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Proposed Capacity Development Plan for the Bureau of Fire Protection-National Capital Region Special Rescue Force

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ABSTRACT

Objective. This study assessed operational performance and training implementation in the Bureau of Fire Protection-National Capital Region Special Rescue Force as the basis for a proposed five-year capacity development plan. **Methods.** A descriptive research design used a researcher-developed questionnaire and supplementary semi-structured interviews. The survey included 78 respondents, comprising 46 crew members and 32 supervisors selected through random sampling from populations of 55 crew members and 35 supervisors. Expert review and pilot testing with 20 other Bureau of Fire Protection personnel yielded a reported Cronbach's alpha of 0.95. Weighted means, standard deviations, independent-samples t tests, and Pearson correlations were used. **Results.** Operational performance was rated High across vehicular accidents, high-angle rescue, collapsed structure search and rescue, hazardous materials operations, and chemical, biological, radiological, nuclear, and explosive incidents, with reported overall composite means ranging from 3.13 to 3.38. All five training dimensions were implemented to a Moderate Extent, with composite means ranging from 3.04 to 3.2. Crew members consistently rated both areas more favorably than supervisors. Interviews identified inadequate and outdated equipment, limited and unevenly distributed manpower, gaps in specialized and continuous training, weak interagency coordination and communication, and limited institutional support. **Conclusion.** These findings informed a proposed 2026-2030 plan addressing operational competencies, training systems, equipment, personnel support, and coordination. The findings describe perceived capability rather than independently verified operational outcomes. The plan remains a proposed intervention requiring institutional validation; its effectiveness was not evaluated.

KEYWORDS Capacity building | Descriptive research | Emergency responders | In-service training | Operational readiness | Philippines.

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1 Introduction

Specialized rescue organizations require coordinated personnel, equipment, training, and support systems to respond to complex emergencies. For the Bureau of Fire Protection-National Capital Region Special Rescue Force (BFP-NCR SRF), these requirements arise within an urban operating environment characterized in the study by congested roads, high-rise structures, dense settlements, and multiple hazards. Rescue teams must mobilize resources, protect responders and affected populations, and coordinate with other agencies while managing incidents that may develop rapidly. Assessing the unit's readiness therefore requires attention not only to the execution of rescue tasks but also to the organizational arrangements that sustain specialized capability.

The BFP-NCR SRF provides specialized operational support for high-risk incidents and augments local fire stations during major emergencies. The present investigation focused on vehicular accidents, high-angle rescue, collapsed structure search and rescue, hazardous materials operations, and chemical, biological, radiological, nuclear, and explosive (CBRNE) incidents. These operational domains involve different technical requirements, yet all depend on personnel preparation, reliable tools, communication, leadership, and institutional support. The study treated operational performance and the implementation of training programs as related but distinct areas of assessment.

The literature reviewed in the dissertation identified persistent organizational constraints alongside established response practices. Tangkua et al. (2026) reported adherence to operating procedures and teamwork among BFP personnel, but also identified limitations in specialized training, advanced rescue equipment, and technological support. Jose (2025) associated organizational capacity with personnel competencies and preparedness, while noting uneven access to training across locations. Sabordo (2026) described workload pressures, scheduling conflicts, communication difficulties, and limited training opportunities as constraints on emergency response implementation. Together, these accounts directed attention to the systems supporting responders rather than to individual skills alone.

However, the presence of general training activities does not by itself establish that a specialized unit has consistent access to advanced practice, equipment, or interagency exercises. A unit-level assessment was needed to identify which operational and training areas were perceived as stronger or weaker within the BFP-NCR SRF. Incorporating both crew members and supervisors also allowed the study to compare frontline assessments with managerial and operational oversight perspectives. Supplementary interviews provided accounts of constraints that could not be fully explained by questionnaire ratings.

The researcher's experience as a BFP officer assigned in Quezon City informed the study's practical interest in personnel preparedness, logistical support, and operational coordination. The investigation nevertheless sought to base its proposed intervention on systematically collected assessments rather than professional observation alone. Its intended contribution was a five-year capacity development plan connecting identified needs with proposed activities, responsible units, implementation periods, outputs, and performance indicators. The plan was developed as an organizational improvement proposal, not as an intervention whose effects had already been demonstrated.

1.1 Objectives of the Study

The study aimed to propose a capacity development plan for the BFP-NCR SRF by assessing operational performance in five specialized response domains and the extent of implementation of five training dimensions: operational and technical competency; physical and tactical readiness; psychological resilience and emotional preparedness; interagency coordination and communication; and leadership and strategic decision-making. It compared the assessments of crew members and supervisors, examined relationships between operational performance and training implementation, and identified issues and challenges in operational development and training systems. The null hypotheses specified no differences between respondent groups and no relationships between the operational and training variables.

1.2 Theoretical and Conceptual Framework

The study drew on five theoretical perspectives. Resource-Based Theory emphasized the availability and effective use of personnel, equipment, technology, and organizational systems as resources supporting performance (Barney, 1991). Systems Theory situated these resources within interdependent operational arrangements, where leadership, communication, logistics, and partner agencies must function together (von Bertalanffy, 1968). Human Capital Theory linked education, training, and professional experience with the development of personnel competencies (Schultz, 1961; Becker, 1964).

High Reliability Organization Theory provided a perspective on preparedness, vigilance, resilience, learning, and deference to expertise in high-risk operations (Weick & Sutcliffe, 2001). Capability Maturity Theory framed development

as a progressive process of standardizing, evaluating, and improving organizational practices (Humphrey, 1989). These perspectives supported assessment of both present capability and the systems needed to sustain improvement.

The conceptual sequence connected assessments of operational performance, training implementation, and organizational challenges with questionnaire and interview evidence, followed by the formulation of a five-year capacity development plan. The framework guided the selection of variables and the organization of proposed interventions. It did not constitute a tested causal model, an independent certification of capability, or a formal assignment of the unit to a capability-maturity level.

2 Materials and Methods

2.1 Research design and setting

The study used a descriptive, nonexperimental research design to examine existing operational and training conditions in the BFP-NCR SRF. A structured questionnaire provided quantitative assessments, supplemented by semi-structured interviews with selected personnel and supervisors. No variables were manipulated and no capacity development intervention was implemented as part of the assessment. The dissertation describes the research as covering a one-year period.

2.2 Participants and sampling

The survey included 78 BFP-NCR SRF personnel: 46 crew members and 32 supervisors. They were selected from populations of 55 crew members and 35 supervisors. Crew members contributed frontline rescue perspectives, while supervisors contributed managerial and operational assessments. Random sampling was reported, but the selection procedure was not described in sufficient detail for replication.

2.3 Instrumentation and scoring

The researcher-developed questionnaire had two major parts. Part I assessed operational performance in the five specialized response domains; Part II assessed the five training dimensions identified in the objectives. Items were developed from related literature, operational guidelines, training standards, and relevant policies. The research adviser reviewed the draft, and experts in fire service operations, disaster risk reduction and management, rescue operations, and research methodology evaluated its content. Their recommendations informed revisions.

A pilot test involved 20 BFP personnel with characteristics similar to the target respondents who were excluded from the actual study. Reliability analysis yielded a reported Cronbach's alpha coefficient of 0.95. The results tables contain 10 indicators for each operational domain and training dimension

Responses used a four-point scale. Mean scores of 3.50-4.00 were interpreted as Very High operational performance or Great Extent of training implementation; 2.50-3.49 as High or Moderate Extent; 1.50-2.49 as Low or Slight Extent; and 1.00-1.49 as Very Low or Least Extent. Higher scores indicated more favorable assessments. Operational and training labels were retained separately because they describe different constructs.

An open-ended interview guide addressed operational performance, training programs, challenges, and capacity development needs. The adviser and relevant experts reviewed and refined the guide for clarity, relevance, and alignment with the research objectives.

2.4 Data-gathering procedure

After obtaining adviser approval and permission from the concerned BFP-NCR SRF authorities, the researcher personally administered the questionnaires. Completed forms were collected, checked for completeness, organized, and encoded for analysis. Interviews were scheduled at participants' convenience and documented through notes and, when permitted, audio recording. Quantitative and qualitative material was then consolidated for interpretation.

2.5 Ethical considerations

Participation was voluntary. Participants received information about the purpose, procedures, and intended academic use of the study, and informed consent was obtained. They were informed of their right to decline or withdraw without penalty. The dissertation reports protection of confidentiality and anonymity, secure storage of data, and access limited to the researcher and authorized research personnel. The researcher also sought to avoid interference with official duties.

2.6 Data analysis

Weighted means and standard deviations summarized assessments. Independent-samples t tests compared crew and supervisor ratings, and Pearson product-moment correlations examined the relationships between operational performance and training implementation. Interview findings were presented under five issue categories.

The numerical results below retain the dissertation's reported values and significance labels. Unresolved coefficient-p-value combinations and inconsistencies between the detailed results and concluding summary are identified at the relevant tables and in the author verification checklist. No missing statistics were estimated and no inferential results were recalculated.

3 Results and Discussion

3.1 Results

3.1.1 Operational performance

All five operational domains received an overall interpretation of High (Table 1). The reported composite means were 3.35 for vehicular accidents, 3.38 for high-angle rescue, 3.36 for collapsed structure search and rescue, 3.19 for hazardous materials operations, and 3.13 for CBRNE incidents. Crew composite means exceeded supervisor composite means in each domain. High-angle rescue had the largest reported overall composite mean, whereas CBRNE response had the smallest. These results describe respondents' assessments, not measured incident outcomes.

Table 1. Reported operational performance by respondent group

Operational domain	Crew Mean (SD)	Supervisors Mean (SD)	Overall Mean (SD)	Interpretation
Vehicular accidents	3.46 (0.54)	3.23 (0.58)	3.35 (0.56)	High
High-angle rescue	3.49 (0.53)	3.26 (0.51)	3.38 (0.52)	High
Collapsed structure search and rescue	3.44 (0.56)	3.28 (0.64)	3.36 (0.6)	High
Hazardous materials operations	3.28 (0.65)	3.10 (0.68)	3.19 (0.67)	High
CBRNE incidents	3.27 (0.68)	2.99 (0.7)	3.13 (0.69)	High

Crew n = 46; supervisors n = 32. SD = standard deviation. CBRNE = chemical, biological, radiological, nuclear, and explosive. High corresponds to 2.50-3.49. Values are taken from the dissertation's Tables 1-5, including the original decimal precision.

Selected indicators differentiated stronger practices from potential development priorities. In vehicular accident response, coordination with emergency medical services had an overall mean of 3.47 (SD = 0.53), while post-incident reviews had 3.24 (SD = 0.6). For high-angle rescue, controlled lowering or raising of victims had 3.45 (SD = 0.49); rapid team deployment and application of technical rescue techniques each had 3.34. In collapsed structure search and rescue, establishing safety zones had 3.42 (SD = 0.59), compared with 3.21 (SD = 0.76) for specialized search cameras and listening devices.

For hazardous materials operations, incident documentation had an overall mean of 3.29 (SD = 0.6), while containment to prevent environmental contamination had 3.14 (SD = 0.66). Within CBRNE response, perimeter control and documentation each had 3.19; recognition of threat indicators had 3.05 (SD = 0.71), activation of specialized protocols had 3.07 (SD = 0.73), and use of detection equipment had 3.09 (SD = 0.72). All of these overall item ratings remained within the High category.

3.1.2 Training program implementation

All five training dimensions were interpreted as implemented to a Moderate Extent (Table 2). Reported overall composite means ranged from 3.04 for interagency coordination and communication to 3.2 for physical and tactical readiness. Operational and technical competency had 3.13, psychological resilience and emotional preparedness had 3.09, and leadership and strategic decision-making had 3.15. Crew means were higher than supervisor means in every dimension.

Table 2. Reported training implementation by respondent group

Training dimension	Crew Mean (SD)	Supervisors Mean (SD)	Overall Mean (SD)	Interpretation
Operational and technical competency	3.27 (0.78)	2.99 (0.58)	3.13 (0.68)	Moderate extent
Physical and tactical readiness	3.29 (0.75)	3.11 (0.58)	3.2 (0.66)	Moderate extent

Training dimension	Crew Mean (SD)	Supervisors Mean (SD)	Overall Mean (SD)	Interpretation
Psychological resilience and emotional preparedness	3.22 (0.67)	2.96 (0.62)	3.09 (0.64)	Moderate extent
Interagency coordination and communication	3.21 (0.78)	2.88 (0.72)	3.04 (0.75)	Moderate extent
Leadership and strategic decision-making	3.29 (0.69)	3.00 (0.58)	3.15 (0.63)	Moderate extent

Crew n = 46; supervisors n = 32. Moderate Extent corresponds to 2.50-3.49. Values are taken from the dissertation's Tables 6-10.

The item-level findings identified specific implementation needs. Application of standard operating procedures during technical training had an overall mean of 3.28 (SD = 0.61), whereas use of modern rescue technologies during simulations had 3.01 (SD = 0.69). Joint exercises with partner agencies had 2.98 (SD = 0.73), the lowest listed item in the interagency dimension. Psychological preparedness programs and mental conditioning exercises each had 3.01. Tactical movement drills had 3.11 (SD = 0.67), and both command-level leadership development and evaluation of leadership in high-risk scenarios had 3.11. These ratings remained within Moderate Extent.

3.1.3 Comparisons between crew members and supervisors

The dissertation reported significant group differences for all five operational domains, with t values ranging from 3.98 to 7.02 and p values displayed as 0.00 (Table 3). For training implementation, the reported decisions identified differences in operational and technical competency, physical and tactical readiness, interagency coordination and communication, and leadership and strategic decision-making. Psychological resilience and emotional preparedness was labeled not significant (t = 4.39, p = 0.052). These are the source-reported decisions and require verification before substantive inferential conclusions are finalized.

Table 3. Reported independent-samples t-test results

Domain or dimension	t	p	Reported interpretation
Operational performance			
Vehicular accidents	3.98	0.00	Highly Significant
High-angle rescue	4.12	0.00	Highly Significant
Collapsed structure search and rescue	7.02	0.00	Highly Significant
Hazardous materials operations	4.36	0.00	Highly Significant
CBRNE incidents	4.25	0.00	Highly Significant
Training implementation			
Operational and technical competency	6.12	0.00	Highly Significant
Physical and tactical readiness	5.18	0.05	Significant
Psychological resilience and emotional preparedness	4.39	0.052	Not Significant
Interagency coordination and communication	5.02	0.00	Highly Significant
Leadership and strategic decision-making	6.22	0.00	Highly Significant

Group means are presented in Tables 1 and 2. The dissertation labels both original comparison tables as Table 11; they are consolidated here.

Retain p = 0.00 as the source display only; obtain the unrounded values before journal submission. Check all t/p pairs, especially physical and tactical readiness (5.18, 0.05) and psychological resilience and emotional preparedness (4.39, 0.052), against the original software output and degrees of freedom.

3.1.4 Relationships between operational performance and training implementation

All reported Pearson coefficients were positive, ranging from 0.72 to 0.88 (Table 4). The source labeled operational and technical competency as significantly related to each operational domain. Physical and tactical readiness was labeled significant for collapsed structure search and rescue, hazardous materials operations, and CBRNE incidents. Psychological resilience and emotional preparedness was labeled significant only for CBRNE incidents. Interagency coordination and communication was labeled significant for all domains except CBRNE, while leadership and strategic decision-making was labeled significant for vehicular accidents, high-angle rescue, and collapsed structure search and rescue.

Several large reported coefficients were paired with nonsignificant p values, including high-angle rescue with psychological resilience and emotional preparedness (r = 0.88, p = 0.055), hazardous materials operations with leadership and strategic decision-making (r = 0.82, p = 0.501), and CBRNE incidents with leadership and strategic decision-making (r = 0.81, p = 0.530). The complete reported combinations are retained below.

Table 4. Reported correlations between operational performance and training implementation

Operational domain	Training dimension	r	R	p	Reported decision
VA	OTC	0.72	0.5184	0.050	S
VA	PTR	0.75	0.5625	0.061	NS
VA	PREP	0.82	0.6724	0.051	NS
VA	ICC	0.78	0.6084	0.050	S
VA	LSDM	0.81	0.6561	0.032	S
HAR	OTC	0.77	0.5929	0.045	S
HAR	PTR	0.76	0.5776	0.052	NS
HAR	PREP	0.88	0.7744	0.055	NS
HAR	ICC	0.84	0.7056	0.050	S
HAR	LSDM	0.81	0.6561	0.038	S
CSSR	OTC	0.84	0.7056	0.048	S
CSSR	PTR	0.83	0.6889	0.044	S
CSSR	PREP	0.77	0.5929	0.062	NS
CSSR	ICC	0.72	0.5184	0.044	S
CSSR	LSDM	0.83	0.6889	0.034	S
HAZMAT	OTC	0.75	0.5625	0.049	S
HAZMAT	PTR	0.85	0.7225	0.023	S
HAZMAT	PREP	0.73	0.5329	0.055	NS
HAZMAT	ICC	0.72	0.5184	0.039	S
HAZMAT	LSDM	0.82	0.6724	0.501	NS
CBRNE	OTC	0.81	0.6561	0.038	S
CBRNE	PTR	0.82	0.6724	0.048	S
CBRNE	PREP	0.77	0.5929	0.046	S
CBRNE	ICC	0.81	0.6561	0.057	NS
CBRNE	LSDM	0.81	0.6561	0.530	NS

VA = vehicular accidents; HAR = high-angle rescue; CSSR = collapsed structure search and rescue; HAZMAT = hazardous materials operations; CBRNE = chemical, biological, radiological, nuclear, and explosive incidents.

OTC = operational and technical competency; PTR = physical and tactical readiness; PREP = psychological resilience and emotional preparedness; ICC = interagency coordination and communication; LSDM = leadership and strategic decision-making. S = Significant; NS = Not Significant, as labeled in the source.

3.1.5 Issues and challenges reported in interviews

Interview accounts were organized under five categories. These categories provide contextual descriptions of perceived constraints rather than estimates of their prevalence. The dissertation does not report interview participant counts, category frequencies, or participant codes for the quotations.

Inadequate and outdated equipment resources. Participants described limited access to specialized rescue tools, reliance on borrowed equipment from other agencies, and improvisation during emergencies. They associated these conditions with delays, added stress, and concerns about responder and victim safety. The accounts emphasized that equipment availability affected the unit's ability to operate independently during complex incidents.

Limited manpower and uneven personnel distribution. Participants described shortages of trained rescuers, transfers and reassignments of experienced personnel, and uneven distribution across stations. One account stated, "We really need a stable allocation of trained rescuers dedicated to SRF operations." Others described repeated deployment of the same trained personnel, fatigue, and difficulties assembling complete teams during simultaneous incidents.

Gaps in specialized and continuous training. Participants distinguished access to basic instruction from opportunities for advanced, hands-on practice. Confined-space rescue, hazardous materials response, refresher courses, mass-casualty exercises, and nighttime simulations were identified as areas needing attention. One participant stated, "We do not have

regular refresher courses." Another described predictable drills that did not adequately reflect the stress and uncertainty of actual emergencies.

Weak interagency coordination and communication systems. Participants reported conflicting instructions, inconsistent communication channels, incomplete incident information, and the absence of a single platform for real-time updates. Differences in agency protocols and alignment of external responders with command structures were described as contributing to confusion, duplicated effort, and delayed resource deployment.

Limited institutional support for training infrastructure and policy development. Participants described inadequate funding, outdated facilities, limited simulation tools, and inconsistent updating or implementation of training policies. They associated these conditions with uneven training quality and skill development across units.

3.2 Discussion

3.2.1 Perceived capability and the systems needed to sustain it

The principal finding was a favorable assessment of operational performance alongside moderate implementation of training. These results need not be treated as contradictory: respondents evaluated different constructs using different verbal descriptors. Personnel may regard existing rescue practices positively while identifying limitations in the frequency, equipment, or organization of training. The interview accounts support attention to this distinction by describing capable responders working within constraints on resources, staffing, and continuous development. They do not establish that the reported training conditions caused any specific operational outcome.

The pattern of operational ratings also suggests a distinction between established procedural practices and technology-dependent tasks. Safety zones, controlled victim movement, medical coordination, and incident documentation were among the more highly rated indicators. Specialized search devices, hazardous-material containment, CBRNE threat recognition, and detection equipment received relatively lower ratings within their respective domains. The practical implication is not that these tasks were absent or rated Low, but that the High category encompassed meaningful differences in perceived capability. Capacity planning should therefore consider item-level priorities rather than relying only on an overall favorable classification.

This reading is consistent with the Resource-Based and Systems perspectives used in the study. Resources matter through their availability, deployment, and interaction with other organizational components (Barney, 1991; von Bertalanffy, 1968). Interview accounts of borrowed equipment, personnel reassignment, and communication difficulties illustrate why training cannot be considered separately from logistics, staffing, and command arrangements. Similar resource and institutional constraints were identified in the reviewed BFP literature (Tangkua et al., 2026; Sabordo, 2026). The present assessment localizes these concerns to the perceptions of the participating BFP-NCR SRF personnel.

3.2.2 Training priorities and differences in perspective

The training results point to continuity and application as important planning concerns. Moderate ratings for modern rescue technologies, joint exercises, mental conditioning, and tactical practice were consistent with interview requests for refresher training and more realistic scenarios. The Human Capital perspective supports treating professional development as sustained investment rather than a single training event (Schultz, 1961; Becker, 1964). The source literature also identified uneven training access as a potential organizational concern (Jose, 2025). In the present study, however, the questionnaire measured perceived implementation, not training attendance, learning gains, certification rates, or skill retention.

Crew members rated every operational and training domain more favorably than supervisors. This descriptive pattern is clear in the reported group means, even while the inferential statistics await verification. The dissertation interprets the difference as potentially reflecting frontline experience versus broader supervisory concerns about resources, standards, and sustainability. That interpretation remains plausible but was not independently tested. Shared assessment criteria, dialogue between groups, and review of operational evidence are therefore relevant to the proposed plan; a higher or lower rating alone does not establish which group's assessment is more accurate.

3.2.3 Interpretation of reported associations

The reported correlations suggest that respondents who assessed training more favorably also tended to assess operational performance more favorably. Nevertheless, the coefficient-p-value combinations require verification, and significance decisions should not be used to rank training investments until the underlying analyses are confirmed. In particular, the source-reported nonsignificant findings should not be interpreted as proof that psychological preparedness, physical

readiness, coordination, or leadership is unimportant to a response domain. Nor do positive correlations demonstrate that increasing a training score will cause improvement in operational performance.

Both sets of ratings were collected from respondents within the same organizational setting, and the study did not independently validate operational records or observe rescue performance. Shared perceptions and response tendencies could therefore contribute to the associations. The descriptive design supports identification of areas for further investigation and planning, but not estimates of training effects on rescue success, response time, injuries, or casualties. Statements in the original conclusion that training enhances performance should consequently be read as proposed implications, not as causal findings established by this study.

3.2.4 From assessment to organizational development

The proposed plan combines technical skill development with equipment, personnel support, communication, governance, and monitoring. This integrated approach is aligned with the framework's emphasis on reliability and progressive improvement (Weick & Sutcliffe, 2001; Humphrey, 1989). Its practical value lies in translating identified needs into activities that can be reviewed, resourced, and evaluated. However, the study provides no implementation or effectiveness evaluation of the plan. Its expected outcomes remain prospective and require institutional validation and subsequent evidence before any claim of improvement can be made.

3.3 Practical Implications and Proposed Five-Year Capacity Development Plan

The proposed 2026-2030 capacity development plan addresses operational performance and training systems through equipment modernization, specialized competencies, continuous professional development, interagency coordination, and stronger governance. Its rationale draws on the lower-rated items and the interview categories, rather than on an assumption that favorable composite ratings remove the need for improvement. Table 5 condenses selected activities from the original operational and training matrices while retaining their proposed organizational responsibilities and implementation periods.

Table 5. Selected components of the proposed 2026-2030 capacity development plan

Priority area	Proposed activity, responsible unit, and period	Proposed output / performance indicator
Vehicular accident response	Training Division: hydraulic rescue-tool mastery workshops (2026-2028). Operations Unit: night operations drills using thermal imaging (2026-2029).	Certified extrication teams; night response protocol; reduced extrication time and improved nighttime success rate.
High-angle rescue	Logistics Unit: quarterly rope integrity testing and replacement system (2026-2030). Training Division: anchor-assessment certification training (2026-2028).	Rope safety registry; anchor safety manual; zero equipment failure and reduced anchor failure risk.
Collapsed structure search and rescue	ICT Unit: UAV-based structural scanning (2026-2029). Engineering Support Team: structural stability evaluation workshops (2026-2030).	Drone mapping system; assessment certification; faster victim localization and improved safety ratings.
Hazardous materials operations	Training Division: hands-on spill-sealing simulations (2026-2029). Medical Unit: decontamination corridor drills (2026-2028).	Containment certification; decontamination SOP; reduced leakage incidents and exposure risk.
CBRNE response	Logistics Unit: radiation-field simulation exercises (2026-2029). Operations Unit: joint drills with bomb-disposal units (2026-2030).	Detection calibration system; EOD coordination manual; improved detection accuracy and neutralization time.
Operational and technical competency	Training Division: cross-training in fire, rescue, and medical response (2026-2030). ICT Unit: online rescue scenario simulations (2027-2030).	Multi-certified personnel; digital learning system; increased multi-skilling rate and improved training efficiency.
Physical and tactical readiness	Operations Unit: realistic city-based tactical drills (2026-2029). Medical Unit: physiotherapy and injury-prevention workshops (2026-2030).	Tactical mobility report; health monitoring system; faster movement efficiency and reduced injury rate.
Psychological resilience and emotional preparedness	HR Unit: family counseling workshops (2026-2028). Training Division: peer-support officer training (2026-2029).	Family support module; peer support system; improved morale stability and emotional resilience.
Interagency coordination and communication	Communications Unit: satellite and radio redundancy drills (2026-2030). ICT Unit: real-time incident tracking system (2027-2030).	Backup communication system; digital command center; zero communication failure and faster decision-making.
Leadership and strategic decision-making	SRF Academy: unpredictable-scenario drills (2026-2029). HR Unit: identification and training of future commanders (2026-2030).	Adaptive leadership report; succession framework; faster adaptation and stable leadership continuity.

These are proposed activities and indicators, not observed results. ICT = information and communications technology; UAV = unmanned aerial vehicle; SOP = standard operating procedure; EOD = explosive ordnance disposal; HR = human resources.

The original plan assigns oversight to an SRF Command Oversight Committee, Training and Development Division, Logistics and Equipment Management Unit, and Interagency Coordination Council. The proposed monitoring approach includes quarterly reviews, annual capability audits, after-action reviews, and a performance dashboard. These mechanisms are intended to support coordination, accountability, and continuing adjustment of activities. Their establishment and operation were not evaluated in the study.

Expected outcomes in the original plan include improved response time, higher technical rescue certification rates, stronger interagency communication, enhanced psychological resilience, modernized rescue and detection equipment, and an institutionalized improvement process. These should be retained as anticipated outcomes, not reported accomplishments.

The plan is intended for review and validation by the Chief of the Office and other concerned BFP authorities before adoption. Activities involving specialized technologies, clinical or psychosocial services, or cross-agency responsibilities require appropriate professional and institutional review. The proposed 2026-2030 period is retained from the dissertation and should be reconciled with the actual approval and implementation schedule.

3.4 Limitations

The assessment relied primarily on the perceptions and self-reported responses of crew members and supervisors. Personal experience, interpretation of questionnaire items, organizational expectations, and the researcher's insider position may have influenced responses. The study did not directly observe actual rescue operations or independently validate operational performance records. Accordingly, the findings should not be equated with objective response-time measures, rescue outcomes, equipment readiness audits, or professional certification results.

The study was confined to the BFP-NCR SRF and selected operational and training areas, limiting transferability to other BFP units or rescue organizations. Water search and rescue was excluded. The study also excluded separate assessment of safety risk assessment and incident command, emergency medical and pre-hospital care, simulation-based and real-world scenario training, and legal, ethical, and cultural sensitivity. References to these activities in interviews or the proposed plan do not make them independently evaluated study domains.

Time and resource constraints limited the investigation to the identified variables. In addition, incomplete reporting of sampling, interview analysis, statistical procedures, and bibliographic information, together with unresolved numerical inconsistencies, limits assessment of reproducibility. The nonexperimental design does not establish causality, and the proposed plan was not implemented or evaluated for effectiveness within the study.

4 Conclusion

BFP-NCR SRF respondents assessed operational performance as High across the five specialized response domains and training implementation as Moderate Extent across the five training dimensions. Crew members consistently provided higher descriptive ratings than supervisors. Interview accounts identified interconnected needs involving equipment, dedicated and evenly distributed personnel, advanced and continuous training, interagency communication, and institutional support. These findings provided the basis for a proposed five-year capacity development plan combining operational, training, resource, and governance initiatives. The conclusions concern perceived capability and organizational development needs, not independently verified operational effectiveness or causal training effects. Final inferential conclusions remain conditional on verification of the reported statistical results, and the proposed plan requires institutional validation before adoption.

4.1 Recommendations

The proposed capacity development plan should be submitted to the Chief of the Office and concerned BFP authorities for checking and further validation. Following that review, the Bureau may consider its use in operational and training development, with attention to the equipment, staffing, coordination, and support needs identified by participants. Adoption should retain the distinction between proposed outcomes and results already demonstrated by the study.

Future research may extend the assessment to water search and rescue and the excluded training dimensions: safety risk assessment and incident command; emergency medical and pre-hospital care; simulation-based and real-world scenario training; and legal, ethical, and cultural sensitivity. The unresolved reporting and statistical items listed below should be addressed before submission of the manuscript or use of its inferential findings to justify program decisions.

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