

Local Culture's Role in Disaster Communication in Hutadaa Village, Gorontalo Regency

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Abstract. This study examines disaster communication in Hutadaa Village, Gorontalo Regency, and the role of local cultural practices in sharing information and organizing collective responses. It uses a descriptive qualitative approach. Eight purposively selected informants comprised one officer from the Gorontalo Regency disaster management agency, three village officials, one customary leader, and three community members. Data were collected primarily through semi-structured interviews and analyzed through transcription, reduction, coding, categorization, theme development, and interpretation. The findings indicate that the village lacks a structured formal disaster communication procedure. Information and assistance are instead coordinated through interpersonal networks and trusted local figures. Huyula and ti'ayo support cooperation and mutual aid; dulohupa and heluma are associated with deliberation; and mopomulo and motoliango reflect togetherness and care. Local environmental knowledge also informs communication about perceived hazards. These findings suggest that living cultural practices can support community communication, while their integration into village procedures remains limited. Institutional integration is proposed as an implication of the findings; its effectiveness was not tested in this study.

Keywords: disaster communication; local culture; local knowledge; community participation; disaster preparedness

Introduction

Floods can cause casualties, damage to settlements, disruption of livelihoods, and an immediate need for response. In such situations, communication is required to convey risk conditions, community needs, and actions that can be taken before, during, and after an event. Disaster communication encompasses information exchange, stakeholder coordination, and support for mitigation efforts (Aziz, 2023). However, formal channels alone may not necessarily reach all community members or operate in the same way in every situation. Environmental knowledge, networks among residents, and local communication practices must be considered when examining how disaster-related messages are received and acted upon (Hasmira, 2021; Putri et al., 2022).

Research on disaster communication in Indonesia demonstrates different forms of institutional and community roles. In North Aceh, interpersonal communication and traditional media, such as the kentongan, are used alongside disaster awareness-raising activities (Fauzi & Rusdy, 2020). A study in West Timor shows that local knowledge and folk media can convey mitigation messages in ways familiar to communities (Andung et al., 2024). Research on local storytelling in disaster-prone areas also positions community leaders as intermediaries for messages rooted in local experience (Fakhrudin & Elmada, 2022). These three studies demonstrate the importance of social and cultural channels, although the form taken by these

practices depends on relationships among residents, local leaders, and institutions in each location. Therefore, the function of local culture in communication must be interpreted through the practices identified rather than assumed to be directly effective in every village.

In Gorontalo, mutual cooperation practices have been discussed in relation to community responses to the impacts of flooding during the COVID-19 pandemic (Umar, 2023). Hutadaa Village, Gorontalo Regency, is a relevant location in which to examine this relationship because the present study documents residents' experiences of flooding and the social practices used when information and assistance need to be conveyed. Nevertheless, reports of mutual cooperation at the regional level do not in themselves explain who communicates disaster information in Hutadaa, how collective decisions are made, or whether these mechanisms have been linked to village procedures. These questions concerning concrete communication processes constitute the focus of this study.

Studies of folk media, local leaders, and mutual cooperation provide a basis for understanding culturally based disaster communication (Andung et al., 2024; Fakhruddin & Elmada, 2022; Umar, 2023). Research on the representation of disaster information through institutional channels highlights another dimension, namely the importance of institutional messages that can be recognized and traced (Nurhajati et al., 2021). Meanwhile, research in Pangandaran shows that media, education, and local knowledge can interact in community-based communication practices (Rizal et al., 2025). Within the literature used in this study, the relationship between informal Gorontalo cultural practices and formal disaster communication arrangements at the level of Hutadaa Village has not been specifically explained. This gap is contextual and analytical: the Hutadaa case can demonstrate how these two domains are connected or, alternatively, operate separately. The contribution of this study lies in mapping this relationship through the experiences of informants, rather than proving that a cultural practice has increased a measurable level of preparedness.

This study aims to describe disaster communication patterns in Hutadaa Village and analyze the role of local cultural values and environmental knowledge in information exchange, deliberation, and collective action. The analysis also distinguishes the informal practices reported by informants from formal village communication mechanisms and considers the implications for their development.

Risk communication research also emphasizes the need to adapt messages to the stages of a crisis and the needs of the public (Reynolds & Seeger, 2005). In cases that rely on social relationships, attention to information sources and channels of communication is important. Research on sociocultural values in risk communication in Indonesia indicates that the reception and interpretation of messages may be related to the community context (Ida et al., 2024). On the other hand, the Indonesian Red Cross Community-Based Disaster Preparedness program illustrates how community involvement can be connected to disaster management organizations (Rakhman & Prihantoro, 2021). These three sources are used as interpretive comparisons for Hutadaa, not as evidence that the same programs or models have been implemented there.

Methods

This study employed a descriptive qualitative approach to understand disaster communication practices and the meanings attributed to local cultural values in Hutadaa Village, Gorontalo Regency. The study focused on information exchange among stakeholders, coordination during disasters, the role of local leaders, and the practices categorized in the manuscript as *huyula*, *ti'ayo*, *dulohupa*, *heluma*, *mopomulo*, *motoliango*, and community



knowledge of the environment. This approach enables the researchers to describe the social processes recounted by the informants but does not produce quantitative measurements of preparedness levels or intervention effectiveness.

The study was conducted in Hutadaa Village in 2026. Eight informants were selected purposively on the basis of their involvement, experience, and knowledge of disasters and local social life. They comprised one officer from the Gorontalo Regency Disaster Management Agency (BPBD) responsible for disaster awareness-raising activities, three village government officials, one customary leader, and three community members. Prospective informants who met the criteria were contacted and informed about the purpose and process of the study before agreeing to be interviewed.

The primary data were collected through face-to-face semi-structured interviews conducted at times and locations agreed upon with the informants. The interview guide addressed how disaster information was received and communicated, community coordination processes, and local cultural practices in responding to events. With the informants' consent, the interviews were recorded using a recording device or smartphone and subsequently transcribed. Observation and documentation were described as supplementary to the interviews where relevant. Details concerning the focus, extent, and timing of these activities were not available; therefore, the findings presented in this article are supported primarily by interview data.

The analysis began with repeated readings of the transcripts, followed by data reduction, coding, grouping information with similar meanings, theme development, and interpretation. Information concerning cooperation and mutual assistance was grouped under the themes of huyula and ti'ayo, whereas statements concerning deliberation and collective agreement were associated with dulo hupa and heluma. Themes related to formal communication, relationships among residents, local leaders, and environmental knowledge were used to compare how information was obtained and actions were discussed. The themes were then presented alongside interview quotations and interpreted in relation to the research objectives.

Data credibility was maintained through source triangulation by comparing accounts from the BPBD officer, village officials, the customary leader, and community members. Comparison of interviews with observation and documentation was described as method triangulation when supplementary data were available. Because the implementation and results of this methodological comparison were not detailed, the study does not claim that every theme was confirmed by all three types of data. The findings are presented by distinguishing informant quotations from the researchers' interpretations.

Before the interviews, prospective informants were provided with information about the purpose of the study, the interview process, the use of the data, and their right to participate voluntarily. The informants' consent was obtained before the interviews. Quotations are presented using informant codes to reduce the disclosure of personal identities.

Results and Discussion

Results

Interviews with eight informants indicate that disaster communication in Hutadaa Village is not yet supported by a specific, structured procedure at the village level. Information about events, residents' conditions, and assistance needs is conveyed primarily through relationships among residents, village officials, and local leaders. The informants comprised one officer from the Gorontalo Regency Disaster Management Agency (BPBD), three village officials, one

customary leader, and three community members. The following findings are organized according to the condition of the formal system, patterns of information exchange during events, the functions of cultural practices, and the role of local leaders. Quotations are used to demonstrate the basis for specific statements, whereas the remaining descriptions represent the researchers' synthesis of the interview data.

Formal Disaster Communication System

According to the informants, Hutadaa Village does not yet have a specific procedure that establishes information flows, role allocation, and communication coordination when a disaster occurs. Information may be conveyed by village officials, community leaders, or residents who first become aware of the event, depending on conditions in the field. One informant stated, "Sometimes we usually take action only after an event. We do not yet have a specific SOP for disaster communication" (Informant [3], 2026). This quotation supports the finding concerning post-event responses and the absence of an SOP, but it does not by itself establish the conditions across all units of the village government.

Communication Patterns During a Disaster

When a disaster occurs, residents who first become aware of conditions in the field communicate the information directly to other residents. Village officials and local leaders may help relay information and direct actions according to identified needs. One informant explained, "When a disaster occurs, we usually inform one another ourselves; there are no official instructions from the village" (Informant [1], 2026). This statement illustrates a communication experience that depends on relationships among residents. The scope of this experience should be considered alongside the accounts of other informants; the article does not measure the speed or reach of information dissemination.

Cultural Practices and Environmental Knowledge

In this analysis, acts of cooperation and mutual assistance are associated with the values of huyula and ti'ayo. During disasters, residents reportedly help clean the surrounding area and support the needs of affected residents. When assistance is discussed, information about residents' conditions and needs can be exchanged through meetings and interpersonal interactions. The relationship between collective action and information exchange represents an interpretation of the interview findings; examples of events and additional quotations for each practice were not available.

Dulohupa and heluma are used as categories for understanding deliberation and efforts to reach agreement. One informant stated, "Usually, the community gathers only after an event. We discuss what needs to be done, who will help clean the location, and how to assist affected residents" (Informant [7], 2026). This quotation indicates that collective discussion and informal allocation of assistance take place after an event. The cultural terms help interpret these practices, but the reported data do not indicate the existence of a specific forum regulated under the village's official disaster procedures.

Mopomulo is associated with togetherness and motoliango with care for disaster-affected residents. These two values are understood through attention, assistance, and social involvement when residents face the consequences of a disaster. Social proximity can provide opportunities to identify needs and relay information among residents. The available evidence supports an interpretation of these values as informal social mechanisms, but not as tested measures of communication success or risk reduction.

Residents' experience of environmental conditions also forms part of the local knowledge used in everyday conversations. Information about environmental changes is discussed among residents and may influence their awareness of potential disasters. This study did not test the accuracy of specific natural signs as predictors of events. Environmental knowledge is therefore described as a basis for conversations about risk, rather than as a validated early-warning system.

Local leaders were described as having a role in communicating messages and mobilizing residents. One informant stated, "In fact, when a customary leader speaks, the community is more likely to comply" (Informant [8], 2026). This statement reflects one informant's perception of the legitimacy of customary leaders. The available accounts are insufficient to conclude that all residents place greater trust in customary leaders, community leaders, or religious leaders than in formal officials. The role of local leaders is therefore interpreted as a potential indicated by the data, within the clear limits of the available empirical support.

Overall, the reported data reveal two simultaneous conditions: the village's formal communication procedures remain unstructured, whereas information exchange and assistance continue through residents' social relationships. Huyula, ti'ayo, dulohupa, heluma, mopomulo, motoliango, and environmental knowledge are used as categories for understanding cooperation, deliberation, care, and awareness. These findings do not indicate that all of these values have been institutionalized or that community preparedness has increased as a result of these practices.

Discussion

The finding that information is transmitted through relationships among residents can be interpreted within the framework of social capital. Aldrich and Meyer (2015) emphasize that networks and social relationships contribute to communities' capacity to confront and recover from disasters; the review by Zhao et al. (2025) also identifies information sharing and collective action as two mechanisms that may link social capital to community resilience. In Hutadaa, cooperation referred to as huyula and ti'ayo can provide a setting for exchanging information and identifying needs. However, this study only describes these practices through qualitative data and therefore cannot determine the magnitude of social capital's influence on preparedness or resilience. This comparison clarifies the contribution of the Hutadaa case: the reported social capital remains embedded in local cultural practices, while formal village communication procedures remain limited.

A study in West Timor indicates that local wisdom can be used as folk media for mitigation messages when the practices are familiar to the community (Andung et al., 2024). Research in Pangandaran demonstrates relationships among information channels, disaster education, informal networks, and local knowledge (Rizal et al., 2025). The Hutadaa case presents a situation that is more institutionally limited: deliberation and assistance take place informally, but the manuscript does not report any village procedure that specifically connects these practices with official communication. Literature on local practices in mitigation also suggests that community knowledge should be understood in relation to its social conditions rather than adopted as a uniform procedure for all areas (Putri et al., 2022; Syuryansyah & Habibi, 2024).

The role of trusted figures in the Hutadaa data can be understood as an issue of source credibility. Within the crisis and risk communication model, the information conveyed must take into account public conditions and changing communication needs throughout an event (Reynolds & Seeger, 2005). However, a single quotation concerning compliance with a customary leader is insufficient to support a comparison of trust levels across all categories of

communicators. This finding is more appropriately treated as an indication of the need to examine how local leaders and village officials can work together in communicating messages. This study also did not test whether institutionalizing cultural practices, SOPs, or training would improve preparedness actions.

The interpretation of cultural values requires additional caution. A social practice can provide a setting for meeting and sharing information, but the messages received, the timing of their delivery, and subsequent follow-up must still be examined in each event. The Hutadaa data demonstrate the presence of social relationships and collective action, while regular information flows and role allocation during emergencies have not been established as village procedures. The development of disaster communication can therefore begin by mapping who first becomes aware of an event, who usually relays messages, and how residents' needs are communicated to officials. Such mapping is a recommendation based on the findings; this study did not implement or evaluate it. Before a disaster, residents and village officials could discuss mutually understood forms of messaging, environmental signs that need to be examined, and channels for reporting changes in conditions. During an event, the speed of communication among residents should be accompanied by verification of information sources and the designation of authorized parties to provide instructions. After an event, deliberation can provide an opportunity to document assistance needs and review whether information has reached residents who require it. This sequence represents a possible communication design derived from the pattern of social relationships in the data, rather than an activity observed as a program in Hutadaa. Because the available interviews did not measure the time required to receive messages, message accuracy, or coverage across community groups, future research could examine these aspects with village officials, local leaders, and residents before formalizing an operational procedure. In this way, the practical benefits of cultural values can be assessed through observable communication processes rather than solely through the presence of cultural terms in everyday life.

Conclusion

This study shows that disaster communication in Hutadaa Village is not yet supported by structured formal procedures at the village level. Based on the informants' reported experiences, information about events and assistance needs is transmitted primarily through relationships among residents, village officials, and local leaders. This conclusion addresses the research objective concerning communication patterns, but it does not establish that all residents use the same channels or that informal communication systems always function effectively.

Huyula and ti'ayo provide a means of understanding cooperation and mutual assistance; *dulohupa* and *heluma* are associated with deliberation and agreement; whereas *mopomulo* and *motoliango* are associated with togetherness and care. Environmental knowledge also serves as a basis for communication among residents about conditions they perceive as risky. These cultural categories demonstrate how collective action can provide opportunities for information exchange. Based on the available data, it cannot be concluded that each cultural value has become part of a formal disaster communication procedure.

The contribution of this study lies in describing a relationship between sociocultural capital and village institutional mechanisms that has not yet been structurally established. Developing procedures that involve residents and local leaders may be considered as a practical implication, but their effectiveness must be tested in future research. Because this study was limited to one village, eight informants, and the reported qualitative data, the findings are not



intended as a measure of preparedness among all residents or as an account that can be directly generalized to other villages.

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