EURASIAN EXPERIMENT JOURNAL OF HUMANITIES AND SOCIAL SCIENCES (EEJHSS) ISSN: 2992-4111

©EEJHSS Publications Volume 7 Issue 2 2025

Crisis Communication: Lessons from Natural Disasters

Atukunda Lucky

Faculty of Business Administration and Management Kampala International University Uganda

Email: lucky.atukunda@studwc.kiu.ac.ug

ABSTRACT

Crisis communication plays a critical role in mitigating the adverse effects of natural disasters, especially in geographically diverse and vulnerable nations like Indonesia. This study examines the patterns, structures, and effectiveness of crisis communication during and after natural disasters, with a specific focus on flooding in remote and urban areas. Drawing on chaos theory and case studies from Klaten, Central Java, the research identifies the emotional, behavioral, and logistical complexities involved in disseminating accurate, timely, and trustworthy information. By analyzing government strategies, NGO interventions, and the influence of traditional and digital media platforms, this study sheds light on how communication can shape community resilience, public trust, and disaster preparedness. Furthermore, it discusses the role of key stakeholders, government agencies, non-governmental organizations, and the media in navigating uncertainty and managing risks. The research concludes with a synthesis of best practices and recommendations for strengthening future disaster communication systems in similarly vulnerable regions.

Keywords: Crisis Communication, Natural Disasters, Flood Management, Indonesia, Community Resilience, Emergency Response, Chaos Theory.

INTRODUCTION

Crisis communication is essential for managing a company's response during crises, notably natural disasters. These crises differ due to their severe impact on individuals, unpredictability, and involvement of multiple stakeholders. Natural disasters, such as earthquakes and floods, can cause significant disruptions and losses that overwhelm affected communities, particularly in economically disadvantaged remote areas. Unlike regular crises, natural disasters are unpredictable and can lead to complex, widespread impacts that challenge community resilience. In larger Indonesian cities, events like floods may occur infrequently, while persistent threats like tsunamis limit immediate community reactions. Therefore, crisis communication in these remote areas needs strategic planning, addressing two phases: crisis communication during the event and post-crisis communication after recovery efforts are initiated. The post-crisis phase focuses on communication after a community begins recovery but hasn't fully returned to normal. This research aims to examine the structure and pattern of crisis communication during natural disasters, specifically floods, which are prevalent in Indonesia, affecting various systems and stakeholders significantly and in diverse ways due to their extensive geographical, temporal, and social impact [1, 2].

Understanding Natural Disasters

Natural disasters, such as earthquakes, typhoons or hurricanes, floods, fires, volcanic eruptions, and tsunamis, pose a challenge to communities and individuals. Natural disasters result in the destruction of property, devastation of the environment, and tremendous loss of lives. Different types of stressors are associated with natural disasters including: (1) acute and concrete stressors that result in immediate exposure to life-threatening experiences like an earthquake (2) chronic stressors involving loss to continuity and certainty of safety and permanence in one's environment, thoughts, feelings, and

relationships with others such as damage to property and disappearance or loss of loved ones; (3) uncertain or unpredictable stressors involving threats of a future disaster such as incomplete disaster recovery or potential impact of climate change on the adverse weather patterns. Once a natural disaster strikes, communities are thrown into a state of chaos so that routine systems of crisis management and control, communication, coordination, and collaboration break down. Natural hazard risks are complex and interactional, so individual cognition at the risk perception and risk evaluation stage affects psychological readiness for crisis or disaster response. Unexpected events can trigger mental health problems such as anxiety, depression, and posttraumatic stress disorder, but their occurrence can also help forge stronger community bonds and a shared sense of resilience. This examines the cognitive, emotional, and behavioral aspects of how individuals and communities understand natural disasters, especially during the crisis responses in the first few weeks after the event. Questions include: What kind of thinking is involved, what state of mind is involved, and what actions do they take in the aftermath? What effects are anticipated from the crisis responses? Are there any mitigative measures that can reduce the negative consequences of cyber-ecosystems? [3, 4].

The Role of Communication in Crisis Management

Communication is an absolute must in crisis management. Strategic communication helps to build and maintain the trust of a credible? Each crisis comes with conversational challenges. And taking up citizen perspectives showing how social media helps create a different organization-public dialogue during the flooding crisis in Jakarta. Modeling uncertainty management processes public judgment of crisis 3.0 specifically addresses challenges posed by the three overlapping uncertainties following the crisis 3.0 environment. Uncertainties in the information space, commitment of involved organizations, and societal environment change. The current crisis provides an opportunity to dig deeper into the nature of the trust people put in crisis communication. Natural disasters cause increased crises for the crowd and media spheres around them. Attention is extremely high in a disaster context, both for those involved in managing the crisis and for audience members. For the media, a natural disaster offers the opportunity for one of the most dramatic news shows imaginable. The use of satellites or weather radars becomes indispensable. For social media platforms, suddenly millions of people are sharing their disaster experiences. There are tips needed of what to do and what not to do. Research on the public's experiences with a natural disaster has pointed to biases in the interpretation of communications of potential risks, leading to reduced emergency preparedness. But investigation of observations and evaluations of natural disaster events by the public or audience members seems scarce. In particular, the discussion of human factors at play in processing crowd-modeled communicating campaigns appears under-examined in this field. Research on this liaise underpinning offers fruitful spaces to look into these questions in more aspects [5, 6].

Case Studies of Natural Disasters

Natural disasters pose severe risks, leading to loss of life, injury, and damage. Events like floods, storms, earthquakes, and volcanic eruptions require effective crisis communication, especially in disaster-prone regions. Poor communication can exacerbate damage and chaos. This study examines crisis communication during a natural disaster through a chaos theory lens, focusing on Klaten, Central Java, Indonesia, frequently affected by floods due to pollution and a lack of environmental awareness. Coordinators should follow RPPSMD, BAKD, and BPPD guidelines in such uniquely affected towns. Using NVivo 11 software, findings show a recurring catastrophic pattern during floods, shocking the population with significant destruction. Effective response strategies are critical to reducing danger and anxiety, yet the responses are often inadequate. Responders must swiftly engage with social or humanitarian organizations, though reactions vary among interviewees. Initial strategies may seem flawed, lacking accurate data and adaptive management. Unlike BPPD and local communities, dense urban populations face delays in crisis responses. Assistance is consistently late and often ill-timed, while outsiders' help is highly regarded. Communication relies on mobilizing connectivity through PWI members as reporters. However, the telephone's use complicates disaster response, highlighting the need for trust in state communication systems [7, 8].

Lessons Learned From Past Disasters

WHO's main responsibility during a disaster is to work with the local government's Ministry of Health to assist, while co-chairing the United Nations Health Cluster with the local MoH. The newly created communications officers in the Region provide support to WHO throughout the world during major disasters, working with teams answering questions, providing and finding materials, and requesting local

assistance. Communications officers at WHO Headquarters, Regional Offices, and Country Offices are responsible for sharing information in a timely manner about what is happening, what the response efforts are, which messages are being commonly used, and which needs are not being met. Communications officers create and update a detailed situation report for the health sector, which indicates which organizations are providing health services to affected areas, where gaps remain in health services, and what the joint action plan is to fill those gaps. It is helpful to have all the contacts at each of the top 10–15 major health cluster organizations included in electronic listservs, so that, if necessary, an individual can rapidly send an internal message to all 10–15 government partners and all of the non-governmental organization partners currently involved in the disaster work. Additional team members can be pulled together to support communications activities through a global network with cross-coverage from WHO Offices in different time zones. There is a body of current WHO practice that is followed, but it often hasn't been documented. WHO has a process for the lead communications officer to hold daily teleconferences between the communications officer in the field and other supporting communications officers, where the communications officer can summarize the situation and assign work. Numerous respondents discussed the recommendation for how to prepare disaster communications ahead of time (e.g., broadly conceptualize potential likely disasters and prepare answers to common problems ahead of time.) One specific example is allaying the public's fear of dead bodies spreading disease. Another specific example is a message to the international public to refrain from sending bulk donations of used goods. Additional examples discussed broadly prepared messages include warnings about generator use to prevent carbon monoxide poisoning; proper handling of waste management, particularly during flooding; and sanitizing the water and plumbing when plumbing has been compromised [9, 10].

Challenges in Crisis Communication

Crisis communication during natural disasters is vital for effectively managing crises. Different strategies are needed for remote areas versus urban centers. This research employs chaos theory to explore crisis communication in Indonesia, particularly in the flood-prone Klaten region. Interviews reveal that catastrophic flood patterns often surprise the community. Klaten's lowland geography makes it susceptible to flooding, compounded by inadequate drainage and heavy rains. Many residents respond spontaneously due to a lack of past experiences with similar disasters. Disaster response plans are often nonexistent, with organized strategies arising post-disaster. Most locals struggle to conceive of potential floods since such events are unprecedented for them. The frightening nature of the flooding patterns is emphasized. Community helpers play vital roles in coordinating with the government, with police and village officials acting as local leaders while volunteers provide informal support. Communication primarily occurs through informal, face-to-face interactions, supplemented by mosque loudspeakers to relay plans. Alternative channels like meetings and coordination with local facilitators become essential when contact diminishes. While written government information on flooding exists, local media presence is minimal. Communication methods lean towards traditional rather than digital formats, as social media usage, particularly among the older generation, is low. However, younger individuals may utilize platforms like Facebook, WhatsApp, SMS, and BBM for flood alerts. Ensuring accurate and rapid information dissemination is crucial to prevent confusion and misinformation [11, 12].

Best Practices in Crisis Communication

The best way to get a message out quickly to a broad public audience is through a mass media outlet. A press release should be prepared and given to all media outlets, including press, radio, TV, and the Internet. Media coverage needs constant monitoring. Attention should be given to provide expert sources to media and development of questions that critics might raise about the organizations and event. These questions should be answered in advance so that detailed responses can be presented should they be publicly raised. Oftentimes, the audience judges both the message and messenger and takes something communicated as truth. In a crisis or emergency, the audience expects immediacy and accuracy in response to queries. Once the communicators have entered the press conference or on-air venue, the effectiveness of the communication message totally shifts away from the communicator's control. If the media is present, it becomes the gatekeeper for what is transmitted to an audience. It is essential that television sets and radios of all designations be active and tuned into some sort of news and information outlet. The newscast of the media outlet itself can control overall content and the message communicated, but often that is not enough. A means should be implemented to provide immediate messages to the media themselves, bypassing any gatekeepers. Communications systems that get a message out immediately to the public ought to be developed. An example of one is a telephone tree or a text broadcast

system. New technology provides for all sorts of approaches to distributed communications. If it is determined that the message or some of its contents need to be withheld, a means should be implemented to provide at least a general message to the media that is immediate. There are too many examples of messages being withheld with no attempt to provide a release, or of telling the media it cannot have access to something without providing an explanation. In the absence of even a general release, the media outlet has no choice but to speculate, usually unfavorably on the message sender. A means should be put in place to communicate what information is available. Every contingency known should be briefed, and what has happened or is thought to have happened should be described. Security concerns ought to be addressed ahead of time, and it will need to be decided how far and wide toward potential critics and opponents such entities will go. Of course, there is a fine line to be drawn between providing adequate security and unduly inflating the perception of risk. Without adequate knowledge of what happened, and speculation regarding its implications, such a situation would be ripe for irresponsible rumor mill activity [13, 14].

The Role of Government Agencies

Much has changed in the geography of disaster, particularly since Hurricane Katrina struck the Gulf Coast in 2005. Advances in technology and scientific knowledge such as the advent of Hurricane Warnings, Tsunami Warning Systems, and Space-based Satellite Communication Systems are helpful, there are some constants. Governments and their agencies still have the primary responsibility for forecasting, warning, evacuating, and attempting to protect their citizens against disasters. Working with scientists versed in disaster risk reduction, it is possible to build better, stronger, more useful and safer structures and infrastructure, and reduce still further the threat and impact from the element of nature or disaster. The global catastrophe risk landscape is continuously evolving and changing, shaped by natural, technical and conceptual processes. In response to this fast-changing world, government risk departments must engage in continuous assessment, monitoring and analysis in order to understand and offer risk advice. As risk is a human construct, bringing a human dimensions perspective to the modelling and assessment of risk would allow vulnerability and resilience factors to be directly included in the engine rooms of disaster risk analysis tools and guidelines. At a practical level, it can be concluded that the shape of disaster risk (what is at risk?), the elements of the risk (what is causing the damage?), and societal behaviours (how are we prepared, responding and recovering?, determining how fast, how bottlenecks and chaos can be exacerbated?) all need to be brought together into a systematic approach for comprehensively understanding disaster risk. For this understanding, a set of tools will need to be developed, based on workflows that use combinations of existing qualitative methods with formal modelling and rapid visualisation techniques, exploiting statistics, heuristics, and social sensing [15, 16].

The Role of Non-Governmental Organizations

A brief overview highlights where the majority of NGO contributions are applied within the disaster cycle, detailing their services throughout these phases. A taxonomy of NGO services creates a clear framework for understanding their integration into future disaster planning, distinguishing various service types which aids research, policy, and practice. When disasters occur, overwhelming donations can challenge recovery efforts despite planning. However, NGOs play a vital role in disaster response and long-term victim support, especially as disasters increase in frequency and intensity. The U.S. government includes NGOs in national strategies, fostering collaboration among local, state, federal agencies, and businesses to enhance national health security. In recovery efforts, NGOs have proven indispensable, as seen after Hurricane Katrina and the tornadoes in Joplin, MO, and Chicago suburbs. NGOs can also contribute to disaster planning by promoting resilience beforehand. This overview and taxonomy of NGO services aim to illuminate their roles within the disaster life-cycle and foster broader discussion on pre-disaster planning. Important distinctions in service types facilitate focused research and actionable insights for improving NGO engagement throughout disaster phases. Specifically, the need for NGO integration in pre-disaster planning is emphasized, encouraging further development of their contributions by all stakeholders involved in preparedness, response, and recovery efforts. This taxonomy is complemented by guiding questions regarding the implications of NGO integration into future disaster planning [17, 18].

Future Trends in Crisis Communication

The phrase “crisis communication” encompasses any type of message that can be considered a crisis or be a contributing factor to one, yet the more conventional definition adheres to situations with a significant risk of reputational or financial loss to the organization at which the emergency took place. The best

example would be a situation that captures the interest of the public, is covered thoroughly by the media, and coincides with an initial attempt to deny the existence of the crisis or refuse to comply with any third-party recommendations. Another vocabulary construction is known to evolutionarily signal an upheaval or turmoil concerning a given topic, formulating a response to an expected or entirely unexpected change that markedly differs from a preceding situation or a forthcoming predicted hypothesis. Such definitions can, for example, describe a communication pattern that can begin extended discussions or resolutions of several potentially relevant topics for a commissioned work right before a deadline or pre-agreed time slot, triggering agitation and frustration in at least part of the group involved. This definition is applicable to a greater variety of platforms, and therefore information or conditions that immensely jeopardize human rights or security, through the same communicative enacting mechanisms. Regarding structure, messaging units are best delivered through interconnected nodes. The unit is the element that transmits the content of the message. Several configurations of nodes have been found to this end, including individual, connective hub-and-spoke networks, or a multi-hub formed by groups or organizations. Connecting nodes, on the other hand, aggregate communications of units or redistribute information. They may even be centrally positioned between isolated units. They can be institutions, NGOs, or associations. The topic of the messages is another variable that can vary concerning centrality, visibility, spreading, velocity, and other communicative properties. Similar to types of nodes, information can be classified into events, dangers, or the issuing of warnings or calls for action. Information conveying change is terms, phrases, styles, or denotations that differ vastly concerning a narrative temporality. It may express content unfamiliar to the population and an entirely different sense or implication [19, 20].

CONCLUSION

The complexities of crisis communication during natural disasters underscore the need for strategic, inclusive, and adaptive communication frameworks. In the Indonesian context, where geographic and socioeconomic diversity amplify disaster vulnerabilities, timely and culturally sensitive communication is vital. Case studies reveal that while governmental and NGO efforts are foundational, gaps remain in planning, coordination, and technological integration, especially in remote areas like Klaten. Traditional methods such as loudspeakers and interpersonal networks remain important, but digital tools, including social media and SMS alerts, increasingly bridge communication divides, especially among younger demographics. Trust in communication—built through transparency, speed, and relevance—is essential for reducing misinformation and improving response outcomes. Moving forward, institutionalizing lessons learned, enhancing inter-organizational collaboration, and prioritizing communication in disaster preparedness planning will be crucial. Ultimately, an informed and engaged public, supported by coordinated institutional communication efforts, is the cornerstone of resilient disaster response systems.

REFERENCES

1. Janoske M. Visualizing response and recovery: the impact of social media–based images in a crisis. InSocial media and crisis communication 2017 Jun 27 (pp. 306-318). Routledge.
2. Purworini D, Purnamasari D, Hartuti DP. Crisis communication in a natural disaster: A chaos theory approach. Jurnal Komunikasi: Malaysian Journal of Communication. 2019;35(2):35-48.
3. Chaudhary MT, Piracha A. Natural disasters—origins, impacts, management. Encyclopedia. 2021 Oct 30;1(4):1101-31.
4. Pelling M. Natural disasters. Social nature: Theory, Practice, and Politics, Blackwell Publishers, Inc., Malden, MA. 2001 Nov 1:170-89.
5. Shipway R. New era, new normal, new challenges: managing crises and disasters at major and mega sport events. InResearch handbook on major sporting events 2024 Jan 28 (pp. 579-590). Edward Elgar Publishing.
6. Moghadas M, Fekete A, Rajabifard A, Kötter T. The wisdom of crowds for improved disaster resilience: a near-real-time analysis of crowdsourced social media data on the 2021 flood in Germany. GeoJournal. 2023 Aug;88(4):4215-41.
7. Heinkel SB, Miller C, Thiebes B, Than ZM, Kyi TT, Aung T, Oo SS, Mar WL, Willkomm M, Maung W, Myint ZN. Institutional risk and crisis communication on natural hazards and disaster risks in Yangon, Myanmar. International Journal of Disaster Risk Reduction. 2025 Jan 1;116:105064.
8. Bartsch S. A critical appraisal of global health partnerships. Partnerships and foundations in global health governance. 2011:29-52.

9. Citaristi I. United Nations Information Centres/Services. InThe Europa Directory of International Organizations 2022 2022 Jul 28 (pp. 55-57). Routledge. [HTML]
10. Akashi H. Multilevel Cooperation and Network on Global Health. InHandbook of Global Health 2021 May 12 (pp. 2657-2681). Cham: Springer International Publishing.
11. Splendiani S, Capriello A. Crisis communication, social media and natural disasters–the use of Twitter by local governments during the 2016 Italian earthquake. Corporate Communications: An International Journal. 2022 Jun 30;27(3):509-26. [HTML]
12. Haupt B. The use of crisis communication strategies in emergency management. Journal of Homeland Security and Emergency Management. 2021 May 17;18(2):125-50. degruyter.com
13. Dunaway J, Graber DA. Mass media and American politics. Cq Press; 2022 Feb 13.
14. Pavlik JV. Collaborating with ChatGPT: Considering the implications of generative artificial intelligence for journalism and media education. Journalism & mass communication educator. 2023 Mar;78(1):84-93.
15. Šakić Trogrlić R, van den Homberg M, Budimir M, McQuistan C, Sneddon A, Golding B. Early warning systems and their role in disaster risk reduction. InTowards the "perfect" weather warning: bridging disciplinary gaps through partnership and communication 2022 Jun 21 (pp. 11-46). Cham: Springer International Publishing. oapen.org
16. Cvetković VM, Tanasić J, Ocal A, Kešetović Ž, Nikolić N, Dragašević A. Capacity development of local self-governments for disaster risk management. International journal of environmental research and public health. 2021 Oct 2;18(19):10406. mdpi.com
17. Towe VL, Acosta JD, Chandra A. Towards more nuanced classification of NGOs and their services to improve integrated planning across disaster phases. International Journal of Environmental Research and Public Health. 2017 Nov;14(11):1423.
18. Rahrig A. Love thy neighbor: The Tampere Convention as global legislation. Indiana Journal of Global Legal Studies. 2010 Jul;17(2):273-88.
19. Nwogwugwu DI, Oyewo OO. Crisis Rebuilding Strategies of a Nigerian Airline's Reputation After a Plane Crash. InThe Palgrave Handbook of Language and Crisis Communication in Sub-Saharan Africa 2024 Jun 18 (pp. 453-467). Cham: Springer International Publishing.
20. Schermer T. Crisis Communication and Reputation Management. InReputational Crises Unspun: A Stakeholder Solution to Reputational Crises 2021 Oct 5 (pp. 13-43). Singapore: Springer Singapore. [HTML]

CITE AS: Atukunda Lucky (2025). Crisis Communication: Lessons from Natural Disasters. EURASIAN EXPERIMENT JOURNAL OF HUMANITIES AND SOCIAL SCIENCES, 7(2):42-47