

**Community-based disaster risk reduction: DRRMO's role
in public administration's collaborative engagement**

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ABSTRACT

This research investigates the critical role of the Disaster Risk Reduction and Management Office (DRRMO) in fostering effective Collaborative Engagement with key public administration and community stakeholders—the Regional Disaster Risk Reduction and Management Council (RDRRMC) Region 7, Community Representatives, and Civil Society Organizations (CSOs)—in the context of Community-based Disaster Risk Reduction (CBDRR). Conducted in Region 7, Philippines, the research utilized a descriptive-evaluative approach to assess the current status of collaboration across the four thematic pillars of DRRM, stakeholder capacity, and the systemic challenges encountered. The findings reveal a collaborative network with a strong foundational capacity, characterized by highly educated and experienced personnel (e.g., 87.5% College Graduates) who share a universal understanding of the Philippine DRRM system. However, the study uncovered a critical operational imbalance, showing high perceived involvement in Response (AWM 3.8) and Prevention/Mitigation (AWM 3.6), but only moderate involvement in the essential resilience-sustaining phases of Preparedness (AWM 3.4) and Recovery (AWM 3.3). Furthermore, effective collaboration is significantly hindered by deep-seated systemic and relational barriers, notably role ambiguity (AWM 3.7), lack of trust (AWM 3.6), and funding constraints (AWM 3.6). Specialized technical expertise in areas like Disaster Risk Financing and GIS was also found to be limited. The research concludes that the DRRMO's current role in collaborative engagement is insufficient to achieve holistic resilience due to these structural friction points. Consequently, the study's main output is the Framework for Collaborative Governance. This prescriptive framework provides specific protocols and mechanisms designed to: (1) Enforce balance across the four DRRM pillars; (2) Resolve systemic barriers by establishing protocols for role clarification, financial transparency, and cultural alignment; and (3) Mandate targeted capacity building to enhance technical expertise and inclusivity. The Framework aims to transition the DRRMO's function from mere cooperation to genuine, resilience-oriented collaborative governance in Region 7.

Keywords: DRRMO role, collaborative engagement, Community-Based Disaster Risk Reduction (CBDRR), framework for collaborative governance, public administration, disaster resilience, multi-stakeholder partnership, operational imbalance, Region 7, Philippines.

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INTRODUCTION

This research is grounded in the urgent need to address the country's high vulnerability to natural disasters. It highlights the shift from a reactive, top-down approach to a proactive, community-centric one, and investigates the pivotal role of local government in this paradigm change. The study is justified by the following interconnected points.

The Philippines is consistently ranked as one of the most disaster-prone countries in the world according to the World Risk Index. Its location within the Pacific Ring of Fire and the typhoon belt exposes it to a wide range of hazards, including typhoons, earthquakes, and landslides. Cebu, as a rapidly urbanizing province, faces compounded risks. Its coastal areas are vulnerable to storm surges and sea-level rise, while its mountainous regions are susceptible to landslides. The economic and human costs of recent disasters, such as Typhoon Haiyan (Yolanda) in 2013 and Typhoon Rai (Odette) in 2021, underscore the critical need for effective disaster risk reduction (DRR). The study is thus a timely and relevant response to the persistent threat of disasters in the local context of Cebu.

Historically, disaster management in the Philippines was largely a top-down, reactive process centered on relief and response. However, international and national policies now advocate for a more proactive and inclusive approach. The Sendai Framework for Disaster Risk Reduction (2015-2030), for instance, emphasizes the shared responsibility of states and all stakeholders, including local communities, to reduce disaster risk. This is echoed in the Philippines' own legislation, Republic Act 10121 (The Philippine Disaster Risk Reduction and Management Act of 2010), which institutionalized the shift from disaster management to DRR and mandated the adoption of a Community-Based Disaster Risk Reduction (CBDRR) approach. As academic literature suggests, CBDRR is more effective and sustainable because it leverages the unique local knowledge, capacities, and resources of at-risk communities (Heijmans, 2009; Gaillard, 2013). This research investigates how this policy is being translated into practice in Cebu.

The establishment of local Disaster Risk Reduction and Management Offices (DRRMOs) under R.A. 10121 represents a significant devolution of authority and responsibility to local government units (LGUs). The DRRMO is no longer just a coordinating body; it is a key player in public administration tasked with fostering collaborative engagement among various stakeholders. This includes government agencies, the private sector, civil society organizations (CSOs), and community volunteers. Studies on collaborative governance in DRR in the Philippines highlight both the opportunities and the barriers to effective multi-stakeholder partnerships (ResearchGate, 2025; Florano, 2014). This research seeks to specifically analyze the DRRMO's function in this process in Cebu. It will examine how the office builds trust, shares information, and co-manages resources to empower communities, moving beyond a simple consultative role to genuine partnership.

While there's a growing body of research on DRR in the Philippines, a specific focus on the administrative and collaborative aspects of DRRMOs at the local level, particularly in Cebu, is limited. Previous studies, such as the one on San Francisco, Cebu's "purok system," show the effectiveness of strong community participation, but there is a need for a broader assessment of the DRRMO's role in institutionalizing this collaboration across different communities (Aseas Journal, 2017). This study will contribute to the literature by providing a detailed case study of Cebu, offering practical insights and recommendations for strengthening the DRRMO's administrative capacity to foster true collaborative engagement. It will connect

local practices to global best practices, providing a valuable reference for other LGUs in the Philippines and other disaster-prone regions worldwide.

Statement of the problem

This research aimed to investigate the roles, responsibilities, and challenges in the collaborative engagement of the Disaster Risk Reduction and Management Office (DRRMO) within the framework of Community Based Disaster Risk Reduction (CBDRR) during the calendar year 2024 as a basis for a Collaborative Governance Framework. Specifically, the research sought to address the following questions:

1. What is the demographic profile of the DRRMO personnel, Regional Disaster Risk Reduction and Management Council (RDRRMC 7) members, community leaders composed of barangay officials and representatives, and Civil Society Organizations (CSO) representatives in terms of age and gender, civil status, highest educational attainment, and relevant trainings and seminars attended?
2. As perceived by the respondent groups, what are their roles and responsibilities in the different phases of disaster management in terms of prevention and mitigation, preparedness, response, and recovery?
3. What are the major challenges and barriers that hinder effective collaborative engagement between the DRRMO and its partners in Region 7?
4. How do resource allocation, policy implementation, and the integration of local knowledge influence the success of collaborative DRRM initiatives in the region?
5. Based on the findings, what Collaborative Governance Framework in DRRMO can be adopted?

METHODOLOGY

This study employed a qualitative research design utilizing a case study approach to deeply explore the collaborative engagement of the DRRMO within the RDRRMC-7 in the context of Community-Based Disaster Risk Reduction (CBDRR). This method was chosen because it allows for a comprehensive understanding of the complex social interactions that shape the Framework for Collaborative Governance output. The study employed a qualitative research design with a case study approach, a design ideal for an in-depth exploration of the complex social and administrative dynamics of collaborative engagement. Focusing on the Regional Disaster Risk Reduction and Management Council (RDRRMC) in Region 7, the case study allowed for a detailed analysis of the roles, relationships, and processes that contribute to the Framework for Collaborative Governance. This approach moved beyond simple data collection to provide a rich, contextual understanding of how collaboration functions in a real-world setting. The design was aligned with the study's goal of creating a framework by enabling a deep dive into the collaborative mechanisms, challenges, and successes, investigating not merely what happens but the underlying reasons and perceptions that shape the collaborative environment.

The flow of the study followed the Input-Process-Output (IPO) model, a systematic approach that aligns with the goal of creating a Framework for Collaborative Governance. This model breaks down the research into distinct, sequential phases, ensuring a logical progression from data gathering to final output. The input phase involved all the necessary information and components that served as the foundation of the research, including the demographic data of the respondents as outlined in sub-problem 1, as well as the qualitative data to be gathered.

This initial input provided the context and raw material for the analysis. The specific inputs consisted of respondent demographic profiles, namely age, gender, civil status, educational attainment, and relevant training of all four respondent groups (DRRMO personnel, RDRRMC members, community leaders, and CSO representatives), data which helps contextualize the responses and identify potential correlations between personal background and collaborative effectiveness. The inputs also included data on perceptions of roles and responsibilities, specifically how each stakeholder group perceives its own role and the roles of others across the four phases of disaster management (prevention/mitigation, preparedness, response, and recovery) as per sub-problem 2; qualitative data on the major obstacles to effective collaborative engagement, as detailed in sub-problem 3; and information on how resource allocation, policy implementation, and the integration of local knowledge affect collaborative DRRM initiatives, as per sub-problem 4.

The process phase involved the methodologies and analytical techniques used to transform the inputs into meaningful findings, encompassing the core research activities. Data collection involved executing the planned research methods, namely semi-structured interviews, Focus Group Discussions (FGDs), and document analysis, with the specified respondent groups. All qualitative data from interviews and FGDs were then transcribed and organized for systematic analysis. The transcribed data underwent thematic analysis, wherein the researcher coded the responses to identify recurring themes and patterns related to collaborative mechanisms, roles, challenges, and successes, a process that directly addressed the research sub-problems. Data from the different sources, namely interviews, FGDs, and documents, were compared and cross-referenced through triangulation to ensure the validity and reliability of the findings.

The output phase represented the culmination of the entire research process, synthesizing the analyzed data into a coherent and actionable final product that directly addressed the study's central problem. The qualitative data were synthesized to provide a comprehensive answer to each of the study's sub-problems, with the findings describing the current state of collaborative engagement among the stakeholders. The most significant output was the creation of a Framework for Collaborative Governance, built upon the themes identified during the analysis and outlining the key components for successful collaboration, including effective communication protocols, clear delineation of roles, and strategies for overcoming identified barriers. This framework served as a practical tool for improving DRRM in Region 7. The final output also included a set of specific and actionable recommendations aimed at enhancing the DRRMO's collaborative role and strengthening the overall DRRM system, directly addressing sub-problem 5.

The research environment for this study was Region 7 (Central Visayas), Philippines, a location highly vulnerable to natural disasters. This context provided a relevant and critical backdrop for examining collaborative disaster risk reduction (DRR) efforts. The study specifically focused on the interactions and processes within the Regional Disaster Risk Reduction and Management Council (RDRRMC) Region 7 and the DRRMO. Understanding the demographic, economic, and disaster related profile of this environment was essential for building a practical Framework for Collaborative Governance. Region 7, composed of the provinces of Cebu, Bohol, Negros Oriental, and Siquijor, is the most populous region in the Visayas with a 2024 population of over 6.6 million. The region has a high population density, particularly in its highly urbanized cities like Cebu, Lapu-Lapu, and Mandaue, a density that amplifies the potential impact of disasters. Economically, Region 7 is a major contributor to the national economy, ranking as the fourth largest contributor to the country's Gross Domestic Product (GDP). Its economy is diverse, with strong sectors in services, industry (electronics, shipbuilding), and tourism. This economic dynamism, however, is also a source of vulnerability, as disasters can severely disrupt supply chains, damage infrastructure, and halt

tourism, leading to significant economic losses, making effective collaborative DRRM not just a social imperative but an economic one. Central Visayas faces a multitude of natural hazards, including typhoons, floods, landslides, and earthquakes, with the region's coastal areas particularly susceptible to coastal flooding and storm surges. The devastating impact of Typhoon Odette (Rai) in December 2021 serves as a recent and stark example of the region's vulnerability, as the typhoon caused billions of pesos in damages, highlighting the need for a robust and cohesive disaster management system. The research environment is, therefore, a living laboratory where the theories of collaborative governance can be tested against the realities of a disaster prone, densely populated, and economically vital region. This environment provided a rich setting to investigate how the DRRMO, as a key public administration body, engages with a diverse set of stakeholders, namely RDRRMC members, community leaders, and CSOs, to create a functional and resilient Framework for Collaborative Governance. The study analyzed how these stakeholders, with varying backgrounds and interests, come together to address a shared threat, and how the inherent demographic and economic characteristics of the region influence these collaborative dynamics.

The study's relevance and depth relied on a comprehensive understanding of the collaborative dynamics from multiple vantage points. The selected respondents represented a cross-section of stakeholders critical to disaster risk reduction (DRR) in Region 7, providing a 360-degree view of the Framework for Collaborative Governance, with each group offering a unique perspective that contributed to a holistic and well-rounded analysis. Representatives from both the Regional DRRMO (Region 7) and city/municipal DRRMOs were essential respondents. As the study's central focus, their input revealed the operational realities of collaborative engagement, providing insights into the internal workings, challenges, and successes from an institutional standpoint. Their roles included designing programs, coordinating activities, facilitating risk assessments, and maintaining local risk maps, making their perspective vital to understanding the DRRMO's role in public administration. The Regional Disaster Risk Reduction and Management Council (RDRRMC) is a multi-sectoral body composed of government agencies with DRRM responsibilities. Including officials from these member agencies allowed the research to examine collaboration at a policy and inter-agency level. The RDRRMC is the primary platform for high-level coordination and resource allocation, so their insights were key to understanding the formal governance structures and identifying systemic barriers to collaboration, ensuring that the study captured the top-down perspective on the collaborative process. Community leaders, such as barangay officials and representatives from local organizations, are the frontline responders in any disaster, and their perspective was crucial for a study on community-based DRR. They provided a grassroots view, detailing how well government policies are implemented on the ground, whether they feel genuinely empowered, and what their actual needs are, grounding the research in the lived experiences of those most affected by disasters and ensuring that the final Framework for Collaborative Governance is practical and people-centered. Civil Society Organizations (CSO) representatives, including non-governmental organizations (NGOs), play a vital and unique role in DRRM in the Philippines, often serving as a bridge between communities and government bodies. Many CSOs were pioneers of the Community-Based DRR approach and are seen as essential partners in government-led initiatives. Their representatives offered an independent and critical perspective on the collaborative process, highlighting areas where government action falls short and proposing innovative solutions, enriching the study with a perspective focused on accountability and community empowerment.

The distribution of respondents across the four provinces was structured as follows. In Cebu, there were 7 DRRMO Personnel, 7 RDRRMC Members, 7 Community Leaders, and 7

CSO Representatives, for a total of 28 respondents, comprising 25% of the total sample. In Negros, there were likewise 7 DRRMO Personnel, 7 RDRRMC Members, 7 Community Leaders, and 7 CSO Representatives, for a total of 28 respondents, comprising 25% of the total sample. In Bohol, there were 7 DRRMO Personnel, 7 RDRRMC Members, 7 Community Leaders, and 7 CSO Representatives, for a total of 28 respondents, comprising 25% of the total sample. In Panay, there were 7 DRRMO Personnel, 7 RDRRMC Members, 7 Community Leaders, and 7 CSO Representatives, for a total of 28 respondents, comprising 25% of the total sample. In total, across all four provinces, there were 28 DRRMO Personnel, 28 RDRRMC Members, 28 Community Leaders, and 28 CSO Representatives, yielding a grand total of 112 respondents, representing 100% of the sample.

The instruments for data collection were carefully designed to gather the information needed to address the study's subproblems and construct the Framework for Collaborative Governance. Given the diverse respondent groups, namely DRRMO personnel, Regional Disaster Council (RDDRMC 7) members, community leaders, and Civil Society Organizations (CSOs), a mixed-methods approach was deemed most appropriate. The primary instrument was a structured questionnaire and survey tool, which included sections to gather demographic profiles (Subproblem 1), such as age, gender, civil status, educational attainment, and relevant training. Beyond demographics, the survey used Likert scales and rating questions to assess the perceived roles and responsibilities in the four phases of disaster management (Subproblem 2), allowing for quantitative analysis of collaboration. For Subproblems 3 and 4, which dealt with challenges and the influence of resource allocation, policy, and local knowledge, the questionnaire included open-ended questions and qualitative prompts. To complement the survey, semi-structured interviews and focus group discussions (FGDs) were conducted with key informants from each group. These instruments allowed for a deeper exploration of the major challenges and barriers, providing rich, qualitative data that could not be captured by a simple survey. The integration of both quantitative data from the survey and qualitative insights from interviews and FGDs was crucial, as the quantitative data established baseline perceptions and patterns, while the qualitative data provided the nuanced context necessary to understand the underlying reasons behind the observed trends. By triangulating the data from these different instruments, the study ensured the validity and reliability of its findings, ultimately leading to a robust and evidence-based Framework for Collaborative Governance that reflects the realities of disaster risk reduction in Region 7, Philippines.

The data gathering procedures for this research followed a systematic and ethical approach to ensure all subproblems were addressed and a robust Framework for Collaborative Governance was developed. Initial steps involved obtaining formal permission from relevant authorities, including the head of the DRRMO Region 7 and the RDDRMC. A letter of intent was submitted, outlining the study's purpose, scope, and the confidentiality measures in place to protect the respondents' identities. After securing approval, the primary data were collected using a mixed-methods approach. For Subproblems 1 and 2, which required quantitative data, a structured survey questionnaire was administered to all identified respondent groups. This questionnaire included sections on demographics and a rating scale to gauge perceived roles and responsibilities in each disaster management phase, allowing for statistical analysis to identify trends and differences across groups. To delve deeper into the qualitative aspects of Subproblems 3 and 4, namely the challenges, barriers, and the influence of resource allocation, policy, and local knowledge, semi-structured interviews and focused group discussions (FGDs) were conducted with a purposive sample of key informants from each respondent group. These qualitative sessions provided rich, narrative data that contextualized the quantitative findings from the survey. To ensure the reliability of the qualitative data, all interviews and FGDs were audio-recorded, with the participants' consent, and transcribed for thematic analysis. The final step involved triangulating the data from both the surveys and the qualitative interviews and

FGDs, a process that validated findings, identified inconsistencies, and provided a comprehensive understanding of collaborative engagement in DRRM in Region 7. The synthesis of this multi-faceted data formed the foundation for formulating the specific recommendations and the final Framework for Collaborative Governance proposed in Subproblem 5.

The statistical treatment of data for this research involved both descriptive and inferential statistics to effectively analyze the collected information, with the goal of providing a comprehensive understanding of the relationships and differences between the various groups of respondents and their perceptions of community-based disaster risk reduction. Descriptive statistics were used to summarize and describe the basic features of the data, a treatment particularly crucial for addressing sub-problem 1, which focuses on the demographic profile of the respondent groups. Frequency and percentage distribution were used to present the demographic data, such as age, gender, civil status, highest educational attainment, and relevant trainings, for example showing what percentage of DRRMO personnel are male or female, or what proportion of community leaders have a college degree, thereby providing a clear snapshot of the respondent characteristics. For sub-problems 2, 3, and 4, which use a Likert-type scale to measure perceptions, the data were treated as interval data, allowing for the use of more powerful statistical tests, with a scoring procedure used to quantify the qualitative responses. Analysis of Variance (ANOVA) was used as a test highly relevant for comparing the means of more than two groups. Since the study has four distinct respondent groups (DRRMO, RDRRMC, Community Leaders, and CSOs), ANOVA was used to determine if there is a statistically significant difference in their perceptions regarding the roles, challenges, and influences of DRRM, for example testing if the average perception of challenges is the same or different across all four groups. While ANOVA is for multiple groups, a t-test was used to compare the means of two groups if needed, such as comparing the perceptions of DRRMO personnel and community leaders on a specific issue. Correlation analysis was used to determine the relationship between variables. For sub-problem 4, correlation analysis (e.g., Pearson's *r*) was used to examine the relationship between resource allocation, policy implementation, or local knowledge integration and the perceived success of collaborative DRRM initiatives.

The scoring procedures were essential for quantifying the qualitative responses, especially for the sections of the questionnaire that use a Likert scale, with a five-point Likert scale commonly used to measure the extent of agreement or perception. For questions related to the perceived roles, challenges, and influences (sub-problems 2, 3, and 4), a Likert scale was used with the following scoring and verbal interpretation. For the perceived roles, a score range of 4.50–5.00 corresponds to a scale of 5 and is verbally interpreted as Very Highly Involved; a score range of 3.50–4.49 corresponds to a scale of 4 and is verbally interpreted as Highly Involved; a score range of 2.50–3.49 corresponds to a scale of 3 and is verbally interpreted as Moderately Involved; a score range of 1.50–2.49 corresponds to a scale of 2 and is verbally interpreted as Slightly Involved; and a score range of 1.00–1.49 corresponds to a scale of 1 and is verbally interpreted as Not Involved at all. For the challenges, a score range of 4.50–5.00 corresponds to a scale of 5 and is verbally interpreted as Strongly Agree / Very High; a score range of 3.50–4.49 corresponds to a scale of 4 and is verbally interpreted as Agree / High; a score range of 2.50–3.49 corresponds to a scale of 3 and is verbally interpreted as Neutral / Moderate; a score range of 1.50–2.49 corresponds to a scale of 2 and is verbally interpreted as Disagree / Low; and a score range of 1.00–1.49 corresponds to a scale of 1 and is verbally interpreted as Strongly Disagree / Very Low. To score each respondent's perception, a weighted

mean was used, wherein the score for each item is multiplied by its assigned weight (1 to 5), and the sum of these products is then divided by the total number of respondents.

RESULTS AND DISCUSSION

This chapter presents and interprets the data gathered from 112 respondents comprising key actors in Community-Based Disaster Risk Reduction and Public Administration's Collaborative Engagement in Region 7, namely personnel from the Disaster Risk Reduction and Management Office (DRRMO), members of the Regional Disaster Risk Reduction and Management Council 7 (RDRRMC 7), Community Representatives, and Civil Society Organization (CSO) Representatives, with 28 respondents drawn from each of the four stakeholder groups. The study employed a descriptive research design utilizing a structured survey questionnaire as the primary data collection instrument, administered to the identified respondent groups through a purposive sampling approach that ensured representation across the institutional, regional, and grassroots levels of the disaster risk reduction and management (DRRM) system. The gathered data were analyzed using frequency counts, percentage distributions, and average weighted means (AWM) with corresponding descriptive equivalents, consistent with the analytical framework established in the methodology chapter. The discussion that follows is grounded entirely in the data gathered and is interpreted in direct relation to the study's objectives of profiling the respondent groups, examining their perceived roles and responsibilities across the thematic pillars of DRRM, and identifying the challenges and barriers that hinder effective collaborative engagement between the DRRMO and its partners, all of which inform the eventual development of the Framework for Collaborative Governance for Community-Based Disaster Risk Reduction.

The demographic profile of the respondents provides essential context for interpreting the subsequent findings on roles, involvement, and collaborative barriers. In terms of age and gender, the sample of 112 respondents was predominantly composed of individuals in their middle to late career stages, with the largest concentration falling within the 35 to 39 years old bracket at 26.79% (n=30), followed by the 30 to 34 years old group at 20.54% (n=23) and the 40 to 44 years old group at 18.75% (n=21). The 20 to 29 years old bracket also accounted for 18.75% (n=21), while the 45 to 50 years old and 51 years old and above brackets represented smaller proportions at 9.82% (n=11) and 5.36% (n=6), respectively. This concentration in the 35 to 44 age range suggests that the perspectives captured in this study reflect a considerable degree of institutional knowledge and practical field experience among the DRRMO, RDRRMC 7, Community, and CSO representatives, which strengthens the empirical basis for assessing the long-term effectiveness of the region's collaborative DRR mechanisms. With respect to gender, the sample revealed a clear male predominance, with 83 male respondents and 29 female respondents out of the total 112, translating to 74.1% male and 25.9% female representation, or approximately 2.86 males for every female respondent. While the participation of women in the collaborative network is acknowledged at nearly one-fourth of the sample, this imbalance signals a persistent gap in gender-responsive representation within DRR governance structures in Region 7, particularly among formal community and civil society representatives, and underscores the need for the proposed framework to incorporate explicit mechanisms that enhance the meaningful participation and leadership of women in DRR decision-making processes.

Civil status likewise offered meaningful context for understanding respondent engagement, with the data showing that the overwhelming majority of the 112 respondents, or 91.07% (n=102), were married, a pattern that was remarkably consistent across all four respondent groups, ranging from 24 to 26 married individuals per sector. Single respondents accounted for only 6.25% (n=7) and separated respondents for 2.68% (n=3) of the sample. This

high proportion of married respondents suggests a strong personal and familial stake in community safety and disaster resilience among the key actors, which aligns with the earlier finding that most respondents occupy stable, mid-to-late career life stages, and implies that responses concerning resource allocation, preparedness strategies, and collaboration effectiveness are likely shaped by family-oriented priorities such as securing shelter, food, and continuity of essential services during emergencies. This finding reinforces the argument, consistent with perspectives in the collaborative governance literature emphasizing the role of personal investment and social capital in sustaining civic engagement, that the framework for collaborative governance should deliberately integrate family-centered, community-level preparedness programs alongside institutional mechanisms.

The educational profile of the respondents further indicates a highly educated collaborative network, with 87.5% (n=98) of the 112 respondents holding a college degree, 6.25% (n=7) having attained postgraduate education, and the remaining 6.25% (n=7) having completed technical-vocational training. The near-universal attainment of a college degree among DRRMO personnel (25 out of 28) and RDRRMC 7 members (26 out of 28) reflects a high degree of professionalization within public administration roles in the region, which facilitates collaboration through shared understanding of technical information, formal communication protocols, and adherence to regulatory frameworks such as Republic Act 10121. Notably, all seven respondents with technical-vocational training were drawn exclusively from the Community Representative (n=3) and CSO Representative (n=4) groups, with none recorded among DRRMO or RDRRMC 7 personnel, indicating that practical, skills-based knowledge is concentrated at the grassroots level and complements the more theoretical and administrative expertise found within the government sector. This distribution supports the interpretation that the collaborative network possesses substantial intellectual and technical capital overall, though the framework should formally integrate the practical, on-the-ground knowledge of technical-vocational trained representatives into planning committees to ensure that policy is effectively translated into grassroots implementation.

Findings on relevant trainings and seminars attended further substantiate the capacity profile of the respondents. All 112 respondents, representing 100% of the sample, had attended DRRM 101: Philippine DRRM System, Local Disaster Risk Reduction and Management Plan (LDRRMP) Formulation, and Contingency Planning Workshop, indicating a universally shared conceptual foundation in the legal mandates under Republic Act 10121, the four thematic pillars of DRRM, and standardized planning methodologies. A substantial majority of 75% (F=84) had attended trainings on the Localization of the Sendai Framework and Sustainable Development Goals, Hazard, Vulnerability, and Capacity Assessment (HVCA), Climate Change Adaptation (CCA) and DRRM Mainstreaming, Incident Command System (ICS) Courses, Community-Based Early Warning Systems (CBEWS), and Evacuation Center Coordination and Management Training (ECCMT), reflecting a strong competency base in participatory risk assessment, standardized emergency management structures, and the integration of long-term climate risk into development planning. However, attendance declined to 50% (F=56) for more specialized technical and financial trainings, namely Disaster Risk Financing and Insurance (DRFI), Geographic Information System (GIS) for DRRM, and Basic Search and Rescue (SAR) Skills. This drop suggests that financial sustainability knowledge, technical mapping capacity, and grassroots operational rescue skills may be concentrated among a smaller subset of the network, potentially creating a bottleneck in collaborative land-use planning, risk communication, and immediate community-level emergency response. Taken together, the training profile demonstrates strong foundational and procedural knowledge across the collaborative network but reveals a vulnerability in specialized technical

and financial competencies, which the proposed framework should address through mandatory, practical capacity-building interventions targeting DRFI and GIS literacy among Community and CSO representatives, alongside tiered SAR training requirements differentiated by stakeholder role.

With regard to the study's core objective concerning perceived roles and responsibilities across the four thematic pillars of DRRM, namely Prevention and Mitigation, Preparedness, Response, and Recovery, the overall average weighted mean across all pillars was 3.525, interpreted as High Involvement (HI) according to the five-point scale where a mean of 4.50 to 5.00 denotes Very Highly Involved, 3.50 to 4.49 denotes Highly Involved, 2.50 to 3.49 denotes Moderately Involved, 1.50 to 2.49 denotes Slightly Involved, and 1.00 to 1.49 denotes Not Involved at all. This overall high involvement, however, was not uniformly distributed across the four pillars. The Response pillar recorded the highest perceived involvement at an AWM of 3.8, described as Highly Involved, encompassing tasks such as leading search and rescue operations, managing evacuation centers, distributing relief goods and aid, and providing medical assistance. This result affirms the DRRMO's central operational role in public administration and the critical support extended by Community and CSO stakeholders during actual emergencies, and it is consistent with the immediate, visible, and often mandatory nature of response-related tasks. The Prevention and Mitigation pillar followed with an AWM of 3.6, also interpreted as Highly Involved, covering the development of disaster mitigation plans, implementation of structural projects such as dikes, conduct of risk assessments and mapping, and dissemination of hazard information, indicating that the collaborative network actively engages in proactive, long-term risk reduction measures, a finding that is particularly encouraging given RDRRMC 7's planning mandate and the DRRMO's risk mapping function. In contrast, the Preparedness pillar registered an AWM of 3.4, falling within the Moderately Involved (MI) category, covering the organization of disaster drills and simulations, stockpiling of relief goods and emergency supplies, creation and updating of emergency plans, and conduct of community-level training. Although this score borders closely on the High Involvement threshold, its classification as Moderate signals that preparedness activities are not perceived as being executed with the same intensity as response activities, representing a critical vulnerability since insufficient preparedness directly compromises the efficiency of the highly rated response phase. The Recovery pillar obtained the lowest AWM of 3.3, likewise classified as Moderately Involved, comprising the assessment of post-disaster damage, implementation of long-term rehabilitation projects, provision of livelihood support, and delivery of psychosocial support to affected communities. This lowest rating suggests that collaborative engagement tends to taper off considerably once the immediate crisis phase has passed, a pattern that undermines the broader goal of community resilience and points to the need for RDRRMC 7 to strengthen the integration of post-disaster needs assessment into regional development planning. Collectively, these results reveal a strategic imbalance within the Region 7 collaborative network, one that leans heavily toward proactive mitigation planning and reactive response execution while exhibiting comparatively weaker engagement in the sustaining phases of preparedness and recovery, a pattern that resonates with broader disaster governance literature emphasizing that response-oriented investment often outpaces investment in the less visible, longer-horizon phases of the disaster management cycle. This imbalance directly informs the framework's design imperative to institutionalize mechanisms that mandate more frequent multi-stakeholder participation in preparedness activities and to establish dedicated, adequately resourced collaborative structures for sustained long-term recovery and rehabilitation.

The final analytical objective concerned the challenges and barriers that hinder effective collaborative engagement between the DRRMO and its partners in Region 7, which yielded an overall AWM of 3.6, interpreted as Agree (A) on the five-point agreement scale where 4.50 to

5.00 denotes Strongly Agree, 3.50 to 4.49 denotes Agree, 2.50 to 3.49 denotes Neutral, 1.50 to 2.49 denotes Disagree, and 1.00 to 1.49 denotes Strongly Disagree. All five identified indicators were rated within the Agree range, signifying that respondents consistently perceive these issues as substantial obstacles to collaboration. The item concerning a clear division of roles and responsibilities among collaborating groups obtained the highest AWM at 3.7, described as Agree, which, when interpreted within the context of a challenges and barriers framework, suggests a potential misalignment between formally documented role definitions, such as those established through LDRRMP processes, and their practical enactment, indicating that role ambiguity persists as a critical structural barrier despite high training attendance in planning formulation. Three indicators, namely lack of funding as a major barrier to effective collaboration, lack of trust hindering effective collaboration, and differing organizational cultures and priorities making collaboration difficult, each obtained an identical AWM of 3.6, also described as Agree. The strong agreement on funding barriers corroborates the earlier finding of only 50% attendance in Disaster Risk Financing and Insurance training, jointly indicating that financial sustainability constitutes a persistent structural weakness limiting the depth of collaborative initiatives. The equally strong agreement on the lack of trust points to unresolved issues of transparency, accountability, and reliability among the DRRMO, RDRRMC 7, Community, and CSO partners, consistent with collaborative governance perspectives that identify trust as a foundational relational currency without which joint decision-making, information sharing, and coordinated action are compromised. The agreement regarding differing organizational cultures and priorities reflects the inherent friction between the bureaucratic, compliance-oriented orientation of public administration bodies such as the DRRMO and RDRRMC 7 and the more grassroots, rapid-impact orientation of Community Representatives and CSOs. The item concerning the presence of clear communication channels between the DRRMO and other stakeholders obtained the lowest, though still Agree-level, AWM of 3.5, suggesting that while formal communication structures exist, the frequency, quality, or accessibility of information flow through these channels remains insufficient for the organic, rapid communication that effective DRRM collaboration requires. Taken together, these findings indicate that the most significant obstacles to collaborative engagement in Region 7 are systemic and relational in nature rather than purely operational, a conclusion that necessitates that the proposed Framework for Collaborative Governance move beyond the mere definition of roles to establish practical protocols for financial transparency, structured inter-agency and inter-sectoral dialogue platforms, and communication mechanisms that are not only formally clear but also actively utilized and contextually appropriate across all stakeholder groups.

Synthesizing across the demographic, capacity, involvement, and barrier-related findings, this chapter establishes that the collaborative DRR network in Region 7 is composed of a mature, predominantly married, and highly educated group of stakeholders who share a strong common foundation in core DRRM concepts and planning processes, yet who operate within a system marked by gender underrepresentation, uneven specialized technical training, an operational imbalance favoring mitigation and response over preparedness and recovery, and persistent structural and relational barriers related to role clarity, funding, trust, organizational culture, and communication quality. These interconnected findings directly address the study's objectives of profiling the respondent groups, assessing perceived roles and responsibilities across the DRRM thematic pillars, and identifying the challenges that hinder effective collaborative engagement between the DRRMO and its partners, thereby providing an empirically grounded basis for the subsequent development of the Framework for Collaborative Governance for Community-Based Disaster Risk Reduction. By linking

demographic characteristics to patterns of institutional capacity, and by connecting perceived involvement levels to the specific structural and relational barriers reported by respondents, this chapter contributes to the broader field of public administration and disaster governance by offering a context-specific, multi-stakeholder account of how collaborative DRR mechanisms function in a Philippine regional setting. These findings set the stage for the next chapter, which builds upon the empirical patterns established here to formally articulate the components, mechanisms, and implementation strategies of the proposed Framework for Collaborative Governance.

CONCLUSION

This study examined the collaborative dynamics among the DRRMO, RDRRMC 7, Community Representatives, and Civil Society Organizations in Region 7, drawing together the demographic profile, perceived operational roles, capacity levels, and prevailing barriers to collaboration in order to establish an empirical foundation for a proposed Framework for Collaborative Governance. The findings, taken as a whole, reveal a collaborative network that is mature, highly educated, and grounded in a shared foundational knowledge base, yet one that continues to grapple with representational imbalances, uneven technical capacity, and deep seated structural and relational barriers. The respondent profile, characterized by a predominance of married individuals within the 35 to 39 age bracket and an overwhelming proportion of college graduates, suggests a stakeholder base rich in professional experience and formal preparation for disaster risk reduction and management work. At the same time, the pronounced male majority among respondents points to an unresolved need for more gender responsive inclusion in formal decision-making structures. In terms of training, while foundational competencies such as DRRM 101, LDRRMP formulation, and contingency planning are universally held, and risk assessment tools such as HVCA, ICS, and CCA are widely mastered, more specialized areas including Disaster Risk Financing and Insurance, GIS applications, and Basic Search and Rescue skills remain accessible to only half of the respondents, exposing a meaningful gap in technical and financial capacity that constrains the network's ability to interpret risk data and plan for sustainable financing.

The study further found that the collaborative network's involvement across the four thematic pillars of disaster risk reduction and management is uneven rather than uniformly strong. Stakeholders reported high involvement in Response and in Prevention and Mitigation, reflecting a solid capacity for both proactive planning and reactive emergency execution. However, involvement in Preparedness and Recovery was rated only moderate, indicating that activities such as regular drills, simulations, and long-term rehabilitation or livelihood support are not being pursued with the same intensity or consistency. This imbalance signals a collaborative system that performs well in the moments of planning and immediate action but falters in sustaining readiness and securing long term resilience, a gap that undermines the very continuity that effective disaster governance requires. Compounding this operational imbalance are the systemic and relational barriers that respondents universally identified as significant obstacles to effective collaboration. Ambiguity surrounding the division of roles and responsibilities emerged as the most pressing concern, suggesting that despite the existence of formal plans, practical clarity in day-to-day collaborative work remains elusive. Likewise, a lack of trust among partners and insufficient funding were strongly perceived as major constraints, reflecting deficits in transparency, accountability, and the fiscal foundation necessary to sustain joint initiatives. Differences in organizational culture and priorities were also identified as a persistent source of friction, illustrating the difficulty of reconciling the bureaucratic imperatives of government agencies such as the DRRMO and RDRRMC 7 with

the more urgent, mission driven orientation of civil society organizations and community representatives.

Taken together, these findings affirm that Region 7 possesses considerable human capital and a solid foundational knowledge base upon which to build sophisticated disaster risk reduction and management collaboration. Nevertheless, the collaborative model as it currently stands remains vulnerable, constrained by an operational imbalance that favors immediate response over sustained preparedness and recovery, and by systemic barriers rooted in role ambiguity, eroded trust, and uneven technical capacity. It is on this basis that the study concludes that the DRRMO's role in public administration's collaborative engagement is presently inconsistent, strong in planning fundamentals and immediate response, yet weak in operational readiness, long term recovery, and relational coherence. This conclusion underscores that the development of a Framework for Collaborative Governance is not simply an enhancement to existing practice but an essential intervention necessary to correct these imbalances. Such a framework must be prescriptive in character, designed to enforce consistency across all four pillars, build relational capital among stakeholders, and mandate capacity development in the areas identified as weak. It must, moreover, formally bridge the structural and cultural divides that currently confine collective effort to only two of the four pillars of disaster risk reduction and management, so that collaborative engagement may translate into genuine and sustainable community resilience throughout Region 7.

In light of these conclusions, several recommendations are put forward to guide the design and implementation of the proposed framework. Foremost among these is the need to address the operational imbalance between the pillars by mandating sustained, multi sectoral drills conducted at least twice a year with clearly assigned roles for community representatives and civil society organizations, and by establishing formal protocols for the joint pre-positioning of emergency resources to elevate preparedness from a moderate to a highly involved function. Equally important is the institutionalization of long-term recovery mechanisms, particularly through the creation of a standing collaborative recovery task force led by RDRRMC 7 and tasked with post disaster needs assessment, psychosocial support planning, and livelihood restoration. To resolve the systemic and relational barriers identified in the study, it is recommended that annual inter sectoral workshops be conducted to operationalize role clarity under specific hazard scenarios, that a unified and tiered communication platform be developed to standardize information sharing among all stakeholders, and that mechanisms for financial transparency be mandated, including non-voting oversight roles for civil society and community representatives in budget deliberations concerning the disaster risk reduction and management fund. A formal charter for aligning organizational cultures and priorities is likewise recommended to reduce the friction between bureaucratic and civil society orientations. Finally, to close the capacity gaps revealed by the demographic analysis, the study recommends mandatory technical training in disaster risk financing and insurance as well as GIS interpretation, the establishment of a standardized and certified Basic Search and Rescue training program, and the adoption of a gender responsive quota, such as a minimum of forty percent female representation, in the formal leadership and decision-making bodies of the DRRMO and RDRRMC 7. Collectively, these recommendations are intended to transform the identified weaknesses into targeted areas of institutional strengthening, ensuring that the Framework for Collaborative Governance serves not merely as a theoretical construct but as a practical and enduring instrument for advancing disaster resilience in Region 7.

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