



DISASTER VULNERABILITY ASSESSMENT OF SELECTED JAILS UNDER BUREAU OF JAIL MANAGEMENT AND PENOLOGY IN CALABARZON

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ABSTRACT

The study evaluated the disaster preparedness of selected penitentiaries under BJMP in CALABARZON areas as to identify the profile of jails as assessed in terms of strategic location, jail infrastructure and construction, jail equipment and jail vehicles; to present the profile of the respondents in terms of job position, designation, years in service, trainings attended, and educational attainment; to determine the jail personnel's assessment on disaster preparedness in terms of the following disasters: earthquake, typhoon, and flood; to design an intervention program on disaster preparedness which may be proposed to manage jail operations of Bureau of Jail Management and Penology in CALABARZON area. The study utilized descriptive research design specifically the quantitative methods with the questionnaire survey as the major tool for gathering data and evaluation from 161 jail personnel chosen through a lottery method with interviews and focus group discussions (FGD). Statistical treatment was applied utilizing frequencies, percentage, weighted mean and Pearson-R product correlation. The disaster preparedness described in terms of strategic location as jail location on CALABARZON are within the city or municipality capital since they are located near the city hall. The study revealed that the jail is equipped in terms of organizational management and available resources; the jail personnel are slightly equipped with readiness during flood in terms of strategic location, infrastructure and construction and the significant relationship between profile variables and the respondents' assessment of their disaster preparedness varies.

Keywords: Disaster, Vulnerability, Jail Management, Mixed Method, Philippines

INTRODUCTION

It is very apparent that there is no place on earth which is spared from different disasters. Floods, volcanic eruptions, earthquakes, landslide, typhoons, tornadoes and tsunamis are natural disasters encountered in the different parts of the sphere. Consequently, even the other countries, Philippines in not even exempted and the extent of the damages in infrastructure and superstructures, properties and life across the nation differ

depending on how national government and local group of organizations prepared and strategically planned the coming of these disasters as to consider the ramification of the natural calamities (Hyogo Framework, 2005).

Based on the World Risk Index 2012, the Philippines is the third among 173 countries most vulnerable to disaster risk and natural hazards; an average of 20 tropical cyclones each year and other climatic and extreme weather aberrations such as the El Niño phenomenon. These disasters



strain government funds, with an average of P15 billion in annual direct damages. More adversely, this hampers the government's poverty reduction efforts.

Disaster management is the organization and management of resources and responsibilities for dealing with all humanitarian aspects of emergencies, in particular, preparedness, response and recovery in order to lessen the impact of disasters. In this sense, disaster risk reduction is the concept and practice of reducing disaster risks through systematic efforts to analyze and reduce the causal factors of disasters. Mitigating the hazard and reducing the vulnerability of the people depend on the management team that is responsible for protecting the organization's prime assets and their valued possessions. The group is known as disaster management team. It works on the key development which includes reducing the weakness of the people and their communities in disaster-prone areas, improving their ability to cope with the effects of disasters, and strengthening the capacities of the organization in disaster preparedness and post-disaster response.

Disaster management and preparedness has been a great concern of most organizations in the country. As organizations, penitentiaries or jail facilities in CALABARZON have been a subject of investigations with regard to disaster risks management and disaster preparedness.

CALABARZON is situated in the southwestern portion of the island of Luzon, located in the southern and eastern part of Metro Manila where it is convenient to travel and accessible for the different tourist destinations for families staying in the city of Manila and considered as the second populated region. For years, it has experienced natural and man-made disasters. These included typhoons, fires, earthquakes, loss of manpower, and more. Provinces in CALABARZON are mostly coastal provinces.

Along this scenario, the researcher was prompted to conduct this study and chose the selected jail facilities in CALABARZON which are likewise prone to natural and man-made disasters. As the center of the study, the prison facilities are

situated in the following coastal areas: Sta. Cruz, Laguna; Cainta, Rizal; Naic, Cavite Cavite City; Nasugbu, and Lemery Batangas. The aforementioned coastal areas are vulnerable to disasters. Jails managed by Bureau of Jail Management and Penology (BJMP) in these coastal areas had been involved in disaster management as all the jails were vulnerable. BJMP's involvement was in compliance with Republic Act (RA) 10121 also known as Philippine Disaster Reduction and Management Act. RA 10121 formulates the National Disaster Risk Management Framework which provides a comprehensive, all-hazard, multi-sectoral, inter-agency, and community-based approach to disaster risk management. A very important feature of this law is its call for the mainstreaming of disaster risk reduction in physical and land-use planning, budget, infrastructure, education, health, environment, housing, and other sectors.

An intervention program was proposed to manage the jail operations of BJMP. This program aimed to help the jail management of CALABARZON strengthen their disaster preparedness behavior or DPB and lessen the impact of disasters. It also intended to offer doable recommendations to improve the jail management and staff's DPB as well as the communities in CALABARZON region

OBJECTIVES OF THE STUDY

The study evaluated the disaster preparedness of selected penitentiaries under BJMP in CALABARZON areas.

Specifically, this study sought to answers the following objectives:

1. To determine the profile of jails be assessed in terms of strategic location; jail infrastructure and construction; and jail equipment.
2. To know the profile of the respondents in terms of job position; designation; years in service; trainings attended; and educational attainment.
3. To determine the disaster preparedness of the jail personnel in terms of the following



disasters such as earthquake; typhoon; and flood and to ascertain their significant relationship between profile variables and the respondents' assessment of their disaster preparedness.

4. To propose an intervention program to manage jail operations of Bureau of Jail Management and Penology in CALABARZON.

METHODOLOGY

The focal point of the research was the selected jail facilities of Bureau of Jail Management and Penology concentrating on the disaster preparedness of its jail operations. The 12 jails from four provinces were considered as the research locale of the study. The 12 were enumerated in the respondents of the study. As observed by the researcher, the penitentiaries as dynamic organizations managed by people have disaster reduction and management system based on the implementing guidelines and procedures and requirement of the RA 10121.

The descriptive method of design was utilized in this investigation as it designed to represent the participants accurately. Hence, the descriptive type of this research is relative to the description of the individual who had been part of the study. Particularly, the quantitative approach is applied through the use of survey questionnaire as the main tool in gathering necessary data and information towards evaluation. The respondents of the study were the Jail Personnel of the different jail facilities in the CALABARZON areas represented by select jails from each province. The lottery method, which is a simple random sampling under probability sampling method, was used. In this method, the researcher assigned a unique number for each of the jail population in the area. Through the assistance of Bureau of Jail Management and Penology, the jails were selected through the list extended to the proponent.

The researcher constructed a survey questionnaire that was based on the objectives of the study. Guide questions for the interview and focus group discussion or FGD contained five

open-ended questions that aimed to elicit responses from the participants who were able to verbalize their thoughts regarding the issues and concerns. After the construction of the survey questionnaire and the formulation of guide questions for interview and FGD, the researcher sought the expertise of three research experts, a language guru, and three experts in the field to validate the questionnaire and the guide questions as to their contents, relevance, readability, structure, and form. The collected data during pilot testing were tabulated and computed the reliability test utilizing Cronbach Alpha. The questionnaire was reliably considered with the result of reliability coefficient of 80 percent at least. The result of the reliability test was found very high where the tool was taken into consideration, being highly reliable at 86 percent.

After the validation process, the researcher administered the survey personally. A personal visit to selected jails in CALABARZON areas was done to ensure the authenticity of the information provided by the respondents. To ensure the reliability of information, the proponent made clear the instruction and the objective of the study relative to the administration of instrument. It was distributed to the jail personnel in every jail facility. Retrieval of the accomplished questionnaire which took the researcher several days, was also done. After collecting the necessary data from the respondents, the data gathered were tabulated, tallied, and analyzed. The statistical tools were used such as Frequency and Percentage, weighted mean and Pearson Product of Moment Correlation Coefficient.

RESULTS AND DISCUSSIONS

This section contains the presentation, interpretation, and analysis of data to answer the research questions of the study.

1. Profile of Jails

This section presents the data on the profile of jails which include strategic location, jail infrastructure and construction, organizational management and available resources, jail



equipment and jail vehicles.

1.1 Strategic location. This refers to the current location of jails subjected to this study. Majority of the jails in terms of geographical location are near the city hall with the frequency of 104 which is 64.6 percent. The least frequency of jail location is near the hill with six as frequency which is 3.7 percent. Data reveal that jail locations on CALABARZON are within the city or municipality capital since they are located near the city hall. This further implies that even the government preferred jails to be in the vicinity, jails in the region are still prone to disasters and are facing risks brought by natural calamities.

1.2 Jail infrastructure and construction. It refers to the type of materials jails are made of to measure vulnerability to disasters. The component concrete cement in terms of jail infrastructure and construction has the highest frequency of 100 with 62.11 percent while only one or 0.62 percent is with ordinary wood fence. The data reveal that the government considered the safety of the inmates housed in the jails in CALABARZON area. However, the data further indicates that there were jails which were not fortified as there were some which were made of wood and semi-concrete wood. The condition indicates that jails were susceptible to risks brought about by natural calamities.

1.3 Jail Equipment. This refers to the supplies and first aid materials needed during the occurrence of calamities. It is evident that there was a scarcity of resources in jail. The result indicates that jails in the areas had good supplies for the operations. However, some jail personnel, during the interview and FGD sessions, revealed that the equipment present in the facility were not sufficient during the occurrence of calamities. Some personnel disclosed that the number of disaster preparedness kits were not enough for the number of personnel and inmates in the jails. The results were supported by Hook (2015) stating that establishments should offer disaster preparedness kits that were tailored to specific emergencies.

1.4 Jail Vehicles. In terms of the distribution of vehicles, the greatest number of vehicles is prisoners' van with the frequency of 148 or 92 percent all over CALABARZON area. Motorcycles were 33 units or 20 percent all in all and five ambulances were available. No motorized banca was owned by any of the jails in any of the CALABARZON provinces. The result shows that the BJMP jails in the area have vehicles needed for the jail operation. This proves that the jails have means to meet the need in cases of emergencies. This further indicates that jails in the region are vulnerable to risk considering that the number of vehicles particularly the numbers of ambulance which may not be sufficient if the stronger calamities occur. The result is similar to the investigation of Jurilla (2018) that emphasized on the transportation and other workers who work regularly and joint in preparation for practices and emergencies in various exercises. Moreover, it tackled the preparation of different roles in extending the delivery of the capabilities targeted to be understood by all concerns.

2. Respondents' Profile

2.1 Job Position. It pertains to the number of jail personnel officers and non-officers. Data reveal that majority of the participants were non-officers with a frequency of 136 or 84.5 percent and 25 or 15.5 percent were officers. The results indicate that jails in CALABARZON area were manned mostly by non-officers. This implies that jails in the area did not require a greater number of officers and there were only a few personnel who rose up to the career ladder due to some valid reasons like the educational attainment. Thomas (2020) stated that it is very difficult to have a rewarding career as some prison personnel, the job description and aims were enormous; pay is low; training too short; development and promotion opportunities few and far between; and staffing levels and patterns are, at times, dangerous.

2.2 Designation. Data reveal that the most number of respondents in terms of designation were custodial officer with the frequency of 60 or 37.3 percent. The least number of respondents



were designated as warden with the frequency of four or 2.5 percent. The data imply that the many jail officers in the CALABARZON area were handling responsibilities to ensure safety of the prisoners. The result further indicates that jails in the region have the people who could respond to the calamities that may occur in the area. London House Committee (2009) described in its report that the prison officer as simply a turnkey, required to keep prisoners securely and ensure they behaved in a more or less orderly fashion.

2.3 Years in service. This section presents the distribution of respondents in terms of years in service. The result implies that many of the jail personnel in CALABARZON were still new in the service. However, when it is compared to the other jail officers, most of them had been in the field for a longer time. It further indicates that jail personnel were more experienced employees of the government, thus, they were more knowledgeable personnel and were capable to handle problems brought about by calamities. In support, Glesser (2013) years of service is commonly used for recording working experience within an employee's profession.

2.4 Disaster preparedness training/seminars attended. Data reveals that the respondents attended preparedness training for 1-3 times with a percentage of 74.5 percent. Respondents who attended more than three trainings got 16.1 percent, while 9.3 percent of the respondents never attended training. This result signifies that there were more personnel who were equipped with knowledge on disaster preparedness. This further suggests that jail management considers training among its personnel as a means of improving the jail operations. However, the results also revealed that there were still jail personnel who needed the trainings to be more knowledgeable and competent jail employees. The results got support from Karpoff (2017) stressing that significance in conducting various training indicates the prime opportunity to extend the knowledge and skills of the employees, but some employers find the opportunities costly.

2.5 Educational attainment. Data reveals that majority of the respondents were college graduates with a percentage of 96.9 percent. Four of the respondents have a master's degree which was 2.5 percent and one of them which is 0.6 percent is a post graduate degree holder. The result denotes that jail personnel in CALABARZON area were qualified for the job, as most of them were college degree holders. This further indicates that the BJMP only employs college graduate as minimum requirements of being a jail employee and were capable of understanding the procedures to follow during the occurrence of calamities. In support, Steckley (2016) highlighted that educational attainment as a powerful predictor of well-being. In addition to qualifying one for a broader range of jobs, completing more years of education also protects against unemployment.

3. Jail Personnel assessment on their disaster preparedness

The succeeding sections present jail personnel assessment on their readiness to hazard during earthquake, typhoon, and flood.

3.1 Earthquake

3.1.1. Readiness to Hazard-Earthquake in terms of strategic location. The qualifiers used by the participants in assessing are within the five (5) meters both sides of the eault line, near the creek or river, near the slope of a hill or a mountain, at the coastal area, inside the city hall or municipal hall, far from the town, adjacent to tall buildings and infrastructure, near mining areas, near quarry sites, and near volcanic areas. The composite mean was 1.80 which was verbally interpreted as less qualified which means that the jail personnel were slightly equipped in terms of their readiness to hazard-earthquake based on strategic location. The result further implies that jails location in the area was somewhat favorable and might not affect the disaster preparedness of the jail personnel during the emergence of earthquake. The study of Brabhaharan (2012), however, opposed the finding of the present study, stating that



earthquake ground damage hazards pose a significant risk to infrastructure, lifelines, buildings and life in urban areas.

3.1.2 Readiness to hazard-earthquake in terms of infrastructure and construction. This section presents jail personnel assessment on their disaster preparedness-earthquake in terms of infrastructure and construction using the following qualifiers; made of concrete cement, made of concrete cement but the shape has an irregularity in plan. i.e., plans not having two orthogonal axes of symmetry, such as L, T, U, E, P shaped etc. The shape has irregularity in elevation, i.e. macroscopic variations of surface with height, creating significant overhangs or setbacks, adjacent to an old wall, has the presence of short columns, due to the presence of infill panels shorter than the frame height or due to irregular structural configurations such as foundations at different levels, floors at different levels, etc.

The assessment reveals that the highly qualified characteristic of infrastructure and construction is that “it is made of concrete cement” with a weighted mean of 3.70. It indicates that the result in the assessment of disaster preparedness relative to earthquake is indeed highly qualified for it is considered as safest and most durable types of structures during this disaster. It also denotes that the jail built with reinforced concrete cement wall extended persisting earthquakes intact, and structurally sound untarnished as well as eco-friendly concrete cement that can withstand high seismic instances.

3.1.3 Readiness Hazard-Earthquake in terms of jail equipment. The descriptors included for assessment ensure availability of equipment needed in disaster management operation, tests the serviceability of equipment on a regular basis. It also provides the personnel in a disaster operation with materials such as ropes, axes, chain saw, hard hat, stretcher, gloves, belt, portable flashlight/radio, food/bottled water, sees to it that internet connection and radio communication devices were operational, activates alarms to inform the inmates on emergency situation thru public address system,

provides adequate serviceable land mobility for use in retrieval, clearing and relief operation.

The data reveal the assessment on following descriptors with their respective weighted mean “see to it that internet connection and radio communication devices are operational” obtained the highest mean value of 3.29 and interpreted as qualified. It indicates that results were practiced based on the readiness on hazard of earthquake, with regard to the availability of the particular resources utilized during operation. The results had been supported by the responses of participants during the interview and FGD sessions.

3.2 Typhoon

3.2.1 Readiness to Hazard-Typhoon in terms of strategic location. This portion presents the jail personnel assessment on their readiness to hazard-typhoon in terms of strategic location. The highest weighted mean of 2.16 was obtained in the indicator conveying the location at the catch basin of the city or municipality and interpreted as less qualified. It indicates that the result was less qualified when it comes to the readiness to typhoon as hazard relative to strategic location whereas the storm sewer inlets were filtered out different debris with litters and leaves that were typically situated next to the area. The composite mean was 1.82 which was verbally interpreted as less qualified which means that the personnel were slightly equipped during typhoon considering strategic location. The result signifies that jails could possibly be affected by typhoon as their locations were most probably prone to the impact of hazard brought about by typhoon.

3.2.2 Readiness to Hazard-Typhoon in terms of infrastructure and construction. This section presents the jail personnel assessment on their readiness to hazard-typhoon in terms of infrastructure and construction. The composite mean was 2.10 and verbally interpreted as less qualified which means that jail personnel were slightly equipped with readiness to hazard-typhoon in terms of infrastructure and construction. The result further indicates that jail facilities, though



they were built with concrete and steel materials, the old condition of the building did not warrant the safety of the personnel and inmates in case strong typhoon hit the areas.

3.2.4 Readiness to Hazard-Typhoon in terms of jail equipment. This section presents the jail personnel assessment on their readiness to hazard-typhoon in terms of available resources. The indicator which got the highest weighted mean is the utilization of the motor vehicle to maximize its serviceability during the disaster response operation and provides secured evacuation areas that obtained 3.22 and interpreted as qualified. It implies that the readiness to hazard relative to typhoon in terms of available resources is qualified based on the assessments of the jail personnel. According to Bathi and Das (2016) that for the safety and security of the inmates, the emergency evacuation is designated when the urgent immediate egress or escape of the individual away from an area that includes the imminent threat of typhoon. As confessed by most participants of the FGDs, the availability of resources and even evacuation areas are ensured by the jail management.

3.3 Flood

3.3.1 Readiness to Hazard-Flood in terms of strategic location. It was noticed that the indicator conveying that “located at the catch basin of the city or municipality” got the highest weighted mean of 2.19 and interpreted as less qualified. It denotes that the result revealed that the assessment of jail personnel relative to the readiness to hazard in terms of flood was less qualified as a strategic location. According to Jurilla (2016) that it may maintain the proper drainage and other catch debris within the area that can help prevent the pipes downstream from the problem of clog. Evidently, the groups of jail personnel, who participated in the interviews and FGDs, disclosed that they had experienced flood which left a number of damages to jail properties and other resources. In a random interview, a jail officer revealed that the flood caused a lot of problem particularly among inmates.

3.3.2 Readiness to hazard-flood in terms of infrastructure and construction. It can be noted that the indicator of “made of concrete cement located near the creek without riprap” obtained the lowest mean of 1.84 and interpreted as less qualified. It implies that the result of the study based on the assessment of the jail personnel justified that it was indeed less qualified for the area to become ready in the hazard of flood relative to infrastructure and construction. The result indicates that jail facilities in CALABARZON area still need to improve although they had been built with concrete cement with steel. The participants of FGD attested that jails in the area could still be exposed to flood and other natural calamities. One FGD participant revealed that “no strong infrastructure and construction could equal the strength of natural calamities like flood and typhoon.

3.3.4 Readiness to hazard-flood in terms of jail equipment. It is noted that ensuring that there was enough manpower to be utilized during the disaster, which got the highest weighted mean of 3.28 and interpreted as qualified. The result of the study indicates that the jail personnel justified that availability of resources were qualified being ready in the hazard brought by flood. The manpower resources are available to help utilize during the trials of nature. The composite of 3.16 which was verbally interpreted as qualified signifies that the jail personnel were equipped with readiness during typhoon in terms of available resources. Based on the results, it can be deduced that most of the jails in the area have sufficient resources capable to withstand the problems brought by typhoon which often visits the country. This further indicates that the jail management qualified the resources as important as the lives of the jail personnel and inmates. The result supports the study of Jurilla (2016) stating that the effectiveness of disaster risk reduction preparedness in the areas could be based on the dissemination, implementation, and resource utilization and operation.

4. Significant relationship between the respondents’ assessments on disaster preparedness and their profile variables

P – ISSN 2651 - 7701 | E – ISSN 2651 – 771X | www.ioer-imrj.com

Proceeding of the Asia – Pacific E- Conference on Multidisciplinary Research (APECMR) 30 – 31 January 2021
 HERNANDEZ, R.F., INGCO, R.M., *Disaster Vulnerability Assessment of Selected Jails under Bureau of Jail Management and Penology in CALABARZON*, pp. 127 - 136



This section presents the relationship between respondents' assessments on disaster preparedness and their profile variables. During earthquake the yielded values in terms of job position was a p-value of .67 and computed values of 26.05 which failed to reject the null hypothesis and interpreted as not significant which means that the variables have no significant relationship. In terms of infrastructure, the p-value was .38 and the computed value was 31.69 which failed to reject the null hypothesis making the relationship of the variables not significant. In terms of jail equipment, the p-value was .001 and the computed value was 45.85 which rejected the null hypothesis and presents a significant relationship between variable. Consequently, the result of the study indicates that the relationship between the respondents' assessment on disaster preparedness and their profile variable relative to job position vary on the resources towards the equipment.

5. Proposed intervention program to manage the jail operations of Bureau of Jail Management and Penology in CALABARZON

After careful analysis of the results of the investigation in the responses utilizing the tool, the analysis and interpretation of gathered information down to the drawn conclusions and recommendations, the proponent came up with the proposed intervention program based on its results for Bureau of Jail Management and penology situated in CALABARZON relative to its operation and management in the vicinity in the occurrence of disasters.

Presented is the proposed intervention program in regard to the disaster preparedness of jail personnel. This includes the following elements: Key Result Area, Objectives, Strategies, Persons Responsible, Timeline, Equipment and Management Resources, Monitoring and Evaluation, and Expected Outcome.

An effective intervention does not only encourage people of the desirability of disaster preparedness, but also provide them with the skills and means to do it. The stronger the motivation

and preparedness the more likely they carry out their intentions. There should be bigger considerations on the jails' strategic location, infrastructure and construction, resources, and organizational management that determine the jails' disaster vulnerability and disaster preparedness. These concepts have been assumed to be significant in the formulation of intervention program to manage the jail operations of Bureau of Jail Management and Penology in CALABARZON.

The intervention Program aims to assist and strengthen the jail personnel in performing their role as implementers of disaster risk reduction management and disaster preparedness towards the goal of lessening jail vulnerability to disasters. Specifically, the Intervention Program provides the jail personnel with guidelines and directions to help them plan and develop disaster preparedness activities for the safety and security of jail facilities and its personnel and inmates.

This proposed Intervention Program on Disaster Preparedness is mapped and aligned to the new National Disaster Risk Reduction Management Framework (NDRRMF) as mandated by Republic Act 10121 also known as Philippine Disaster Reduction and Management Act. This act stipulates the growth and improvement of capabilities relative to disaster management to individuals, administrative and organizational stages. It dealt with mainstreaming of disaster risk reduction through land utilization, physical development and planning, allocation of fund, superstructure, housing, health natural resources, and education sectors.

CONCLUSIONS

The researcher provided the following conclusions drawn from the findings:

1. The disaster preparedness described in terms of strategic location as jail location on CALABARZON are within the city or municipality capital since they are located near the city hall. The jail infrastructure and construction are concrete cement; the organizational management consists of non-



- officers with the designation of custodial officers who are rendering service between 6-10 years.
2. They also attended trainings for 1-3 times and majority are college graduates; the available resources such as equipment and vehicles may be described as scarce in jail; the disaster preparedness of the jail personnel varies depending on the type of disaster; the jail personnel are slightly equipped in terms of their preparedness to hazard-earthquake based on strategic location, organizational management and available resources but they are unequipped when it comes to infrastructure and construction; the personnel are slightly equipped during typhoon considering strategic location, infrastructure and construction.
 3. While, they are equipped in terms of organizational management and available resources, the jail personnel are slightly equipped with readiness during flood in terms of strategic location, infrastructure and construction.
 4. They are equipped in terms organizational management and available resources; the jail personnel experienced the prelisted problems at a minimal extent which may affect their operational capabilities in terms of different disasters; and significant relationship between profile variables and the respondents' assessment of their disaster preparedness varies.
2. Jail management may increase the jail's resources and fortify the infrastructure and construction, and make jail personnel more equipped in the term of organizational management.
 3. The jail officer assigned for disaster risk reduction management and its members may conduct an evaluation and assessment relative to the Disaster Risk Reduction Preparedness projects and programs to enhance the adoption of intervention plan to upgrade and improve the various approaches in the disaster preparedness.
 4. The proposed intervention program may be utilized to ensure safety security in jails and their personnel and inmates before, during and after disasters; and similar researches or further studies using other variables may be conducted to yield pertinent information needed in jail operations and disaster risk reduction preparedness and management programs and projects.

RECOMMENDATIONS

The researcher recommended the following based on the conclusions drawn from the findings:

1. Jail personnel who are new in the service may be required to attend trainings and seminars relative to the management of disaster risk reduction with regard to recovery, response, mitigation, rehabilitation, utilization and preparedness in increasing the level of preparedness to different disasters.

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