

The missing piece: Streamlining Risk and Crisis Communication Governance

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Abstract: Extreme climate events—such as floods, wildfires, and heat waves—are becoming more frequent and intense, endangering entire communities and compelling individuals to make quick informed decisions to protect themselves, their families, and their livelihoods. How people receive, interpret, and act on information during such events plays a crucial role in saving lives and minimizing damage. Intensifying this complexity is the need for communication coordination among a wide array of stakeholders. Federal, state, and local agencies, alongside volunteers, non-profits, and other community organizations, play distinct yet frequently overlapping roles throughout the process of risk assessment, preparedness, crisis response, recovery, and mitigation. Adopting an integrated, streamlined, and strategic approach to risk and crisis communication governance can significantly amplify the benefits of top-down planning and structural measures, leading to more effective risk reduction and crisis preparedness. This study considers “The Great Vermont Flood of 2023” as a case to analyze risk and crisis communication governance and coordination issues. Interviews were conducted with Vermont Regional Planning Commission leaders, who serve as liaisons between the state and local communities, to identify barriers and opportunities to streamline the flood risk and crisis communication process across the state. Results show the need for more clarity when it comes to roles and, at times, overlapping responsibilities among federal, state, and local actors, leading to inconsistencies in crisis communication, which can cause impacts on vulnerable communities that receive insufficient pre-crisis support. Furthermore, issues with message convergence can create confusion and hinder protective actions. This study describes communication vulnerabilities in VT’s flood hazard communication environment. Opportunities to improve risk and crisis communication, revealed by the study, could mean the difference between appropriate actions and tragedy.

Keywords — risk communication, crisis communication, governance, flooding, regional planning commission.

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INTRODUCTION

Extreme events such as floods, fires, and heat waves are intensifying in both frequency and severity, challenging existing structures of crisis response and placing entire communities at risk [1]. In such situations, timely and effective communication is not only essential for public safety but is also deeply influenced by governance structures that shape how risk information is generated, coordinated, and disseminated. Decision-making in high-risk situations depends heavily on

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individuals' trust in institutions, their previous experiences, and how clearly and credibly the information is conveyed [2, 3]. This complexity is further heightened by the number of actors involved in crisis response—from federal and state agencies to local officials, non-profits, and volunteers—whose communication roles often overlap across the stages of risk assessment, preparedness, response, recovery, and mitigation [4, 5].

Effective risk and crisis communication governance must therefore move beyond case-by-case messaging to embrace coordinated, multi-stakeholder strategies that ensure message clarity, consistency, and convergence across levels of government and sectors. Particularly in the context of floods, where traditional risk management tends to rely on top-down structural solutions [6], communication becomes the key interface through which individuals make sense of risk and decide whether or not to act [7]. Trust in institutions, the clarity of roles and responsibilities across agencies, and the coherence of information pathways all directly affect protective action-taking. The case of the Great Vermont Flood of 2023 presents a timely and critical opportunity to examine how communication governance shaped public and institutional responses to a rapidly unfolding crisis.

CONTEXT – THE GREAT VERMONT FLOOD OF 2023

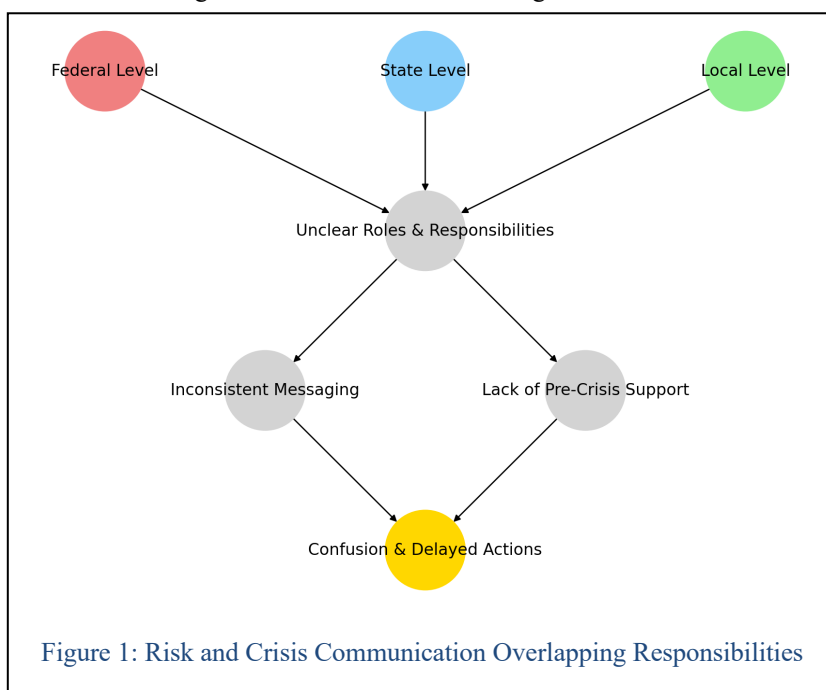
During ICRCC 2024, this group of researchers presented findings of a series of focus groups conducted with emergency managers, river planners, town officials and other stakeholders involved in the preparation and response to floods and who participated in the response to the Great Vermont Flood of 2023 [8]. This storm hit the state in July 2023 and rapidly unleashed as much as 9 in of rain over the course of approximately 48 hours. Vermont's Governor, Phil Scott, described the event as "historic and catastrophic." The study presented last year resulted in a policy brief that was shared with the VT Legislature [9]. However, the report indicated missing pieces and the need for additional research to further investigate the risk and crisis communication coordination and governance issues identified. Figure 1 shows that various stakeholders (federal, state, local officials, volunteers, nonprofits) have overlapping roles in risk assessment, preparation, response, recovery, and mitigation, leading to unclear roles and responsibilities across different levels of government. This creates inconsistencies in communication that can cause confusion among communities. Therefore, a strategic, integrated governance is needed for more effective crisis preparedness.

METHODS

In-depth interviews were conducted with 10 of the 11 State's Regional Planning Commission (RPC) coordinators, with only one not responding to the recruitment email and, therefore, not participating. Recruitment was done via email invitations, sent directly to each Regional Coordinator. An interview guide was developed, including open-ended questions and probes related to study's objectives.

The interviews were conducted via an online platform (MS Teams), recorded and transcribed. A semi structured approach was adopted. This approach allows participants to divert from a main script, offering a unique perspective and allowing the researchers to ask follow-up questions. Although questions were open-ended - so the interviewees could provide insight and details about their perceptions - they stemmed from the study's objectives and the research goals. The interviews were thematically coded using an inductive approach. An inductive approach uses "detailed readings of raw data to derive concepts and themes" [10]. This process drives the analysis and interpretations exclusively from the participants' experiences.

The process taken to identify categories and themes started with the transcriptions being read repeatedly, line by line, and general observations being assigned to paragraphs or fragments of text. The complete data analysis process encompassed repeated reading, assimilating and making sense of data; categorization; open coding (themes); narrowing and collapsing of similar categories and themes. Final categories and themes were then, revealed. Two coders participated in the process. Any disagreements were resolved through discussion.



RESULTS

THE MISSING PIECE: REGIONAL PLANNING COMMISSIONS; ROLES AND RESPONSIBILITIES

Vermont's RPCs serve as liaisons between the state and local communities. More specifically, they act as a bridge between Vermont Emergency Management and towns, gathering damage reports and coordinating response efforts. Furthermore, RPCs support towns with emergency planning, training, and crisis coordination, ensuring they meet state and federal requirements. Specifically regarding flood response and mitigation, they identify risk areas, secure funding, and develop flood mitigation strategies to reduce damage.

MAIN FINDINGS

The interviews revealed key challenges faced across all three stages — **pre-crisis, crisis and post-crisis** — highlighting gaps in communication, coordination, and institutional continuity.

In the **pre-crisis** stage, a major issue identified was the lack of consistent early warnings and weather briefings, which hinders timely preparedness. Many local emergency management directors (EMDs) are volunteers, and lack the training and available time to manage their crisis response responsibilities effectively. Additionally, some communities underestimate potential risks, assuming they can manage disasters independently, which leads to indifference, inertia and inadequate preparation.

During a crisis, according to the interviewed RPC coordinators, these pre-crisis issues compound the situation. The approach of statewide activations may be inefficient at times, with the suggestion that region-specific (e.g., at the county level) activations could optimize response efforts. Volunteers and officials are often overloaded, managing multiple responsibilities, which may undermine the ability to coordinate effectively. The absence of standardized communication structures at a local level leads to confusion, delaying critical decisions and resource deployment during the crisis.

In the **post-crisis** stage, some towns often delay or fail to submit complete reports due to burnout or a perceived lack of urgency, especially when contrasted with immediate on-the-ground recovery needs. This impacts recovery efforts and data collection necessary for future planning. State-imposed deadlines for post-disaster reporting and action can create additional stress, particularly when local agencies are slow to respond or overwhelmed, making timely compliance difficult despite good intentions.

Lastly, a critical systemic issue identified by the participants is the lack of documentation of institutional knowledge, which creates challenges during staff transitions and weakens long-term preparedness. When lessons learned and procedures are not captured effectively, new personnel are forced to start from scratch, reducing the resilience of communities over time. Together, these findings suggest a pressing need for more structured, localized, and sustainable approaches to disaster communication and coordination.

RECOMMENDATIONS

To strengthen crisis communication and emergency response, it is essential to clarify roles and responsibilities across federal, state, and local levels. Clearly defined duties can reduce confusion and ensure more consistent and coordinated messaging during emergencies. Region-specific activation strategies should be adopted to avoid unnecessary statewide alerts, which can lead to response fatigue and reduced public trust. Additionally, improving public communication through standardized messaging, enhanced public education, and partnerships with local media can help communities better understand and respond to risks.

Support for local Emergency Management Directors (EMDs) should also be improved through standardized training programs and continued technical assistance. Streamlining town-level reporting with automated processes and aligning state deadlines with local capabilities would ease administrative burdens, particularly in post-disaster scenarios. Access to forecasting tools and real-time technical support should be expanded to help local officials make informed, timely decisions. Together, these recommendations promote a more efficient, adaptive, and equitable approach to crisis communication.

CONCLUSION

Learning from disasters is essential to building resilient communities. Insights from these interviews, along with previous research conducted by the same research team, offer valuable understanding of Vermont's ability to anticipate and respond to major disaster events. While findings here are specific to Vermont, they highlight gaps within current systems of crisis preparedness and communication across the United States. That is, communication challenges noted here are likely ubiquitous, thus, these recommendations likely have value in a larger context.

While there are viable solutions to improve the resilience of flood-impacted communities, implementing them requires more than technical solutions—it demands resources, and changes in the political and cultural mindset around planning, communication, and support systems. This study identifies key barriers in flood-related risk and crisis communication, offering lessons that can guide scholars and practitioners in rethinking existing policies and practices. By ensuring communication strategies are tailored to specific audiences and local contexts, the findings contribute to efforts that can ultimately protect lives and safeguard critical infrastructure.

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