Livelihood at Stake, Life at Risk: Exploring the Experiences and Barriers to Participation in Community-Based Disaster Risk Reduction and Management among Coastal Farmers and Fisherfolk in Ilocos Sur

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ABSTRACT

Community-Based Disaster Risk Reduction and Management initiatives often encounter low community participation when formal protocols conflict with daily economic survival. This qualitative study explored the lived experiences, disaster response mechanisms, livelihood trade-offs of coastal farmers and fisherfolk in Ilocos sur, Philippines. Utilizing a descriptive phenomenological research design, data were gathered through in-depth, semi-structured interview with farmers and fisherfolk living in hazard prone coastal municipalities.

The interview transcripts were analyzed using Colaizzi's seven-step phenomenological methods to extract meaningful units and formulate core themes. The finding revealed three major emergent themes: (1) Navigating Disaster Risk through Community Practices of Resilience and Safety, illustrating the participation as conditional commitment to safety, views and beliefs about DRRM activities; benefits and enhanced community resilience, (2) Negotiating Livelihood Realities and Constraints to DRRM Participation, highlighting the prioritization of daily livelihood and income, lack of financial, material and local support as well as the limited of awareness and DRRM training, and (3) Greater Participation of Farmers and Fisherfolk in Community-Based Disaster Risk Reduction and Management underscoring the necessity of financial and material support, increased awareness and understanding disaster risks, and development of practical disaster response skills.

Based on these findings, the study recommends the local government hold disaster training during off-peak work hours and provide incentives support farmers and fisherfolk do not lose daily income. Agriculture and Fisheries agencies set up fast micro-insurance, emergency loans, and mobile cold storage to protect crops and catches before hazard hit. Maritime agencies provide hands-on water recuse and navigation training instead of lectures alone. Future researchers seek investigation how income levels directly affect attendance and explore how families who both farmer and fisherfolk handle disaster. The study concludes that sustainable community resilience requires bridging the gap between top-down institutional mandates and the lived economic realities of coastal farmers and fisherfolk.

Keywords: Community-Based Disaster Risk Reduction and Management, coastal farmers and fisherfolks

INTRODUCTION

Disaster is understood not merely as an act of nature, but as the actual disruption that occurs when extreme physical events such as tropical cyclones, severe monsoons, or storm surges impact a community whose existing resources and structures are insufficient to absorb the blow. It represents the point where environmental hazards collide with human and economic vulnerabilities, resulting in sudden losses that paralyze the day-to-day survival and functioning of coastal households.

Building on this, disaster risk is viewed in this research as the measurable threat of potential harm, loss, or asset destruction that hangs over a community prior to an actual event. This study considers risk as a dynamic

balance between three elements: physical exposure to coastal hazards, internal socio-economic vulnerabilities, and local capacity to adapt. For coastal farmers and fisherfolk, disaster risk is an ongoing, everyday reality one where the level of danger is directly determined by how reliant a household is on unprotected physical assets, such as fishing boats, livestock, or standing crops, for their daily survival.

To mitigate these threats, disaster management is conceptualized as the structured framework of planning, organizing, and executing measures meant to prepare communities for, shield them from, and help them rebuild after severe hazard events. In this study, disaster management goes beyond top-down government mandates; it is viewed as an interactive process encompassing prevention, preparedness, emergency response, and post-disaster recovery. Ultimately, effective disaster management must align institutional safety directives with the economic realities of the community, ensuring that protocols protect both human life and the essential livelihoods that sustain it by Islam et al. (2025).

Community-Based Disaster Risk Reduction and Management is an innovative approach that places communities at the forefront of disaster risk management efforts. This initiative emphasizes the importance of local knowledge and participation in identifying risks, developing strategies, and implementing solutions tailored to the specific needs of the community. By promoting collaboration among community members, stakeholders, and local authorities, CBDRRM enhances resilience and empowers individuals to take proactive measures against potential disasters. This community-centered approach not only strengthens the capacity for disaster preparedness and response but also promotes sustainable development, ensuring that communities are better equipped to face future challenges United Nations Office for Disaster Risk Reduction (2024).

Disaster Risk Reduction and Management has become a global priority due to the increasing frequency of climate-related disasters. Research, including the "World Disasters Report 2020" by the International Federation of Red Cross and Red Crescent Societies, emphasizes the necessity of effective DRRM strategies for protecting lives and livelihoods. Recent studies, such as the UNDRR's "Global Assessment Report on Disaster Risk Reduction 2022," further stress the role of community engagement in disaster preparedness. Collectively, these works advocate for integrating DRRM into development frameworks, promoting resilience and sustainable outcomes.

The Sendai Framework for Disaster Risk Reduction 2015-2030 serves as a pivotal global blueprint for enhancing resilience and reducing disaster risks, emphasizing the necessity of comprehensive approaches that engage all stakeholders, particularly local communities. A notable accomplishment of the framework is the establishment of the Sendai Voluntary Commitments, which encourages countries and organizations to make specific pledges towards disaster risk reduction initiatives. A significant instance of this is Japan's implementation of community-based disaster management programs that integrate local knowledge and practices, significantly improving preparedness and response during natural disasters. In light of this, a recent study conducted by (Zhou et al., 2022), titled "Integrating local knowledge into disaster risk reduction: A case study from rural China," highlights how tapping into local insights can effectively address vulnerabilities in disaster response strategies. This alignment with the Sendai Framework advocates for a multi-faceted approach that prioritizes community engagement to enhance disaster preparedness and response efforts.

On a global and institutional scale, establishing community resilience requires a delicate balance between socioeconomic preservation and aggressive climate adaptation. However, an operational paradox exists within local disaster management frameworks: low-income households and primary resource producers frequently experience a severe structural conflict between preserving their immediate, day-to-day survival and complying with emergency life safety mandates. Empirical data shows that approximately 12.7 million individuals living below the poverty line in coastal regions reside in zones characterized by medium-to-high risk of catastrophic riverine and coastal flooding (Asian Development Bank [ADB], 2024).

Global disaster risk reduction indicate that agricultural and fishing sectors operate under structural vulnerabilities, where the threat of losing productive assets (like unsecured boats or unharvested crops) translates to a long-term, cyclical form of economic ruin that individuals fear more than the immediate physical dangers of an extreme weather event (Eligue et al., 2023). It also acknowledges that top-down disaster

definitions often misinterpret "safety". For communities globally that exist on the margins of economic survival, an evacuation order or a disaster seminar introduces an immediate opportunity cost.

A comprehensive analysis by United Nations for Disaster Risk Reduction (2021) in the Global Assessment Report on Disaster Risk Reduction highlights that effective national DRRM strategies are essential for reducing vulnerabilities and enhancing adaptive capacities in the face of climate change. Moreover, a study by

(Mastrorillo et al., 2022), titled "Evaluating the effectiveness of national DRRM policies in developing countries," reveals that nations with strong national frameworks significantly outperform those lacking such systems in terms of disaster preparedness and response outcomes. These findings emphasize the critical need to invest in national DRRM systems, which not only safeguard lives and livelihoods but also play a significant role in advancing sustainable development goals.

Recent empirical evidence in the Philippines reinforces the theoretical stance that socio-economic vulnerability dictates community engagement in disaster risk management (Harvard Humanitarian Initiative [HHI], 2024; ICSF, 2025). Despite high levels of disaster awareness among coastal sectors, lower-income households consistently demonstrate lower rates of formal preparedness and program participation due to resource constraints (HHI, 2024). Furthermore, Plasus et al. (2025) highlight that community-based programs often fail to sustain participation when they ignore the operational pressures and time-poverty experienced by resource-dependent workers. Together, these contemporary studies validate that for small-scale fisherfolk and farmers, low participation in CBDRRM is not a failure of individual initiative, but a rational response to the competing demands of immediate livelihood survival.

In the Philippine context, this global direction is institutionalized through Republic Act No. 10121, which defines Community-Based Disaster Risk Reduction and Management as a process where at-risk communities are actively engaged in identifying, analyzing, treating, monitoring, and evaluating disaster risks. The law also explicitly encourages participation of communities and local sectors in DRRM activities This means that community participation is not just desirable but legally recognized as central to effective disaster governance in the country. The National Disaster Risk Reduction and Management Plan 2020–2030 further highlights inclusive and participatory DRRM, especially for vulnerable sectors such as farmers and fisherfolk.

The National Disaster Risk Reduction and Management Council has spearheaded a series of nationwide disaster response drills aimed at enhancing the preparedness and resilience of communities across the Philippines. These drills simulate various disaster scenarios, including typhoons, earthquakes, and flooding, providing participants with the opportunity to practice emergency response protocols and improve coordination among local government units (LGUs), emergency services, and community organizations. A comprehensive study conducted by (De Guzman et al., 2023), titled "Assessing the Effectiveness of National Disaster Response Drills in Improving Community Preparedness," revealed that such exercises significantly enhance participants' understanding of emergency procedures and increase their confidence in disaster response capabilities. The NDRRMC's practices have proven effective in fostering a culture of preparedness, as evidenced by feedback from participants indicating a heightened awareness of disaster risks and improved readiness to act in emergencies.

National data confirms that despite sustained state-level interventions and international development loans aimed at scaling up rural infrastructure, farmers and fisherfolks stubbornly remain the demographic groups most severely affected by poverty in the Philippines. According to the Philippine Statistics Authority (PSA, 2025), the fisherfolk sector recorded a staggering poverty incidence of 27.4%, closely followed by agricultural farmers at 27.0%, making them the highest among the nation's basic sectors. Because their daily profit margins are razor-thin, taking time off from manual labor to attend local CBDRRM activities creates an unviable financial deficit for the household.

Locally, the heritage province of Ilocos Sur located in the northwestern region of the Philippines, is characterized by its diverse coastal landscapes, agricultural lands, and rich cultural heritage. However, this geographical location also renders it highly vulnerable to a myriad of natural disasters, including typhoons, flooding, and coastal erosion. The province's exposure to the West Philippine Sea makes it particularly

susceptible to extreme weather events, which have become increasingly frequent and intense due to climate change.

The final situational report for Typhoon "Egay" in 2023 illustrates the magnitude of disaster impacts experienced by communities in Ilocos Sur. The report documented 19, 884 damaged houses, consisting of 2, 514 totally damaged and 17, 370 partially damaged houses. Agriculture was also substantially affected, with total agricultural damages estimated at ₱469, 805, 680.42. Of fisheries, this amount, ₱351, 173, 421.42 was at-

tributed to crops, high value crops, vegetables, and fisheries, while ₱118, 632, 259.00 was attributed to livestock. The disaster resulted in approximately ₱2.68 billion in infrastructure damage, including damage to houses, bridges, roads, schools, and communication facilities. These figures demonstrate that the effects of a major typhoon in Ilocos Sur encompass multiple dimensions for community life, particularly housing, agricultural livelihoods, and essential infrastructure.

The situation was again evident during Super Typhoon "Uwan" in November 2025. The final situational report recorded 12, 948 families or 44, 305 individuals affected across 554 barangays in the province. A total of 4, 928 houses were damaged, including 114 totally damaged and 4, 814 partially damaged houses. Agricultural losses were estimated at ₱211, 442, 288.90, while livestock damages reached ₱1,418, 815.00 and infrastructure damages amounted to ₱12, 903, 942. 80.

The agricultural losses documented in these reports are particularly important in understanding the Ilocos Sur. The reported damages involved various agricultural commodities, including rice, corns, vegetables, high-value crops, fisheries, and livestock. Thus, the consequences of disaster are not limited to physical damage to properties but may also affect the continuity of livelihood activities upon which affected households depend. The situational report provides valuable quantitative evidence of the extent of crop and agricultural losses, however, monetary estimates alone do not fully describe how these losses are experienced by affected families and communities.

Disaster prone municipalities in Ilocos Sur revealed that community awareness and preparedness practices contribute significantly to disaster resilience; however, gaps in emergency response systems and public participation remain evident (Unciano et al., 2022). Similarly, the Banayoyo Climate and Disaster Risk Assessment identified flooding, landslides, and typhoons as major threats affecting agriculture, infrastructure, and public safety, highlighting the importance of adaptive and community based DRRM strategies (Garcia, 2024).

In addressing the increasing vulnerability of communities to natural hazards in Ilocos Sur, the Provincial Disaster Risk Reduction and Management Office, in collaboration with the Department of Science and Technology and the Philippine Institute of Volcanology and Seismology, initiated PROJECT AGSAGANA as part of its efforts to enhance local disaster preparedness and resilience. The project rationalizes the need for science-based and community-centered disaster risk reduction strategies through the conduct of hazard mapping, earthquake and tsunami preparedness training, and capacity-building activities for local government units. By strengthening institutional preparedness and improving community awareness, the initiative aims to reduce disaster risks, enhance emergency response capabilities, and promote sustainable resilience among vulnerable communities (Philippine Information Agency [PIA], 2024).

The agricultural and fishing sectors in the Philippines, particularly within the Ilocos Region, face multifaceted challenges exacerbated by climate change, economic pressures, and resource management issues. Farmers in the region are experiencing significant impacts due to erratic weather patterns, which have led to diminished crop yields and increased susceptibility to pests and diseases. Research indicates that variability in rainfall and temperature adversely affects staple crops such as rice and corn, thereby threatening food security and farmer livelihoods (Bañares et al., 2022). Concurrently, fisherfolks are confronting declining fish stocks driven by overfishing and environmental degradation. The necessity for sustainable fishing practices has been emphasized to mitigate these challenges and ensure the long-term viability of marine resources (Gonzales et al., 2023). Local initiatives aimed at community-based resource management have emerged as critical strategies to bolster resilience among agricultural and fishing communities. Furthermore, the integration of

traditional ecological knowledge with contemporary agricultural practices demonstrates potential in enhancing productivity and sustainability (Labrador et al., 2021).

This profound friction between mandatory safety enforcement and immediate household survival is vividly captured in recent domestic literature. Specifically, (Agaton et al., 2023) investigated the lived experiences of artisanal fisherfolks during sudden coastal disruptions in Luzon, documenting that the enforcement of safety protocols triggers immediate household sustenance anxiety due to a total loss of daily wages, which government relief food packs and temporary financial aid simply cannot cover.

On a broader scale, the psychological and economic calculus that drives a laborer to skip disaster preparedness activities is deeply tied to their baseline financial security. Grounding this relationship empirically, (Liu et al., 2025) establishes that a worker's livelihood resilience or lack thereof directly dictates their disaster preparedness behavior, proving that low participation is a structural lack of economic buffer capacity rather than community apathy.

Shifting the focus to the specific geographical and economic realities of Northern Luzon, localized data reflects these exact structural vulnerabilities. In his study on climate-resilient agriculture in Region I, (Vidallo et al., 2021) highlights the severe exposure of local farming and fishing cycles in the Ilocos context, noting that traditional routines are under constant climate threat, yet formal local adaptive frameworks are still struggling to build the necessary economic cushions that would allow local laborers to separate life-safety from immediate livelihood preservation.

Community Based Disaster Risk Reduction and Management are further aligned with the Sustainable Development Goals 1 (No Poverty), 11 (Sustainable Cities and Communities), and 13 (Climate Action) which emphasizes protocols that protect both human lives and the fragile economic assets of marginalized populations. Recent qualitative findings underscore that public compliance in rural municipal sectors is frequently hindered when top-down safety protocols fail to integrate or acknowledge localized economic anxieties (Butalid, 2026; Moser & Korstjens, 2020).

In this regard, the present study sought to gain insight into this phenomenological study pursues a deep understanding of the lived experiences of coastal farmers and fisherfolks in Ilocos Sur, seeking to uncover the specific socio-economic pressures, psychological trade-offs, and survival logics that compel them to prioritize immediate livelihood continuity over institutional life-safety mandates.

Statement of the Problem

This study aims to understand why coastal farmers and fisherfolks in Ilocos Sur have low participation in Community-Based Disaster Risk Reduction and Management activities.

Specifically, this study seeks to answer the following questions:

1. How do coastal farmers and fisherfolks describe their experiences with Community-Based DRRM activities?
2. What challenges or barriers they encountered while engaging Community-Based DRRM programs?
3. What motivations could encourage the farmers and fisherfolk to participate more actively in community-based disaster risk reduction and management activities?

METHODOLOGY

Research Design

This study utilized qualitative descriptive phenomenological design, as described by Husserlian tradition is a method to capture the profound, unadulterated essence of the human experience within clinical and educational environments, (Abraham & Padmakumari, 2024). This methodology is uniquely suited serves as an indispensable empirical tool for uncovering unexamined human experiences by capturing first-person accounts

within their natural contextual settings. Following data collection, the study utilized Colaizzi's highly systematic seven-step descriptive method to step-by-step sift away incidental variations and distill the universal "fundamental structure" of the experience into core, actionable themes (Butalid, 2026;). To preserve the strict scientific rigor demanded by Husserl's philosophy, the present study would similarly implement systematic bracketing to isolate researcher bias, ensuring that the emerging themes represent a pure, authentic reflection of the participants' lived realities (Abraham & Padmakumari, 2024).

In this study, a qualitative descriptive phenomenological research design was employed to explore the lived experiences of farmer and fisherfolk participants in Ilocos Sur as they navigate the compromise between immediate livelihood survival and participation in Community-Based Disaster Risk Reduction and Management programs. This design grounded in the belief that individuals' firsthand accounts offer deep insights into how they perceive, interpret, and respond to complex economic and environmental challenges. The use of phenomenology enabled the researcher to conduct in-depth, open-ended interviews that encouraged participants to share their stories in their own words. These narratives were not only descriptive but also reflective, offering insight into how the participants constructed meaning from their experiences of seasonal hazards, daily income pressures, and the prioritization or sacrifice of life safety in rural agricultural and maritime settings.

This design was particularly well-suited for the study, as it allowed for an empathetic and nuanced understanding of how primary producers endured, adapted to, and weighed the socio-economic demands of daily subsistence against disaster preparedness. By centering the voices of the farmers and fisherfolks, the phenomenological approach ensured that the data collected were rich, contextual, and grounded in lived reality. These insights were critical for informing improvements in local disaster governance, particularly in developing targeted, community-centered support systems and policies that address the real-world trade-offs encountered by primary producers in disaster-prone areas.

Research Setting

This study was conducted in coastal municipalities within the heritage province of Ilocos Sur, stretching along the northwestern coastline of Luzon facing the West Philippine Sea, Ilocos Sur features 18 coastal local government units comprising 16 coastal municipalities and 2 cities characterized by a high concentration of small-holder farming and artisanal fishing communities. Positioned directly along the Philippine typhoon belt, these coastal towns regularly face severe marine and atmospheric hazards, including typhoons, storm surges, and monsoon floods, providing a highly relevant natural setting to examine the trade-offs between daily economic survival and disaster risk management. Economically, these communities are home to a large population of traditional fisherfolk and subsistence farmers who depend entirely on the ocean and fields for their daily survival. This specific geographic and economic setting provides the ideal environment to explore the real-life conflict between securing daily livelihood and participating in local disaster safety protocols.

Site selection and hazard susceptibility profiling were determined using official disaster susceptibility maps provided by the Provincial Disaster Risk Reduction and Management Office - Ilocos Sur. Based on these provincial risk assessments, the identified coastal towns exhibit high vulnerability to marine and atmospheric hazards, such as monsoon floods, typhoons, and storm surges. Primary data were gathered through semi-structured phenomenological interviews with local farmers and fisherfolks operating within these high-susceptibility zones, offering a direct reflection of how primary producers balance daily livelihood imperatives with community-based disaster management. Tne Municipalities included were Municipality of CabugaoSan Juan, Magsingal., Caoayan, Santa, Narvacan, Santa Maria, San Esteban and City of Candon

Sampling

This study employed purposive sampling to select participants who could provide rich, in-depth narratives about the fisherfolks and coastal farmers experiences and barriers to participation in community-based disaster risk reduction and management. Purposive sampling was appropriate for this qualitative research because it allowed deliberate selection of individuals with direct experience of the phenomenon under investigation. Purposive sampling was employed to select the participants. This sampling technique was appropriate for the

qualitative phenomenological design because it allowed the researcher to intentionally select individuals with direct experience of the phenomenon being investigated who could provide rich, relevant descriptions of their experiences. To qualify for selection, participants met the following predefined inclusion criteria: hey must be actively working as either a farmer or a fisherfolk within the coastal municipalities/cities of Ilocos Sur: They can be of any gender (male or female), They must have at least two years of continuous experience in farming or fishing to establish sufficient familiarity with the local livelihood practices, They must have direct experience with localized environmental hazards affecting their farming or fishing activities to ensure that they can provide relevant insights based on their actual experiences in the community, adult age bracket of 30 to 60 years old, express voluntary willingness to participate in the study by signing an informed consent form and possess the ability to articulate and express their lived experiences clearly during interview sessions.

The researcher utilized the sampling method recommended by Lincoln ad Guba (2014) and Jones (2017) in which sampling continued until the point redundancy, when no new information emerged from the participants. Point of saturation were used for ten (10) identified participants in which saturation was reached and no longer yielded new themes or insights related to research questions, this indicates that the sufficient data had been collected to fully understand their experiences

Instrumentation and Data Collection

In any research activity, the judicious collection of the data collection method used was required to successfully meet the research aim. The purpose of qualitative inquiry is to explore the experiences and barriers to participation in community-based disaster risk reduction and management among coastal farmers and fisherfolk in Ilocos Sur

According to Mertens (as cited by Szutenbach,2013), the researcher is commonly the research instrument and often the person conducting the interview, in this study, researcher himself is the main instrument for data collection. To achieve the study's objective and with the intention to gather personal accounts of their experiences, individual, in depth interviews was used as the primary data collection instrument in this study using semi structured interviews, which are more likely to promote stoty telling fashion (McCance,McCormack & Dewing 2011) Interviews are particularly well suited for studying people's understanding of the meanings in their lived world, describing their experiences and self-understanding, and clarifying and elaborating their own perspectives (Horrack & King, 2010, p. 182).

The researcher followed the guidelines for interview in narrative research on the need to attend on the cues of the participants which allowed them the time to complete answers, uninterrupted, enhances the likelihood that they relate stories as opposed to short responses (Mc Cane et al. 2011)

During interview, prompt questions was given for clarification and focus, prompt questions ask when, where, why, how and what, it is not intended to lead the participants but to encourage and elicit examples and meaning about the experiences they are describing. Interviews was conducted on an agreed time convenient for each participants and the researcher, the recorded interviews used an available application like cellphone, after the interview, debriefing process took place for the summarization of key points, feedbacks and clarification.

Before conducting the data gathering process, approval of the concerned authorities was obtained. After obtaining the necessary approval, recruitment via purposive sampling started by contacting the initial target participants. Following recruitment, the participants and researcher agreed upon a mutually convenient time for the initial meeting (pre interview). The initial meeting was intended for validating the eligibility to participate and their experiences regarding the phenomenon, the short briefing which is the presentation of the study information to the participants especially the ethical issues and their rights as participants and scheduling the next meeting (interview proper). The researcher make sure the tips and tools for remote qualitative data collection was followed, individual in depth interview made for each participants, each interview lasted 30 to 45 minutes, on average. The interview continues until data saturation was achieved, this is the point when the new participants no longer provide perspective on the study.

At the end of the interview, a debriefing process took place for the summarization of key points, feed backs and clarifications, also the follow up communication for validating the contents included in the transcription was tackled. Basically during this point, the researcher returned the research findings to participants and discussed the results with them Following the interviews, the researcher transcribed each interview verbatim and will reflect on them as a means of leaning for subsequent interviews and to consider the themes. In keeping with the philosophy of qualitative research, the data collection and analysis made simultaneously by the researcher

Trustworthiness

A rigorous approach to research is crucial in order to lead the methods choices that researcher must make during their research and to set the reasoning by which they conduct data collection and data analysis. It concerns the ‘‘truth value’’ of qualitative data, analysis and interpretation. Trustworthiness was one-way researchers can persuade themselves and readers that their research findings are worthy of attention.

The concept of trustworthiness by introducing the criteria of credibility, transferability, dependability and confirmability to group various procedures together under larger aims, and to offer alternative terms to positivist concepts and qualitative research requires far more documentation research in order to establish trustworthiness (https://journals.sagepub.com).

Credibility. The credibility was involved in establishing that the results of the research are believable. This was a classic example of ‘quality not quantity’. It depended more on the richness of the information gathered, rather than the amount of data gathered. In reality the participants/readers are the only ones who can reasonably judge the credibility of the results. This was ensured by gathering of data using semi structured questionnaire that enabled my participants to openly express their views and perspective without any restrictions. The interview was recorded with the approval of the participants to ensure that all information specified in the study can be interpreted for data analysis and can be requested clarifications of data entry. To protect credibility within data, the methods that were used is recording via mobile phone and note taking to supplement the interviews of the physicians. The circular and interpretative analysis of data was done through listening and re-listening to the audio recorded, and by writing and re-writing descriptive data until saturation or redundancy occurred. The intention was to share the final results with the participants of the study for validation.

Transferability. Transferability, or external validity, refers to the degree in which the research can be transferred to other contexts; this section was defined by readers of the research. The reader notes the specific details of the research situation and methods and compared them to a similar situation that they were more familiar with. If the specifics are comparable, the original research would be deemed more credible. It is essential that the original researcher supplies a highly detailed description of their situation and methods.

This assumed that the research method, analytic categories and characteristics of phenomena and groups were identified sufficiently and explicitly that comparisons can be made between interviews or fieldworks. It also refers to the applicability of findings to other situations and other people. They had an opportunity to validate interpretations of the data and exemplars, share comments and new insights, and clarify discrepancies and ambiguities in interpretation.

Dependability. Dependability, the counterpart of reliability in quantitative research, ensured that the research findings were consistent and could be repeated. This was measured by the standard of which the research was conducted, analyzed, and presented. Each process in the study was reported in detail to enable an external researcher to repeat the inquiry and achieve similar results. This also enabled the researcher to understand the methods and their effectiveness. To achieve dependability, the researcher established rapport to the respondents by calling them before commencing to the online actual data gathering.

Confirmability. Confirmability, or objectivity, questions how the research findings are supported by the data collected. This was a process to establish whether the researcher had been biased during the study; this was due to the assumption that qualitative research allowed the research to bring a unique perspective to the study. An

external researcher could judge whether this was the case by studying the data collected during the original inquiry. To enhance the confirmability of the initial conclusion, an audit trail was completed throughout the study to demonstrate how each decision was made.

Audit Trail of the Study

The audit trail served as a comprehensive record detailing how the qualitative study was conducted from conception to completion. It was maintained by the researcher to ensure transparency and allow future inquirers to examine the procedural steps taken, consider potential alternative strategies, and evaluate the integrity of the research process. Beyond serving as a procedural record, the audit trail supported the study's trustworthiness by demonstrating methodological rigor. According to Creswell (2013), the researcher had to provide thorough documentation of all research activities and decisions as part of the audit trail to enhance the credibility and confirmability of the findings.

The audit trail in this study was organized into three phases: Discover, Develop, and Deploy. In the Discover phase, the researcher defined the scope of the research, identified the informants, and formulated the data collection methodology. This phase focused on clarifying the research objectives, selecting appropriate methods, and setting the foundation for data gathering

The second phase, Develop, involved steps aimed at extracting meaning from the collected data. The researcher began by reading and rereading the informants' narratives to gain a holistic understanding of their experiences. This was followed by identifying and labeling significant statements that directly related to the phenomenon under study. The researcher then formulated meanings from these statements by interpreting them within their respective contexts. These meanings were organized into thematic clusters, which were validated against the original data. An exhaustive description of the phenomenon was constructed, and a fundamental structure was generated by filtering out non-essential descriptions. This structure was then presented to the informants for validation and refinement, ensuring that their feedback is incorporated into the final interpretation.

In the final phase, Deploy, the researchers synthesized the validated findings to build a comprehensive conceptual model that reflects the essential characteristics of the phenomenon from the collective perspective of the informants. This model served as a conceptual guide for understanding construction risk management and could be applied in future policy, training, or academic initiatives related to safety practices in local government units.

Ethical Considerations

All ethical guidelines were strictly observed throughout the conduct of the study, following the approval of the Institutional Ethics Review Committee. The researchers also declare that there are no conflicts of interest that could have influenced the conduct, analysis, or reporting of the research findings.

All studies present a number of ethical and moral dilemmas that had to be identified and addressed prior to conducting any research to protect all informants from potential harm. In this study, four key ethical principles were upheld to ensure the safety and rights of all informants throughout the research process.

Beneficence and Non-maleficence this study was guided to ensure that the findings provided benefits and cause no harm to the informants or society. Potential risks such as physical, psychological, emotional, social, or financial harm were carefully considered and mitigated. The researcher aimed to contribute valuable insights into the challenges faced by local government safety officers while exploring substitute strategies to enhance safety protocols. The psychological well-being of informants was monitored, as physical harm is unlikely. Privacy and confidentiality were strictly maintained, with all findings presented in a confidential manner. No personal or identifiable information was recorded or published in the study. Voice-recorded interviews were transcribed verbatim, excluding names or identifiable details during transcription. After transcription, the data were securely stored in password-protected folders with limited access, saved on an external hard drive accessible only to the researcher. Compliance with data protection laws, such as the Data

Protection Act of 1988, was ensured, allowing informants the right to view and correct any personal information if they so choose. Since full anonymity could be difficult to guarantee when organizational permission was granted, interviews were coded, and no names were used to protect informants' identities.

Autonomy was respected by ensuring that all informants provided informed consent prior to participating in any interviews. The researcher provided clear information about the study and regularly review consent with informants, allowing them to understand what they were agreeing to throughout the process. Informants were reassured of their right to withdraw from the study at any time without penalty or consequences, fully honoring their freedom of choice. The study complied with data privacy regulations such as the Data Privacy Act of 2012.

Justice was observed by presenting all findings and results truthfully and accurately, reflecting the actual experiences and perceptions shared by the informants. The researcher ensured that no false information, misrepresentations, or unsubstantiated accusations were included in the final report, maintaining fairness and integrity.

Ethical issues could arise at any point during the research despite careful planning. Therefore, the researcher remained vigilant in identifying, preventing, and addressing any ethical concerns before, during, and after the study. The guiding ethical principles served as a framework to anticipate and manage potential issues, rather than providing definitive solutions.

Data Management and Analysis

Data Management

Recordings, transcripts, and any other research data that were collected properly handled and securely stored on a USB flash drive. The data gathered were systematically coded using pseudonyms to ensure that the identities of the informants remain confidential. All interview transcripts were labeled with transcript numbers and line numbers for accurate reference. Upon completion of data collection, the recorded audio and video files were saved and kept in a safe and secure location. Typically, these recorded interviews were disposed of within 30 days after the completion of data analysis and the finalization of the research findings. This timeframe allowed for adequate review and ensured compliance with ethical standards while prioritizing the confidentiality of the informants. However, specific timelines could vary depending on institutional policies or the nature of the research; therefore, the researcher consulted relevant guidelines to determine the appropriate duration for data retention.

Data Analysis

Data analysis was the process of clarifying and interpreting information gathered in the research, aiming to establish meaningful insights from the collected data. To ensure a rigorous analysis in this study, the phenomenological analysis utilized Colaizzi's (1978) seven-step process. The researcher believed that this strategy would provide a concise and thorough description of the phenomenon. By following Colaizzi's seven-step process, the researcher generated a comprehensive and rigorous analysis of the qualitative data, ultimately achieving a deeper understanding of the phenomenon under investigation

The seven steps were carefully carried out by the researcher for efficient integration of the several significant statements and theme clusters to formulate an exhaustive description that helped in comprehensively describing the phenomenon.

Step 1. Reading and rereading descriptions. Collaizi's (1978) recommends for each transcript to be collected, read and or played back several times until a sense of familiarity, comprehension and understanding of the participants' experiences has been reached. The researcher read and listened the data collected until he was confident that a thorough understanding of the experiences had been achieved. The thoughts, feelings and notions that precipitated because of the researcher's previous experiences were added to his reflexive journal,

this helped in accounting for any potential researcher bias and to explore the phenomenon fully as experienced by the participants

Step 2. Extracting significant statements. Significant statements related to the group process and feeling experience within the group were extracted from each interview transcript.

Step 3. Formulating meanings. The meanings hidden in various context of the phenomena were derived from previously identified significant statements. Since the primary meanings normally carry the exhaustive descriptions, they were coded and grouped into separate categories. Coding was the course of determining a particular details and representation that might be significant in answering research questions posed. The researcher transformed the significant statements into formulated meanings.

Step 4. Categorizing into clusters of themes and validating with original texts. In here the common experiences of the participants were identified for clustering and categorization into themes. To ensure that process was correct and the process itself yield consistent meanings, first the formulated meanings were extensively reviewed and group by relevance into cluster themes and were coded with a descriptive thematic label. Also, the cluster themes were further examined and group into emergent themes which provided that best possible description of the overall meaning of the participant's lived experiences.

Step 5. Describing. This phase focused more on the construction of exhaustive description. The process of analyzing and merging of themes in the study by the researcher was critical to the next step. Through these processes, the researcher was successful in pulling through the complete general structure of the phenomenon in questions

Step 6. Produce fundamental structure. A reduction of findings was executed during this stage and a fundamental statement of structure was formulated at this stage to fully describe the phenomenology of the experiences of the employers.

Step 7. Returning to participants and incorporating any changes based on the participant's feedback. This step in the process was done to validate the analysis of data. Basically, at this point, the researcher returned to the participants and discussed the research findings with them and validated the result against their experiences. The participants' views on the study were obtained through follow up communication. The plan was in case additional feedback from the participants was collected, the researcher integrated them in the findings and present a model that comprehensively reflects the universal features of the phenomenon under study.

RESULTS AND DISCUSSION

The analysis highlights key themes related to experiences, challenges, or barriers and the motivations for driving greater participation I community risk reduction and management

Theme 1: Navigating Experiences on participation on Community Disaster Risk and Management Activities

This theme explores the lived experiences of coastal farmers and fisherfolk as they navigate their participation in community-based Disaster Risk Reduction and Management (DRRM) activities. It focuses on how they understand, experience, and respond to disaster preparedness initiatives, community safety measures, early warning systems, evacuation procedures, and other local disaster risk reduction practices.

For coastal communities in Ilocos Sur, participation in DRRM may be influenced by the realities of daily livelihood activities, economic responsibilities, environmental risks, and access to community-based preparedness programs. Coastal farmers and fisherfolk may recognize the importance of disaster preparedness and life safety while simultaneously facing the need to protect their crops, fishing equipment, boats, and other livelihood resources. These competing responsibilities may shape their decisions to participate in community meetings, disaster drills, training sessions, and evacuation activities.

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Furthermore, this theme examines how personal experiences with previous disasters, perceptions of risk, trust in local authorities, and relationships with community members influence participation. Some individuals may actively engage in preparedness activities because of their previous exposure to disasters, while others may participate less frequently because of work commitments, limited resources, inadequate information, or the perception that disaster preparedness activities interfere with their livelihood.

Participation as Conditional Commitment to Safety

Community-Based Disaster Risk Reduction and Management activities exists within the community, but its frequency and consistency vary depending on individual circumstances and available opportunities. The findings indicate that farmers and fisherfolks generally recognize the importance of disaster preparedness and demonstrate willingness to participate in activities intended to enhance their knowledge and capacity to respond hazards. However, participation is often occasional, situational, and dependent on the availability of time, initiations, and organized activities within the community.

Farmers and fisherfolks appear to recognize the value of disaster preparedness, but their participation may be limited when DRRM activities conflict with livelihood schedules or when opportunities for engagement are infrequent. However, sustained participation may require DRRM programs that are accessible, livelihood-sensitive, timely, and responsive to the actual circumstances of farmers and fisherfolks. By aligning disaster preparedness activities with the realities of coastal livelihoods, local authorities and DRRM practitioners may be better positioned to transform occasional participation into sustained community involvement.

Participant 1. Dayjay lang kwa sir, jay umay ti coastguard ditoy, isu lang ti papan mi amin nga miyembro ken officials.

(Only when the Coast Guard comes here, Sir. All of us members and officials attend.)

Participant 5. Pasaray sagpaminsan sir, apanak met no tay agpaayab ni kapitan no tay adda meeting nga nasisita diyay barangay.

(Sometimes, Sir. I attend when the captain invites us, especially when there is a meeting that is necessary for the barangay.)

Participant 6. Wen sir napadasak metten sir. Ngem nabayag metten sir tallo tawen sa metten iti naglabasen.

(Yes, Sir, I have participated before. But it was quite a long time ago, Sir, about three years ago.)

Participant 7. No adda agpa meeting kasjay lalo nu sakbay nga umay ti bagyo kuma nu anya ti dapat nga ubraen kasjay.

(When there is a meeting, especially before a typhoon arrives, we attend to learn what should be done and what preparations need to be made.)

Participant 8. Umay da met mangsem-seminar ditoy dagiti maritime maypanggep iti panagdakkel iti danom ket masapol nga saganaan tay met.

(Ah… yes, they come here to conduct seminars. The maritime personnel conduct seminars regarding rising water levels and the importance of being prepared.)

Participant 9. No masango mi laketdi sir ket mapan kami.

(If we encounter or come across one, sir, we will attend.)

Participant 10. Ala ket mapan kami met a sir makipag pas paset sir kasla dejay nu adda dejay trabaho mapan kami met a sir nukwa adda laket ti panawen mi nga kwa tanu awan ti sumrekan mi mapan kami, isacrifice mi ti mapan kasjay.

(Ah, sir, we attend and participate whenever we have time. If we do not have work at that time, we sacrifice our time to attend.)

Views and Beliefs about DRRM activities

As individuals whose daily activities are closely connected to environmental and weather conditions, they have developed practical perceptions of disaster risk based on their experiences and observations. The participants views and beliefs generally reflect a positive but conditional perception of disaster preparedness initiatives. The participants recognize that DRRM activities can provide useful information, guidance, assistance, and opportunities for the community to become better prepared for disasters. However, their level of acceptance and willingness to follow DRRM recommendations is influenced by how they perceive the usefulness, safety, and immediate benefits of the activities.

Besides, the participants demonstrate a pragmatic basis for accepting DRRM advice. Their willingness to listen to and follow recommendations depends largely on whether they believe that the information or action will be beneficial to them. This may imply that participants do not passively accept all forms of disaster-related guidance. Instead, they evaluate recommendations according to their perceived consequences, usefulness, and potential effects on their well-being. Such a perspective reflects the participants' lived experiences in dealing with risks where decisions are often made based on practical considerations and previous experiences.

Participant 2. Ket nu kasta nga panasagana a sir ket masapol nga adda kam kanayon tapno maamwan nu kasano ubraen ken mu anya pay mainayon malaksid ti ited met ti munisipyo nga gundaway.

(During disaster preparedness activities, Sir, it is necessary for us to always participate so that we will know what to do and what else we can learn, especially when the municipality provides such opportunities.)

Participant 3. No dakami nga agkalkalap sir dakkel met nga banagti naitultulong kanyami no maypanggep ti programa ti didigra.

(As fisherfolk Sir, it's a great help to us the disaster programs.)

Participant 4. Napintas met dagita nga ipaay da nga programa a sir ngem, ti kunak garud narigat met ti mapan makipaset no kastuy nga adda ti trabaho ti panagtalunan.

(The programs they provide are good sir, but as Isaid, it is difficult for us to participate when we have work to do.)

Participant 5. No kastan a ket mayat a no adda ti programa nga kakasta ngem haan nak met talaga nga mapmapanen ta makammo latta met mapasamaken.

(It is good when there are programs like that, but I do not really attend because, I just accept whatever may happen.)

Participant 6. Ay ket sir kas dagita nga aktibidad nga ipapaay da a ket pagsyaatan met siguro, sumagmamano nak la gamin nga ag atendar agiti kakasta sir.

(Regarding those activities, Sir, they are probably beneficial. I have only attended some activities like those, Sir.)

Participant 8. Ket no dagita nga programa a sir ket makitak met nga pagsyaatan ti ipaay da. Ket dumngeg kami latta metten nu adda pagsayaatan nga ited da, agijay pammagbaga ket no pagsayaatan ket mayat kami ngem no pakadaksan mi madi mi met kayat sumurot.

(Regarding those programs, Sir, I see them as beneficial because they aided. We listen to their advice, and if it is beneficial, we are willing to follow it. However, if we think it could cause us harm, we do not want to follow it.)

Participant 9. Ket napintas latta met a sir ta makatulong met ti munisipyo kasdiyay umay da met ipakaamon.

(It is good, sir, because the municipality can also help. They come and inform us about it.)

Benefits and Enhanced Community Resilience

Their past experiences with typhoons, floods, and other hazards have contributed to the development of practical knowledge and preparedness practices that function as form of informal participation in community-based disaster risk reduction and management. Through repeated encounters with disasters, participants learned how to recognize warning signs, prepare essential household needs, secure their homes and livelihood equipment, relocate to safer areas, and respond to evacuation advisories. These participant highlight reveal that participation in disaster risk reduction does not occur exclusively through formal activities organized by barangay or municipal authorities. Instead, participants continuously acquire knowledge through lived experiences, observation, and actual engagement with previous disaster events. Their accumulated experiences have therefore become an important source of disaster preparedness, allowing them to develop practical ways of protecting their families and livelihood.

Therefore, that informal experiences can complement formal community-based disaster risk reduction and management mechanisms. In this sense, community resilience is strengthened not only through the knowledge and practices developed by community members over time. This serves as a form of experiential leaning, enabling them to make timely decisions and adapt their action according to the severity of an approaching hazard. Thus, previous encounters with disasters become a valuable resource that enhances both individual preparedness and the community's collective capacity to cope.

Participant 1. Nu mabalin haan ka agibelleng ti baybay iti rugit, ken agijay kaspangarigan malmalmes insuro da met -nu kasano nga i-rescue.

(They taught us not to throw garbage into the sea. They also taught us, for example, what to do when someone is drowning and how to perform a rescue.)

Participant 2. Iti napadasan mi sir ket agiti inpakaammo da nga panagdakkel ti danom ti baybay, sunga nagpatulong kami ti munisipyo ta maka evacuate kami ngem dagiti dadduma a kabarangayak madi da met mapanawan agiti alikamen da.

(Based on our experience, Sir, when we were informed that the sea water level was rising, we asked for assistance from the municipality so that we could evacuate. However, some of our fellow barangay members did not want to leave their belongings behind.)

Participant 3. No kasdiyay nga adda bagyo na sir ket makita mi met inti cellphone iti weather na sir no adda dakes nga panawen na haan kami nga tumapogen sir nga mapan agkalapen

(When there is a typhoon, Sir, we check the weather on our cellphone. If there is bad weather, we do not go fishing, Sir.)

Participant 4. No tunggal maamwan mi iti radio wenno telebisyon sir nga adda paumay nga bagyon a ket uray pay haan pay mabalin nga maapit dagitay mula mi ket inkapilitan nga gapasen mi payen ta awan iti masayang nga bannog ken kwarta nga pinagmula min tapno masakbayan mi metten ti mabalin a mapasamak a lugi kadakamin.

(Whenever we hear from the radio and television that a typhoon is coming, even if our crops are not yet ready to be harvested, we are forced to harvest them so that our effort and money we spent on planting will, not be wasted and lessen the possible losses that may happen.

Participant 6. Ta no kwa adda simmangbay nga bagyo kasjay sir, mapan nak met tumultulong lalo no adda ti soil eruption dagitay agpababa nga danum ken daga nga agarinsaed manipod iti bantay nga asideg iti dalan mi sir.

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(Whenever a typhoon comes, Sir, I also go and help, especially when there is a soil eruption or when water and soil flow down from the nearby mountain toward our road, Sir.)

Participant 8. Ket dagiti gamit mi nga apan agsapol a ket isanglad mi ti nangato nga parte ti daga tapno haan nga maabutan ti danom.Tapos apan mi met tapal tapalan agiti bubong min ah ket agijay tulda tapno haan nga maapektaran agitoy babbalay mi.

(We place our equipemnts that we use for fishing in higher area so that they will not be reached by the floodwater and repair and cover our roofs, by using tarpaulins so that our houses will not be affected.

Table 3 presents the first major theme that emerged from the study, titled "Navigating Disaster Risk through Community Practices of Resilience and Safety", along with its corresponding sub-themes. This captures how farmers and fisherfolk navigate disaster risks through their existing community practices, perceptions and experiences of preparedness and resilience. The sub-themes illustrate specific aspects of this transformations: "Participation as Conditional Commitment to Safety" reflects the willingness of farmers and fisherfolk to participate in DRRM activities when these are perceived as relevant and beneficial to their safety and preparedness; "Views and Beliefs about DRRM Activities" represents the participants' perceptions, attitudes, and beliefs regarding disaster preparedness programs; "Benefits and Enhanced Community Resilience", highlights the perceived benefits of participating in DRRM activities. Strengthening these existing community practices and positive perception can further establish culture of preparedness and collective resilience.

Theme II. Negotiating Livelihood Realities and Constraints to DRRM Participation

As farmers and fisherfolks daily responsibilities are directly connected to household income and survival. Their decisions to participate, postpone, or refrain from DRRM-related activities are therefore determined by the demands of farming, fishing, family responsibilities, and the availability of resources and support. Their low participation cannot be understood solely in terms of willingness or awareness, rather it is situated within the broader socioeconomic condition in which they live and work. Their experiences reflect a continuous negotiation between the immediate demands of livelihood and the longer-term need to prepares for and reduce disaster risks.

In addition, these constraints that affect their ability and motivation to engage in formal DRRM activities. Includes the need to prioritize daily income-generating activities, limited financial and material resources, insufficient local support, and gaps in awareness and access to DRRM training. For individuals whose income depends heavily on daily or seasonal livelihood activities, attending a seminar, training, meeting, or other community activity may involve an opportunity cost, particularly when participation means sacrificing working time or income. At the same time, limited resources may constrain their ability to adopt recommended preparedness measures or sustain participation in DRRM activities. The availability, accessibility, and training also influence how participants perceive their role in community preparedness. These circumstances indicate that participation is not determined by individual choice alone, but it is also built by structural and contextual factors within the community.

Prioritizing Daily Livelihood and Income

Daily livelihood and income remain a primary consideration in their decision to participate, due to harvesting or fishing is necessary to provide food and other basic needs for their families. Their livelihood is therefore viewed as an immediate responsibility that cannot easily be set aside because they need to work or take available opportunities to earn income that may result to be unable to attend such activities.

Family responsibilities further influence this prioritization of livelihood. Livelihood is not perceived merely as an individual economic activity but as a means of fulfilling family obligations and maintaining household well-being. For family who depend daily income, foregoing an opportunity to work may have an immediate effect on their ability to meet household needs. For this reason, when livelihood activities and DRRM activities occur at the same time, participants tend to prioritize the activity that provides a more immediate and certain benefit to their family.

Participant 1. Ket mas priority ko latta met ti agsapul a sir, ngem nu siyak la ti haan makapan a ket mabalin ko met nga idamag kanyada nu anya diay sineminar da.

(My priority is still to earn a living, Sir. However, if I am the only one who cannot attend, I can ask my fellow members what they discussed or what they learned from the seminar.)

Participant 3. Ad-adda latta met diyay panagsapol mi latta, kasi adda met pamilya nga suportaran mi ti pinagbasa ti ubbing ko ta lalo diyay anak ko maysa ket umel pay ket pagbasbasaek diyay sinyas ditoy.

(Our livelihood is still more important because we have a family to support. I also have children who are studying, especially one of my children is deaf and whom I am supporting in school.)

Participant 6. Ket adda met ah panawen sir nga kasta ta nasisista met nga mapan nak agsapol para iti pamilyak para iti pagbiayagan mi ti inaldaw sir. Ta dakkel met ti pamilyak sir, ta haan ko met kayat nga mabaybay-an ida ta ta dakkel met ti pagkasupalan aglalo ti panagpabasak kadagiti annak ko nga adda iti kolehiyon.

(Yes, there are times like that, Sir, because it is necessary for me to go out and earn money for my family and for our daily needs. I have many family members who depended on me, Sir, and I do not want to leave them without support, especially because I also have children who are in college.)

Participant 8. Ket syempre panununuten mi pay nga umuna diay pagsapulan mi ta mambiag iti pamilya mi sunga nu dadduma haan kam makapan agiti awis da ken mas importante latta met diay pagsapulan mi a kasi nu haan kami agsapul awan met ti pagalaan mi.

(Of course, we have to prioritize our livelihood first because it is what provides for our family. That is why sometimes we cannot attend when they invite us and uur livelihood is still more important because if we do not work, we will have nothing to rely on.)

Participant 9. Haan met sir, ta nu trabaho sir ket importante latta met ta nu trabaho sir ket importante met jay trabaho ta agbirok kami met ti igatang mi kanen mi.

(No, Sir. Work is still important because we need to earn money to buy food and provide for our needs.)

Lack of Financial, Material, and Local Support

Community members face notable resource constraints when attempting to participate in local disaster preparedness initiatives. While individuals express a genuine willingness to attend seminars and training sessions, the lack of tangible backing such as stipends, or essential materials creates a barrier to sustained engagement. Providing small incentives or assistance directly addresses these practical hurdles, transforming passive interest into active, widespread community involvement.

Beyond overcoming participation barriers, material and financial support validate the time and effort community members invest in these programs. When local authorities or barangay officials provide concrete assistance during activities, it reinforces the value of disaster readiness and foster a collaborative relationship between government and the community. This support signals the local leadership is genuinely invested in safety and well-being of its residents, which boosts morale and encourages long-term commitment to community -based disaster risk reduction management efforts.

Despite these support deficits, residents demonstrate a strong underlying motivation to learn and adapt. Community members acknowledge that even modest or basic assistance is sufficient to encourage their involvement, as they recognize the inherent value of understanding disaster response and protection protocols. When given the opportunity and basic provisions to attend, participants are eager to comprehend the instructions, internalize safety measures, and apply this critical lesson to protect their families, households, and livelihood equipment during emergencies.

Participant 1. Ket kwa sir nu adda met naitulong da kanyami sir a ket mapan kami met maki-attend. Nu adda man mayted da sir ket okay latta, apan kami met makipaset sir ta ammo mi ti ar aramiden mi ken maawatan mi met tay kayat da ibaga

(If they provide an assistance to us, Sir, we will also attend and participate. Whatever they can provide, Sir, would be okay. We would participate because we would know what we are supposed to do, and we would understand what they are trying to tell us.)

Participant 3. Awan metla ti iteted da kanyami sir ni pasaray diyay maited nga apayaw kasdiyay metla ti iteted da nga pagsayaatan mi ditoy Puro.

(They aren't giving us anything either, sir. Sometimes they give us a small allotment, but that's still all they give for our welfare here in Puro.)

Participant 4. No kasta sir nga gundaway dagitay metlang nakamiyembro ti 4P's ti kaslang maikikkan ken dida pay met mapan agita dadduma, ket nasyaat kuma met no adda pay met pangayayo kadakami nga mangsukat met ti innaldawan mi ti trabaho.

(If that's the case sir, only the 4P's members seem to keep getting assistance even though some of them don't even attend so it would be good as well if there also an incentive for us, to make up for the daily wages we lose when we skip work.)

Participant 6. Ketno kasta kuma nga instances ah sir ket adda kuma met dagiti ipaay da ah nga mabalin da pangkonswelo kadakami kas iti ayuda tapno maayayo kami metlang nga mapan makipaset kadagita nga aktibidad.

(In instances like that, Sir, they could also provide some form of assistance or incentive to us, such as financial or material assistance, so that we would also be encouraged to participate in those activities.

Limited of Awareness and DRRM Training

A primary factor to low community engagement in formal disaster risk reduction and management activities is a lack of widespread awareness regarding Community-Based Disaster Risk Reduction and Management frameworks. While community members frequently possess string practical survival strategies shaped by firsthand exposure natural hazards, such knowing when to secure property, clear waterways, avoid sea trips, or to evacuate this experiential knowledge does not automatically translate into an understanding of structured principles and formal policies. This gap between informal, experience-based readiness and systematic DRRM education often leads to residents to rely heavily on past survival habits, which creates a false security and diminish their perceived need to attend organized local trainings.

This knowledge deficit is often reinforced by operational systems that rely on designated leaders to represent entire groups. Within localized trade associations, training invites frequently reach only group heads or representatives who attend sessions on behalf of their peers. Information received by the representative may not always be fully transferred to all members or may not have the same opportunity to ask questions and clarify information during training. Consequently, some may remain unfamiliar with formal DRRM practices even when seminars and trainings are being conducted within their locality.

Compounding these structural limits are the daily demands of local livelihoods, such as farming and fishing, which leave residents with little idle time to actively pursue training on their own. Yet, despite their busy schedules and limited initial awareness, community members express a genuine readiness to participate whenever explicit information reaches them. Clear, timely local announcement serves as powerful catalysts proving that primary obstacle is not resident indifference, but rather a need for inclusive, accessible training initiatives that directly reach every household.

Participant 1. Ket sir napadasamek met ti nagsem-seminaren iti ata panagkalapan. Adda gamin ti pannaka head mi ditoy sir, siyak miyembro nakla met, isu ti apan agirepresent kanyami sir isu ti mapan makiseminar.

(Sir, I have experienced attending seminars related to fishing. We have a leader here, Sir. I am only a member, and our leader is the one who represents us and attends the seminars on our behalf.)

Participant 3. Adda latta met agidiay grupo grupo mi nga association kasla mangipatakder kami lang ti president mi nga isu lang ti maan maki-seminar.

(We have our own groups or associations. Sometimes, only our president is the one who goes to participate in seminars on behalf of our group.)

Participant 4. Haan sir ta no kasta nga adda met nga gundaway dagita latta met barangay officials min ah ti makapadas no kastan wenno saan tay pangulwen lang ti sektor mi agatendar no kwan.

(No,sir, because in cases like that whenever there are opportunities like those, only our barangay officials get to participate, or otherwise, only our sector leader attends.)

Participant 5. Mabainak gamin sir aglalo ket nu kaado ti tao ken syempre adda met trabahok nga inaldaw aldaw ah ket diyak met makapanen.

(I am shy, Sir, especially when there are many people. Of course, I also have daily work, so I am unable to attend.)

Participant 9. Awan pay unay ti ammok sir panggep ka dayta community-based risk reduction management ta haan kami met unay makipag paspaset ti kakasta.

(I do not know much yet, sir, about CBDRRM because we do not really participate much in activities like that.)

Theme III: Motivations and Enablers of Participation in Community-Based Disaster Risk Reduction and Management

Farmers and fisherfolk represent the backbone of rural economies, yet their livelihoods leave them uniquely exposed to the destructive impacts of natural hazards and climate -driven crises. Achieving meaningful, sustained engagement from these sector members is central to building true community-scale resilience. Enhancing their involvement requires addressing structural barriers that historically limited their attendance such as financial stability, isolated operational roles, and restricted access to direct information while leveraging their intrinsic motivation to safeguard their families.

Promoting greater participation among agricultural and coastal workers hinges on a multi-faceted approach that spans economic incentives, targeted education, and practical capacity building. When local governments and disaster management bodies provide strong financial or material backing, it reduces the opportunity costs that often keep daily wage earners away from community meetings. Simultaneously, elevating their baseline risk awareness ensures that disaster protocols are understood not as abstract concepts, but as necessary, practical tools tailored directly to their everyday working environment.

Converting farmer and fisherfolk willingness into actionable resilience depends on equipping them with practical, hands-on disaster response skills. Moving beyond passive seminar participation toward inclusive, sector-specific training empowers these vital workers to serve as active first responders within their barangays. By addressing their economic realities and expanding their risk comprehension will transform at risk livelihoods into resilient community.

Provision of Financial and Material Support

For many farmers and fisherfolks, attending training sessions means stepping away from daily agricultural or coastal labor, leading to an immediate loss of income. Participants explicitly express that receiving practical

farm and fishing supplies such as materials to repair nets damaged by high waves or basic agricultural inputs provide critical relief during difficult seasons. When disaster management initiatives integrate direct material aid into their programming, they directly offset lost work time and turn preparedness into real world relief.

Financial assistance and subsidies as essential motivators that enable consistent community engagement amidst rising daily living costs. Heavy economic pressures, including soaring gasoline expenses required for farming machinery and fishing boats, as well as household commitments like children's college tuition. For single individuals or solo earners with limited income sources, attending community programs becomes significantly viable when financial support is provided. Offering small assistance removes these crippling financial barriers allowing vulnerable community members to prioritize safety training without sacrificing basic household needs.

Participant 1. Mayat kuma met gamin sir no kasta met ket uray ikkan dakami lang kuma met dagiti gamit mi nga pangsukat mi dagitay pagsigay mi no kasdiyay nga madadel ti bagyo lalo no kappegges ti baybay.

(It would be great, sir, if they could at least give us materials to repair our fishing nets when they get damaged by typhoons, especially when the sea has strong waves.)

Participant 2. Nagpintas nga banagen sir no kasta ngay adda kuma mety ipaay da programa ket ipaay da kuma metten saggabassit dagitay kasapulan mi ti panagtalon ken panagkalap ta uray bassit nga banag nga kunada dakkel met nga tulong kadakami dagituyen.

(It would be wonderful, sir if they could provide programs like that and also give us even few of the things we need for farming and fishing because even if they consider it a small thing, it is already a big help to us.)

Participant 5. Ket kunak garud sir kas maymaysa nga agbibiyag ta awan met pamilyak ken anak ko ta baro nak met, mayat kuma no kasta programa da ket makaited da kuma met pay ti suporta kas kanyak nga awan pagalan na ti inaldaw.

(Thay's why I say sir, as someone who lives alone since I don't have a family or children because I'm single it would be great if their program could also provide support for someone like me who has no daily source of income.)

Partcipant 7. Ikarigatak met ti umatendar ti kasta nga mayda ipaay nga aktibidad ah sir lalo no kuma makaypaay da pay ti supporta lalo tatta pangatatatlon ket nanginga payen ti gasolina ket adda pay pagbasbasaek ti kolehiyo nga kunak.

(I really make an effort to attend when they hold such activities like that ,sir, especially if they can provide support now during the farming season that gas prices are high and I also have my children expenses in college.)

Increased awareness and understanding of Disaster Risks

A profound realization among residents regarding the value of disaster knowledge serves as a strong driver for community engagement. Residents acknowledge that staying informed prevents from feeling helpless during emergencies, as understanding risk concepts directly adapt into knowing the correct actions to take. This growing awareness transforms disaster training from simple gathering into a recognized necessity for family and household protection.

This heightened awareness translates into strong willingness to make personal sacrifices to prioritize community safety. Fisherfolk and farmers displays a readiness to temporarily set aside their livelihoods such as missing a day of fishing or field labor when official invitations arrive from barangay officials. Some views attendances not as a burden, but as significant opportunity to gain actionable knowledge that benefits the many. Rather than opting out, they view active participation as a duty to themselves and their neighbors, recognizing that failing to attend deprives their families of important safety information.

Participant 2. No adda man mayted da sir ket okay latta, apan kami met makipaset sir ta ammo mi ti ar-aramiden mi ken maawatan mi met tay kayat da ibaga.

(Whatever they can provide, Sir, would be okay. We would participate because we would know what are supposed to do and we would understand what ther are trying to tell us.)

Participant 5. Pasaray sagpaminsan sir, apanak met no tay agpaayab ni kapitan no tay adda meeting nga nasisita diyay barangay

(Sometimes, Sir. I attend when the Barangay captain invites us, especially when there is a meeting that is necessary for the barangay.)

Participant 6. Ket kasjay kunak garud sir i-pursue da ah kuma dagitay banag nga importante para ti pagsyaatan mi nga bumaranggay. Ta haan met mabalin nga maymaysa, duduwa, taltallo nga tao lang iti dumar-ay, ta sikami met ket masapol nga maamwan mi agituy tapno para ti kaadwan.

(As I said, Sir, they should continue pursuing activities that are important and beneficial to the whole community. It cannot be only one, two, or three people who participate. We also need to learn these things so that they can benefit the majority.)

Participant 7. Syempre sir pagsyaatan mi isu nga mapan kami nga mapan kase nu han kami mapan kaslang kaawatan nga iyad adayo mi iti bagi mi iti pagsyaatan min nukwa sir. Ngem no adda emergency mi met nga talaga isu lang diyay hanmi nga ipapan pannakipaset kadejay nga programa ken aktibidad.

(Of course, Sir, we want to participate because we know that it is beneficial. That is why we go because if we do not attend, it would be like depriving ourselves of something beneficial to us. However, if there is an emergency or something that really requires our attention, that is the only reason why we cannot participate in those programs and activities.)

Participant 8. Ket no adda laketdi maytulong da ket isakripisyo mi ti haan mapan agkalap kasjay nu adda laket ti awis da nga pagsyaatan ken tapno maamwan mi met a no pagsayaatan mi wenno saan diay ibaga da

(If there is an opportunity for us to help, we can sacrifice not going fishing for the meantime when there is an invitation to participate in beneficial activities. This is also so that we can learn whether what they are telling us is beneficial or not.)

Participant 9. No kwa kami kadagiti kasjay mabalin mo kapatang dagiti kabarangayam nga ibaga nga umay da makipaset kadetuy nga aktibidad.

(If we are given opportunities like that, we can also encourage our fellow barangay members by telling them to come and participate in these activities.)

Participant 10. No para kinyak sir mapan nak lattan tano adu ti maamwak tano no ania dagijay mai meeting da tano ammok ti araramidek kasjay.

(For me, sir, I would still attend because I can learn many things. That way, whenever they have meetings, I would know what I am supposed to do.)

Development of Practical Disaster Response Skills

Practical training in areas such as basic first aid, basic rescue techniques, evacuation and emergency response drills can strengthen the capacity of farmers and fisherfolk to respond effectively to disaster situations. Such skills are particularly relevant in communities that may experience geographical challenges in accessing hospitals and other emergency services. By equipping community members with basic response competencies, disaster preparedness programs can help reduce dependence on immediate external assistance and enable individuals to provide initial support to injured or affected persons while waiting for professional responders.

The finding suggest that hands-on activities and actual demonstrations can make disaster preparedness more meaningful and understandable to participants. Practical exercises allow individuals to experience the procedures they may need to perform during an actual emergency. This type of experiential learning can improve familiarity, confidence, readiness, particularly when participants are given opportunities to repeatedly practice the appropriate response techniques. Therefore, these initiatives should not only rely solely on seminars and lectures but should incorporate simulations, drills, and demonstration approaches.

Combining theoretical knowledge with hands-on training, appropriate equipment, and recognition of participation can strengthen both individual preparedness and as a whole community response capacity.

Participant 1. Mayat kuma sir nu adda certificate kadagiti makipaset, maegganyo dagiti kakadwa mi nga sumali met.

(It would be even better, sir, if participants get a certificate as that would motivate the rest of our group to join.

Participant 2. Ket sir nu nasaysayat ngata kuman no saan laeng nga lecture ti aramiden wenno ipaay da, no di ket adda kuma ti actual practice kas iti first aid, evacuation, wenno agiti basic rescue.

(It would be better if the activities were not only lectures, but also include actual practice, such as first aid, evacuation, or basic rescue techniques.)

Participant 4. Kayat ko met a kuma ti makasursuro lalo dagitay panagtaming ti emergency sir lalo ta naadayo kami ta pagpaagasan.

(I really want to learn basic first aid sir since we are far from hospital.)

Participant 6. Ket no kasjay nga programa sir sursurwan dakami met dagiti ubraen no kasanu nga agibagkat ti pasyente no adda ti akaksidente wenno emergency response training sir. Ken adda met dagiti gamit nga iwaras da sir.

(In those programs, Sir, they teach us what to do, such as how to carry a patient when there is an accident or emergency. They also provide us with equipment, Sir.)

Participant 8. Umay da met mangsem-seminar ditoy dagiti maritime maypanggep iti panagdakkel iti danom ket masapol nga saganaan tay met

(Ah yes, they come here to conduct seminars. The maritime personnel conduct seminars regarding rising water levels and the importance of being prepared.)

LIMITATIONS AND IMPLICATIONS

This study has several important limitations that should be acknowledged. First, the study involved only ten farmer and fisherfolk participant from coastal municipalities in Ilocos Sur. Although the participants were purposively selected based on predefined inclusion criteria and represented the northern, central and southern coastal areas of the province the relatively small sample limits the extent to which the findings can be generalized to all farmers and fisherfolk in Ilocos Sur. Consistent with phenomenological nature of the study; the purpose was not statistical generalization but to obtain an in-depth understanding of the participant's lived experiences regarding participation in Community-Based Disaster Risk Reduction and Management.

The study focused specifically on adult farmers and fisherfolk aged 30 to 60 years old who had at least two years of experience on their respective livelihoods. It also relied primarily on participants' self-reported experiences obtain through in-depth, semi-structured interviews. Furthermore, the study was conducted within the contextual context of coastal municipalities of Ilocos Sur, where farmers and fisherfolk are regularly exposed to hazards such as typhoon, flooding, Storm surges and other environmental threats.

This phenomenological study, the interpretation of participants' narratives involved the researcher's analysis and construction of themes. Although systematic bracketing, expert validation of the interview guide, verbatim transcription, member checking, and Collizzi's seven-step method were used to strengthen the credibility and rigor of the study, interpretation remains as inherent component of phenomenological research.

The findings of this study have important implications for community-based disaster risk reduction and management, particularly in coastal municipalities where farmers and fisherfolk must continuously negotiate between livelihood survival and disaster safety. The findings demonstrate the low participation in formal Community-Based Disaster Risk Reduction and Management activities should not immediately be interpreted as a lack of concern, awareness, or willingness among individuals. Rather, participation formed by the realities of livelihood demands, limited resources, access to information, previous disaster experiences, and the perceived usefulness of DRRM activities.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings, articulates the thematic conclusions Conditional and Situational Engagement Coastal farmers and fisherfolk demonstrate a willingness to engage in disaster risk reduction activities, but their attendance is occasional and conditional. Decisions to participate depend directly on whether activities conflict with active agricultural harvesting or daily fishing routines. Reliance on Lived Experience and Informal Resilience: Resilience among primary producers is built primarily through experiential knowledge, localized weather monitoring via mobile phones or radio, early harvesting of unripened crops, and securing fishing gear on higher ground prior to storm surges. These informal survival practices function as everyday disaster management that complements formal municipal frameworks.

Economic Survival as the Core Constraint: Low participation in formal Community-Based Disaster Risk Reduction and Management (CBDRRM) programs is a rational economic decision driven by time-poverty, daily wage dependence, and household obligations such as providing daily food and supporting children's education rather than community apathy. Sacrificing working time to attend uncompensated meetings creates an immediate financial deficit that low-income households cannot afford. Information Bottlenecks and Representative Training: Formal DRRM training opportunities frequently reach only association presidents or barangay officials who attend on behalf of their peers. This representative structure creates an information bottleneck, leaving rank-and-file members without direct access to systematic DRRM instruction or skill development.

Tangible Motivators for Widespread Participation: Engagement increases substantially when DRRM programs offer financial stipends or material aid (such as fishing net repair supplies or agricultural inputs) to compensate for lost daily wages. Furthermore, participants express a clear demand for practical, hands-on training including first aid, drowning rescue techniques, and patient transport rather than passive theoretical lectures. Institutional safety mandates act as a short-term during extreme weather events, while daily livelihoods serve as the essential supporting long-term household endurance. Achieving sustainable community resilience requires bridging institutional directives with the daily economic realities of coastal workers

It is recommended that For Local Government Units (LGUs) and Barangay DRRM Committees (BDRRMCs); Conduct meetings, disaster drills, and training sessions during off-peak fishing hours and seasonal agricultural breaks to eliminate direct schedule conflicts with income-generating labor. Provide financial stipends, daily wage offsets, or essential material provisions (such as net repair supplies and agricultural inputs) to compensate participants for lost working time. For Agricultural and Fisheries Agencies (DA & BFAR) to be proactive Livelihood Protection: P artner with local DRRM offices to establish rapid-response micro-insurance, emergency credit lines, and mobile cold storage infrastructure to protect standing crops and daily catches before hazards strike and guarantee post-disaster financial recovery. Hands-On Skills Training: Shift away from theoretical lectures toward practical, simulation-based workshops that focus on water rescue, emergency first aid, patient transport, and vessel navigation safety. And to Conduct mixed-methods and

quantitative validation studies with larger sample sizes to measure the precise statistical correlation between daily income levels, time-poverty metrics, and actual CBDRRM attendance rates.

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