

Preparedness and Response: Law Enforcement Strategies for Post-Disaster Crime Management

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Abstract. This study examined perceived law enforcement preparedness and problems encountered in managing post-disaster property crimes and public-order concerns in the Second District of Bohol during academic year 2024–2025. A cross-sectional descriptive, comparative, and correlational survey involved a reported 251 personnel from the Philippine National Police, Bureau of Fire Protection, and Philippine Coast Guard. The researcher-made instrument used five-point agreement responses. The supplied summary tables reported preparedness means of 4.42 for property crimes and 4.33 for public-order concerns, with an overall mean of 4.37. Reported problem means were 2.29 and 2.20, respectively, with an overall mean of 2.25. The reported correlation was weak and not statistically significant ($r = -.065$, $p = .307$). Aggregate group-comparison results suggested variation by agency and, for problems encountered, length of service, but these results require verification of agency coding, scoring, assumptions, and original statistical output. The findings describe personnel perceptions rather than observed crime-control performance. Proposed actions prioritize communication continuity, resource assessment, joint exercises, and community reporting, supporting SDG 11 through integrated disaster-risk planning. Their effectiveness has not been evaluated.

Keywords: Bohol; Disaster Preparedness; Interagency Coordination; Law Enforcement; Post-Disaster Crime Management

Introduction

Post-disaster conditions can disrupt transport, electricity, communications, and routine protective arrangements. Maintaining public safety under these conditions requires agencies to coordinate emergency assistance with their respective security, fire-protection, rescue, and maritime responsibilities. Such disruptions justify preparedness assessment, but they do not establish that crime necessarily increases after every disaster. A study of preparedness should therefore distinguish personnel perceptions, documented operational difficulties, and verified crime outcomes.

The provincial government's Bohol Post-Odette Rehabilitation and Recovery Plan 2022 documented widespread power loss, communication disruption, and obstructed roads following Typhoon Odette in December 2021 (Provincial Government of Bohol, 2022). These conditions provide a specific local basis for examining resource access, communication continuity, and coordination. However, Saavedra (2021) reported the governor's statement that no looting or similar grave untoward incidents had been reported at that time. This contemporary account qualifies unsupported assumptions of widespread post-Odette looting; it is neither a complete crime census nor proof that all forms of victimization were absent.

Operational relevance continued during the study period. In July 2024, PCG Eastern Bohol and the Candijay local government conducted a maritime simulation involving responders and assets from several municipalities (Chiu, 2024). Candijay is outside the Second District, so this event provides provincial context rather than direct evidence about the sampled stations. Nationally, BFP mobilization during Severe Tropical Storm Kristine in October 2024 illustrates the demands on rescue personnel, transport assets, and evacuation support (Sicat, 2024). These events make interagency readiness relevant while leaving crime-specific capability to be assessed separately.

The study is directly relevant to Sustainable Development Goal 11, Sustainable Cities and Communities. Target 11.b emphasizes integrated disaster-resilience policies and risk-management plans consistent with the Sendai Framework, while indicator 11.b.2 concerns local disaster-risk reduction strategies aligned with national strategies (United Nations, n.d.). Describing preparedness and operational problems identifies local planning priorities; examining group differences can guide role-appropriate training and

resource assessment; and testing the association between the two constructs evaluates whether favorable readiness perceptions coincide with fewer reported difficulties. The intended output is a locally relevant improvement plan covering joint procedures, communication, resources, and community reporting. These are potential contributions to safer and more resilient communities, not evidence that the study has achieved an SDG target or reduced disaster losses.

Existing research addresses disaster readiness, social capacities, and looting prevention, but these bodies of evidence do not establish the perceived crime-management preparedness of PNP, BFP, and PCG personnel in the Second District of Bohol. The specific gap is the lack of district-level evidence within the reviewed sources on how these personnel assess preparedness and problems across property-crime and public-order domains, how assessments vary across profile groups, and whether the constructs are associated. The present study addresses this descriptive and associational gap without treating the three agencies as having identical mandates or attributing causal effects to preparedness.

Research Questions

The study examined perceived law enforcement preparedness and problems encountered in managing post-disaster crimes in the Second District of Bohol during academic year 2024–2025. It sought to answer the following questions:

1. What is the profile of the respondents in terms of age, sex, civil status, educational attainment, length of service, and agency affiliation (PNP, BFP, or PCG)?
2. Do respondents' assessments differ significantly when grouped by each profile characteristic in Question 1, specifically in terms of:
 - 2.1. Perceived preparedness; and
 - 2.2. Problems encountered, considering both the overall scores and the separate property-crime and public-order domain scores?
3. What is the level of perceived preparedness for managing post-disaster crimes in terms of:
 - 3.1. Crimes against property; and
 - 3.2. Public-Order Concerns?
4. What is the degree of reported problems encountered in managing post-disaster crimes in terms of:
 - 4.1. Crimes against property; and
 - 4.2. public-order concerns?
5. Is there a significant relationship between respondents' overall perceived preparedness score and their overall problems-encountered score?
6. What improvement actions can be proposed from the verified findings to strengthen post-disaster crime management and support disaster-resilient communities under SDG 11?

Scope and Delimitation of the Study

The study was conducted during academic year 2024–2025 in the Second District of Bohol, covering fourteen Municipal Police Stations, Bureau of Fire Protection stations, and six Philippine Coast Guard stations in the western and eastern parts of the district. The respondents were law enforcement personnel from the PNP, BFP, and PCG. A total of 251 respondents participated in the study: 115 PNP personnel, 95 BFP personnel, and 41 PCG personnel. The study focused on perceived law enforcement preparedness for managing post-disaster crimes involving crimes against property and crimes against public order. It also examined the problems encountered by law enforcers and tested differences according to age, sex, civil status, educational attainment, length of service, and respondent category. Because the study used a descriptive-correlational design and self-reported survey data, the findings describe respondents' assessments and statistical associations rather than independently measured crime rates or causal effects.

Literature Review

Disaster Crime and the Need for Context Specific Evidence

Gaherity and Birch (2022) used a rapid evidence assessment of tsunami and bushfire cases to examine looting, offender motivations, and prevention. Their analysis distinguishes forms and motivations of offending and connects these to situational and social prevention. Its relevance is the need for targeted protective arrangements rather than an assumption of generalized disorder. Because the cases differ from Bohol in disaster type and institutional setting, they support the conceptual relevance of preparedness but cannot estimate local crime prevalence.

Sheikhi et al. (2025) synthesized eight studies selected from 2,467 records in a systematic review of disaster-related looting and antisocial behavior. The review identified socioeconomic conditions, social capital,

media, and prevention as central themes. The small included evidence base and variation in settings limit broad claims about how often looting occurs. For the present study, the review supports examining community participation and credible reporting alongside formal deployment. It also cautions against interpreting resource shortages or disaster exposure as direct evidence of criminal behavior.

Philippine Preparedness Evidence

Dariagan et al. (2021) assessed 92 municipalities in Panay using a government preparedness checklist covering structures, plans, competencies, and supplies. Municipalities were generally partially prepared, and challenges included manpower shortages, stakeholder attitudes, and database management. This empirical national study supports examining preparedness and operational problems as related but distinct constructs. However, it assessed local governments rather than individual uniformed personnel and used a different instrument. Its scores therefore cannot be directly ranked against the present study's agreement-based means. The October 2024 Kristine response provides a recent operational example. Sicat (2024) documented BFP mobilization of more than 26,000 personnel, alongside rescue assets, evacuation-center support, and relief augmentation. The report illustrates demands on staff and logistics during emergencies. It is an administrative news account rather than an evaluation of crime prevention or a test of training effectiveness. It helps explain the relevance of resource and coordination items without supplying evidence for the present study's statistical hypotheses.

Bohol Events and the Local Research Gap

Bohol's official post-Odette recovery plan records infrastructure and lifeline disruption, creating a documented rationale for examining access, communications, and coordinated operations (Provincial Government of Bohol, 2022). At the same time, the contemporary report of no reported looting qualifies claims that such disruption necessarily generated widespread property crime (Saavedra, 2021). Taken together, these sources distinguish exposure and operational strain from verified offending. The present survey should be interpreted as an assessment of perceived readiness and difficulties, not as a retrospective measurement of post-Odette crime.

The 2024 PCG exercise in Candijay involved multiple municipal response assets and emphasized role coordination and response time (Chiu, 2024). It demonstrates a concrete provincial preparedness activity, but neither its location nor its rescue scenario directly measures crime-management readiness in the Second District. The unresolved local issue is therefore not whether preparedness activities exist, but how personnel in the study area assess crime-related preparedness and problems across agencies and respondent groups.

Theoretical and Conceptual Alignment

Routine Activity Theory links predatory crime opportunities to the convergence of likely offenders, suitable targets, and an absence of capable guardianship (Cohen & Felson, 1979). Disaster-related disruption may affect guardianship and target exposure; consequently, protocols, deployment, training, and resources are relevant to protective capacity. This theory motivates the selection of preparedness indicators, but the questionnaire does not directly measure offenders, targets, or guardianship events and cannot test the full theory.

Norris et al. (2008) conceptualize community resilience through connected adaptive capacities, including social capital, information and communication, economic resources, and community competence. This perspective explains why favorable readiness perceptions may coexist with communication or resource constraints. It also supports attention to community collaboration and organizational linkages. The framework supplies an interpretive lens rather than a validated measurement model for the present questionnaire.

The Sendai Framework situates preparedness within risk understanding, governance, resilience investment, and effective response (UNDRR, 2015). Together with SDG 11, it provides a policy basis for integrated improvement actions. The study's conceptual model treats profile characteristics as grouping factors and perceived preparedness and problems encountered as separate measured constructs. Their association is tested without a directional causal claim. Agency differences may reflect mandates, exposure, or response tendencies and should not be equated with superior or inferior institutional performance.

The reviewed evidence converges on the relevance of resources, coordinated roles, reliable information, and community support. It differs in unit of analysis, measurement, and outcome: municipal checklist scores, disaster case reviews, operational reports, and personnel perceptions are not interchangeable. The present study contributes a district-specific survey of personnel assessments while retaining these boundaries. This synthesis informs both questionnaire interpretation and the proposed resource, communication, training, and reporting priorities.

Methodology

Research Design

The study employed a quantitative, cross-sectional descriptive, comparative, and correlational survey design. The descriptive component summarized profiles and agreement-based assessments; the comparative component examined scores across independent profile groups; and the correlational component examined the linear association between overall preparedness and problem scores. There was no manipulation, random assignment, or longitudinal follow-up. Group differences and correlations therefore support associations only.

Research Participants

The manuscript reports a population of 717 personnel and 251 completed responses from the three agencies. The respondent is the unit of observation. Where several personnel belong to the same station, shared working conditions may produce correlated responses; station identifiers and the sampling design must be reviewed before treating all responses as independent. Table 1 retains the reported population counts and shows the conflicting sample allocations transparently.

Research Instrument

The researcher-made questionnaire had three parts. Part I covered age, sex, civil status, educational attainment, length of service, and agency. Part II assessed perceived preparedness; the displayed results contain five property-crime items and five public-order items. Part III assessed reported problems; the displayed results contain six property-crime items and four public-order items. The complete administered instrument was not attached, so these counts and item wording must be checked against the original questionnaire. All responses were reported on a five-point agreement scale from Strongly Disagree (1) to Strongly Agree (5). Preparedness therefore refers to agreement with favorable statements about readiness. Problems encountered refers to agreement that listed constraints were present. The labels "Highly Prepared" and "Less Serious" are retained as the original interpretive conventions; they do not convert agreement responses into validated measures of capability or severity. In particular, items stating that the public feels safe or considers agencies effective capture personnel's beliefs about the public, not independently obtained community assessments. For score verification, code favorable preparedness items so higher scores indicate stronger perceived readiness, and problem statements so higher scores indicate more reported constraints. Verify the original codebook before any reverse scoring. Compute each domain as the mean of its applicable items for each respondent. For an overall score, establish whether all items or both domains receive equal weights and use the same rule in descriptive and inferential analyses. With six and four problem items, equal weighting of domains differs from equal weighting of ten items. The reported overall problem mean of 2.25 is retained pending this check. Missing-item rules and the number of valid observations for each score must be reported; no imputation is claimed.

Research Instrument

A researcher-made survey questionnaire was used. Part I gathered respondents' personal profile, including age, sex, civil status, length of service, educational attainment, and respondent category. Part II assessed the level of law enforcement preparedness for managing post-disaster crimes. Part III assessed the problems encountered by law enforcers in managing post-disaster crimes. Responses used a five-point scale from Strongly Agree (5) to Strongly Disagree (1).

Data Gathering Procedure

The researcher secured authorization from the appropriate university office and requested permission from the respective provincial and agency authorities. After approval, the researcher personally administered the questionnaires, explained the study objectives, and retrieved the completed instruments. The responses were subsequently organized, tabulated, coded, and prepared for statistical analysis.

Results and Discussions

Research Question 1: What is the profile of the respondents in terms of age, sex, civil status, educational attainment, length of service, and agency affiliation (PNP, BFP, or PCG)?

Table 1. Profile of the Reported 251 Respondents

Profile	Category	Frequency	Percentage
1. Age	21–25 years	27	10.8
	26–30 years	62	24.7
	31–35 years	64	25.5
	36–40 years	52	20.7
	41–45 years	31	12.4
	46 years and above	15	6.0
2. Sex	Male	171	68.1
	Female	80	31.9
3. Civil Status	Single	92	36.7
	Married	154	61.4
	Separated	4	1.6
	Widow/widower	1	0.4
4. Educational Attainment	College graduate	201	80.1
	With master's unit	32	12.7
	Graduate of master's degree	3	1.2
	With doctoral degree units	15	6.0
5. Length of Service	10 years and below	135	53.8
	11–15 years	72	28.7
	16–20 years	29	11.6
	Above 20 years	15	6.0
6. Respondent Category	PNP	115	45.8
	BFP	95	37.8
	PCG	41	16.3

The largest reported age group was 31–35 years (25.5%). Most respondents were male (68.1%), married (61.4%), and college graduates (80.1%). More than half had ten years of service or less (53.8%). The profile table records PNP at 45.8%, BFP at 37.8%, and PCG at 16.3%, subject to resolution of the agency-allocation discrepancy. Several civil-status and educational groups are very small, limiting inferential comparisons. Minor percentage totals exceeding 100% reflect rounding.

Research Question 2: Do respondents' assessments differ significantly when grouped by each profile characteristic in Question 1, specifically in terms of Perceived preparedness; and Problems encountered, considering both the overall scores and the separate property-crime and public-order domain scores?

Table 2. Summary of Reported Perceived Preparedness

Indicator	Mean	Interpretation
1. Crimes against property	4.42	Highly Prepared
2. Crimes against public order	4.33	Highly Prepared
Overall	4.37	Highly Prepared

The original summary reports an overall preparedness mean of 4.37, with property-crime and public-order means of 4.42 and 4.33. These fall within the source's Highly Prepared band. They indicate favorable agreement-based perceptions, not observed readiness under disaster conditions. The overall score must be reproduced from unrounded respondent-level scores and the verified weighting rule.

Research Question 3: What is the level of perceived preparedness for managing post-disaster crimes in terms of Crimes against property; and Public-Order Concerns?

Table 3. Reported Preparedness for Property Crimes

Crimes Against Property	Mean	Interpretation
1. Community feels safe from property crimes due to law enforcement preparedness after disasters	4.48	Highly Prepared
2. Clear protocols for responding to property crimes after a disaster	4.47	Highly Prepared
3. Effective coordination with other agencies to prevent property crimes	4.46	Highly Prepared
4. Personnel are well-trained to handle property crimes after a disaster	4.44	Highly Prepared
5. Sufficient resources for managing property crimes after a disaster	4.24	Highly Prepared
Grand Mean	4.42	Highly Prepared

The highest item mean concerned personnel's belief that community members feel safe from property crime (4.48), followed by clear response protocols (4.47) and coordination (4.46). Resource sufficiency had

the lowest reported mean (4.24). Because no community respondents were surveyed, the first item cannot substantiate a community-safety outcome. The relative position of resources suggests a topic for inventory assessment, but a lower mean within the same band does not by itself establish a statistically significant deficiency.

Research Question 4: What is the degree of reported problems encountered in managing post-disaster crimes in terms of Crimes against property; and public-order concerns?

Table 4. Reported Preparedness for Public Order Concerns

Crimes Against Public Order	Mean	Interpretation
1. Law enforcement collaborates well with community organizations	4.48	Highly Prepared
2. Agencies are adequately prepared to maintain public order	4.37	Highly Prepared
3. Established procedures for public-order issues post-disaster	4.33	Highly Prepared
4. Public perceives law enforcement as effective in maintaining order	4.27	Highly Prepared
5. Personnel receive regular training on public-order management	4.21	Highly Prepared
Grand Mean	4.33	Highly Prepared

Collaboration with community organizations had the highest reported mean (4.48); regular training had the lowest (4.21). These perceptions are compatible with the importance assigned to organizational linkages and communication in resilience theory (Norris et al., 2008). They do not demonstrate the effectiveness of any particular training program or joint response. Comparison with Panay's partially prepared municipalities would also be inappropriate without accounting for different respondents and instruments (Dariagan et al., 2021).

Table 5. Reported Problems in Managing Property Crimes

Crimes Against Property	Mean	Interpretation
1. Insufficient resources such as personnel, vehicles, and communication equipment	2.46	Less Serious
2. Limited training opportunities	2.36	Less Serious
3. Low community awareness and engagement	2.28	Less Serious
4. Lack of a comprehensive disaster response plan	2.28	Less Serious
5. Absence or inefficiency of monitoring/reporting systems	2.26	Less Serious
6. Delayed law enforcement response time	2.13	Less Serious
Mean	2.29	Less Serious

The source reports a domain mean of 2.29, interpreted as Less Serious. Insufficient personnel, vehicles, and communication equipment had the highest mean (2.46), followed by limited training opportunities (2.36). The original label "Fairly Serious" for 2.46 has been corrected to "Less Serious" because the stated Fairly Serious band begins at 2.61. This changes only the inconsistent interpretation, not the reported numeric value. Exact domain averaging still requires the original data.

Table 6. Reported Problems in Managing Public Order Concerns

Crimes Against Public Order	Mean	Interpretation
1. Communication failure or breakdown during post-disaster operations	2.28	Less Serious
2. Weak coordination with other emergency response agencies	2.19	Less Serious
3. Unclear or outdated legal frameworks and policies	2.18	Less Serious
4. Inconsistent or infrequent evaluation/updating of preparedness strategies	2.16	Less Serious
5. Mean	2.20	Less Serious
Grand Mean	2.25	Less Serious

Communication breakdown had the highest mean in this domain (2.28), while evaluation and updating of strategies had the lowest (2.16). The reported domain mean was 2.20 and overall mean 2.25, both within the Less Serious band. These ratings should be understood as agreement-based assessments. Because the problem domains contain unequal item counts, the reported overall score cannot be fully interpreted until the weighting rule is confirmed. Documented post-Odetta communication disruption supports the operational relevance of continuity planning but does not validate these particular scores (Provincial Government of Bohol, 2022).

Table 7. Source Reported Aggregate Preparedness Comparisons

Profile Variable	Test	p-value	Remarks
1. Age	F = 1.739	0.136	Not Significant
2. Sex	t = 0.858	0.392	Not Significant
3. Civil status	F = 0.610	0.609	Not Significant
4. Educational attainment	F = 0.376	0.770	Not Significant
5. Length of service	F = 0.383	0.766	Not Significant
6. Respondent category	F = 11.488	< 0.001	Significant

Table 7 reproduces the original tests and nominal significance decisions. Only agency was reported as significant ($F = 11.488$, $p < .001$). The source gives agency means of 4.62 for PCG, 4.38 for PNP, and 4.26 for BFP. Agency coding must be reconciled before interpreting those labels. No adjusted pairwise analysis, standard deviations, degrees of freedom, or effect sizes were supplied; the ordering of means therefore does not establish significant differences between specific agency pairs. Civil-status and educational comparisons require particular caution because of sparse cells. The table does not answer the newly explicit domain-specific comparisons under Question 2.1.

Table 8. Source Reported Aggregate Problems Comparisons

Profile Variable	Test	p-value	Remarks
1. Age	F = 1.738	0.126	Not Significant
2. Sex	t = 0.237	0.627	Not Significant
3. Civil status	F = 2.055	0.107	Not Significant
4. Educational attainment	F = 0.416	0.741	Not Significant
5. Length of service	F = 3.489	0.016	Significant
6. Respondent category	F = 42.704	< 0.001	Significant

The original table identifies length of service ($F = 3.489$, $p = .016$) and agency ($F = 42.704$, $p < .001$) as nominally significant. The source reports a mean of 2.65 for respondents with more than 20 years of service, and agency means of 2.73 for PNP, 1.93 for BFP, and 1.67 for PCG. These summaries are retained as reported, without pairwise or causal conclusions. Notably, the sex comparison lists $t = 0.237$ with $p = .627$; this pairing is inconsistent with an ordinary two-sided independent-samples t-test and requires the original output. The p-value has not been replaced with an invented result. Domain comparisons under Question 2.2, assumption checks, and multiplicity-adjusted decisions remain outstanding.

The former preparedness and problems questions are analytically distinct because they concern different outcomes. Consolidating them under Question 2 improves organization without treating the constructs as duplicates. Their group tests must be completed independently under a consistent analysis plan. Until coding, sampling, sparse-cell handling, and test outputs are verified, the aggregate differences are exploratory indications rather than confirmed population-level conclusions.

Research Question 5: Is there a significant relationship between respondents' overall perceived preparedness score and their overall problems-encountered score?

Table 9. Source Reported Correlation

Compared Variables	Pearson r	p-value	Remarks
1. Preparedness and Problems Encountered	-0.065	0.307	Not Significant

The reported Pearson correlation was weak and negative ($r = -.065$) and did not reach the stated .05 threshold ($p = .307$). On the source's nominal analysis, H_{03} was not rejected. This does not establish that the constructs are unrelated under all conditions or that preparedness is unimportant. The conclusion is limited to the reported linear association between the two overall self-report scores. The valid paired sample size, confidence interval, scoring, and diagnostic checks require verification before final reporting.

Research Question 6: What improvement actions can be proposed from the verified findings to strengthen post-disaster crime management and support disaster-resilient communities under SDG 11?

The proposed Project READY and Project ALERT. These are retained as proposed programs, with the source's estimated budgets and time frames. Neither project was implemented or evaluated in the supplied study. Resource and communication priorities arise from relative item rankings and documented operational

context; provisional group differences should guide further needs assessment rather than automatic allocation or agency ranking.

Table 10. Proposed Programs and Original Indicative Budgets

Program	Primary Objective	Time Frame	Estimated Budget
1. Project READY	Improve preparedness; address resource/training gaps; strengthen interagency and community collaboration	12 months	₱2,500,000
2. Project ALERT	Increase community awareness; strengthen public-law enforcement partnerships; develop local response teams	6 months	₱1,200,000

Project READY would involve PNP, BFP, PCG, LGUs, disaster-risk offices, and relevant training partners in reviewing resources, clarifying complementary responsibilities, and rehearsing joint procedures. Project ALERT would involve barangay partners in credible public information and safe reporting pathways. The ₱2,500,000 and ₱1,200,000 figures are unvalidated planning estimates; detailed costing, funding authority, and responsible units must be established before implementation.

Table 11. Evidence Linked Actions and Proposed Monitoring

Evidence or need	Proposed action	Monitoring and SDG connection
1. Resource sufficiency ranked lowest in property preparedness; resource problems ranked highest	Validate agency inventories, deployment needs, transport access, and backup equipment before procurement	Inventory gaps closed and equipment-function checks; supports integrated risk planning under SDG 11.b
2. Training ranked lowest in public-order preparedness	Conduct role-specific scenario training with joint command and referral exercises	Attendance, scenario performance and corrective actions documented; contribution to local resilience
3. Communication breakdown ranked highest among public-order problems	Test backup communications and agreed information-sharing procedures	Drill-based message delivery and acknowledgment times; no current improvement claimed
4. Community collaboration rated favorably; source Project ALERT	Develop verified reporting channels and community information on safe conduct and assistance	Reporting-channel reach, referral completion and feedback; community support without unauthorized enforcement
5. Unverified agency and service-group comparisons	Complete coding and statistical verification before targeted allocation	Documented needs assessment and approved revision of joint plans; no agency ranking from provisional tests

These monitoring measures are proposed outputs for a future implementation phase. They were not measured by this survey. Any claim of improved crime outcomes would require baseline and follow-up operational records, appropriate comparison, and safeguards for changes in reporting. The intended SDG contribution is better integrated preparedness planning; formal progress on indicator 11.b.2 cannot be inferred from individual survey means.

Ethical Considerations

The researcher protected the privacy and confidentiality of respondents and treated the collected information as research data. Participation was voluntary, and respondents were informed about the purpose of the study and their option to withdraw. The researcher avoided coercion and maintained integrity in data gathering, processing, analysis, and reporting. Authorization was secured before data collection was undertaken.

Conclusion

The supplied summary tables indicate favorable perceptions of preparedness (reported overall $M = 4.37$) and lower agreement with operational problems (reported overall $M = 2.25$). Resources, regular training, and communication continuity emerge as reasonable priorities for further verification and planning. These findings characterize personnel assessments within the reported sample and do not establish independently

demonstrated response capability or community safety. The source's aggregate analyses suggest possible differences by agency and, for problems, length of service, while the reported overall correlation was not significant. Methodological and statistical inconsistencies prevent treating these comparisons as confirmed findings at this stage. Verification of sampling, agency coding, instrument properties, scoring, and original outputs is required before final inferential conclusions. The proposed action programs support the intent of SDG 11 through integrated local preparedness and coordination, with their outcomes to be assessed in a subsequent implementation phase.

Recommendations

PNP, BFP, PCG, and local disaster-risk offices may jointly validate equipment, staffing, communication, and training needs before committing resources. Agencies should retain responsibilities consistent with their mandates and clarify coordination and referral arrangements. Joint exercises and after-action reviews can provide performance evidence that complements perception surveys. Barangay partners may support public information, verified reporting channels, and protection of vulnerable residents within lawful community-support roles. Project READY and Project ALERT may be developed into costed implementation proposals with accountable units, agreed outputs, and evaluation measures. Their SDG relevance should be reported as an intended contribution until evidence of implementation and outcomes is available. Future studies may combine anonymous personnel surveys with station records, actual response measures, community feedback, and documented incident data. A design that accounts for agency roles, station clustering, disaster exposure, and time would strengthen comparisons and clarify whether changes in preparedness accompany changes in operational difficulties.

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