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Research Article

Communication Flow in Collecting Monitoring Reports in Post-Typhoon Response in Albay

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ABSTRACT

The main objective of this study is to assess the communication flow involved in gathering monitoring reports from local government to provincial authorities during post-typhoon operations in Albay. It specifically aims to see the actual communication practices used by provincial government and pin point the specific challenges in collecting reports. Also, the research looks into the various strategies employed to address the challenges and proposes recommendations based on the findings. A qualitative narrative design was used to gain insights into provincial authorities' experiences in report collection as part of post-typhoon response efforts, with the end goal of improving communication flow and providing necessary support to local constituents. Data were gathered using unstructured interview guide, field notes, and audio recordings, alongside a review of relevant documents, literature, and audio recordings, alongside a review of relevant documents, literature, and studies to provide a holistic understanding of the existing communication system. Findings reveal that provincial authorities employ various communication practices in collecting monitoring reports such as SMS blast, emails, social media, point-to-point information, and radio. The main challenge found is the disruption of communication lines and internet connectivity, which significantly hinders timely report submission. To address these issues, authorities use other means of communication such as facebook messenger, that requires only minimal data, and runners. However, challenges remain, such as unstable signal, in the communication flow of report collection. This underscores importance of addressing these gaps through scholarly recommendations, enhancing the efficiency of monitoring report collection and improving the overall communication flow in post-typhoon response in Albay.

Keywords: *Communication flow, monitoring reports, post-typhoon response, provincial authorities, disaster communication*

Introduction

The global frequency and severity of climate disasters have increased dramatically, thereby creating a series of problems that communities and government worldwide are struggling to cope with. This phenomenon is most intensively experienced in the Asia Pacific area that undergoes more than 50 percent of the world's natural calamities. In particular, tropical cyclones or typhoons are the main and

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most frequent threat (Humanitarian Action, 2014).

These disasters are not simple seasonal episodes but rather profound crises that put pressure on the stability of the physical structures, natural environments, and most significantly, the people living there. According to the paper of Miclat (2012) the unpredictability of weather conditions that are attributed to climate change is a strong factor that dictates the need for discarding the old and developing new methods of societal resilience. Based on these, the disaster risk reduction is not just a small issue on the policy agenda, but it is the important and the most large challenge for sustainable development in this time.

After the typhoon, an effective communication is more than just a conversation or sending information, it is the most important lifeline that makes the survival and the response coordination achievable. Not only does it help in the quick exchange of information, but it also acts as a lifeline that is absolutely necessary for coordinating activities related to survival and response. When communication breaks down, very quickly and in a dramatic manner the consequences of non-communication show that emergency teams are misdirected, isolated people remain unassisted, rumors get out of control, and the public loses confidence in authorities (Cool et al., 2015).

The Philippines is one of the most hazard exposed countries in the world, averaging 20 to 25 tropical cyclones each year, many of which are intensified by climate change based to Frege, (2025) in the 2025 World Risk Index, the nation is at the top globally for flood risk and geospatially along the Pacific Ring of Fire and the typhoon belt is regularly identified as among the most disaster prone countries. Furthermore, according to Adil et.al., (2025) in the Germanwatch Climate Risk Index 2026 has acknowledged the Philippines' vulnerability by placing it seventh among the countries most impacted by extreme weather events in the last thirty years, citing over 27,500 deaths and more than 230 million people affected by 371 documented disasters between 1995 and 2024, this tremendous exposure of the country to cycle hydrometeorological and geological hazards from typhoons and floods to volcanic eruptions and earthquakes makes the Philippines a significant case for reviewing disaster governance and communication systems under conditions of chronic and intensifying risk.

Located on the east coast of Philippines, Albay province is one of areas that feel this global problem first. Because it is always in path of typhoons from Pacific, Albay forced to make advanced culture for disaster preparedness (Onsay et. al., 2025). This proactive way of disaster management make Albay recognized globally as model for disaster risk reduction, praised because of good pre-emptive evacuation, high-tech early warning, and strong political will in local laws (APSEMO, 2025). This reputation will make Albay not a story of failure. But it will creata a story of saving lives before disaster happen.

The approval and passing of the Republic Act No. 12287, or "Declaration of State of Imminent Disaster Act," is a big shift for the disaster governance in the Philippines. Signed by the President Ferdinand R. Marcos Jr. last September 12, 2025. This law change how the country deal with disasters. This is not focused on just waiting to/or response but more on anticipating and preventing. This change in the law, which UN says is the very first in the world, allow for official "State of Imminent Disaster" declaration before hit, based on risk assessments that predict bad impact 3 to 5 days early. The President or local leaders can use this law, after the DRRM council recommend to make anticipatory decisions like evacuation, putting personal and team necessities ready, sending teams, and giving advisories to people (Bautista, 2025).

But being a global model also brings a contradiction. On the other side, many scholars praise Albay for the preparedness, but on other side, there is still big difference when moving from preparation to handling the aftermath. Right after the typhoon, there are with broken roads, no electricity lines, psychological trauma, and a huge need for help, is very different and more unstable situation for communication. No matter how strong the preparedness protocols are, they have to conform to the reality on the ground of a destroyed environment where the previously agreed channels may be

cut off and the priorities quickly change from caution to response and restoration (Bank, 2014).

During the scattered reaction period, the unaddressed issues in Albay's communication system implementation surface. The on ground realities point to the fact that, apart from a remarkable level of preparedness, the local community had to face certain obstacles such as the distortion of official messages, the challenges in the community's feedback, the failure of last mile communication, and the occurrence of a lot limitation in terms of logistics, that is to sat the presence of too many activities and impediments in the communication phase, etc (Alessandro et.al., 2020). These are the kind of factors that can delay and even obstruct the effectiveness of the information flow after the typhoon has passed. Such discontinuities in communication are indicative of the fact that the rigid, top down communication methods which were implemented for the issuing of the warning may be deficient in terms of the needed transactional agility for the management of the intricate, two way flow of information during the time of the response when the local knowledge about the situation is very limited and the contribution from the community, needed for the giving of the exact type of help, is an imperative.

Therefore, Albay provides an interesting and critical case study: a place that has been hailed as a disaster preparedness expert, but is still facing the challenge of the communication aspect of the response phase in real time. This contradiction shows a big point in disaster governance. If doing a very good decision in one phase does not always mean you can do good in another phase too. Each part of the cycle must have its own strategies to work together with other disaster cycles. Looking into this discrepancy in a place that is highly capable provides a focused study of the particular obstacles and the best ways of communicating in a crisis when the disaster has already happened rather than is coming.

This study makes a distinct contribution to the field of Public Administration by placing its analytical lens on governance under extreme duress. It seeks to review what public administration theories typically sidesteps or, at best, cumbersomely attempts to include in its disquisitions, as it probes the complex interplay of communication in the interface of state institutions and the governed in typhoon response (Bickham & Francis, 2021) and scrutinizes the pivotal function of street-level bureaucrats, like the DRRM and barangay officials who, in extremis, end up being the very face of the state in its extremity, thereby creating conditions where the mechanisms of public safety in can be scrutinized.

This study is intrinsically aligned with the global imperative articulated in the United Nations Sustainable Development Goals (SDG), particularly SDG 11 Sustainable Cities and Communities, one of the targets, 11.5, is very clear about the need to reduce by a large margin the number of deaths, people affected, and the losses in the economy due to disasters. The communication framework that was developed in the research is a direct solution to that target since it focuses on an essential vulnerability of the disaster life cycle through the immediate response window. Clarification, dependability, and mutual understanding of information exchange between the authorities and the citizens typhoon response are the key elements that the framework focuses on in order to maximize the evacuation instruction, coordination of emergency relief, and prevention of secondary casualties. Thus, it serves as a practical means of converting a lofty idea of disaster resilience into real, life-saving actions at the grassroots level, thereby reinforcing the very essence of sustainable community development (United Nations, 2015).

Furthermore, this also helps achieve SDG 13:Climate Action, this goal is about taking urgent actions to combat climate change and its impacts. Target 13 is about increasing the resilience and adaptive capacity of people to climate-related hazards. Besides physical

infrastructure and environmental adjustments, this study demonstrates that changes in institutions and social adaptability are just as important (United Nations, 2025). The model in this research improves people's adaptive capacity by having a well-organized yet very versatile communication system that enables both local authorities and communities to learn from each other, adapt to, and cooperate effectively for each crisis. It goes beyond the idea of having fixed- preparedness plans to a scenario of a dynamic communication environment that strengthens a community's capability of withstanding, responding to, and re-organizing after shocks caused by the climate. That is, it represents a type of 'adaptive governance' which is necessary for achieving climate resilience in the long run (Datta & Chaffin, 2022).

This study also supports SDG 16: Peace, Justice and Strong Institutions, which call for effective, accountable, and transparent governance. Whenever a crisis hit and when public trust is at risk, it is important to maintain transparent communication. (Goal 16: Peace, Justice and Strong Institutions, 2017). Reinforcing two-way communication and feedback mechanisms will help strengthen public trust after a typhoon disaster.

The catastrophic impact of Typhoon Reming in November 2006 services as a stark empirical testament to how communication failures during the response phase can result in massive loss of life, even in a province now recognized for disaster preparedness. Francisco et. Al., 2009 noted that 98.6% of barangay in Albay were hit by the disaster. The districts of Guinobatan, Daraga, and Legazpi City was the most bad affected, representing 85.5% of regional deaths with 655 people dead. The unforseen event also resulted in 1,585 acquired injuries, and 445 people missing.The assessment of the college students from the Aquinas University of Legazpi, which is one of the most destroyed educational institution that has 80% of buildings damaged also which shows that psychological impact is very deep wherein 55% of students feel fear and 30% have flashbacks and 27% have anxiety and nervousness as the main challenges. These findings suggests that communication failure is one of the main reason for high death rates back then. People back then there do not understand the risk of lahar flow, which is totally different from the floods that they usually had experience. When the typhoon event destroyed the local communication towers and lines, it removes the chance to give an evacuation order on time, leaving the communities with no defense against the lahar flow.

The findings of this study, it supports the study of when communication breaks down, on account of the big death counts from the lahar flows at Legazpi City occurring precisely due to the fact that the danger which ain't like the normal water flooding people expereinced before, because it wasn’t explained enough to the people who's at risk, and also how the typhoon goes and breaks the wires and the networks for communication, which leaves the residents with no warnings or orders for leaving their houses when the lahar flow starts sliding down off of the Mayon Volcano.

This work in its essence makes the ideas of Disaster Risk Reduction and Management (DRRM) go forward more, because it's moving the focus of the study on purpose away from the common topic about being prepared and putting it on the response part which is real confusing and people don't study it as much. Preparedness, is about making plans and protocols and doing things early, but the response part, it's got a whole lot of not knowing what's happening and improvising when things just change all the time. This study targets the significance of this crucial phase and tries to get to the bottom of how systems designed and formalized for preparedness either manage or fail to manage the sudden, disordered reality disaster. Through charting this shift from a planned mode of coordination to one that rises out of necessity, the paper intends to contribute to the formation of a stronger theoretical framework whereby resilience is understood not only as a capacity before the event but also

as an immediate, real-time, interactive process of adaptation and mutual tuning between institutions and communities are affected.

This study also intends to highlight that the role of authorities does not end with saving lives, but to improve the quality of life of the constituents right after the typhoon. Their roles extend beyond immediate life-saving to long-term recovery efforts that improve constituents' quality of life after typhoons and other disasters. Meeting the immediate needs in the affected areas is a strategy to kickstart recovery. (UNDP, 2013) One way to achieve this is through monitoring and assessment efforts of the local governments as continuous monitoring of needs and recovery progress enables provincial authorities to allocate resources effectively and act on the response phase efficiently. (ReliefWeb, 2024).This aligns with the objective of the study, where timely report collection from local units informs targeted interventions that improve constituents well-being. However, when communication lines fail post-typhoon response, communities' concerns might result to a negative reaction if unadressed. (Philippine Red Cross [PRC], n.d.). Thus, provincial authorities may shift to other alternatives to sustain monitoring efforts and ultimately improve the post-typhoon response (ICT Office, 2014).

Methods

The study employed qualitative research using narrative design to gain insights on the actual experiences of the authorities to enhance the collection of monitoring reports and ultimately the overall post-typhoon response in Albay. Narrative inquiry is particularly suited for disaster communication research as it allows for the exploration of personal accounts of what actually transpired on institutional practices. (Reissman, 2008)

Respondents

The key respondents of the study are core permanent staff from the Albay Public Safety and Emergency Management Office (APSEMO) that were purposively selected as participants. These respondents are individuals who were directly involved in the collection of monitoring reports and coordination with local authorities during the post-typhoon response phase. A total of eight (8) respondents were purposively selected from the APSEMO who met the specific criterion of the study. Thematic saturation was reached by the eighth interview. The selection of the respondents was guided by the principle of data saturation where no additional interviews yield new themes or insights. Maltrued et. al., (2016) and Guest et. Al., (2006) argue that saturation can be achieved with 8-12 interviews in focused qualitative studies, particularly when respondents share similar responsibilities.

Instrumentation

To gather primary data, the researcher employed two (2) instruments. One of which is the unstructured interview guide consisting of anticipated questions that were informally asked during interviews. This approach allowed the respondents to freely articulate their experiences in alignment with the research objectives. The questions revolved around the respondents' experiences on report collections like what is their institutional practices and what really happens. The respondents tell process they are doing and the researcher ask in probing questions in order to get deeper insights.

Then, other tools were used are field notes and also audio recordings just for to make sure that the data is covered and secured, then the researcher keep real detailed notes from the field and use the recorders while doing the interviews.The notes and voice recordings, they work to follow and double-check all that data what was picked up. This way, it makes the findings look more supported with actual evidence.

Data Gathering Procedure

The data gathering process was done through in-depth interviews and conversations and document review. The researcher, had a conversation with the head of the office of the APSEMO, using a guide for the interview to get the real true information from the respondents. The questions was built for to move

from the broad conversation down to the specific level, starting with just basic experiences and communication practices that happened and with this, the respondents can think about their experiences and can explain insights that fit the study goals.

This was also supported by using notes from the field and devices for recording. A daily journal was kept for to put down what was seen, interaction and situation details of what was going on, which works like a spot for checking if things for accuracy and for that triangulate the gathered data.

Data Analysis

The analysis of data followed a thematic approach, which consistently fits with the with qualitative narrative design. Transcripts from the interviews was carefully review and code so that the recurring themes can be identify by the researcher. Initial codes was made inductively from the data, focusing on the communication practices the challenges and the strategies. These code were then put into broader categorys which was refined through a constant comparison and a validation.

Triangulations were achieve by cross referencing the interview data with the field notes the audio recordings and the documentary evidences. This process make sure that the findings was not just based on the stories of participants but was also supported by the institutional records and the scholarly literatures. Thematic saturations was see after the eight interview, where the next responses only repeat the themes already find rather than giving of new insights. This confirm that the sample size are enough and it strengthen the validitys of the findings.

Ethical Considerations

The ethical standards it was strictly observe all throughout the study. Before the data collections, informed consents was get from all the respondent, who was brief about what are the purpose of the researchs, the voluntary nature of participant, and their rights for to stop and withdraw any time. Confidentialitys was keep by making of the responses anonymous and making sure that no detail that can identify of them was tell in the final reports.

The researcher adhered to the Data Privacy Act of 2012. Data were securely stored, with audio recordings and field notes kept in files accessible only to the researcher. Ethical considerations were compliant to the existing implementing rules and regulations of the institution.

Results and Discussions

Results

The data were analyzed through thematic coding which revealed primary communication practices, challenges, and strategies in the monitoring report collection efforts as part of post-typhoon response efforts in Albay.

Communication Practices

In terms of communication practices, six core communication channels emerged: *SMS blasts, Email, Radio broadcast, Point-to-Point Communication/Word of Mouth, Social Media Platforms, Runners.*

SMS blasts - One respondent stated that it is has been a practice of their agency to relay information to local authorities using SMS blasts via Smart Info-board, noting the use of a standardized template to fit the 60-character limit. He then added that he either use computer software or phone application to disseminate information.

Email - Respondent two highlighted the use of email for detailed monitoring of reports sent by local authorities, with the report inclusion of evacuees' needs, such as if the evacuees needed additional portalets or sanitation facilities and health kits.

Radio broadcast - Respondent three mentioned that they also relay information through radio stations, acknowledging that they can only hope that the local constituents are tuned in. They visit one radio station after another.

Point-to-Point Communication/Word of Mouth - respondent four described it as the most effective means of communication due to interpersonal trust and accuracy. They can ensure that the message reached the local authorities personally.

Social Media Platforms - respondent five and six said that they also utilize their official facebook page, information boards, and websites to

disseminate information. They also use facebook messenger to collect reports.

Runners - respondents seven and eight described the use of runners to physically relay the information or communication letter when other systems fail.

Communication Challenges

Communication challenges also revealed four major core challenges identified in the data collection. The themes that emerged are: (1) outdated databases, (2) connectivity issues, (3) uncertainty of reach, and (4) physical barriers.

Challenges	
1. **Outdated databases**	Respondent 1 noted that SMS blasts were hindered by incomplete contact lists following political transition after the recent election in 2025. He remarked that the database of contact persons are still the former local officials, not the incumbent officials.
2. **Connectivity Issues**	Respondent 2 explained: "Kapag down ang communication lines like kuryente or internet, 'yun lang, we cannot send or receive an email." She also stated that they resort to other modes of communication to collect or monitor reports from local authorities. Respondent 5 answered that they use facebook messenger as an alternative mode of communication.
3. **Uncertainty of reach**	Respondent 3 acknowledged that radio broadcasts rely only on hope that constituents are tuned in the radio stations they coordinated with to relay the information. He pointed out that the challenge is that there is no guarantee that all local authorities or constituents are tuned in at the time the critical information is being broadcast, and vice versa.
4. **Physical Barriers**	Respondents 4, 7, and 8 noted delays in collecting reports due to blocked roads caused by floods, or debris.

Matrix 1. *Communication Challenges Faced in the Collection of Monitoring Reports*

Communication Strategies

The communication strategies are the adaptive methods used by the provincial authorities.

Strategies to Address the Challenges	
1. Outdated databases	Respondent 1 used templated SMS blasts for information dissemination efficiency and mentioned that he will soon update the database once he got the updated official list of incumbent officials.
2. Connectivity Issues	Respondent 2 and 5 reported shifting to Facebook messenger, which she described as a medium that requires minimal or low data, though still connectivity or unstable signal persisted.
3. Uncertainty of reach	Respondent 3 said that there were no strategies employed, only reliance on hope that radio messages would be heard: "Umaasa lang kami na marinig ng lahat."
4. Physical Barriers	Respondents 4, 7, and 8 reported limited strategies beyond improvisation as it is their last mile effort of communication.

Matrix 2. *Strategies Employed to Address the Challenges*

Discussion

The findings it illustrate a tensions between the top down preparednesses and the two way adaptive governances what are require during the responses. Preparedness systems it give focus on the standardized and the one way warnings. On another hands, response demand flexible and reciprocal flows of informations that incorporate local and immediate knowledges to what are really practice on the grounds. This align with the theorys mention in the backgrounds, like Adaptive Governance, which highlight that resilience are not only pre-event capacitys but also the ability for to improvise and recalibrate communication practices under the adverse circumstance.

The findings of the study it revolved around three primary objective: the communication practices, the challenges, and strategys use by provincial authoritys for to collect monitoring reports from local authoritys, as part of its post-typhoon response effort. Findings suggest that while Albay are a models for its proven and test pre-emptive efforts, there are still rooms for improvements in the communication response effort for collecting of monitoring reports. The findings highlight a complex interplay between the modern digital tool and the traditional communication method.

Communication Practices: The Multi-Channel Strategies

It was found in the study that provincial authorities utilize various approach such as SMS blasts, email, facebook, radio, point-to-point, runners). This indicates that during disaster, when usual communication systems are stressed, authorities use a dual approach wherein the prescribed or institutionalized tools are partnered with flexible communication practices. This are align with the study of Miclat (2012), who say that because of climate-driven unpredictability's, the resilience of

societys depend on making of new and adaptive method for communications. Furthermore, the use of diverse channels reflects the idea that communication transcends mere information exchange; it is a “critical lifeline” for survival and response coordination, especially when communication breaks down where non-communication can manifest that emergency teams are misdirected, isolated people remain unassisted, rumors get out of control and the public loses confidence in authorities. (Cool et.a.l., 2015) The integration of social media and SMS blasts represents the “unconventional methods” of resilience necessitated by the increasing frequency of disasters in the Asia-Pacific Region. In the interview, data shows that personnel often switches channels depending on signal strength and urgency which highlights immediate actions on field rather than bureaucratic protocol adherence. This implies that contigency plans should formally recognize and provide trainings to personnel that they can use in times where they need to improvise communication strategies during post-typhoon response. This is essential especially during post-typhoon response window which is the critical lifeline of saving lives, to improve coordinated actions during power outages.

Challenges in Report Collection: The Infrastructure Paradox

Findings suggests that despite the variety of tools, significant challenges still exist. The primary challenge found is the disruption of communication lines and internet connectivity. It is also a recurring theme in disaster literature. The findings show that even in a “global model” for preparedness like Albay, the stability of physical structures remains a major pressure point. Top-down channels such as SMS blasts, scheduled radio slots, formal email reporting) assume intact infrastructure and up-to-date contact number database records. Post-impact realities, power loss, damaged cell towers, and change in personnel break these assumptions. Without mechanisms to verify receipt of reports and updates, provincial authorities cannot maintain situational awareness.

Outdated Databases: Findings revealed that SMS blasts were ineffective because of outdated contact lists that still contained pre-2025 election officials. This reflects a gap in coordination, which Webster (n.d.) define as the harmonious functioning of parts for effective result. Without updated information, the "flow" are structurally block at the provincial level. The discovery that SMS contact lists still contain officials from before of the 2025 election are not just a small issues; it are a structural susceptibilitys. From street-level bureaucracy perspective, frontline personnels compensate for institutional gaps through discretionary strategies. However, such actions cannot fully substitute a lapse in the system. Institutionalizing a fast contact-updating protocol during political transition and keeping of a verified emergency contact registry or a permanent contact persons are therefore a priority recommendation.

Uncertainty of Reach: The findings of the study it show that the reliance on radio and "hope" for receiving of information reveal the limits of traditional broadcastings. As it was noted by Sumaylo (2023), talking to isolated communities remain a big hindrance in the Philippines, where the "last mile" of communications often fail for to give a feedback loop. Instead of relying solely on hope, implement or institutionalize simple receipt/acknowledgement codes to verify message delivery and reduce the probability that reach was uncertain. Alongside with this, implement a simplified and uniformed reporting template for a more efficient reporting and sharing of data informaiton.

Physical Barriers: When technology and digital advancement fails, runners and point-to-point relaying of information function as last-mile strategies. This align with the street-level bureaucracy theory: deployed teams decide based on their own discretion and sound judgment to meet the citizens’ need under extreme conditions. The findings of the study also proves that the delay what was cause by the floods and the debris, which make the use of "runners" necessary, it validate the findings of Zhu et al. (2023) about the evolutions and the challenges of transportations in the "last mile" of disaster responses. When the digital flows fail, the physical environment are what dictate the speed of recovery. Because of this here, the use of runners are not just an improvised fix

but a predictable backup plan of information delivery when the electronic systems fail. Thus, instead of treating of the runners as just an impromptu fallback, formal institutionalization and recognition of runner networks in the contingency plans: including of the pre-assigned couriers, the mapped routes, and the prioritized types of messages for the physical copies of communication and for a more prompt delivery of service.

Strategies: Improvisation and Adaptive Governance

The findings of the study it illustrate that delays and uncertainty's in the report collections it make the needs assessments and the resource allocations real hard for to do. Strengthening of the low-bandwidth reportings, making of confirmation mechanisms (like simple receipt codes), and keeping of the contact lists updated it will improve both the timelinesses and the transparencies of the provincial responses. The strategies what was use, like shifting to low-data Facebook Messenger and improvising with the runners, it show what Volenzo and Odiyo (2019) describe as the links between risk communications and sustainable climate actions.

The move of provincial authority from formal digital protocols to "improvisations" are a forms of adaptive resiliences. However, the study it find that some responses, like the "reliance on hopes" for the radio reach, it show a lacks of formalized backup systems. This suggest that while Albay have strong response mechanisms (define by UNDRR, 2015, as the provisions of emergency services during or right after of a disaster), the communication flows itself lack a standardized "fail-safe" protocols.

Recommendations

Based on the findings and the supporting literature, the following recommendations are proposed to improve the communication flow: ***Institutionalize an Up-to-Date Database Management System:*** The provincial government should implement and institutionalize a centralized directory that is updated quarterly and immediately after the local elections to ensure harmonious functioning of communication and so it does not impede or delay the delivery of information and maintain efficient coordination. To be more specific, require barangays to provide primary and secondary emergency contacts, and issue an emergency contact registry updates within 3 days after elections.

Compressed and Uniformed Data Reporting Template: Create a concise, structured reporting template (e.g., 5 fields: location, evacuees, urgent needs, access status, confirmation code) that can be sent via SMS, Messenger, or even written in paper for point-to-point relaying of information. A uniformed template may save time and avoid the duplication and redundancy of data requesting and sharing that may disrupt the efficiency of report monitoring and sharing.

Low Earth Orbit (LEO) sattelite: Given the inevitable frequent loss of internet and signal after a typhoon hits, the province should invest in sattelite-based communication (LEO sattelites like Starlink) at the city and municipal level to address the "critical period" noted by Cool et.al., (2015) by ensuring that monitoring reports can be sent even when ground-based communication networks are devastated.

Formalize runners or "last-mile" courier: Resorting to runners or "last-mile" communicators should be formalized than improvised. Following the insights of Zhu et.al., (2023), the province should pre-designate runners, map alternative routes, and include runner activation protocols in the provincial contingency plan. In addition, define priorities of information in case of personal delivery of communication.

Implement simplified receipt/acknowledgement mechanisms: The province and cities must use simple two-way confirmations (e.g. simplified reply codes) to verify message receipt and reduce uncertainty of reach. In this way, relaying of information and essential data is not time consuming and mentally taxing, both for the provincial and local authorities, during the critical period of the response phase.

Redundancy in channels and verification: Combine automated broadcasts with targeted point-to-point calls to key DRRMO officers and scheduled radio bulletins with time windows for confirmation.

Training and exercises: Conduct regular drills that stimulate communication outages and test simplified reporting and runner of "last-mile" communication activation.

Conclusion

Albay's preparedness strengths do not automatically translate into an effective post-impact reporting system. The study concludes that the communication flow for collecting monitoring reports in Albay is a hybrid but fragile system. While the provincial authorities are highly adaptive, the transition from modern digital tools (SMS, email) to manual improvisation (runners, radio) is often uncoordinated due to infrastructure failures and administrative gaps like outdated databases.

The findings confirm that effective communication in post-typhoon response is not just about the technology used, but about the resilience of the flow. The study shows that it is essential to bridge preparedness and response. For Albay to remain a global leader in DRRM, it must bridge the "digital-to-analog" gap by institutionalizing off-grid technologies and standardized reporting protocols. Finally, improving the communication flow of monitoring reports collection is essential to provide the "necessary support to local constituents and authorities" and ensure that recovery efforts are guided by accurate, science-backed data rather than improvisation and hope. Implementing the recommendations will improve the timeliness, reliability, and accountability of monitoring report collection in future typhoon responses.

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