ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

Proposed Enhanced Training Manual on Disaster Risk Reduction Management and Competencies of Security Personnel

Francy D. Ordineza[1]

[1]Emilio Aguinaldo College Manila, Philippines

Doctor of Philosophy in Criminal Justice with Specialization in Criminology Degree

Publication Date: 2025/11/24

How to Cite: Francy D. Ordineza (2025) Proposed Enhanced Training Manual on Disaster Risk Reduction Management and Competencies of Security Personnel. *International Journal of Innovative Science and Research Technology*, 10(11), 1241-1272. https://doi.org/10.38124/ijisrt/25nov922

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

ABSTRACT

This study assessed the competencies of security personnel in relation to the core components of Disaster Risk Reduction Management (DRRM), specifically focusing on disaster awareness and risk knowledge, emergency response and first aid skills, communication and coordination skills, and security and crowd management during disasters. A descriptive-correlational research design was employed, with data collected from respondents using a structured questionnaire. Results revealed that respondents generally rated the competencies of security personnel as "Competent" across all indicators, with the highest mean in the area of security and crowd management during disasters, followed by communication and coordination skills .

Correlation analysis showed significant relationships between DRRM dimensions and specific competencies. Notably, emergency response and first aid skills were significantly correlated with prevention and mitigation and security and crowd management . A negative but significant relationship was found between the response component and communication and coordination skills, indicating challenges in this area during actual emergency situations. Governance and coordination showed the strongest positive correlation with disaster awareness and risk knowledge. The overall correlation between DRRM and security personnel competencies was also significant, suggesting that enhancements in DRRM practices can lead to improved disaster-related competencies among security personnel.

The study concludes that strengthening DRRM strategies, particularly those related to governance, emergency preparedness, and coordination, is essential in enhancing the performance and readiness of security personnel in disaster scenarios. Recommendations include targeted training programs, institutional support mechanisms, and integrated participation of security personnel across all DRRM phases.

Keywords: *Disaster Risk Reduction Management, Security Personnel, Emergency Response, Communication Skills, Disaster Preparedness, Governance.*

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

TABLE OF CONTENT

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

CHAPTER ONE
INTRODUCTION

Disasters diminish societal well-being, lead into loss of lives and destruction of social and economic infrastructures (Pal et.al, 2021) and the most significant development influencing physical and economic disaster loss is the changing climate change (Feldmann – Jensen et. al, 2019). The security sector has an important responsibility towards disaster response measure, being expected to be the first responders when unexpected circumstances happen. The roles of the security guards and their competencies as force multipliers in maintaining peace and order is important in any facility, either public or private entities.

The Disaster Risk Reduction (DRR) Management framework emphasizes disaster prevention, mitigation, preparedness and climate change adaptation. It shows mitigating potential impacts of existing disaster and climate risk, preventing hazards and small emergencies from becoming disasters (Padagdag, 2018).

In order to implement effectively the disaster response measures, there is a clear mutual interest for the public and private sectors to work together. Private sectors should contribute greatly to DRR- relevant decision making process. Creating set of core competencies are imperative in developing successful DRRM practice and unites the future of workforce. According to Madrigano (2017) study on Beyond Disaster Preparedness: Building a Resilience-Oriented Workforce for the Future, resilience is imperative to develop resilience-oriented workforce wherein it focuses on effective leadership models that foster a balance between resilience-oriented workforce autonomy and operation as a collective entity.

- *Background of the Study*

Security personnel should be included into participatory actions and different committees' efforts converged towards making this world safer, more prepared for future disasters, and more resilient. For as long as the security personnel think of their positions as opportunities for service rather than power, a more contextualized and needs-appropriate development can be achieved.

Given the interdisciplinary nature of security departments, functioning channels of communication as well as effective institutional mechanisms of coordination are critical. Several security personnel addressed the need to improve communication and/or coordination mechanism between relevant stakeholders in the field.

Hence, communication links should also be strengthened, because private institutions lack in awareness of the structure and to whom they will have to seek assistance in the community level, which often leads to misleading information.

The knowledge enhancement among security personnel should include awareness raising and information dissemination in DRRM, orientation on the various policies that impacted on the personnel. These activities should include People's Plan, organizing and leadership strengthening, advocacy and various recovery options. With this, the heightening of the awareness of the security personnel in times of disaster strengthens relationship within the community. It even encourages volunteerism and recast peoples relationship with their stakeholders.

It was already proven that additional partners were needed to implement key interventions. The security personnel should be knowledgeable enough towards learning and development of knowledge about DRRM. Mainstreaming of DRRM policies into the security personnel will increase the overall awareness on DRRM policy, advocacy, networking, communication activities.

Stakeholders who work on the issues of DRRM have observed that leadership among security personnel have not yet been fully taken into consideration and there is a significance of building frameworks to increase leadership among the security personnel in the context of DRRM. This however has only been recognized but has not been being implemented in a serious manner.

While policy makers and practitioners are relatively new to dealing with DRRM, efforts of the governments to successfully manage the expectations aligned with Sendai Framework is visible. A successful approach entails addressing the issue from all angles while simultaneously reducing the impacts of disasters, enhancing long-term local buy-in, avoiding duplicated or contradicting efforts and facilitating continued coordination across stakeholders. In order to fit effective program for security personnel, the objective of effective coordination is needed including the integration of strategies, policies and actions between government and private institutions.

From the DRRM perspective, personal issues and detachment of security personnel to the importance of ensuring security not just within the premises of where they are working but with the community as a whole, can badly affect even the sharpest contingency plans. For instance, withholding information, personal biases, and other work or personal related issues can influence and damage any preparedness plan. If the security personnel are given space, tackled, and seen as an integral part of the security and safety of the community, the process of involving introspection and community dynamics can become a very powerful tool for unleashing the human spirit in security the safety of everyone will be achieved.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

Personal transformation is essential in any fundamental change. By empowering security personnel, transformation in bits and pieces of changed attitudes, in acknowledging personal weakness, or in displays of deep concern for the welfare of everyone will be visible. Without the capacity of self-observation, all behaviors and resulting actions be they political, cultural and economic will only be a reflection of the compulsive habits of the mind and hearts. They will simply be venues for normal and habitual reactions to situations that oftentimes result in inappropriate, if not disastrous judgments, decisions, and actions.

The external manifestations of acquired skills and capacities are nurtured by an internal transformation tied to security personnel recognizing themselves as stewards of life. The changes breeds a good culture of safety and solidarity which demands that people become conscious of their interdependence and resilience that the best way towards excellence at work is to be knowledgeable, able to understand the real situation and to be directed towards helping others preserve and enhance their lives. The culture of safety natural among the security personnel comes inseparable from a culture of solidarity.

In order to increase the capacity of the security personnel in preparation of disasters, the researcher aims to assess the existing DRRM competencies of security personnel in preparation for disasters to be encountered in retail store environment.

Security Personnel are the first responders during disasters. To copiously conceptualize the proposed plan of action, Theory of Planned Behavior has been used as a basis for strengthening the tools and strategies.

This theory assumes that individuals act rationally based on attitudes, subjective norms, and perceived behavioral control. Hence, these factors are the basis of decision-making of a certain individual towards a specific circumstance.

Based on a study conducted by the Minnesota State University, there are four identified key concepts and dimensions in this theory: 1) Behavioral Intention; 2) Attitude towards Behavior; 3) Subjective Norm; 4) Perceived Behavioral Control.

Highly dependent upon the topic to be considered, measures under the Theory of Planned Behavior should be assessed based on all the main aforementioned components. Analysis often measure in a like scale and more comprehensive than any other surveys.

➢ *Conceptual Framework*

This study anchored on RA 11917, also known as the Private Security Services Industry Act, strengthens the regulation of the private security services industry in the Philippines. It aims to enhance the quality of private security personnel and ensure their competence by establishing quality standards and implementing pre-licensing training programs. The law also defines key terms related to the industry and outlines penalties for violations.

Likewise, RA 10121, also known as the Philippine Disaster Risk Reduction and Management Act of 2010, is a law that strengthens the country's disaster risk reduction and management system. It shifts the focus from disaster response to proactive disaster risk reduction and management. The Act also establishes the National Disaster Risk Reduction and Management Framework and institutionalizes the National Disaster Risk Reduction and Management Plan.

➢ *Statement of the Problem*

This study assessed the disaster risk reduction management and competencies of security personnel with the end view of a proposed enhanced training manual. Specifically, it will answer the following:

- *What is the Demographic Profile of the Respondents in Terms of the Following:*

✓ Age,
✓ Civil status,
✓ Educational attainment,
✓ Years in service?
✓ Trainings in DRRM attended?

- *What is the Assessment of Respondents on the Disaster Risk Reduction Management in Terms of the Following:*

✓ Prevention and Mitigation,
✓ Preparedness,
✓ Response,
✓ Recovery and rehabilitation, and
✓ Governance and Coordination?

- *Is there a Significant Difference on the Assessment of Respondents on the Disaster Risk Reduction Management when their Profile is taken as test factor?*
- *What is the Assessment of Respondents on the Competencies of Security Personnel in Terms of the Following:*

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

- ✓ Disaster awareness and risk knowledge
- ✓ Emergency response and first aid skills,
- ✓ Communication and coordination skills, and
- ✓ Security and crowd management during disasters?

- *Is there Significant Difference in the Assessment of Respondents on the Competencies of Security Personnel when their Profile is taken as Test Factor?*
- *Is there a Significant Relationship in the Assessment of Respondents Between the Disaster Risk Reduction Management and Competencies of Security Personnel?*
- *Based on the Results of the Study what Enhanced Training Manual can be Proposed?*

➢ *Hypotheses*

- There is no significant difference in the assessment of respondents on the disaster risk reduction management in terms of the Prevention and Mitigation, Preparedness, Response, Recovery and rehabilitation, and Governance and Coordination when their profile is taken as test factor.
- There is no significant difference in the assessment of respondents on the competencies of security personnel in terms of the Disaster awareness and risk knowledge, Emergency response and first aid skills, Communication and coordination skills, and Security and crowd management during disasters when their profile is taken as test factor.
- There is no significant relationship in the assessment of respondents between the disaster risk reduction management and competencies of security personnel.

➢ *Scope and Delimitation of the Study*

The study was conducted in the NCR area , specifically among De Novo Prestige Security Agency clients. The security personnel respondents at their workplace or any comfortable place that the respondent were identified. The immediate officer, admin officer and admin officer of the agency were the responsible for the facilitation of the survey conducted in connection with the study.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

CHAPTER TWO
METHODOLOGY

This study is generally quantitative. Quantitative descriptive research design provides a description of an event or define a set of attitudes, opinions, or behaviors that are observed or measured at a given time and environment (Creswell, John W. and J. David, Creswell, 2018). It typically involved large samples. This design gathered information from the respondents in their assessment on the assess by the respondents the disaster risk reduction management in terms of the Prevention and Mitigation, Preparedness, Response, Recovery and rehabilitation, and Governance and Coordination. Likewise, the assessment of respondents on the competencies of security personnel in terms of the Disaster awareness and risk knowledge, Emergency response and first aid skills, Communication and coordination skills, and Security and crowd management during disasters.

- *Research Locale*

The study was conducted in the NCR area , specifically among De Novo Prestige Security Agency clients. The security personnel respondents at their workplace or any comfortable place that the respondent were identified. The immediate officer, admin officer and admin officer of the agency were the responsible for the facilitation of the survey conducted in connection with the study.

The population and sampling procedure The research has a total population of 150 security personnel of De Novo Prestige. The workplace were limited the area of Metro Manila . On the quantitative aspect, the researcher used Purposive Sampling, Applying the criteria of voluntary participation the researcher were got the sample size from the total population of the security personnel,. The researcher has decided to identified 150 respondents from the total number of security personnel in the chosen place of study.

- *Research Instrument*

The survey instrument was composed of three (3) parts. The first part were the demographic profile of the respondents from the De Novo Prestige as security personnel in terms of age, civil status, educational attainment, years in service and trainings in DRRM attended. Part 2 is the assessment of respondents on the disaster risk reduction management in terms of the Prevention and Mitigation, Preparedness, Response, Recovery and rehabilitation, and Governance and Coordination. Part 3 is the assessment of respondents on the competencies of security personnel in terms of the Disaster awareness and risk knowledge, Emergency response and first aid skills, Communication and coordination skills, and Security and crowd management during disasters.

- *Gathering of Data*

Introductory letter to the respondents was included requesting them to answer all the items needed to completely gather the data required. In particular, the letter explains the objective of the study to the respondents. The main body of the survey questionnaire consists of three (3) parts. The first part were the demographic profile of the respondents Part 2 is the assessment of respondents on the disaster risk reduction Part 3 is the assessment of respondents on the competencies of security personnel.

- *Statistical Treatment of Data*

The following statistical tools that was used in this study are:

- The frequency and percentage distributions utilized in SOP number 1.
- The weighted mean. The following rating scales used by the respondents in their assessments,
- Analysis of Variance (ANOVA) was used.
- Pearson’s r were used to test the significant relationship in the assessment of respondents between the disaster risk reduction management and competencies of security personnel.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

CHAPTER THREE
RESULTS AND ANALYSIS

➢ *On the Demographic Profile of Respondents in Terms of Age, Civil Status, Educational Attainment, and Years in Service*

Table 1 Demographic Profile of the Respondents

Variable	Category	Frequency	Percentage
Age	Below 25 years old	40	26.7%
	25-35 Years old	53	35.3%
	36-45 Years old	22	14.7%
	46-50 Years old	28	18.66 %
	Above 50 Years old	2	4.63%
Civil Status	Single	83	55.3%
	Married	56	37.33%
	Widow/er	5	3.33%
	Separated	**6**	4.00%
Educational Attainment	High School Graduate	25	16.67%
	College Level	70	46.67%
	College Graduate	48	32.00%
	Masteral Level	5	3.33%
	Doctorate Level	2	1.33%
Years in Service	Below 5 years	31	20.7%
	5-10 years	8	5.3%
	11-15 years	33	22.0%
	15-20 years	47	31.3%
	Above 20 years	31	20.7%
Trainings in DRRM Attended	once	98	65.3%
	Two times	37	24.7%
	Three times	10	6.67%
	More than three times	5	3.33%
	TOTAL	**150**	**100%**

Table 1 presents the demographic profile of the 150 respondents in terms of their age, civil status, educational attainment, years in service, and the number of trainings attended in Disaster Risk Reduction Management (DRRM). The results were analyzed using frequency and percentage distribution.

The largest group of respondents falls within the 25–35 years old age bracket (35.3%), followed by those below 25 years old (26.7%). This indicates that the majority of the security personnel involved in DRRM activities are relatively young and are likely to be physically capable and open to training and capacity-building programs. The presence of experienced personnel in the 46–50 years range (18.66%) and above 50 (4.63%) may provide leadership, guidance, and institutional knowledge.

Most of the respondents are single (55.3%), while 37.33% are married. This suggests that a majority of the workforce may have greater mobility and fewer domestic constraints, potentially allowing for more flexible deployment during emergencies. The small percentage of widowed or separated individuals reflects a minimal impact of family-related responsibilities on their service commitment in DRRM efforts.

Nearly half of the respondents (46.67%) are at the college level, while 32.00% are college graduates, indicating a generally educated workforce. A smaller portion holds postgraduate education (Masteral or Doctorate), which may be key to leadership and planning roles in DRRM. Those with only high school education (16.67%) may require additional training to enhance technical and operational competencies in disaster-related tasks.

The highest number of respondents have served for 15 to 20 years (31.3%), reflecting a mature workforce with ample institutional knowledge and experience. Combining the mid- to long-term categories (11 years and above) accounts for 74% of the respondents, which positively contributes to the effectiveness of DRRM implementation. Those with below 5 years of service (20.7%) represent fresh personnel who may still be building competencies and adjusting to operational responsibilities.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

A large majority of respondents (65.3%) reported attending DRRM training only once, while fewer attended multiple training sessions. This finding highlights a critical gap in continuous capacity development, as only 10% of respondents have attended DRRM training three times or more. The limited exposure to repeated or advanced DRRM training suggests the need for institutionalized, ongoing professional development programs to improve disaster preparedness, response efficiency, and role-specific competencies among security personnel.

The demographic profile of respondents shows a relatively young, single, and college-educated workforce with moderate to long service experience. While most personnel have received at least one DRRM training, there is a notable need for sustained and progressive training programs to build and enhance disaster-related competencies. This profile provides a strong foundation for the implementation of DRRM initiatives, but also underscores the importance of continuous learning, mentorship, and leadership development across all personnel levels.

- *On the Assessment of Respondents on the Disaster Risk Reduction Management.*

Table 2 Assessment of Respondents on the Disaster Risk Reduction Management in Terms of the Prevention and Mitigation

Prevention and Mitigation	WM	SD	QD	VI
1. Our institution regularly conducts risk assessments to identify disaster-prone areas	3.27	.633	Agree	Involved
2. Hazard maps are available and updated for use in planning and mitigation	3.28	.636	Agree	Involved
3. Environmental protection measures are integrated into our disaster risk strategies	3.33	.650	Agree	Involved
4. Disaster-resistant construction standards are followed in infrastructure development	3.61	.542	Strongly Agree	Highly Involved
5. Community awareness on disaster prevention is regularly prom	2.98	.855	Agree	Involved
Composite Mean	3.29	.3062	Agree	Involved

Legend: 3.51 – 4.00 (Strongly Agree-Highly Involved); 2.51 – 3.50 (Agree- Involved); 1.51 – 2.50 (Disagree-Less Involved); 1.0-1.50 (Strongly Disagree-Not Involved)

Table 2 presents and interprets the statistical results of the respondents' assessment of Disaster Risk Reduction and Management (DRRM) implementation in terms of Prevention and Mitigation.

Assessment on Prevention and Mitigation. The respondents' overall assessment of DRRM efforts in terms of prevention and mitigation produced a composite weighted mean of 3.293 and a standard deviation of 0.3062, interpreted as "Agree" and "Implemented." This implies that preventive and mitigation strategies are generally evident in practice within the institution.

The highest-rated indicator," Disaster-resistant construction standards are followed in infrastructure development" ($\bar{x}$ = 3.61, SD = 0.542), was interpreted as "Strongly Agree" and "Highly Implemented." This supports recent studies that highlight the significance of resilient infrastructure in reducing vulnerabilities during disasters (UNDRR, 2023; Liu et al., 2022). Such adherence aligns with global frameworks like the Sendai Framework for Disaster Risk Reduction which emphasizes structural risk reduction (UNDRR, 2020).

Meanwhile, "Community awareness on disaster prevention is regularly promoted" had the lowest mean score ($\bar{x}$ = 2.98, SD = 0.855), although still interpreted as "Agree." The higher standard deviation suggests varied perceptions among respondents, possibly indicating inconsistencies in program reach or participation. This finding aligns with the observations of Santos & Reyes (2021), who argue that while institutional plans are often in place, the translation of these into grassroots awareness campaigns remains uneven and under-resourced.

Other aspects—such as the conduct of risk assessments ($\bar{x}$ = 3.27), hazard mapping ($\bar{x}$ = 3.28), and environmental integration ($\bar{x}$ = 3.33)—are consistently rated as "Implemented." These results affirm earlier findings that institutions increasingly recognize the importance of non-structural measures in prevention and mitigation (Alcantara & Dela Cruz, 2020; Zhang & Huang, 2024).

Overall, the results suggest that while preventive infrastructure and planning practices are evident, there is a critical need to strengthen awareness and communication strategies targeting community-level stakeholders.

Table 3 Assessment of Respondents on the Disaster Risk Reduction Management in Terms of the Preparedness

Preparedness	WM	SD	QD	VI
1. Emergency drills are conducted at least once a year with the participation of all personnel	3.29	.763	Agree	Involved
. Security staff are informed about their roles during disaster events	3.15	.659	Agree	Involved
3. The organization has an updated and accessible emergency preparedness plan	2.99	.675	Agree	Involved

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

. There are adequate emergency supplies and equipment for disaster situations	3.20	.695	Agree	Involved
Early warning systems are in place and effectively communicated to staff and the public	3.25	.744	Agree	Involved
Composite Mean	3.175	.343	Agree	Involved

Legend: 3.51 – 4.00 (Strongly Agree-Highly Involved); 2.51 – 3.50 (Agree- Involved); 1.51 – 2.50 (Disagree-Less Involved); 1.0-1.50 (Strongly Disagree-Not Involved)

Table 3 presents the Preparedness in Disaster Risk Reduction Management received an overall composite weighted mean of 3.175 and a standard deviation of 0.3439, indicating a consistent assessment across all items. The qualitative description of "Agree" and verbal interpretation "Involved" imply that preparedness measures are present but have room for improvement.

The highest-rated item was: "Emergency drills are conducted at least once a year with the participation of all personnel" ($\bar{x}$ = 3.29, SD = 0.763), suggesting that regular simulation exercises are evident. This aligns with global best practices that emphasize the role of simulation and preparedness drills in enhancing institutional response capacity (UNDRR, 2023; Cruz & Yu, 2021). Such drills foster familiarity with evacuation routes, coordination protocols, and contingency roles.

The lowest-rated indicator was: "The organization has an updated and accessible emergency preparedness plan" ($\bar{x}$ = 2.99, SD = 0.675), which still falls under "Agree" but suggests that the updating, dissemination, or awareness of formal preparedness plans may be lacking. Recent literature supports the idea that having a plan is not sufficient; stakeholders must be fully informed and trained on its implementation (Liu et al., 2022; Santos & Reyes, 2021).

Other areas such as early warning systems ($\bar{x}$ = 3.25) and emergency supplies ($\bar{x}$ = 3.20) were also rated positively, indicating that the organization has taken steps to operationalize early disaster response systems. However, as the standard deviations suggest moderate variability, some respondents may not have full access or awareness of these systems, reflecting gaps in communication and resource allocation (Zhang & Huang, 2024).

The findings reveal that while preparedness mechanisms are in place, their effectiveness, accessibility, and inclusivity need to be further institutionalized through capacity-building, documentation, and regular review.

Table 4 Assessment of Respondents on the Disaster Risk Reduction Management in Terms of the Response

Response	WM	**SD**	**QD**	**VI**
1. The security team can respond quickly and appropriately to disaster-related incidents	3.16	.733	Agree	Involved
2. Evacuation procedures are clearly defined and rehearsed regularly	3.61	.553	Strongly Agree	Highly Involved
3. Coordination with emergency services (e.g., fire, police, health) is practiced during drills	3.28	.569	Agree	Involved
4. Our security personnel are trained to assist in search and rescue operations	3.06	.837	Agree	Involved
Communication channels are functional and reliable during emergencies	3.04	.850	Agree	Involved
Composite Mean	3.231	.3299	Agree	Involved

Legend: 3.51 – 4.00 (Strongly Agree-Highly Involved); 2.51 – 3.50 (Agree- Involved); 1.51 – 2.50 (Disagree-Less Involved); 1.0-1.50 (Strongly Disagree-Not Involved)

Shown in table 4 is the respondents' assessment of the Response component of Disaster Risk Reduction Management (DRRM) yielded a composite mean of 3.231 with a standard deviation of 0.3299, interpreted as "Agree" and "Involved." This reflects a generally positive perception of the institution's ability to respond to disasters, although improvement is still needed to elevate overall responsiveness to a highly involved or fully effective level.

The item that garnered the highest rating was: "Evacuation procedures are clearly defined and rehearsed regularly" ($\bar{x}$ = 3.61, SD = 0.553), which was interpreted as "Strongly Agree" and "Highly Involved." This indicates that the organization has clearly established and regularly practiced evacuation protocols—a crucial factor in reducing casualties and confusion during actual emergencies. Regular drills, aligned with defined procedures, are widely recognized as essential for enhancing organizational readiness (UNDRR, 2023; Gonzales et al., 2022).

In contrast, the lowest-rated items were: "Communication channels are functional and reliable during emergencies" ($\bar{x}$ = 3.04, SD = 0.850) and "Our security personnel are trained to assist in search and rescue operations" ($\bar{x}$ = 3.06, SD = 0.837), indicating variability in preparedness related to communication infrastructure and specialized response skills. These areas reflect a need for

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

improved technical support systems and capacity-building for personnel tasked with emergency functions (Ahmed et al., 2021; Zhang & Huang, 2024).

Moreover, while coordination with external emergency services received a relatively high mean of 3.28, the effectiveness of such partnerships during real-time disasters may still be tested. Effective response depends not only on internal readiness but also on strong inter-agency collaboration (Liu et al., 2022).

Overall, the results suggest a functioning emergency response system that prioritizes evacuation and coordination, yet would benefit from greater investments in training, inter-agency communication protocols, and technological resilience.

Table 5 Assessment of Respondents on the Disaster Risk Reduction Management in Terms of the Recovery and Rehabilitation

Recovery and rehabilitation	WM	SD	QD	VI
1. Post-disaster assessments are conducted to guide recovery efforts	3.38	.642	Agree	Involved
2. Security personnel assist in maintaining order during recovery and relief operations	3.38	.682	Agree	Involved
3. Psychological and emotional support is provided to affected staff or community members	3.19	.444	Agree	Involved
4. Damaged facilities are promptly restored with safety improvements	3.29	.738	Agree	Involved
Lessons learned from previous disasters are integrated into recovery planning	3.07	.743	Agree	Involved
Composite Mean	3.26	.309	Agree	Involved

Legend: 3.51 – 4.00 (Strongly Agree-Highly Involved); 2.51 – 3.50 (Agree- Involved); 1.51 – 2.50 (Disagree-Less Involved); 1.0-1.50 (Strongly Disagree-Not Involved)

Table 5 shows the assessment of the Disaster Risk Reduction Management (DRRM) function in terms of Recovery and Rehabilitation revealed a composite weighted mean of 3.262, with all items interpreted as “Agree” and “Involved.” This suggests that the organization has integrated standard post-disaster recovery practices and that stakeholders perceive such efforts as consistent and functional.

Two items received the highest rating: “Post-disaster assessments are conducted to guide recovery efforts” and “Security personnel assist in maintaining order during recovery and relief operations” (both with $\bar{x}$ = 3.38). These results highlight the institutional recognition of the importance of structured recovery assessments and the vital role of security teams in post-disaster order. According to Tan and Estrella (2021), well-documented recovery efforts supported by orderly operations can reduce vulnerabilities and speed up restoration.

The item “Psychological and emotional support is provided to affected staff or community members” received a mean of 3.19, which, while still positive, indicates a potential gap in psychosocial recovery support. This is consistent with recent literature emphasizing the growing need for trauma-informed recovery strategies (Nguyen & Lee, 2023).

Meanwhile, the item “Damaged facilities are promptly restored with safety improvements” ($\bar{x}$ = 3.29) reflects a reasonably strong commitment to rebuilding infrastructure with resilience considerations, aligned with the “build back better” principle in DRRM (UNDRR, 2023).

However, the lowest-rated item was “Lessons learned from previous disasters are integrated into recovery planning” ($\bar{x}$ = 3.07), suggesting a modest shortfall in institutional learning and adaptive planning. This finding is critical, as integrating past experiences into future plans is a hallmark of effective disaster governance (Carreon et al., 2024).

Overall, these results show that the organization is actively engaged in recovery but needs to institutionalize a more reflective, learning-oriented, and holistic approach, particularly in the psychosocial and planning dimensions of recovery.

Table 6 Assessment of Respondents on the Disaster Risk Reduction Management in Terms of the Governance and Coordination

Governance and Coordination	WM	SD	QD	VI
1. The DRRM policies are well-integrated with the organization’s security operations	3.39	.818	Agree	Involved
2. There is strong collaboration between the security unit and local DRRM councils	3.33	.719	Agree	Involved
3. Roles and responsibilities during disasters are clearly outlined for all departments	3.19	.652	Agree	Involved
4. Leadership ensures that disaster preparedness is a regular part of institutional planning	3.17	.670	Agree	Involved
5. Inter-agency coordination is prioritized during emergency response operations	3.13	.575	Agree	Involved
Composite Mean	3.243	.3157	Agree	Involved

Legend: 3.51 – 4.00 (Strongly Agree-Highly Involved); 2.51 – 3.50 (Agree- Involved); 1.51 – 2.50 (Disagree-Less Involved); 1.0-1.50 (Strongly Disagree-Not Involved)

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

Table 6 show the respondents' assessment of Governance and Coordination in DRRM yielded a composite weighted mean of 3.243, with all items interpreted as "Agree" and "Involved." This indicates that the organization's governance structure and coordination mechanisms for disaster management are generally functional and visible within operational activities.

The highest-rated item was: "The DRRM policies are well-integrated with the organization's security operations" ($\bar{x}$ = 3.39), highlighting that the institution aligns its disaster-related policies with security protocols. This finding supports studies by Lozano and Ramos (2022), who emphasize that seamless integration between DRRM and organizational units enhances preparedness and response effectiveness.

Another highly rated indicator was: "There is strong collaboration between the security unit and local DRRM councils" ($\bar{x}$ = 3.33), showing the value of external partnerships in improving local risk governance. Research by Alfaro & Del Mundo (2021) underscores the importance of such multi-stakeholder collaboration in disaster governance for synchronized response efforts.

Items regarding clarity of roles and responsibilities ($\bar{x}$ = 3.19), institutional planning led by leadership ($\bar{x}$ = 3.17), and inter-agency coordination during emergencies ($\bar{x}$ = 3.13) were also evaluated positively but received comparatively lower scores. These suggest that while formal governance frameworks exist, there may still be opportunities to enhance leadership commitment, interdepartmental coordination, and operational clarity.

This aligns with the findings of Santos and Quijano (2024), who noted that many institutions still face gaps in internal coordination, even when policies are in place.

Overall, the data reflects a generally favorable implementation of governance and coordination mechanisms, although greater leadership engagement and inter-agency integration could strengthen DRRM outcomes.

Table 7 Summary of the Assessment of Respondents on the Disaster Risk Reduction Management

Indicator	WM	SD	QD	VI
Prevention and mitigation	3.29	.30	Agree	Involved
Preparedness	3.17	.34	Agree	Involved
Response	3.23	.32	Agree	Involved
Recovery and rehabilitation	3.26	.30	Agree	Involved
Governance and coordination	3.24	.31	Agree	Involved
Overall Mean	3.24	.15	Agree	Involved

Legend: 3.51 – 4.00 (Strongly Agree-Highly Involved); 2.51 – 3.50 (Agree- Involved); 1.51 – 2.50 (Disagree-Less Involved); 1.0-1.50 (Strongly Disagree-Not Involved)

Table 7 is the summary of the overall assessment of respondents on Disaster Risk Reduction Management yielded an overall weighted mean of 3.24 with a standard deviation of 0.15, corresponding to the qualitative description "Agree" and the verbal interpretation "Involved." This indicates that respondents perceive their organization's DRRM initiatives to be adequately implemented and integrated into operations.

Prevention and Mitigation recorded the highest mean score at 3.29, reflecting that risk avoidance and damage-limiting measures are visibly practiced within the organization.

Preparedness had the lowest weighted mean of 3.17, suggesting room for improvement in the conduct of drills, early warning systems, and the readiness of emergency supplies.

Response and Recovery and Rehabilitation both scored relatively high at 3.23 and 3.26, respectively, indicating that the organization is actively engaged in effective response actions and post-disaster efforts.

Governance and Coordination, with a weighted mean of 3.24, implies that policy integration, inter-agency collaboration, and leadership support in DRRM are functioning but may benefit from stronger interdepartmental alignment and clearer role definition.

These findings reflect a balanced level of disaster risk engagement across all DRRM areas. However, the slightly lower score in Preparedness calls for strategic enhancements to strengthen institutional resilience.

- *On the Significant Difference on the Assessment of Respondents on the Disaster Risk Reduction Management when their Profile is taken as Test Factor*

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

Table 8 Difference on the Assessment of Respondents on the Disaster Risk Reduction Management when their Age Profile is taken as Test Factor

Indicator	Age	Mean	F	Sig.	Decision on Ho	Interpretation
Prevention and mitigation	Below 25 years old 25-35 Years old 36-45 Years old 46-50 Years old Above 50 Years old	3.27 3.32 3.16 3.32 3.24	3.624	.059	Accepted	Not Significant
Preparedness	Below 25 years old 25-35 Years old 36-45 Years old 46-50 Years old Above 50 Years old	3.22 3.13 3.16 3.32 3.34	.762	.384	Accepted	Not Significant
Response	Below 25 years old 25-35 Years old 36-45 Years old 46-50 Years old Above 50 Years old	3.16 3.32 3.27 3.26 3.24	.476	.491	Accepted	Not Significant
Recovery and rehabilitation	Below 25 years old 25-35 Years old 36-45 Years old 46-50 Years old Above 50 Years old	3.27 3.26 3.24 3.25 3.33	.485	.487	Accepted	Not Significant
Governance and coordination	Below 25 years old 25-35 Years old 36-45 Years old 46-50 Years old Above 50 Years old	3.26 3.22 3.16 3.32 3.32	.285	.594	Accepted	Not Significant
Overall	Below 25 years old 25-35 Years old 36-45 Years old 46-50 Years old Above 50 Years old	3.24 3.25 3.26 3.22 3.16	.250	.618	Accepted	Not Significant

Table 8 shown the Differences in Disaster Risk Reduction Management (DRRM) Assessment According to Age Profile. The study examined whether there are significant differences in the respondents' assessment of Disaster Risk Reduction Management (DRRM) across five dimensions—Prevention and Mitigation, Preparedness, Response, Recovery and Rehabilitation, and Governance and Coordination when grouped according to age.

Using one-way ANOVA, the following results were obtained:

- Prevention and Mitigation. The computed F-value of 3.624 and p-value of .059 led to the acceptance of the null hypothesis (Ho), indicating no significant difference among age groups. Although the p-value is close to the 0.05 threshold, it remains statistically insignificant. The slight variability suggests a relatively uniform perception of risk mitigation strategies regardless of age.
- Preparedness. With an F-value of 0.762 and p-value of .384, the result also shows no significant difference. This indicates that all age groups perceive preparedness measures (e.g., drills, supplies, warning systems) similarly, possibly due to standardized institutional practices.
- Response. The F-value of 0.476 and p-value of .491 further supports the uniform perception across age groups in terms of response actions. This implies that emergency roles, response protocols, and communication channels are equally experienced or understood by all age demographics.
- Recovery and Rehabilitation. With a p-value of .487, again, no significant differences were observed. This suggests that recovery activities, including post-disaster support and facility restoration, are equally valued across all ages.
- Governance and Coordination. The F-value of 0.285 and p-value of .594 indicate the most homogeneous perception, implying consistent understanding of governance, leadership roles, and inter-agency coordination regardless of age.

Overall Assessment The overall mean comparison resulted in a p-value of .618, confirming no statistically significant difference in the total DRRM assessment across different age brackets.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

These results align with recent findings by Chen et al. (2022) and Martinez & Reyes (2023), which emphasize that in structured organizational environments with standardized DRRM protocols, demographic factors such as age tend to have minimal influence on perception levels due to common training exposure and policy enforcement.

Table 9 Difference of the Assessment of Respondents on the Disaster Risk Reduction Management when their Civil Status Profile is taken as Test Factor

Indicator	Civil Status	Mean	F	Sig.	Decision on Ho	Interpretation
Prevention and mitigation	Single Married Widow/er Separated	3.34 3.27 3.20 3.33	1.231	.301	Accepted	Not Significant
Preparedness	Single Married Widow/er Separated	3.22 3.12 3.17 3.21	.775	.510	Accepted	Not Significant
Response	Single Married Widow/er Separated	3.22 3.35 3.08 3.16	4.445	.005	Rejected	Significant
Recovery and rehabilitation	Single Married Widow/er Separated	3.25 3.3 3.27 3.22	.518	.670	Accepted	Not Significant
Governance and coordination	Single Married Widow/er Separated	3.27 3.14 3.20 3.39	4.812	.003	Rejected	Significant
Overall	Single Married Widow/er Separated	3.26 3.24 3.19 3.26	1.428	.237	Accepted	Not Significant

Table 9 shows the Differences in Disaster Risk Reduction Management (DRRM) Assessment According to Civil Status. The study analyzed whether civil status significantly influenced the respondents' assessment of disaster risk reduction management across five key indicators. Using one-way ANOVA, the following findings were drawn:

- Prevention and Mitigation. The F-value of 1.231 and p-value of .301 suggest that there is no significant difference in the respondents' perceptions based on civil status. All groups—single, married, widowed, and separated—exhibited comparable agreement levels on hazard mitigation efforts.
- Preparedness. With an F-value of 0.775 and p-value of .510, civil status does not significantly affect how respondents assess the organization's preparedness. This supports the notion that preparedness activities such as training and emergency drills are equally disseminated across civil groups.
- Response. A significant difference was noted in the response indicator, where the F-value was 4.445 and the p-value was .005. This leads to the rejection of the null hypothesis, indicating that civil status significantly affects perceptions of the organization's emergency response. Specifically, married respondents (Mean = 3.35) rated the response measures more favorably than widowed individuals (Mean = 3.08), suggesting that personal circumstances may influence their confidence in emergency actions. According to Li et al. (2021), personal relationships and family obligations can influence how individuals perceive institutional response strategies during crises.
- Recovery and Rehabilitation. The computed F-value of 0.518 and p-value of .670 show no significant difference, indicating a shared perception of post-disaster efforts such as facility restoration and psychological support, regardless of civil status.
- Governance and Coordination. Significant differences were found under this indicator, with an F-value of 4.812 and p-value of .003. The result implies that perceptions on governance and coordination mechanisms vary significantly by civil status. Separated individuals rated this dimension highest (Mean = 3.39), while married respondents gave the lowest ratings (Mean = 3.14). These results may reflect differing degrees of involvement in community activities or trust in leadership, as discussed by Ramirez & Ong (2022), who noted that social support networks influence individual engagement in governance systems during emergencies.

Overall DRRM Assessment. Despite the noted differences in specific indicators, the overall assessment yielded an F-value of 1.428 and p-value of .237, indicating no significant difference in general DRRM perceptions across civil status groups.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

Table 10 Difference in the Assessment of Respondents on the Disaster Risk Reduction Management when their Educational Attainment Profile is taken as Test Factor

Indicator	Educational Attainment	Mean	F	Sig.	Decision on Ho	Interpretation
Prevention and mitigation	High School Graduate College Level College Graduate Masteral Level Doctorate Level	3.27 3.37 3.23 3.21	1.833	.164	Accepted	Not Significant
Preparedness	High School Graduate College Level College Graduate Masteral Level Doctorate Level	3.1 3.28 3.39 3.25	7.390	.001	Rejected	Significant
Response	High School Graduate College Level College Graduate Masteral Level Doctorate Level	3.30 3.10 3.11 3.23	6.727	.002	Rejected	Significant
Recovery and rehabilitation	High School Graduate College Level College Graduate Masteral Level Doctorate Level	3.27 3.23 3.29 3.26	.285	.752	Accepted	Not Significant
Governance and coordination	High School Graduate College Level College Graduate Masteral Level Doctorate Level	3.19 3.41 3.24 3.26	6.299	.002	Rejected	Significant
Overall	High School Graduate College Level College Graduate Masteral Level Doctorate Level	3.23 3.28 3.25 3.26	1.446	.239	Accepted	Not Significant

Table 10 shows the Differences in Disaster Risk Reduction Management (DRRM) Assessment According to Educational Attainment. To explore whether educational attainment significantly influenced the respondents' assessment of disaster risk reduction management (DRRM), one-way ANOVA was employed. The results are as follows:

- Prevention and Mitigation. The computed F-value of 1.833 with a p-value of .164 indicates no significant difference in the respondents' assessment based on educational attainment. This suggests that regardless of educational level—from high school graduates to doctorate holders—respondents had similar perceptions about the institution's efforts in hazard reduction and risk control. This is consistent with Yoon & Kim (2020), who found that awareness of risk prevention is often shaped more by institutional communication than educational background.
- Preparedness. A significant difference was observed in this area, with an F-value of 7.390 and a p-value of .001, leading to the rejection of the null hypothesis. The data revealed that college graduates (Mean = 3.39) rated preparedness activities higher than other groups. This may reflect their stronger comprehension of preparedness protocols and emergency drills. As supported by de Guzman et al. (2022), individuals with higher education levels are more likely to understand and act upon disaster preparedness initiatives due to greater access to and understanding of information.
- Response. The analysis yielded an F-value of 6.727 and a p-value of .002, indicating a statistically significant difference in how respondents assessed the organization's response operations. High school graduates (Mean = 3.30) rated the response dimension higher than college and master's degree holders. This may imply that respondents with lower educational attainment may perceive basic emergency actions as more effective, while those with more education may have higher expectations for response protocols. This interpretation aligns with Caballero & Francisco (2023), who noted that education influences expectations on disaster responsiveness and crisis logistics.
- Recovery and Rehabilitation. The F-value of 0.285 and p-value of .752 suggest no significant difference in the perception of recovery efforts, such as rebuilding and psychological support, regardless of educational level. This implies that recovery efforts were consistently understood and appreciated by all educational groups.
- Governance and Coordination. This indicator shows a significant difference across educational levels, with an F-value of 6.299 and p-value of .002, rejecting the null hypothesis. College-level respondents rated governance and coordination highest (Mean = 3.41), possibly indicating a more favorable perception of institutional leadership and inter-agency collaboration among mid-

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

tier educational groups. As Zhou & Liu (2021) observed, intermediate educational levels often reflect higher civic participation but also a realistic understanding of bureaucratic processes, potentially affecting how coordination is viewed.

Overall Assessment. Despite significant variations in some indicators, the overall DRRM assessment across education levels showed no statistically significant difference (F-value = 1.446, p-value = .239). This suggests a generally consistent level of agreement across all educational backgrounds on the overall adequacy of DRRM implementation.

Table 11 Differences on the Assessment of Respondents on the Disaster Risk Reduction Management when their Training in DRRM Attended Profile is taken as Test Factor

Indicator	Training in DRRM Attended	Mean	F	Sig.	Decision on Ho	Interpreta-tion
Prevention and mitigation	once Two times Three times More than three times	3.30 3.28 3.33 3.25	.246	.782	Accepted	Not Significant
Preparedness	once Two times Three times More than three times	3.14 3.19 3.22 3.11	.612	.544	Accepted	Not Significant
Response	once Two times Three times More than three times	3.27 3.19 3.21 3.20	1.000	.370	Accepted	Not Significant
Recovery and rehabilitation	once Two times Three times More than three times	3.22 3.33 3.23 3.21	2.031	.135	Accepted	Not Significant
Governance and coordination	once Two times Three times More than three times	3.16 3.29 3.35 3.20	4.779	.010	Rejected	Significant
Overall	once Two times Three times More than three times	3.22 3.26 3.27 3.22	1.398	.250	Accepted	Not Significant

Table 11 presents the Differences in Disaster Risk Reduction Management (DRRM) Assessment According to DRRM Training Attended. To determine whether the frequency of DRRM training significantly affects the respondents' assessment of disaster risk reduction management, a one-way ANOVA was utilized. The findings for each DRRM component are summarized below:

- Prevention and Mitigation. The analysis yielded an F-value of 0.246 with a p-value of .782, leading to the acceptance of the null hypothesis. This indicates no significant difference in how respondents assessed prevention and mitigation strategies, regardless of how many DRRM trainings they had attended. This result implies that a single exposure to DRRM concepts may be sufficient for general awareness, as supported by Alcazaren & Ramos (2021) who emphasized the role of initial training in shaping fundamental knowledge on risk prevention.
- Preparedness. With an F-value of 0.612 and p-value of .544, the result also shows no significant difference across training frequencies. Although those who attended three trainings had the highest mean score (3.22), differences were not statistically meaningful. This suggests that preparedness awareness may not necessarily deepen with repeated trainings unless such sessions offer advanced or differentiated content, a notion supported by Lim & Bautista (2022) who emphasized the need for progressive training modules.
- Response. The F-value of 1.000 and p-value of .370 lead to non-significant results, indicating that training frequency does not significantly impact how respondents evaluate response operations. This may suggest that practical experience or simulation-based learning could be more effective than repetitive theoretical training, as suggested by Villanueva & Delos Santos (2023).

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

- Recovery and Rehabilitation. The test result (F = 2.031, p = .135) also indicates no statistically significant difference. Although those who attended two trainings gave slightly higher ratings, it appears that multiple exposures did not create a meaningful variation in perception about recovery and rehabilitation. These findings may indicate the need for more specific post-disaster recovery content in DRRM training.
- Governance and Coordination. This indicator was the only dimension showing a statistically significant difference, with an F-value of 4.779 and a p-value of .010, leading to the rejection of the null hypothesis. Notably, respondents who had attended three trainings gave the highest mean score (3.35), suggesting that deeper engagement in training enhances appreciation for the complexity of disaster governance and the need for inter-agency coordination. As supported by Zhang et al. (2024), multiple training exposures improve respondents' understanding of leadership roles and collaboration frameworks in disaster scenarios.

Overall Assessment. The overall DRRM ratings showed no significant difference across the frequency of training (F = 1.398, p = .250), implying a general consensus on DRRM effectiveness regardless of training count.

➢ *On the Assessment of Respondents on the Competencies of Security Personnel.*

Table 12 Assessment of Respondents on the Competencies of Security Personnel in terms of the Disaster Awareness and Risk Knowledge

Disaster awareness and risk knowledge	WM	SD	QD	VI
I am familiar with the different types of natural and man-made hazards	3.27	.858	Agree	Competent
. I understand the key provisions of RA 10121 (Philippine DRRM Act)	2.77	.737	Agree	Competent
3. I can identify risk-prone areas within my area of assignment	2.65	.906	Agree	Competent
I am aware of the organization's disaster protocols and contingency plans	3.39	.818	Agree	Competent
5. I understand the importance of disaster preparedness in my role as a security personnel	3.33	.719	Agree	Competent
Composite Mean	3.081	.2941	Agree	Competent

Legend: 3.51 – 4.00 (Strongly Agree-Highly Competent); 2.51 – 3.50 (Agree- Competent); 1.51 – 2.50 (Disagree-Less Competent); 1.0-1.50 (Strongly Disagree-Incompetent)

Table 12 presents the assessment of respondents on the disaster awareness and risk knowledge competencies of security personnel. This domain evaluates the personnel's familiarity with hazards, legal frameworks, risk-prone areas, organizational protocols, and the relevance of disaster preparedness in their role.

The composite mean of 3.081 with a standard deviation of 0.294 indicates that respondents generally Agree that security personnel are Competent in disaster awareness and risk knowledge. The highest rating was attributed to awareness of disaster protocols and contingency plans (mean = 3.39), followed closely by understanding the importance of preparedness (mean = 3.33), suggesting that personnel are mindful of their roles and responsibilities during disasters.

However, the lowest mean was observed in the item "I can identify risk-prone areas within my area of assignment" (mean = 2.65), which points to a potential weakness in localized risk mapping or hazard identification skills.

These findings affirm prior studies by del Rosario & Gatchalian (2021) and Javier et al. (2023), emphasizing the need to enhance the knowledge component of disaster risk reduction among frontline personnel for more effective preparedness and response efforts.

Table 13 Assessment of Respondents on the Competencies of Security Personnel in Terms of the Emergency Response and First Aid Skills

Emergency response and first aid skills	WM	SD	QD	VI
1. I am trained to administer basic first aid and CPR during emergencies	2.95	.830	Agree	Competent
2. I know how to assist in evacuation and crowd movement during a disaster	3.11	.719	Agree	Competent
3. I can operate emergency equipment such as fire extinguishers and stretchers	3.01	.690	Agree	Competent
4. I have participated in actual or simulated disaster response operations	3.49	.663	Agree	Competent
5. I can assess immediate hazards and make decisions to ensure safety	2.93	.868	Agree	Competent
Composite Mean	3.097	.3166	Agree	Competent

Legend: 3.51 – 4.00 (Strongly Agree-Highly Competent); 2.51 – 3.50 (Agree- Competent); 1.51 – 2.50 (Disagree-Less Competent); 1.0-1.50 (Strongly Disagree-Incompetent)

Table 12 discusses the assessment of security personnel competencies in the area of emergency response and first aid skills. These are crucial attributes in ensuring immediate safety and survival during disaster events, especially in the absence of professional responders.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

The composite mean of 3.097 and standard deviation of 0.317 reflect that respondents Agree and perceive the security personnel as Competent in emergency response and first aid. The highest-rated item was participation in actual or simulated disaster response operations (mean = 3.49), indicating valuable experience in real-world or training scenarios.

Meanwhile, the lowest-rated indicator was the ability to assess immediate hazards and make safety decisions (mean = 2.93), implying a potential area for improvement in situational assessment and real-time decision-making under pressure.

These findings resonate with recent research (De Guzman & Llamas, 2021; Navarro & Cruz, 2023), emphasizing that while foundational first aid training is often provided, ongoing drills and scenario-based simulations remain essential in strengthening response capacity and situational leadership in disaster settings.

Table 14 Assessment of Respondents on the Competencies of Security Personnel in Terms of the Communication and Coordination Skills

Communication and coordination skills	WM	SD	QD	VI
. I can clearly communicate emergency information to colleagues and civilians	3.37	.660	Agree	Competent
2. I know the proper channels and chain of command during disaster situations	3.46	.631	Agree	Competent
3. I coordinate effectively with local responders (police, medical, fire brigade) when needed	3.03	.798	Agree	Competent
4. I am able to use radios or emergency communication tools when power or internet is down	3.21	.774	Agree	Competent
5. I can write or deliver timely incident reports after a disaster	3.01	.847	Agree	Competent
Composite Mean	3.216	.2824	Agree	Competent

Legend: 3.51 – 4.00 (Strongly Agree-Highly Competent); 2.51 – 3.50 (Agree- Competent); 1.51 – 2.50 (Disagree-Less Competent); 1.0-1.50 (Strongly Disagree-Incompetent)

Table 14 presents the Assessment of Respondents on the Competencies of Security Personnel in Terms of Communication and Coordination Skills.

Communication and coordination are critical skills for security personnel during disaster situations. The effectiveness of emergency responses relies not only on physical readiness but also on the ability to convey accurate information, maintain order, and work in synergy with other response units.

The table below presents the assessment of respondents on the communication and coordination competencies of security personnel during disasters:

The composite mean of 3.216 with a standard deviation of 0.282 suggests that the respondents Agree that security personnel are Competent in communication and coordination skills. The highest-rated item, “I know the proper channels and chain of command during disaster situations” (mean = 3.46), indicates a strong understanding of organizational hierarchies and protocols, which is crucial in structured emergency responses (Garcia & Sison, 2021).

Meanwhile, the lowest-rated item was “I can write or deliver timely incident reports after a disaster” (mean = 3.01), reflecting that while oral communication and real-time coordination are generally acceptable, documentation and reporting may need further enhancement. This finding is echoed in recent disaster readiness studies (Lopez et al., 2023), which stress the importance of post-incident reporting for accountability and continuous improvement in disaster response.

Moreover, the ability to use emergency communication tools such as radios, especially during power or internet outages, received a moderate rating (mean = 3.21), indicating sufficient but improvable skills in backup communication methods—a key concern in many local disaster risk reduction evaluations (Mendoza & Yu, 2022).

Overall, the assessment underscores that while communication fundamentals are present, advanced coordination skills and written reporting capabilities represent areas for development among security personnel in disaster contexts.

Table 15 Assessment of Respondents on the Competencies of Security Personnel in Terms of the Security and Crowd Management During Disasters

Security and crowd management during disasters	WM	SD	QD	VI
. I can manage large groups of people in times of panic or emergency	2.92	.773	Agree	Competent
I am trained to maintain order and secure affected areas during disasters	3.52	.632	Strongly Agree	Highly Competent
3. I can de-escalate conflicts or panic situations during emergency evacuations	3.65	.505	Strongly Agree	Highly Competent

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

4. I know how to regulate access to restricted or hazardous zones	2.99	.815	Agree	Competent
5. I ensure the protection of property and relief goods during disaster operations	3.49	.610	Agree	Competent
Composite Mean	3.31	.312	Agree	Competent

Legend: 3.51 – 4.00 (Strongly Agree-Highly Competent); 2.51 – 3.50 (Agree- Competent); 1.51 – 2.50 (Disagree-Less Competent); 1.0-1.50 (Strongly Disagree-Incompetent)

Table 15 presents the Assessment of Respondents on the Competencies of Security Personnel in Terms of Security and Crowd Management During Disasters This section analyzes how respondents assessed the competencies of security personnel in managing security and crowds during disaster events. A total of five indicators were evaluated using a four-point Likert scale. The results are presented in the table below:

The indicator "I can de-escalate conflicts or panic situations during emergency evacuations" received the highest weighted mean of 3.65, indicating a “Strongly Agree” response and interpreted as “Highly Competent.” This highlights the vital role of security personnel in maintaining calm and order during potentially chaotic evacuations.

Following this, the statement "I am trained to maintain order and secure affected areas during disasters" also achieved a “Highly Competent” rating with a weighted mean of 3.52, suggesting strong preparedness in area security protocols. On the other hand, the lowest mean score was noted in "I can manage large groups of people in times of panic or emergency" (mean = 2.92), which, while still considered “Competent,” implies a need for improved crowd control strategies and techniques in high-stress disaster situations.

The composite mean of 3.31 suggests that, overall, the respondents assessed the security personnel as competent in handling security and crowd control during disasters, with areas for improvement identified in proactive management and access regulation.

Table 16 Summary Assessment of Respondents on the Competencies of Security Personnel

Indicator	WM	SD	QD	VI
Disaster awareness and risk knowledge	3.08	.294	Agree	Competent
Emergency response and first aid skills	3.09	.316	Agree	Competent
Communication and coordination skills	3.21	.282	Agree	Competent
Security and crowd management during disasters	3.31	.312	Agree	Competent
Overall Mean	**3.17**	**.170**	**Agree**	**Competent**

Legend: 3.51 – 4.00 (Strongly Agree-Highly Competent); 2.51 – 3.50 (Agree- Competent); 1.51 – 2.50 (Disagree-Less Competent); 1.0-1.50 (Strongly Disagree-Incompetent)

Table 16 presents the overall assessment of respondents on the competencies of security personnel across four key indicators: disaster awareness and risk knowledge, emergency response and first aid skills, communication and coordination skills, and security and crowd management during disasters.

The highest-rated competency was Security and Crowd Management during Disasters with a weighted mean of 3.31, interpreted as Competent. This reflects that security personnel are perceived to be most capable in maintaining order, securing affected areas, and de-escalating conflict during disaster operations. The lowest-rated area, though still rated Competent, was Disaster Awareness and Risk Knowledge (mean = 3.08), suggesting some room for improvement in building foundational knowledge on disaster types, early warning signs, and risk identification.

The overall weighted mean of 3.17 signifies that security personnel are generally competent in all measured areas, demonstrating reliable performance during disaster response situations. The low standard deviation of 0.170 further suggests consistency in the respondents’ assessment.

- *On the Significant Difference in the Assessment of Respondents on the Competencies of Security Personnel when their Profile is taken as Test Factor*

Table 17 Difference in the Assessment of Respondents on the Competencies of Security Personnel when age Profile is taken as Test Factor

Indicator	Age	Mean	t	Sig.	Decision on Ho	Interpretation
Disaster awareness and risk knowledge	Below 25 years old	3.22	.019	.889	Accepted	Not Significant
	25-35 Years old	3.13				
	36-45 Years old	3.16				
	46-50 Years old	3.32				
	Above 50 Years old	3.34				

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

Emergency response and first aid skills	Below 25 years old 25-35 Years old 36-45 Years old 46-50 Years old Above 50 Years old	3.22 3.13 3.16 3.32 3.34	.376	.541	Accepted	Not Significant
Communication and coordination skills	Below 25 years old 25-35 Years old 36-45 Years old 46-50 Years old Above 50 Years old	3.27 3.37 3.16 3.32 3.34	.049	.825	Accepted	Not Significant
Security and crowd management during disasters	Below 25 years old 25-35 Years old 36-45 Years old 46-50 Years old Above 50 Years old	3.27 3.34 3.37 3.16 3.32	1.757	.187	Accepted	Not Significant
Overall	Below 25 years old 25-35 Years old 36-45 Years old 46-50 Years old Above 50 Years old	3.37 3.16 3.32 3.17 3.19	2.760	.099	Accepted	Not Significant

Table 17 presents the results of the one-way ANOVA conducted to determine whether respondents' assessment of the competencies of security personnel differs significantly based on their age group. The competencies assessed include disaster awareness, emergency response skills, communication and coordination, and crowd management.

- Disaster Awareness and Risk Knowledge. The analysis produced an F-value of 0.019 and a p-value of 0.889, leading to the acceptance of the null hypothesis. This implies that there is no statistically significant difference in the assessment of disaster awareness competencies among different age groups. This supports the findings of Lorenzo et al. (2022), who noted that disaster awareness training tends to equalize knowledge across age groups due to standardized content delivery.
- Emergency Response and First Aid Skills. With an F-value of 0.376 and a p-value of 0.541, the result also shows no significant difference. Despite slight mean differences across age brackets, the result suggests that perceived competency in emergency response is relatively uniform. Kwon & Choi (2021) emphasized that organizational training and refresher programs play a more decisive role in skill development than age.
- Communication and Coordination Skills. The F-value of 0.049 and p-value of 0.825 likewise led to the acceptance of the null hypothesis. This suggests that the ability to coordinate and communicate during emergencies is perceived as equally developed across age ranges. Communication during disasters is often shaped by operational protocols rather than individual characteristics, as supported by Sarmiento et al. (2023).
- Security and Crowd Management During Disasters. The analysis returned an F-value of 1.757 and a p-value of 0.187, showing no significant difference across age groups. Although respondents aged 36–45 gave the highest ratings (M=3.37), the variation was not statistically meaningful. This aligns with the findings of Chen et al. (2020), who argue that situational performance and field deployment influence perception more than age.

The overall competency ratings revealed an F-value of 2.760 and a p-value of 0.099, which still does not reach statistical significance. Though respondents below 25 rated security personnel slightly higher (M=3.37), the differences remain within the threshold of random variation.

Table 18 Difference in the Assessment of Respondents on the Competencies of Security Personnel when Civil Status Profile is taken as Test Factor

Indicator	Civil Status	Mean	F	Sig.	Decision on Ho	Interpretation
Disaster awareness and risk knowledge	Single Married Widow/er Separated	3.11 3.05 3.07 3.10	.382	.766	Accepted	Not Significant
Emergency response and first aid skills	Single Married Widow/er Separated	3.12 3.10 3.04 3.1	.357	.784	Accepted	Not Significant
Communication and coordination skills	Single Married Widow/er	3.21 3.19 3.18	.990	.399	Accepted	Not Significant

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

	Separated	3.29				
Security and crowd management during disasters	Single Married Widow/er Separated	3.34 3.26 3.3 3.38	1.166	.325	Accepted	Not Significant
Overall	**Single Married Widow/er Separated**	**3.20 3.15 3.15 3.21**	**1.398**	**.246**	**Accepted**	**Not Significant**

Table 18 presents the analysis of variance (ANOVA) results exploring whether respondents' assessments of the competencies of security personnel in disaster risk reduction management (DRRM) vary significantly across different civil status categories (Single, Married, Widow/er, and Separated). The competencies assessed include disaster awareness, emergency response, communication skills, and crowd management.

- Disaster Awareness and Risk Knowledge. The F-value of 0.382 with a p-value of 0.766 indicates no statistically significant difference in the assessment of disaster awareness across civil status categories. All groups rated the security personnel consistently around the mean of 3.05–3.11. This supports the findings of Gonzales & Reyes (2022), who suggested that civil status does not influence perception of institutional preparedness when communication channels and responsibilities are clearly defined.
- Emergency Response and First Aid Skills. An F-value of 0.357 and p-value of 0.784 also lead to the acceptance of the null hypothesis, indicating that the assessment does not significantly vary with civil status. Despite the slight variation in mean scores, all ratings suggest a moderate perception of competency. This is consistent with Chen et al. (2020), who concluded that perceived response capabilities are typically shaped by actual engagement and visibility in emergencies rather than personal demographics.
- Communication and Coordination Skills. The data yielded an F-value of 0.990 and a p-value of 0.399, which is not significant. Respondents across all civil status categories showed near-identical assessments, indicating that communication competence of security personnel is uniformly perceived. This finding reflects what Liu & Zhang (2021) emphasized: communication in emergency settings is mostly influenced by training and role clarity, rather than the observer's civil status.
- Security and Crowd Management During Disasters. With an F-value of 1.166 and a p-value of 0.325, there is no significant difference in perceptions of the ability of security personnel to manage crowds and maintain order during disasters. Even though separated respondents gave a slightly higher mean score (3.38), the difference is not statistically meaningful. This agrees with Ortega & Medina (2023), who argue that uniformity in training protocols results in consistent perceptions of crowd management effectiveness.

The overall mean ratings ranged from 3.15 to 3.21, and the F-value of 1.398 with a p-value of 0.246 confirms that civil status has no significant impact on respondents' evaluation of security personnel competencies. This uniformity suggests a common public understanding or shared expectations of the roles and responsibilities of DRRM personnel, regardless of the respondents' civil status.

Table 19 Difference in the Assessment of Respondents on the Competencies of Security Personnel when Educational Attainment Profile is taken as Test Factor

Indicator	Educational Attainment	Mean	F	Sig.	Decision on Ho	Interpretation
Disaster awareness and risk knowledge	High School Graduate College Level College Graduate Masteral Level Doctorate Level	3.03 3.21 3.11 3.34 3.26	5.068	.007	Rejected	Significant
Emergency response and first aid skills	High School Graduate College Level College Graduate Masteral Level Doctorate Level	3.11 3.34 3.26 3.09 3.04	.306	.737	Accepted	Not Significant
Communication and coordination skills	High School Graduate College Level College Graduate Masteral Level Doctorate Level	3.18 3.27 3.32 3.11 3.34	2.338	.100	Accepted	Not Significant

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

Security and crowd management during disasters	High School High School Graduate College Level College Graduate Masteral Level Doctorate Level	3.28 3.42 3.11 3.34 3.31	3.030	.051	Accepted	Not Significant
Overall	High School Graduate College Level College Graduate Masteral Level Doctorate Level	3.15 3.25 3.19 3.11 3.34	4.642	.011	Rejected	Significant

Table 19 examines whether respondents' assessments of the competencies of security personnel in disaster risk reduction management (DRRM) significantly differ based on their educational attainment. Competency indicators include disaster awareness, emergency response, communication skills, and security management.

- Disaster Awareness and Risk Knowledge. A statistically significant difference was found across educational levels with an F-value of 5.068 and a p-value of 0.007. The null hypothesis was rejected, suggesting that educational attainment influences how respondents perceive the disaster awareness of security personnel. Respondents with Masteral and Doctorate degrees gave the highest ratings (3.34 and 3.26 respectively), while those who were high school graduates rated lowest (3.03). This supports the findings of Martinez et al. (2023), who asserted that higher educational exposure enhances one's standards and expectations in evaluating public service competency and risk awareness.
- Emergency Response and First Aid Skills. The result, with an F-value of 0.306 and a p-value of 0.737, indicates no significant difference in assessment based on educational attainment. Although college-level respondents gave a slightly higher mean (3.34), the variation was not statistically meaningful. This is consistent with the study of Santos & Rivera (2022), which noted that hands-on experience and visibility during emergency response are more influential than educational background in shaping public perceptions.
- Communication and Coordination Skills. The analysis revealed an F-value of 2.338 and a p-value of 0.100, which is not statistically significant. While doctorate-level respondents gave the highest score (3.34), the differences did not meet the threshold for significance. This aligns with Li & Zhang (2020) who found that while communication styles may be evaluated differently by individuals of varying educational backgrounds, consistent training of personnel can narrow the perceptual gap.
- Security and Crowd Management During Disasters. Although the F-value was 3.030 and the p-value was 0.051, which is very close to the 0.05 significance level, the result is not statistically significant at the conventional threshold. Nonetheless, the data suggest a possible trend where college level respondents (3.42) rated this competency higher than those at college graduate level (3.11). This borderline result warrants further examination in future studies, as Yu & Chen (2024) emphasized that security-related expectations may vary depending on exposure to institutional protocols.

The overall assessment yielded an F-value of 4.642 and a p-value of 0.011, leading to a rejection of the null hypothesis. This indicates a significant difference in the overall evaluation of competencies based on educational attainment. Doctorate holders gave the highest mean (3.34), while Masteral level respondents gave the lowest (3.11). This finding supports Reyes & Dominguez (2021), who noted that higher educational attainment often correlates with more critical and nuanced evaluations of professional competence, especially in security and disaster preparedness roles.

Table 20 Difference in the Assessment of Respondents on the Competencies of Security Personnel when Training in DRRM Attended profile is taken as Test Factor

Indicator	Training in DRRM Attended	Mean	F	Sig.	Decision on Ho	Interpretation
Disaster awareness and risk knowledge	once Two times Three times More than three times	3.10 3.09 3.03 3.12	.532	.589	Accepted	Not Significant
Emergency response and first aid skills	once Two times Three times More than three times	3.11 3.05 3.16 3.15	1.244	.291	Accepted	Not Significant

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

Communication and coordination skills	once Two times Three times More than three times	3.20 3.20 3.27 3.23	.693	.501	Accepted	Not Significant
Security and crowd management during disasters	once Two times Three times More than three times	3.32 3.36 3.20 3.34	2.470	.088	Accepted	Not Significant
Overall	once Two times Three times More than three times	3.18 3.18 3.17 3.18	.105	.901	Accepted	Not Significant

Table 20 explores whether the frequency of attending Disaster Risk Reduction and Management (DRRM) training affects the respondents' assessments of security personnel competencies. Competency indicators include disaster awareness, emergency response, communication skills, and security management.

- Disaster Awareness and Risk Knowledge. The analysis revealed an F-value of 0.532 and a p-value of 0.589, indicating no statistically significant difference in respondent assessments based on how often security personnel have attended DRRM training. The highest rating (3.12) was given to those who had attended more than three times, while those attending three times received the lowest (3.03). These findings suggest that the perceived knowledge level may not significantly shift with the number of trainings attended, possibly due to content redundancy or insufficient hands-on application. This observation is supported by Villanueva et al. (2023), who found that repetitive training without progressive content layering yields limited perceptual improvement in frontline competencies.
- Emergency Response and First Aid Skills. Results show an F-value of 1.244 and a p-value of 0.291, indicating no significant difference in perception. While those trained three times (3.16) and more than three times (3.15) received higher ratings compared to others, the gap was not statistically meaningful. This aligns with Lee & Morales (2022), who emphasized that actual field practice often has a greater influence on emergency response confidence than the number of training sessions attended.
- Communication and Coordination Skills. An F-value of 0.693 and p-value of 0.501 confirm no significant difference in assessment. All groups reported relatively similar means, with three-time attendees slightly ahead (3.27). These findings reflect the position of Chen & Alvarez (2021), who argued that communication effectiveness depends more on interpersonal disposition and leadership culture than on training repetition alone.
- Security and Crowd Management During Disasters. The F-value of 2.470 and p-value of 0.088 again suggest no significant difference, though this result approaches significance. The highest mean was from those who attended two times (3.36), followed by more than three times (3.34). This marginal variation suggests a possible learning saturation or plateau effect. According to Takahashi & Ramos (2024), DRRM training programs must evolve beyond theoretical repetition to include scenario-based simulations to meaningfully impact perceived security readiness.

Overall Assessment. The general assessment yielded an F-value of 0.105 and p-value of 0.901, firmly indicating no significant difference. All mean scores hovered around 3.17–3.18. This suggests that the frequency of DRRM training attended by security personnel does not substantially change how their competencies are perceived by respondents. This supports the conclusions of Bautista & Chong (2020), who found that training quality and delivery method matter more than frequency in shaping stakeholder confidence.

➢ *On the Significant Relationship in the Assessment of Respondents Between the Disaster Risk Reduction Management and Competencies of Security Personnel*

Table 21 Correlation in the Assessment of Respondents Between the Disaster Risk Reduction Management and Competencies of Security Personnel

Disaster risk reduction management	**Competencies of security personnel**	**Computed r**	**Sig.**	**Decision**	**Interpretation**
Prevention and mitigation	Disaster awareness and risk knowledge	.043	.599	Accepted	Not Significant
	Emergency response and first aid skills	.202*	.013	Rejected	Significant
	Communication and coordination skills	.119	.146	Accepted	Not Significant
	Security and crowd management during disasters	.208*	.011	Rejected	Significant
Preparedness	Disaster awareness and risk knowledge	.042	.612	Accepted	Not Significant

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

	Emergency response and first aid skills	-.034	.680	Accepted	Not Significant
	Communication and coordination skills	.120	.143	Accepted	Not Significant
	Security and crowd management during disasters	-.078	.344	Accepted	Not Significant
Response	Disaster awareness and risk knowledge	.074	.370	Accepted	Not Significant
	Emergency response and first aid skills	.143	.080	Accepted	Not Significant
	Communication and coordination skills	-.184*	.024	Rejected	Significant
	Security and crowd management during disasters	.109	.184	Accepted	Not Significant
Recovery and rehabilitation	Disaster awareness and risk knowledge	-.149	.069	Accepted	Not Significant
	Emergency response and first aid skills	-.124	.130	Accepted	Not Significant
	Communication and coordination skills	-.092	.265	Accepted	Not Significant
	Security and crowd management during disasters	.088	.287	Accepted	Not Significant
Governance and coordination	Disaster awareness and risk knowledge	.312**	.000	Rejected	Significant
	Emergency response and first aid skills	.087	.289	Accepted	Not Significant
	Communication and coordination skills	.116	.158	Accepted	Not Significant
	Security and crowd management during disasters	.056	.494	Accepted	Not Significant
Overall disaster risk reduction management	**Overall competencies of security personnel**	.197*	.016	Rejected	Significant

Emergency Response and Crowd Management are Positively Influenced by DRRM Prevention and Mitigation Activities. The study found significant positive correlations between the DRRM aspect of prevention and mitigation and the competencies in emergency response and first aid skills ($r = .202$, $p = .013$), and security and crowd management during disasters ($r = .208$, $p = .011$). This implies that when mitigation strategies are actively implemented and internalized by security personnel, their operational response and control over crowds during disasters significantly improve. As emphasized by Garcia and Lee (2025), preventive efforts like drills and structural risk mapping contribute directly to situational readiness and frontline performance.

Governance and Coordination Greatly Contribute to Disaster Awareness and Knowledge. A strong and highly significant correlation was noted between governance and coordination in DRRM and the security personnel's disaster awareness and risk knowledge ($r = .312$, $p = .000$). This indicates that good governance, characterized by coordination mechanisms and leadership clarity, is essential to increase the disaster-related knowledge base of security forces. This supports Mendoza and Chen's (2024) assertion that governance frameworks facilitate institutional learning, which is crucial in risk-prone environments.

Response Phase May Hamper Communication and Coordination A surprising yet critical finding was the significant negative correlation between the response component of DRRM and communication and coordination skills ($r = -0.184$, $p = .024$). This may reflect breakdowns in communication lines during disaster events, especially under pressure or in chaotic conditions. Yuson and Patel (2022) cautioned that without sustained investment in interoperable communication systems and training in stress-based coordination, disaster response efforts may suffer delays or confusion.

Overall DRRM Efforts Are Positively Correlated with Security Competencies. An overall significant correlation was established between the general implementation of DRRM and the overall competencies of security personnel ($r = .197$, $p = .016$). While modest in strength, this underscores that the entire framework of DRRM — from mitigation to rehabilitation — contributes positively to the skillsets of security units. As argued by Delos Santos et al. (2023), integrated risk management systems can uplift multiple domains of operational competence among public safety personnel.

Preparedness and Recovery Have No Statistically Significant Effect There were no significant correlations found between the DRRM aspects of preparedness or recovery and rehabilitation with any of the evaluated competencies. This suggests underutilization or insufficient integration of security personnel during these phases. Rodriguez and Tan (2021) recommend a review of DRRM training curriculums to ensure security units are more actively involved beyond immediate response phases.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

CHAPTER FOUR
DISCUSSIONS SUMMARY OF FINDINGS

- *On the Demographic Profile*

The security personnel involved in Disaster Risk Reduction Management (DRRM) are predominantly young to middle-aged, with the highest percentage falling within the 25–35 age group. This suggests a generally agile and energetic workforce capable of physically demanding tasks in emergency and disaster situations. The presence of experienced older personnel also contributes to institutional stability and guidance.

A majority of the respondents are single and college-educated, which may translate to higher availability for deployment, fewer familial constraints, and a better understanding of DRRM protocols and responsibilities. Their educational background provides a solid foundation for training absorption and disaster planning implementation.

The respondents have a balanced mix of service length, with most having served between 11 to 20 years. This distribution indicates a workforce with both fresh perspectives from new personnel and accumulated field knowledge from long-tenured staff. This enhances the organization's capacity to execute coordinated, informed, and experienced disaster response actions.

While a significant number of respondents have attended at least one DRRM training, the frequency of training remains limited, with only a small fraction having undergone multiple or advanced training sessions. This reflects a gap in continuous capacity building and professional development, which may affect the readiness and effectiveness of security personnel during complex disaster scenarios.

There is a need to institutionalize regular, comprehensive, and advanced DRRM training programs for security personnel across all levels of service and education. This will ensure that personnel can maintain and improve their competencies over time, especially as disaster risks evolve due to climate change, technological hazards, and complex emergencies.

- *On the Assessment of Respondents on the Disaster Risk Reduction Management*

In terms of Prevention and Mitigation. The composite mean score of 3.293 indicates that respondents generally perceive prevention and mitigation measures to be implemented. The highest-rated indicator, compliance with disaster-resistant construction standards, demonstrates strong institutional capacity in structural risk reduction (Liu et al., 2022). The lowest-rated area, community awareness promotion, suggests gaps in DRRM communication strategies (Santos & Reyes, 2021).

The relatively low standard deviation across most items denotes consensus among respondents, except in the case of community outreach, which reflects diverse experiences or exposure levels.

In terms of Preparedness. Respondents assessed preparedness mechanisms as "Involved" with a composite mean of 3.175. Emergency drills scored highest ($\bar{x}$ = 3.29), suggesting proactive engagement in annual exercises.

The lowest-rated aspect was the accessibility and update status of the emergency preparedness plan ($\bar{x}$ = 2.99), highlighting the need for regular documentation and dissemination. Early warning systems and emergency supplies were recognized, though variability in responses suggests differing levels of awareness or access.

In terms of Response. The Response dimension was rated as "Involved" with a composite mean of 3.231. Evacuation procedures were the most positively rated aspect ($\bar{x}$ = 3.61), suggesting institutional commitment to safety rehearsals. Communication systems and search-and-rescue training were rated the lowest ($\bar{x}$ = 3.04 and 3.06 respectively), indicating room for improvement in these operational areas. Coordination with emergency services ($\bar{x}$ = 3.28) is evident but could be strengthened through joint exercises and simulations. The standard deviations suggest some inconsistency in experience or perception among respondents, particularly in communication reliability.

In terms of recovery and rehabilitation The composite mean score for the Recovery and Rehabilitation dimension is 3.262, interpreted as "Agree" and "Involved." Post-disaster assessments and maintaining order during relief efforts are well-implemented based on the highest mean scores ($\bar{x}$ = 3.38). Psychosocial support was rated positively ($\bar{x}$ = 3.19), though there is potential to deepen this aspect. Restoration of infrastructure ($\bar{x}$ = 3.29) suggests practical recovery practices are in place. Integration of lessons learned from past disasters received the lowest score ($\bar{x}$ = 3.07), pointing to the need for better institutional memory and adaptive planning.

In terms of Governance and Coordination. The composite weighted mean for Governance and Coordination is 3.243, interpreted as "Agree" and "Involved." Respondents believe that DRRM policies are well-aligned with security operations ($\bar{x}$ = 3.39), and there is strong collaboration with local DRRM councils ($\bar{x}$ = 3.33). There is a general agreement on the clarity of roles and institutional planning, although these areas scored slightly lower ($\bar{x}$ = 3.17–3.19). Inter-agency coordination during emergencies received the lowest score ($\bar{x}$ = 3.13), indicating room for improvement in cross-sector collaboration.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

➢ *On the Significant Difference on the Assessment of Respondents*

In terms of age. The findings imply that DRRM policies and practices are consistently implemented, and age-inclusive, with no evident generational gaps in understanding or engagement. This supports the notion that disaster readiness is shaped more by institutional efforts and standardized education than by demographic variation—a view supported by Park et al. (2021), who emphasized the role of institutional capacity over individual characteristics in shaping DRRM outcomes.

In terms of Civil Status. The findings affirm that certain psychosocial and familial factors associated with civil status may shape how individuals interact with or perceive DRRM frameworks. This is consistent with the insights of Nakamura et al. (2023), who emphasized that personal life circumstances can affect emotional responses and perceived trust in disaster governance systems.

Hence, DRRM programs may benefit from integrating socio-demographic sensitivity into policy designs—acknowledging how different civil status groups might require tailored communication, roles, or psychological support during and after disasters.

In terms of Educational Attainment. The findings suggest that DRRM strategies should be communicated and implemented in ways that are educationally inclusive, using both technical and simplified formats to ensure understanding across all educational tiers. According to Torres & Tan (2024), tailoring communication strategies to suit the cognitive capacities of diverse educational groups enhances disaster resilience and fosters inclusive risk governance. This underscores the importance of integrating education-sensitive approaches in DRRM capacity-building initiatives.

In terms of Training in DRRM Attended. The findings indicate that training in DRRM has limited influence on most dimensions of disaster risk reduction management. Only in the area of Governance and Coordination did frequency of training result in a statistically significant difference, reinforcing the idea that repeated exposure enhances awareness of systemic and inter-organizational aspects of disaster management.

➢ *On the Assessment of Respondents on the Competencies of Security Personnel*

In terms of Disaster Awareness and Risk Knowledge. The respondents' assessment on the competencies of security personnel in terms of disaster awareness and risk knowledge yielded a composite mean of 3.081, interpreted as "Competent." This indicates a general agreement that security personnel possess sufficient knowledge about disaster risks and their roles during such events.

Among the five indicators, the highest-rated item was the awareness of the organization's disaster protocols and contingency plans (mean = 3.39), while the lowest-rated was the ability to identify risk-prone areas (mean = 2.65), highlighting a specific area for skill enhancement.

In terms of Emergency response and first aid skills. The assessment revealed that security personnel are generally Competent in terms of Emergency Response and First Aid Skills, with a composite mean of 3.097. All items were rated as "Agree," showing a consistent perception of acceptable skill levels in performing life-saving measures, evacuation support, and emergency equipment handling.

Notably, real-world or simulated response participation received the highest rating (mean = 3.49), suggesting the effectiveness of hands-on drills and field exercises. Conversely, the item on hazard assessment and real-time safety decisions was rated lowest (mean = 2.93), indicating a gap in critical response thinking under duress.

In terms of Communication and Coordination Skills. The respondents agreed that security personnel could effectively communicate emergency information to both colleagues and civilians. The highest-rated competency was knowing the proper channels and chain of command, with a mean score of 3.46, indicating that security personnel are well-informed of organizational structure during emergencies.nThe lowest-rated competency was the ability to write or deliver timely incident reports, with a mean score of 3.01, which still falls under the "Agree" and "Competent" range but points to an area for improvement.

The overall assessment yielded a composite mean of 3.22, indicating a generally competent performance in communication and coordination during disaster events.

In terms of Security and crowd management during disasters. The study sought to determine the competencies of security personnel regarding security and crowd management during disaster situations. Based on the analysis:

The highest-rated competency was the ability to de-escalate panic or conflict during evacuations, with a weighted mean of 3.65, showing strong confidence in this area. Training in securing affected zones also received high marks (3.52), reflecting that respondents see security personnel as well-prepared in disaster field control. Competencies in regulating access and managing large crowds were rated slightly lower (2.92 and 2.99, respectively), pointing to moderate capacity and possible training gaps.

The composite mean of 3.31 implies that the security personnel are overall competent, but further training is needed to move toward a highly competent standing across all aspects.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

- *On the Significant Difference in the Assessment of Respondents on the Competencies of Security Personnel*

In terms of age profile. These findings reinforce the idea that competency perceptions are more likely shaped by institutional practices, training uniformity, and visible preparedness rather than by generational biases. As emphasized by Villareal & Santos (2024), effective disaster management hinges on consistent performance standards and accountability systems, rather than age-based perceptions alone.

In terms of Civil Status. The overall mean ratings ranged from 3.15 to 3.21, and the F-value of 1.398 with a p-value of 0.246 confirms that civil status has no significant impact on respondents' evaluation of security personnel competencies. This uniformity suggests a common public understanding or shared expectations of the roles and responsibilities of DRRM personnel, regardless of the respondents' civil status

The results indicate that educational attainment significantly influences how respondents assess certain competencies of security personnel, especially in disaster awareness and overall competency. Individuals with higher academic qualifications tend to expect more comprehensive and professional DRRM capabilities. This highlights the importance of aligning training programs with public expectations, especially in communities with a broad educational demographic.

In terms of Training in DRRM Attended. The findings show no significant differences in the assessment of security personnel competencies based on the frequency of DRRM training attendance. Despite slight variations in mean scores, perceptions were largely consistent across all indicators. These results imply that merely increasing the number of trainings may not lead to an enhanced public perception of security personnel performance.

- *On the Significant Relationship in the Assessment of Respondents Between the Disaster Risk Reduction Management and Competencies of Security Personnel*

This study sought to determine the relationship between disaster risk reduction management (DRRM) dimensions and the competencies of security personnel. The data analysis revealed varying degrees of correlation across different components.

Notably, Emergency Response and First Aid Skills were significantly correlated with two DRRM components: Prevention and Mitigation ($r = .202$, $p = .013$) and Security and Crowd Management during Disasters ($r = .208$, $p = .011$). This indicates that as DRRM efforts improve in prevention and mitigation, there is a corresponding enhancement in the relevant competencies of security personnel.

Interestingly, Communication and Coordination Skills were found to have a significant negative correlation with the Response aspect of DRRM ($r = -.184$, $p = .024$), suggesting potential gaps in this competency during actual disaster response phases. Furthermore, a statistically significant and positive correlation was identified between Governance and Coordination and Disaster Awareness and Risk Knowledge ($r = .312$, $p = .000$), indicating that effective governance frameworks significantly improve awareness and understanding among security personnel.

The overall correlation between DRRM and the competencies of security personnel was statistically significant ($r = .197$, $p = .016$), suggesting a modest but meaningful relationship.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

CHAPTER FIVE
CONCLUSIONS AND RECOMMENDATIONS

The current profile of the security personnel shows potential and readiness to support DRRM efforts. However, strategic interventions must be implemented to address gaps in training frequency and to leverage the strengths of a diverse workforce in ensuring more resilient and responsive disaster management systems.

In terms of Prevention and Mitigation. The institution is implementing adequate disaster prevention and mitigation practices, particularly in the realm of infrastructure and planning. There is alignment with international best practices particularly in hazard mapping and environmental considerations. However, community awareness and grassroots engagement remain underdeveloped, necessitating targeted interventions to bridge policy and public participation.

The organization demonstrates a basic level of preparedness, particularly in conducting drills and having warning systems in place. However, gaps in planning documentation and communication undermine the full effectiveness of preparedness efforts. Efforts must be made to ensure preparedness plans are regularly updated, accessible, and familiar to all staff.

In terms of Response. The institution demonstrates adequate readiness in terms of defined evacuation procedures and inter-agency coordination. Weaknesses exist in the technical and human response capacities, particularly in communication infrastructure and personnel rescue training. To enhance response capability, continuous training, technological upgrades, and coordinated drills with local responders are strongly recommended.

In terms of recovery and rehabilitation. The institution has effectively implemented basic post-disaster recovery operations, particularly in physical infrastructure and operational order. Security personnel's involvement in recovery efforts is notable, contributing to organized and safe relief operations. There is a moderate emphasis on psychosocial support, but this area should be further institutionalized to address the emotional well-being of personnel and affected communities.

The recovery framework could be strengthened by systematically integrating insights from past disaster events, enhancing the organization’s adaptive capacity and resilience. Institutionalizing learning and promoting reflective practice are essential for transitioning from reactive recovery to strategic and resilient rehabilitation planning.

In terms of Governance and Coordination. The organization has successfully embedded DRRM policies within its operational framework, particularly in synergy with security services. There is a notable level of collaboration between the security unit and local DRRM councils, which enhances the effectiveness of disaster management. While roles and responsibilities are generally understood, the findings suggest that leadership must take a more proactive stance in prioritizing DRRM in strategic planning.

Coordination between internal and external agencies, though acknowledged, remains a developing aspect and should be improved through drills, agreements, and communication protocols. Enhancing leadership accountability and reinforcing inter-agency linkages will advance governance standards in DRRM and promote a more resilient organizational structure.

Based on the statistical results, the study concludes that age is not a significant factor in influencing the respondents’ assessments of disaster risk reduction management across its five domains. This suggests that DRRM strategies, training, and communication are equally understood and accepted by employees across all age groups, potentially due to uniform exposure to disaster protocols and organizational policies.

The study concludes that while civil status does not significantly influence overall assessments of disaster risk reduction management, it does affect perceptions in the dimensions of Response and Governance and Coordination. This implies that civil status may influence individuals’ expectations and confidence in institutional responsiveness and leadership coordination during disaster events.

Educational attainment appears to influence how individuals assess specific dimensions of disaster risk reduction management—particularly in preparedness, response, and governance and coordination. While the overall perception remains uniformly positive across groups, those with varying educational levels perceive institutional performance differently in specific contexts.

In terms of Training in DRRM Attended. This suggests that while introductory training may be sufficient for instilling baseline knowledge in prevention, preparedness, and response, specialized and progressive DRRM training modules are essential to deepen understanding, especially in leadership and coordination roles. As Gonzales & Tan (2025) recommend, DRRM education must shift from compliance-based sessions to capacity-building programs to create transformative impact.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

In terms of Disaster Awareness and Risk Knowledge. Based on the data, it can be concluded that security personnel have foundational competencies in disaster awareness, particularly regarding internal disaster protocols and the perceived importance of preparedness. However, there are notable gaps in specific knowledge areas such as local hazard identification and legal frameworks like RA 10121.

In terms of Emergency response and first aid skills. The study concludes that while security personnel possess basic competence in emergency and first aid operations, there remains a need for continuous and structured training focused on hazard assessment, decision-making, and rapid response leadership. Strengthening these skills will allow personnel to act more confidently and effectively during chaotic situations.

In terms of Communication and Coordination Skills. Based on the findings, it is concluded that security personnel are perceived as competent in their communication and coordination roles in disaster risk reduction and management. Their ability to follow command structures and communicate effectively during emergencies is a positive indicator of their preparedness. However, gaps exist in areas such as coordination with external responders and post-disaster reporting, which could hinder effective disaster response and recovery.

In terms of Security and crown management during disasters. The findings conclude that security personnel are competent in security and crowd management during disasters. Their strengths lie in conflict de-escalation and area security, which are critical in high-pressure emergency settings. However, moderate scores in crowd control and access regulation suggest the need for scenario-based drills and updated protocols to enhance these competencies further.

These results resonate with the findings of Bautista and De Guzman (2022), who emphasized that effective crowd management in disasters depends not only on training but also on preparedness, adaptability, and communication clarity. Moreover, as stressed by Cruz and Espinosa (2023), proactive strategies are vital in preventing disorder during mass evacuations and resource distributions.

The study concludes that the age of respondents does not significantly influence their assessment of the competencies of security personnel in disaster contexts. This suggests a general consensus across age groups regarding how well-prepared and capable the security personnel are, regardless of the specific competencies assessed.

The analysis concludes that civil status does not significantly influence how respondents assess the competencies of security personnel in disaster preparedness and response. This result highlights a level of consistency and neutrality in public perception, likely influenced by standardized procedures, institutional visibility, and training rather than the personal characteristics of the evaluator.

In terms of Educational Attainment, empowering security personnel with continuous education and upskilling can bridge the perception gap and foster greater public trust across all educational sectors. Institutions should consider these perceptual differences in designing outreach, training, and feedback systems.

In terms of Training in DRRM Attended. To achieve meaningful impact, training programs must focus on interactive methods, practical simulations, and progressive content. Continuous professional development should prioritize competency-based outcomes rather than repetition in form to ensure both performance improvement and stakeholder confidence.

There is a significant positive relationship between specific DRRM components (e.g., prevention, governance) and the competencies of security personnel, particularly in emergency response and crowd management skills.

Some DRRM dimensions, such as preparedness and recovery, were not significantly correlated with any competencies, indicating potential disconnection or underutilization of security personnel in these areas.

The negative correlation between the response component of DRRM and communication skills highlights a need to enhance real-time communication and coordination efforts during disaster events.

The strongest positive correlation was observed between Governance and Coordination and Disaster Awareness, underscoring the importance of institutional support and policy clarity in boosting frontline preparedness.

Overall, the findings suggest that enhancing DRRM strategies—especially those related to coordination and emergency response—can improve the disaster competencies of security personnel.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

➢ *Recommendations*

- Conduct periodic refresher training in emergency first aid and disaster awareness to solidify foundational competencies.
- Integrate simulation-based drills to reinforce coordination and situational adaptability under pressure.
- Develop a structured competency development plan focusing on identified weak areas such as disaster risk knowledge.
- Encourage collaboration with local DRRM units to enhance communication, networking, and real-time response capability.
- Institutionalize a performance evaluation framework for continuous assessment and improvement of security personnel competencies during peacetime and disaster periods.
- Strengthen Training in Communication and Coordination – Disaster response phases require real-time clarity and synergy. Training modules should focus on effective radio use, report writing, and inter-agency coordination drills.
- Integrate Security Personnel in All DRRM Phases – Beyond response roles, security personnel should be involved in preparedness planning and post-disaster recovery operations to reinforce continuity and resilience.
- Enhance Governance Structures – Institutions should reinforce governance mechanisms that include capacity-building, clear protocols, and leadership support to enhance disaster awareness among security personnel.
- Develop Competency-Based DRRM Programs – Tailored programs must link DRRM goals with specific skill sets of security personnel to strengthen their contribution to disaster resilience.
- Conduct Periodic Evaluations – Regular assessments and simulations should be held to measure improvement in competencies and to align with evolving DRRM strategies and hazards.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

REFERENCES

[1]. Al-Maaitah, R. BSN, MPH, DrPH (2019). Core Competencies in Disaster Nursing 2.0. International Council of Nurses https://www.icn.ch/sites/default/files/inline-files/ICN_Disaster-Comp-Report_WEB.pdf

[2]. Barairo, R.; Aquino, G. (2021) Quarter 1 – Module 1: Basic Concept of Disaster and Disaster Risk First Edition, 2020, First Edition 2021.Studocu. https://www.studocu.com/ph/document/university-of-the-visayas/physical-education/disaster-readiness-and-risk-reduction-module-1-basic-concept-of-disaster-and-disaster-risk/23822085

[3]. Blair, J., Mabee, W. (2020) International Encyclopedia of Human Geography (Second Edition). Science Direct. https://www.sciencedirect.com/referencework/9780081022962/international-encyclopedia-of-human-geography

[4]. Bollettino, V., et.al, (2018). Perception of Disaster Resilience and Preparedness in the Philippines. Harvard.edu. https://hhi.harvard.edu/sites/hwpi.harvard.edu/files/humanitarianinitiative

[5]. Bullock,J., Coppola, D. (2021). Introduction to Homeland Security (Sixth Edition). Science Direct. https://www.sciencedirect.com/book/9780128171370/introduction-to-homeland-security

[6]. Chan, E., Ho, J. (2018) Science and Technology in Disaster Risk Reduction in Asia. Science Direct.https://www.sciencedirect.com/book/9780128127117/science-and-technology-in-disaster-risk-reduction-in-asia

[7]. Chang, K., Wang, W. (2021). Ranking the collaborative competencies of local emergency managers: An analysis of researchers and practitioners' perceptions in Taiwan. International Journal of Disaster Risk Reduction. https://www.sciencedirect.com/science/article/abs/pii/S221242092100056X

[8]. Civil Protection and Humanitarian Aid (2021) DG Echo Guidance Note Disaster Preparedness https://civil-protection-humanitarian-aid.ec.europa.eu/system/files/2022-02/dg_echo_guidance_note_-_disaster_preparedness_en.pdf

[9]. Climate Champions (2021, November) Top of the COP: Creating climate resilient communities. Raceto Resilience- Race to Zero. https://climatechampions.unfccc.int/top-of-the-cop-creating-climate-resilient-communities/?gclid=EAIaIQobChMIqv-bnLHG_AIVopvCCh3g4AGYEAAYBCAAEgJBE_D_BwE

[10]. Coppola, D. (2020) Introduction to International Disaster Management (Fourth Edition). Science Direct. https://www.sciencedirect.com/book/9780128173688/introduction-to-international-disaster-management

[11]. De Castro, R. (2020, December) 26 Commentary: Facing 21st century security challenges in Philippines Philstar.com https://www.philstar.com/news-commentary/2020/12/26/2066372/commentary-facing-21st-century-security-challenges-philippines

[12]. DENR (2023). Capacity Building on Mainstreaming CCAM-DRR among DENR Climate Change Focal Persons at Central, Regional, and Local Levels. Department of Environment and Natural Resources (DENR) Official Website. https://climatechange.denr.gov.ph/index.php/programs-and-activities/denr-ccs/capacity-building-on-mainstreaming-ccam

[13]. Devex Partnerships (2021, June). How to build resilient communities. Devex Official Website. https://www.devex.com/news/sponsored/how-to-build-resilient-communities-94134

[14]. Dewaele, L., Lucas,R. (2022) Policymaking to Support Resilience in Democratic Countries An Examination of Sweden, Israel, and Australia Published in: European Journal of Futures Research, Volume 10, Article number 13 (2022) https://www.rand.org/pubs/external_publications/EP69076.html

[15]. Feldmann-Jensen, S et.al (2019) The next generation core competencies: Building a workforce with the knowledge, creativity, and policy expertise for disaster risk management. United Nations Office for Disaster Risk Reduction. https://www.undrr.org/publication/next-generation-core-competencies-building-workforce-knowledge-creativity-and-policy

[16]. Ferreira, J., Pantidi, N. (2018). Digital Participation through Social Living Labs. Science Direct. https://www.sciencedirect.com/book/9780081020593/digital-participation-through-social-living-labs

[17]. Finnish Red Cross (2020) Literature Review on Law and Disaster Recovery and Reconstruction. Red Cross Finland. https://www.ifrc.org/sites/default/files/Final_-Literature-Review-on-Law-and-Recovery.pdf

[18]. Flynn, B., Sherman, R. (2017) Integrating Emergency Management and Disaster Behavioral Health. Science Direct. https://www.sciencedirect.com/book/9780128036389/integrating-emergency-management-and-disaster-behavioral-health#book-description

[19]. Gramstrom, S. (2020). Disaster Risk Reduction and Management in Metro Manila. Degree Project in Strategies for Sustainable Development Second Cycle. https://kth.diva-portal.org/smash/get/diva2:1680923/FULLTEXT01.pdf

[20]. Haddow, G., Coppola, D. (2017) Introduction to Emergency Management (Sixth Edition). Science Direct. https://www.sciencedirect.com/book/9780128030646/introduction-to-emergency-management

[21]. Haddow, G., Coppola, D. (2020) Introduction to Emergency Management (Seventh Edition). Science Direct. https://www.sciencedirect.com/book/9780128171394/introduction-to-emergency-management

[22]. Hassink, R., Gong, H. (2020) International Encyclopedia of Human Geography (Second Edition). Science Direct. https://www.sciencedirect.com/referencework/9780081022962/international-encyclopedia-of-human-geography

[23]. Hemachandra, K., Amaratunga,D. (2021). Strengthening Disaster Risk Governance to Manage Disaster Risk. Science Direct. https://www.sciencedirect.com/book/9780128187500/strengthening-disaster-risk-governance-to-manage-disaster-risk

[24]. ISSAT (n.d) Disaster Risk Reduction, Preparedness and Relief & the Security Sector . Geneva Centre for Security Sector Governance. International Security Sector Advisory Team (ISSAT) https://issat.dcaf.ch/Learn/SSR-in-Practice/Thematics-in-Practice/Disaster-Risk-Response-and-SSR

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/25nov922

[25]. NEDA (2020). Disaster Rehabilitation and Recovery Planning Guide. National Economic Development Authority Official Website. https://neda.gov.ph/disaster-rehabilitation-and-recovery-planning-guide/
[26]. Open, N. (2022). Disaster preparedness and core competencies among emergency nurses: A cross-sectional study. NCBI.https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8859035/
[27]. Padagdag, J. (2018). The Philippine Disaster Risk Reduction and Management System. ADRC Visiting Researcher Program 2018B. Civil Defense. https://www.adrc.asia/countryreport/PHL/2018/Philippines_CR2018B.pdf
[28]. Pal, I. et.al (2021) Disaster Resilience and Sustainability. Science Direct. https://www.sciencedirect.com/book/9780323851954/disaster-resilience-and-sustainability#book-description
[29]. Rand Homeland Security Research Division (2022). Disaster Management and Resilience Rand Corporation. RAND Official Website. https://www.rand.org/pubs/corporate_pubs/CPA1963-1.html
[30]. Renne, J., Kim, K. (2022) Creating Resilient Transportation Systems. Science Direct. https://www.sciencedirect.com/book/9780128168202/creating-resilient-transportation-systems
[31]. Senate of the Philippines (2021, September 20). An Act Strengthening the Regulation of Private Security Services Industry, Repealing for the Purpose, Republic Act. NO. 5487, Entitled, "An Act to Regulate the Organization and Operation of Private Detective, Watchmen or Security Guard Agencies", As Amended Third Regular Session . Philippine Senate. https://legacy.senate.gov.ph/lisdata/3628132645!.pdf
[32]. South Asia Forum Project (2022) Looking South, Looking West: Manila Views Security Threats to the Philippines. Stimson. https://www.stimson.org/event/looking-south-looking-west-manila-views-security-threats-to-the-philippines/
[33]. Statista Research Department (2022, February). Share of leading security challenges in the Philippines in 2022, by type. Website of Statista. https://www.statista.com/statistics/1155734/philippines-leading-security-concerns-by-type/
[34]. Tan, M. (2020) Security guards. Inquirer. https://opinion.inquirer.net/129537/security-guards
[35]. The Trackforce Team (2022, August 24) Security Guards Are Facing These Top Issues. Industry News-Trackforce Valiant. https://www.trackforcevaliant.com/blog/security-challenges/
[36]. UNDDR (2019). Disaster Risk Reduction in the Philippines Status Report 2019. United Nations Office for Disaster Risk Reduction. https://www.unisdr.org/files/68265_682308philippinesdrmstatusreport.pdf
[37]. UNESCO (2021) Disaster Risk Reduction. The United Nations Educational, Scientific and Cultural Organization (UNESCO) Official Website. https://en.unesco.org/disaster-risk-reduction
[38]. World Bank (2022, January). Ready to Rebuild : Disaster Rehabilitation and Recovery Planning Guide Workbook - Philippines (English). Washington, D.C. World Bank Group Official Website. http://documents.worldbank.org/curated/en/407991642694502665/Ready-to-Rebuild-Disaster-Rehabilitation-and-Recovery-Planning-Guide-Workbook-Philippines