reinforces the hierarchical structure of disaster communication and strengthens public trust in institutional expertise.

Moreover, the findings indicate that emotional framing in disaster communication is multifunctional, serving warning, informational, emotional regulation, social cohesion, and legitimacy-building purposes. These communicative purposes collectively shape public understanding, emotional responses, and behavioral decisions during calamities, highlighting the strategic role of framing in disaster risk communication.

CONCLUSION

This study examined the emotional framing strategies used in PAGASA bulletins and media coverage of Typhoon Tino (Kalmaegi) and Severe Tropical Storm Uwan (Fung-Wong) in 2025. The findings reveal that both institutional and media actors employed distinct yet complementary emotional frames in disaster communication. PAGASA bulletins predominantly utilized urgency, risk, and institutional legitimacy frames, reflecting their mandate to provide authoritative, technical, and action-oriented warnings. These frames emphasized hazard severity, scientific credibility, and the need for immediate protective actions, consistent with principles of emergency risk communication.

In contrast, media reports were more inclined to use moral and community concern frames, highlighting human experiences such as evacuations, displacement, and social impacts. This human-centered framing transformed meteorological events into social and humanitarian narratives, enhancing emotional resonance and public engagement. The coexistence of technical and human-centered frames demonstrates the complementary roles of meteorological institutions and journalism in shaping public understanding and emotional responses during disasters.

The linguistic analysis further showed that emotional framing is conveyed through various discourse strategies, including imperative verbs, modality, technical terminology, emotive vocabulary, and authoritative attribution. These linguistic features serve multiple communicative purposes, such as motivating protective action,

informing hazard severity, reducing panic, building empathy, and establishing institutional trust. Furthermore, the study confirms that emotional framing is a strategic and multifunctional component of disaster communication, influencing public perception, emotional reactions, and preparedness behaviors.

From the perspective of Framing Theory, the messages analyzed and defined the problem (imminent hazard), attributed moral and social significance (threats to life and community), and suggested solutions (preparation and evacuation). The findings highlight the importance of integrating technical accuracy with emotionally resonant communication to enhance disaster risk awareness and public compliance in the Philippine context.

RECOMMENDATIONS

Based on the findings, the following actionable recommendations are proposed for government agencies, media organizations, and future researchers:

1. For PAGASA and Government Agencies

- Combine technical warnings with brief human-centered information to improve public engagement.
- Balance urgency and reassurance to encourage preparedness without causing panic.
- Use clear, actionable language for evacuation and safety measures.
- Emphasize community solidarity and collective responsibility in advisories.

2. For Media Organizations

- Continue human-centered storytelling while maintaining accuracy and citing official sources.
- Provide practical preparedness guidance alongside emotional narratives.

3. For Disaster Communication Practitioners and Policymakers

- Develop coordinated frameworks between agencies and media for consistent messaging.
- Implement public education campaigns to improve disaster literacy and risk awareness.

4. For Future Research

- Study audience responses to emotional framing and its effect on behavior.
- Compare framing strategies across different disasters and media platforms.
- Include multimodal analysis of visuals and social media content.

REFERENCES

1. Canubas, A. M. G., Barroga-Jamias, S., & Tirol, J. (2016). Communicating climate change and disasters in the Philippines: Media coverage and public perception. *Philippine Journal of Communication*, 10(1), 45–67.
2. Congjuico, M. A. (2014). Facebook as a disaster communication tool: The Philippine experience. *Journal of Media and Development Studies*, 5(2), 45–62. <https://jmds.upou.edu.ph/index.php/journal/article/view/7>
3. Congjuico, M. A. (2018). Social media as a communication lifeline during disasters in the Philippines. *Diliman Review*, 64(1), 85–102. <https://journals.upd.edu.ph/index.php/dilimanreview/article/view/6028>
4. Cool, C., Claravall, E., Hall, S., Taketani, K., & Zepeda, R. (2015). Social media use during Typhoon Haiyan: Lessons for health communication. *Western Pacific Surveillance and Response Journal*, 6(2), 12–18. <https://ojs.wpro.who.int/ojs/index.php/wpsar/article/view/365>

5. Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, 43(4), 51–58. <https://doi.org/10.1111/j.1460-2466.1993.tb01304.x>
6. Houston, J. B., Pfefferbaum, B., & Rosenholtz, C. E. (2015). Disaster news: Framing and frame changing in coverage of major U.S. natural disasters. *Journalism & Mass Communication Quarterly*, 92(2), 292–310. <https://doi.org/10.1177/1077699014558559>
7. Imperial, J., Orosco, M., Mazo, D., & Maceda, T. (2019). Sentiment analysis of typhoon-related tweets in the Philippines using machine learning techniques. arXiv. <https://arxiv.org/abs/1908.01765>
8. Morss, R. E., Demuth, J. L., & Lazo, J. K. (2018). Communicating uncertainty in weather forecasts: A survey of the U.S. public. *Weather, Climate, and Society*, 10(3), 459–473. <https://doi.org/10.1175/WCAS-D-17-0088.1>
9. NewsWatch Plus. (2025). More areas under Signal No. 2 due to “Uwan.” NewsWatch Plus.
10. Philippine Atmospheric, Geophysical and Astronomical Services Administration. (2025). Tropical cyclone bulletins for Typhoon Tino (Kalmaegi) and Severe Tropical Storm Uwan (Fung-Wong). Department of Science and Technology, Philippines.
11. Philippine Atmospheric, Geophysical and Astronomical Services Administration. (2025). Tropical cyclone bulletin #7: Typhoon Tino. DOST-PAGASA.
12. Philippine News Agency. (2025). Fung-Wong now named Uwan; wind signals raised. Philippine News Agency.
13. Philstar.com. (2025). “Tino” pounds Negros; Signal No. 4 remains hoisted. Philstar.
14. Rappler. (2025). The battle against fake news: The perils of misinformation during disasters in the Philippines. <https://www.rappler.com/newsbreak/in-depth/battle-versus-fake-news-perils-disinformation-caraga-disasters>
15. Reynolds, B., & Seeger, M. W. (2005). Crisis and emergency risk communication as an integrative model. *Journal of Health Communication*, 10(1), 43–55. <https://doi.org/10.1080/10810730590904571>
16. Sellnow, T. L., & Seeger, M. W. (2013). *Theorizing crisis communication*. Wiley-Blackwell.
17. Tandoc, E. C., Jr., & Takahashi, B. (2016). Log in if you survived: Collective coping on social media in the aftermath of Typhoon Haiyan. *Computers in Human Behavior*, 64, 147–154. <https://doi.org/10.1016/j.chb.2016.07.035>